

Where Next? Priorities for the ASEAN Economic Community Post-2025

Edited by

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Foreword

ASEAN has garnered significant global attention in recent years due to its consistent economic performance, maintaining growth rates above the global average – even amidst challenges such as the COVID-19 pandemic, energy crises, and shifting geopolitical dynamics. In an era marked by trade tensions and weakening multilateralism, ASEAN remains a pillar of regional co-operation and a model for peace and stability. Its success lies in a steadfast commitment to dialogue, mutual understanding, and consensus-driven decision-making. As major economies reassess their supply chains and economic dependencies, ASEAN stands to benefit from the global reconfiguration – provided it strengthens its institutions and upholds the principles of rules-based multilateralism.

The publication of *Where Next? Priorities for the ASEAN Economic Community Post-2025* comes at a timely and pivotal moment. As ASEAN leaders convene in Malaysia to chart the course for the ASEAN Economic Community (AEC) beyond 2025, they stand at a critical juncture. The region's long-standing vision of becoming a cohesive single market and deeply integrated into the global economy, calls for a forward-looking and inclusive agenda. With the AEC Blueprint 2025 nearing completion, ASEAN must now adopt a broader strategic approach – one that not only accelerates economic integration but also embraces digital transformation, harnesses emerging technologies, and aligns with global sustainability and inclusion goals.

This book explores the key issues that will shape ASEAN's post-2025 priorities, including narrowing the development gap, strengthening institutional frameworks, and deepening economic integration. Whilst trade policy remains central, ASEAN's focus is expanding beyond traditional economic issues to encompass emerging areas such as gender inclusivity, resilience, energy security, disaster management, data governance, sustainability, climate change, and competition policy.

The insights presented in this volume highlight both ASEAN's remarkable achievements over the past decade and the challenges that lie ahead. Each chapter offers concrete, actionable policy recommendations to support policymakers, researchers, and stakeholders in navigating the evolving landscape of regional integration and economic development.

As ASEAN looks to the future, it must reaffirm its commitment to deeper integration, whilst ensuring its efforts remain inclusive, sustainable, and responsive to new realities. Though the path forward is complex and uncertain, a bold and forward-thinking agenda will allow ASEAN to continue thriving in a rapidly changing global environment.



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Table of Contents

Foreword	iii
Tetsuya Watanabe	
List of Contributors	iv
Table of Contents	vi
List of Figures	viii
List of Tables	xiii

Part I: Progress and Prospect of AEC

1 Overview: Reimagining the ASEAN Economic Community (AEC)	1
Aladdin D. Rillo and Ben Shepherd	
2 Measuring the Impact of AEC Beyond 2025	7
Ken Itakura	

Part II: Towards an Inclusive, Sustainable, and Digitally Integrated AEC

3 ASEAN Digital Community 2045	27
Lili Yan Ing, Yessi Vadila, Ivana Markus, and Livia Nazara	
4 ASEAN in the Post-2025 Digitally Empowered Factory Asia	53
Lurong Chen	
5 Data Policies for AEC Post-2025 Vision	74
Mirra Burri and María Vásquez Callo-Müller	
6 Holistic and Interdisciplinary Approaches to Disaster-Resilient Development in ASEAN: Concept and Policy Checklist	91
Kensuke Molnar-Tanaka	
7 A Social Contract for an Integrated Sustainability Framework for AEC and a Transformative ASEAN	115
Venkatachalam Anbumozhi, Ayu Pratiwi Muyasyaroh, and Citra Endah Nur Setyawati	
8 Engendering ASEAN Economic Community	148
Mia Mikic	
9 Narrowing the Development Gap Amongst ASEAN Members: Measurement, Progress and the Way Forward	195
Simon Feeny	

Part III: Deepening Economic Integration – New Perspectives and Strategies

10	Regional Production Networks and Cross-Border Trade	235
	Fukunari Kimura and Dionisius Narjoko	
11	Trade Facilitation in ASEAN: Achievements and Challenges	258
	Ben Shepherd	
12	More (or Less) than Meets the Eye? An Assessment of ASEAN's Trade Performance in Services	280
	Martin Roy and Pierre Sauvé	
13	The Role of Multinational Enterprises in Digital Industries in Furthering the AEC Objectives	314
	Hafiz Mirza	
14	Trade and Competition: Working Together to Advance the ASEAN Economic Community	342
	Susan F. Stone	
15	Energy Security in the ASEAN Economic Community Beyond 2025	368
	Youngho Chang	
16	Post-2025 ASEAN Connectivity: Challenges and Opportunities	383
	Ruth Banomyong	
17	A Forward-Looking Framework for ASEAN Free Trade Agreement Strategy	399
	Soo Yeon Kim	

Part IV: Enabling the AEC – From Governance to Monitoring

18	Towards a Resilience Agenda for the Post-2025 ASEAN Economic Community	423
	Julia Tijaja and Albert Sanghoon Park	
19	Monitoring the ASEAN Economic Community: Towards a New Approach	437
	Aladdin D. Rillo, Philippe De Lombaerde, and Tomy Waskitho	
20	Multilevel Institutional Approaches to Support Deeper Integration in ASEAN	453
	Bernard Hoekman	
21	Making the Post-2025 AEC Agenda Work: Conclusion and Policy Implications	471
	Aladdin D. Rillo and Ben Shepherd	

List of Figures

PART I

Figure 2.1	Structure of Production and Consumption	8
Figure 2.2	Aggregation of Domestic and Imported Goods	9
Figure 2.3	Value-Added Composite Structure	10
Figure 2.4	Working-Age Population Ratio in the Baseline	11
Figure 2.5	Real Gross Domestic Product in the Baseline	12
Figure 2.6	Share in the World Real Gross Domestic Product	13
Figure 2.7	Carbon Dioxide Emissions for the Baseline and the Net-Zero Scenario	15
Figure 2.8	Labour Force Participation Rate for the ASEAN	16
Figure 2.9	Impact of the E-Commerce Agreement on Real Gross Domestic Product	17
Figure 2.10	Impact of the E-Commerce Agreement on Real Gross Domestic Product (%)	18
Figure 2.11	Impact of Global Net Zero and Emission Trade on Real Gross Domestic Product	19
Figure 2.12	Impact of Global Net Zero and Emissions Trading on Real Gross Domestic Product (%)	20
Figure 2.13	The Impact of Narrowing the Gender Gap in the Labour Participation Rate	21

PART II

Figure 3.1	Top Ten Contributors to the E-Commerce Global Revenue	29
Figure 3.2	Access to Internet Services in ASEAN, 2012–2021	29
Figure 4.1	Manufacturing Value Added as Shares of Global Value Added	55
Figure 4.2	GVC Smiling Curve	58
Figure 4.3	ASML's Global Network of Production and Innovation	60
Figure 4.4	Free Flow of Data with Trust Supporting Policy	63
Figure 4.5	Global Exports of Digitally Deliverable Services	66
Figure 4.6	Regional Trade Agreements Containing Digital Trade Provisions	68
Figure 5.1	Exceptions in Cross-Border Data Flows Provisions in Preferential Trade Agreements	87
Figure 6.1	Recorded Occurrences of Disasters in ASEAN, 1950–2023	92
Figure 7.1	The Evidence of Increased Levels of Carbon Dioxide, 2000–2021	117
Figure 7.2	The Progress of the Global Sustainable Development Goals Halfway through 2030	118
Figure 7.3	Trends in Discussions and Decisions about Global Sustainability	122
Figure 7.4	A Simplified Model of the Circular Economy	128

Figure 7.5	Natural Resource Management as a Multidisciplinary Approach (A); Sphere of Natural Resource Management (B)	129
Figure 7.6	The Popularised Depiction of Climate Compatible Development and Definitions of its Components	132
Figure 7.7	Integrated Association of Southeast Asian Nations Economic Community Sustainability Framework based on Public–Private–People Partnership Model	138
Figure 7.8	Interest–Influence Matrix of Sustainability Agenda in ASEAN	140
Figure 8.1	Integrated ASEAN Economic Community Sustainability Framework Based on Public–Private–People Partnership Model	157
Figure 8.2	Attributes of Policies that Drive Gender Equality	161
Figure 8.3	Gender Mainstreaming Cycle	164
Figure 8.4	Structure of the ASEAN Gender Mainstreaming Institutional Mechanism	171
Figure 9.1	Average Gross Domestic Product Per Capita Purchasing Power Parity – ASEAN-6 versus CLMV, 1993–2022	200
Figure 9.2	Average Infant Mortality – ASEAN-6 versus CLMV, 1990–2021	200
Figure 9.3	Average Life Expectancy –ASEAN-6 versus CLMV, 1990–2021	201
Figure 9.4	Average Expected Years of Schooling – ASEAN-6 versus CLMV, 1990–2021	201
Figure 9.5	Average Level of Governance – ASEAN-6 versus CLMV, 1996–2021	202
Figure 9.6	Average Gender Development Index – ASEAN-6 versus CLMV, 2000–2021	202
Figure 9.7	Average Ease of Doing Business – ASEAN-6 versus CLMV, 2015–2019	203
Figure 9.8	Beta Convergence – Average Gross Domestic Product Per Capita Purchasing Power Parity, 1993–2022	204
Figure 9.9	Beta Convergence – Infant Mortality, 1990–2021	205
Figure 9.10	Beta Convergence – Life Expectancy, 1990–2021	205
Figure 9.11	Beta Convergence – Expected Years of Schooling, 1990–2021	206
Figure 9.12	Beta Convergence – Governance, 1996–2021	206
Figure 9.13	Beta Convergence – Gender Development Index, 2000–2021	207
Figure 9.14	Beta Convergence – Ease of Doing Business, 2015–2019	207
Figure 9.15	Sigma Convergence – Gross Domestic Product Per Capita Purchasing Power Parity, 1993–2022	209
Figure 9.16	Sigma Convergence – Infant Mortality, 1990–2021	209
Figure 9.17	Sigma Convergence – Life Expectancy, 1990–2021	210
Figure 9.18	Sigma Convergence – Expected Years of Schooling, 1990–2021	210

Figure 9.19	Sigma Convergence – Governance, 1996–2021	211
Figure 9.20	Sigma Convergence – Gender Development Index, 1990–2021	211
Figure 9.21	Sigma Convergence – Ease of Doing Business, 2015–2019	212
Figure 9A.1	Gross Domestic Product per Capita Purchasing Power Parity (constant 2017 international \$) all ASEAN Members, 1993–2022	230
Figure 9A.2	Infant Mortality (number of deaths of children under one year of age per 1,000 live births each year) all ASEAN Member States, 1990–2021	230
Figure 9A.3	Life Expectancy (in years) all ASEAN Member States, 1990–2021	231
Figure 9A.4	Expected Years of Schooling (in years) all ASEAN Member States, 1990–2021	231
Figure 9A.5	Governance Index all ASEAN Member States, 1996–2021	232
Figure 9A.6	Gender Development Index all ASEAN Member States, 2000–2021	232
Figure 9A.7	Ease of Doing Business all ASEAN Member States, 1996–2021	233
PART III		
Figure 10.1	Overcoming Distance and Unbundling à la Baldwin	237
Figure 10.2	Fragmentation Theory	238
Figure 10.3	Two-Dimensional Fragmentation and Industrial Agglomeration	238
Figure 10.4	The Core–Periphery Structure and Reduction in Transport Costs	239
Figure 10.5	Shares of Machinery Final Products and Parts in the Total Exports/Imports of East Asian Economies, 1970–2010	242
Figure 10.6	GVC Participation Index (Share of Foreign and Domestic Input in Gross Exports) of the Philippines' Electronics Industry, 1995–2009	244
Figure 10.7	Policies for the Flow of Data and Data-Related Business	247
Figure 10.8	Free Trade Agreement and Tariff Wars – Economic Effects on Third Countries	251
Figure 11.1	TFA Implementation Rate for Individual AMS	263
Figure 11.2	Average TFI Score for Individual AMS, 2017–2022	264
Figure 11.3	TFI Pillar Scores for Individual AMS, 2022	265
Figure 11.4	Average UNGS Trade Facilitation Score for Individual AMS, 2015–2023	266
Figure 11.5	UNGS Pillar Scores for Individual AMS, 2023	267
Figure 11.6	Average Ad Valorem Equivalent Trade Costs for Individual AMS, Intra- and Extra-Regional, 2000–2020	268
Figure 11.7	Overall LPI Scores for Individual AMS, 2007–2023	269
Figure 11.8	LPI Component Scores for Individual AMS, 2023	270
Figure 12.1	Growth of Services Exports in 2005–2022 in ASEAN	284
Figure 12.2	'Other Commercial Services' as a Proportion of Total Exports of Commercial Services in ASEAN (%), 2005 and 2022	285

Figure 12.3	Exports of Commercial Services as a Share of Total Commercial Services Exports in ASEAN (%), 2005 and 2021	286
Figure 12.4	Share of Services Exports by Mode of Supply in ASEAN, 2005, 2017	287
Figure 12.5	Origin of Services Value Added in the Manufacturing Exports in ASEAN (%) (2005, 2018)	289
Figure 12.6	Share of Full, Partial, and Unbound Commitments in the Seventh AFAS Package of Specific Commitments in ASEAN	297
Figure 12.7	Share of Full, Partial, and Unbound Commitments in ASEAN's 10th Package of Specific Commitments	298
Figure 12.8	Services Trade Restrictiveness in Selected ASEAN Economies, 2022	300
Figure 12.9	OECD Services Trade Restrictiveness Index for Five ASEAN Countries and the World Average, by Sub-sector	302
Figure 12A.1	Average Annual Growth Rate of Exports of Other Commercial Services in ASEAN, 2005–2022	312
Figure 13.1	Stock of Inward and Outward Foreign Direct Investment, 2000–2022	315
Figure 13.2	Principal Sources of Foreign Direct Investment in ASEAN, 2015–2022 (Cumulative)	316
Figure 13.3	Flows of Inward Direct Investment to ASEAN by Economic Sector, 2015–2022	317
Figure 13.4	Structure of Inward Foreign Direct Investment Flows to ASEAN, by Major Economic Sector, 2000–2022	318
Figure 13.5	Major Multinational Enterprises Using ASEAN as a Production Base for their Global Production and Sales Networks	321
Figure 13.6	ASEAN as a Major Hub in the Semiconductor Global Value Chain	323
Figure 13A.1	Breakdown of Global Inward Foreign Direct Investment Stock by Recipient Grouping and Region	332
Figure 13A.2	Breakdown of Intra-ASEAN Foreign Direct Investment Flows by Recipient Country, 2022	332
Figure 14.1	Performance of Competition Authorities	345
Figure 14.2	Sector Share of Cartel Decisions	346
Figure 14.3	AMS Policy Objectives in Competition Law	349
Figure 14.4	Comparison of Competition Chapters in Trade Agreements	350
Figure 14.5	Competition Issues Covered in Trade Agreements	353
Figure 14.6	Levels of Enforcement for Competition Provisions	354
Figure 14.7	Incidence of Subsidies Across Economies, 2023	357
Figure 14.8	Examples of Subsidies Expressed as a Share of Firm Revenue by Manufacturing Sector	358
Figure 15.1	ASEAN Power Grid Interconnection Project Status	376
Figure 17.1	Network of Free Trade Agreements of ASEAN Member States	402

PART IV		
Figure 19.1	AEC 2025 Monitoring and Evaluation Framework	440
Figure 19.2	Roles of AEC Bodies and Sectoral Bodies in Monitoring the AEC	441
Figure 19.3	Holistic Approach to Monitoring in ASEAN	446

List of Tables

PART I

Table 1.1	Implementation Rate of the AEC Blueprint 2025 During 2016–2020	4
Table 2.1	Estimation Results	14
Table 2.A1	Regional Aggregation	24
Table 2.A2	Sector Aggregation	25

PART II

Table 4.1	Policies to Mitigate Digital Trade Barriers	64
Table 4.2	Summary of the Organisation for Economic Co-operation and Development's Going Digital Integrated Policy Framework	69
Table 5.1	The ASEAN Instruments on Data Governance	77
Table 5.2	Data-Related Provisions in the Association of Southeast Asian Nations Preferential Trade Agreements	83
Table 5.3	Data-Related Provisions in Key ASEAN Preferential Trade Agreements vis-à-vis Digital Economy Agreements	85
Table 6.1	Policy Checklist for Disaster-Resilient Development	105
Table 7.1	Sectoral Frameworks and Sustainability Initiatives in ASEAN Economic Community	136
Table 8.1	Social Institutions and Gender Index 2023 Results: Southeast Asia	154
Table 8.2	An Illustration of the Status of Gender Equality and Women's Economic Empowerment Based on a Set of Six Composite Indicators	158
Table 8A.1	Asia-Pacific Economic Cooperation Women and the Economy Dashboard 2023	182
Table 8A.2	Gender Review of the ASEAN Vision and Gender-Specific Policies and Declarations	190
Table 9.1	Measures of Physical Infrastructure for the ASEAN Member States	215
Table 9.2	The Logistics Index for ASEAN Member States, 2018	217
Table 9.3	Global Competitiveness Index Rankings for ASEAN Member States	218
Table 9A.1	Test of Beta Convergence – Gross Domestic Product per Capita Purchasing Power Parity (constant 2017 international \$), 1993–2021	226
Table 9A.2	Test of Beta Convergence – Infant Mortality (number of deaths of children under one year of age per 1,000 live births in a given year), 1990–2021	227
Table 9A.3	Test of Beta Convergence – Life Expectancy (in years), 1993–2021	227

Table 9A.4	Test of Beta Convergence – Expected Years of Schooling (in years), 1990–2021	228
Table 9A.5	Test of Beta Convergence – Governance index, 1996–2021	228
Table 9A.6	Test of Beta Convergence – Gender Development Index, 2000–2021	229
Table 9A.7	Test of Beta Convergence – Ease of Doing Business, 2015–2019	229

PART III

Table 10.1	Required Policies for International Production Networks	243
Table 12.1	Services Value Added as a Percentage of GDP, 2010 and 2022	281
Table 12.2	Share of Female Employment in Services in ASEAN, 2010, 2015, 2021	282
Table 12.3	Commercial Services Exports as a Percentage of Total Exports in ASEAN	283
Table 12.4	Index of GATS+ Commitments in AFAS Seventh Package and Other PTAs Concluded by Seven ASEAN Member States	295
Table 12.5	Services Trade Restrictiveness by Mode of Supply in ASEAN (WTO–World Bank STRI)	301
Table 12.6	Global Ranking on Selected Service Sector Performance Metrics in ASEAN, 2023	304
Table 12.7	Selected Regulatory Governance Indicator Rankings in ASEAN, 2016 and 2022	305
Table 12.8	Logistics Performance Index Rankings in ASEAN, 2010, 2016, 2023	306
Table 12A.1	Share of Employment in Services in ASEAN, 2010, 2015, 2021	312
Table 12A.2	Corruption Perception Index Rankings in ASEAN, 2010, 2015, 2022	313
Table 13.1	Analysis of Three Key Strategic Plans Highlighting a 'Blind Spot' in the Potential Role of Multinational Enterprises in the ASEAN Digital Economy and the Realisation of the ASEAN Economic Community	325
Table 13A.1	Investment Projects Relating to Restructuring Supply Chains in ASEAN, 2022–2023	333
Table 13A.2	The World's Top 100 Digital Multinational Enterprises: Presence in ASEAN	335
Table 13A.3	Top 10 Largest Multinational Enterprises in the Semiconductor Industry Expanding or with Expansion Plans in ASEAN, 2022	338
Table 13A.4	Selected Determinants of Foreign Direct Investment	340
Table 15.1	Fossil Fuel Reserves in ASEAN Countries	370
Table 15.2	Oil Production and Consumption in Selected ASEAN Countries	371
Table 15.3	Natural Gas Production and Consumption in Selected ASEAN Countries	371
Table 15.4	Coal Production and Consumption in Selected ASEAN Countries	371
Table 15.5	Potential Renewable Energy Sources in ASEAN Countries (GW)	372

Table 15.6	Carbon Dioxide Emissions Per Capita in Selected Countries	373
Table 15.7	Primary Energy Consumption in Selected ASEAN Countries	374
Table 16.1	Post-2025 ASEAN Connectivity Guiding Principles	391
Table 16.2	Regional Connectivity Adaptive Framework	392
Table 17.1	ASEAN Free Trade Agreements in Effect	401
Table 17.2	Future Partners for ASEAN Free Trade Agreements	403
Table 17.3	A Highly Integrated and Cohesive Economy: Elements and Objectives	408
Table 17.4	ASEAN 2025: Forging Ahead Together	411
Table 17.5	Depth of Regional Comprehensive Economic Partnership and ASEAN+1 Free Trade Agreements	413
Table 17A.1	Singapore's Free Trade Agreements in Effect	419
Table 17A.2	Malaysia's Free Trade Agreements in Effect	420
Table 17A.3	Viet Nam Free Trade Agreements in Effect	420
Table 17A.4	Indonesia's Free Trade Agreements in Effect	420
Table 17A.5	Thailand's Free Trade Agreements in Effect	421
Table 17A.6	Brunei Darussalam's Free Trade Agreements in Effect	421
Table 17A.7	Cambodia's Free Trade Agreements in Effect	421
Table 17A.8	Philippines Free Trade Agreements in Effect	421
 PART IV		
Table 18.1	Key Opportunities and Challenges for Utilising Resilience in International Policy	430



Part I

Progress and Prospect of AEC

1.

Overview: Reimagining the ASEAN Economic Community (AEC)

Aladdin D. Rillo and Ben Shepherd

1. Background

Economic integration of the Association of Southeast Asian Nations (ASEAN) is at a crossroads. Since the ASEAN Economic Community (AEC) was established in 2015, significant progress has been made in integrating the markets. Various initiatives under the AEC Blueprint 2025 have been implemented to achieve trade and financial integration in the region, resulting in some of the most successful outcomes to date, such as the ASEAN Single Window, the Chiang Mai Initiative Multilateralisation, and the Regional Comprehensive Economic Partnership. Unfortunately, the last 10 years also saw the region grappling with more uncertainties and challenges, including critical changes that have taken place since the formulation of the Blueprint, which affected the region's integration efforts. Internally, issues were related to slow implementation of economic agreements, the persistence of regulatory and policy barriers that undermined market contestability, and lack of effective enforcement to follow up on regional commitments. At the same time, the region was challenged by continued global trade and geopolitical tensions, the emergence of global megatrends such as digitalisation, growing expectations of sustainability, and most recently, the adverse impacts of the coronavirus disease (COVID-19) pandemic crisis.

Taken together, these changes have exposed gaps or weaknesses in the ability of the AEC to address some of its goals, such as participation in global value chains, the enhancement of macro-financial coordination, and narrowing the development gap. They have also put into question whether the current ASEAN model of economic integration remains effective in dealing with these challenges, or whether a new paradigm is needed to ensure that the goals of the AEC are met and remain relevant to the changing global and regional landscape.

Given the multitude of critical changes that have impacted the underpinnings of the AEC, the post-2025 AEC agenda should never be business as usual. Instead, it should adopt a different approach to market integration, i.e. one that is more dynamic and capable of implementing measures in response

to changing market and economic conditions. A good example is the use of digital technologies in promoting supply chain resilience in ASEAN, which was not previously considered in the AEC agenda. But as the COVID-19 pandemic crisis has shown, digitalisation should be incorporated as part of the overall AEC strategy, not simply as an enabling factor to support integration. Similarly, there must be new ways of looking at the 'traditional' issues of the AEC – from enhancing trade in goods to streamlining non-tariff barriers, advancing the services and investment agenda, and achieving meaningful convergence in competition, connectivity, and sectoral cooperation – by elevating the discussion of these issues to achieve a higher level of market integration. Simply put, the post-2025 agenda for ASEAN is about reimagining the AEC by identifying and implementing the levers of market integration to position ASEAN economies well in the years to come.

2. From the ASEAN Free Trade Area to the AEC: Historical Context

The history of the AEC can be traced back as far as 1992 when the ASEAN Leaders mandated the creation of the ASEAN Free Trade Area. Since then, efforts have been intensified to broaden the region's economic potential. The adoption of the ASEAN Vision 2020 by the Leaders in 1997 envisaged ASEAN as a highly competitive region with free flow of goods, services, and investment; freer flow of capital; equitable economic development; and reduced poverty and socio-economic disparities. In 1998, the Leaders adopted the Hanoi Plan of Action, which charted a set of initiatives for economic integration to realise the ASEAN Vision 2020. Recognising the need for an integrated region, the Leaders issued the Declaration of ASEAN Concord II in 2003, which set out the establishment of the ASEAN Community (initially targeted by 2020 but later accelerated to 2015), comprising three pillars: the AEC, the ASEAN Political Security Community, and the ASEAN Socio-Cultural Community.¹

The AEC Blueprint 2015 was adopted in 2007 and served as a coherent master plan for guiding the establishment of the AEC in 2015. But even before the 2015 goal was achieved, the ASEAN Leaders had committed as early as 2011 to intensify community building efforts beyond 2015.² Immediately afterwards, work on the new AEC Blueprint 2025 was started by the Working Group on AEC Post-2015 under the High-Level Task Force on ASEAN Economic Integration, which subsequently drafted the AEC Blueprint 2025 in April 2014. In drafting the AEC Blueprint 2025, the working group built on existing work under the AEC Blueprint 2015 and started focusing on cross-cutting issues that had impacted on the region's economic integration in the post-2015 framework.³

¹ The ASEAN integration agenda was officially stipulated in the Roadmap for an ASEAN Community, 2009–2015, adopted by the ASEAN Leaders at the 14th ASEAN Summit in March 2009 (Cha-am Hua Hin Declaration on the Roadmap for the ASEAN Community, 2009–2015). The roadmap recognized the ASEAN Political Security Community Blueprint, the AEC Blueprint, the ASEAN Socio-Cultural Community Blueprint, and the Initiative for ASEAN Integration Strategic Framework and Work Plan 2.

² For example, at the 23rd ASEAN Summit in 2013, the Leaders committed to developing the ASEAN Community post-2015 vision through the Bandar Seri Begawan Declaration on the ASEAN Community's Post-2015 Vision, building on the achievements of the Roadmap for an ASEAN Community, 2009–2015. This commitment was reaffirmed in the Leaders' Nay Pyi Taw Declaration on the ASEAN Community's Post-2015 Vision (24th ASEAN Summit, 2014), where the central elements of the vision were endorsed.

³ The development of the AEC Blueprint 2025 also benefited from the 'Vision Paper on the AEC Beyond 2015' by the Institute of Southeast Asian Studies (now ISEAS – Yusof Ishak Institute) and the Economic Research Institute for ASEAN and East Asia (ERIA) study titled 'ASEAN Rising: Vision, Framework and Recommendations on Moving ASEAN and AEC Forward Beyond 2015'.

Thus, the AEC Blueprint 2025 was envisaged to deepen economic integration and achieve a more integrated economic community with the following five characteristics: (i) a highly integrated and cohesive economy; (ii) a competitive, innovative, and dynamic ASEAN; (iii) enhanced connectivity and sectoral cooperation; (iv) a resilient, inclusive, people-oriented, and people-centred ASEAN; and (v) a global ASEAN. These characteristics support the vision for the AEC under the ASEAN Community Vision 2025. Since then, economic integration in ASEAN has evolved from a mere cooperation platform in early 2000 to the more strategic model of a single market that it is today.

The AEC may not be a perfect model of economic integration, but it has positioned ASEAN well as a dynamic and credible economic bloc. Two things are critical in defining the AEC.

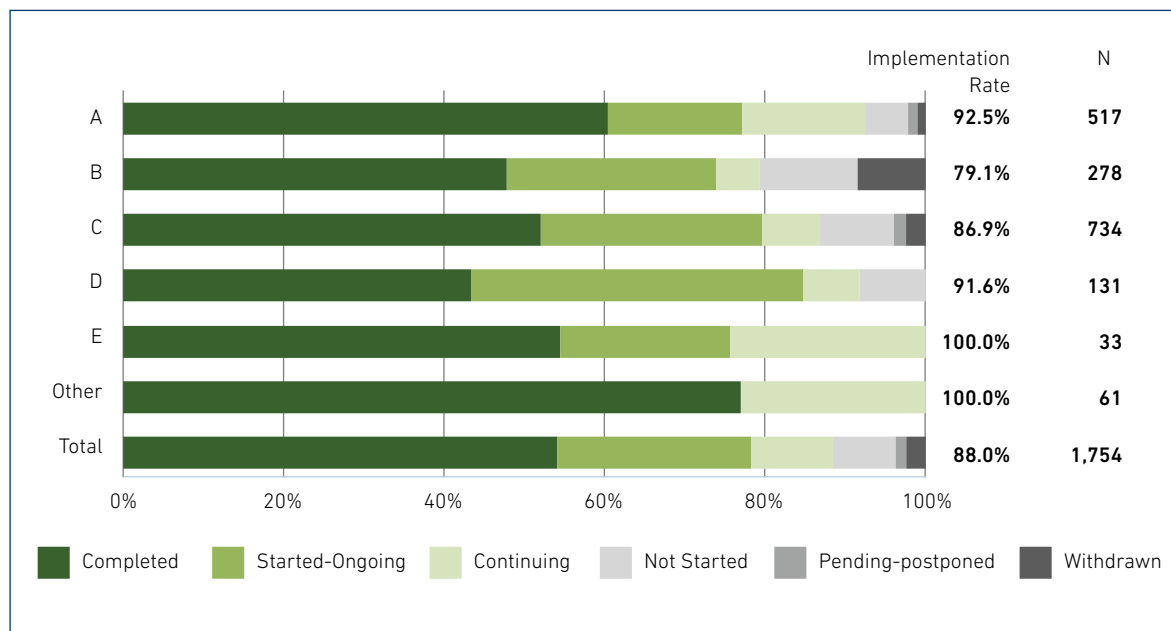
First, the AEC is about having greater competition and market contestability amongst ASEAN Member States (AMS). For a market to be perfectly contestable, significant barriers to entry and exit by market players are eliminated and opportunities are readily available to all potential entrants. Under the AEC, this was achieved by eliminating tariffs on almost 98% of goods and creating the conditions for markets to flourish through significant improvement in standards, trade facilitation, and the competition network. For example, one major initiative is the ASEAN Single Window, a platform for the exchange of trade documents amongst businesses, which is the best concrete evidence of how far market integration has gone. Through this initiative, ASEAN has made it easier to do business across borders by reducing trade costs and improving ways of doing business.

Second, the AEC has strengthened market efficiency and transparency in the region. Under the AEC, various agreements have been implemented that enhance the region's rules-based integration process across various sectors of the economy – trade; finance; agriculture; energy; transport; and micro, small, and medium-sized enterprises. For example, sound regulatory practice has been put in place in the region, where countries are encouraged to address regulatory barriers and ensure that national policies are aligned with regional priorities to facilitate trade and investment.

3. Assessing the AEC – What it Has Delivered and Some Shortcomings

Since the AEC was implemented in 2007, substantial progress has been made across the 153 strategic measures under the AEC Blueprint 2025.⁴ According to the Mid-Term Review (MTR) of the AEC Blueprint 2025 conducted by the ASEAN Secretariat, between 2016 and 2020, around 88% of the measures had been fully implemented or were under various stages of implementation. As seen in Table 1.1, the highest implementation rate was for actions related to a global ASEAN and a competitive, innovative, and dynamic ASEAN.

⁴ The AEC Blueprint 2025 has 5 characteristics, 29 elements, and 153 strategic measures. The measures were assessed using the AEC 2025 Monitoring and Evaluation (M&E) Framework as a reference, covering compliance, outcomes, and impact monitoring.

Table 1.1. Implementation Rate of the AEC Blueprint 2025 During 2016–2020

AEC = ASEAN Economic Community, ASEAN = Association of Southeast Asian Nations.

Notes: Characteristics of the AEC: A = a highly integrated and cohesive economy; B = a competitive, innovative, and dynamic ASEAN; C = enhanced connectivity and sectoral cooperation; D = a resilient, inclusive, people-oriented, and people-centred ASEAN; and E = global ASEAN.

Source: ASEAN (2021), *Mid-Term Review: ASEAN Economic Community Blueprint 2025*, Jakarta: ASEAN Secretariat.

Despite progress in compliance, however, the MTR noted areas where implementation lagged, including enhancing tariff reductions under the ASEAN Trade in Goods Agreement; streamlining non-tariff measures; deepening the services and investment agenda; and addressing gaps in connectivity, regulations, standards, competition, consumer protection, and overall development goals. Key findings from the MTR also pointed to limited outcomes and impacts of AEC initiatives. The MTR also suggested that the links between the AEC and the markets were insufficient, and the benefits were not evenly enjoyed. Based on various studies, surveys, and reviews of key performance indicators, the MTR highlighted insufficient work on trade facilitation, the persistence of regulatory barriers in investment and services, and other implementation problems that affected the overall quality of ASEAN economic integration. To address these problems, the MTR made 12 key recommendations for the AEC to succeed, including strategies to (i) address cross-cutting issues in the AEC; (ii) strengthen ASEAN centrality and institutions; and (iii) make the AEC sustainable and inclusive.⁵

⁵ ASEAN completed the End-Term Review of the AEC Blueprint 2025 in January 2025, which is a full assessment of the AEC's implementation and performance from 2015 to 2023. This complements an unpublished report on the impact of the AEC (ASEAN Economic Strategic Plan Review on Impact Realization). Both documents serve as strategic inputs to the AEC Strategic Plan 2026–2030, a successor document to the AEC Blueprint 2025, to implement the new ASEAN Community Vision 2045.

4. Structure of the Study

To contribute to the regional discussions on the future of ASEAN economic integration beyond 2025, the Economic Research Institute for ASEAN and East Asia (ERIA) proposed this study titled 'Where Next? Priorities for the ASEAN Economic Community Post-2025' (henceforth, the study). Recognising the need for fresh perspectives on the AEC, the study (i) provides a critical assessment of the achievements and challenges of the AEC, particularly the implementation of the AEC Blueprint 2025; (ii) identifies key issues that hinder the goals of the AEC across different AEC pillars and sectors; and (iii) provides new approaches and insights into the analysis of AEC issues, and recommendations to address them. Since the main objective of the study is to imagine the future of the AEC, a key consideration is critical elements of the post-2025 AEC agenda, supported by new data, analysis, and ways of thinking.

The study is based on the premise that beyond 2025, market integration in ASEAN will be deeper and driven by innovation, inclusivity, and sustainability. Using this as a framework for analysis, the research comprises chapters discussing the key elements of the post-2025 AEC, including mapping out the transition path from the current period to the post-2025 vision, which would then contribute to developing the new AEC blueprint.

To set the scene, Ken Itakura's chapter offers a perspective on AEC integration beyond 2025 using a model of the world economy. His analysis provides indicative directions for ways in which greater integration could be linked to important economic outcomes and serves to frame the discussion in the remainder of the book. The key takeaway is that the gains from greater integration are significant in the ASEAN context.

In the post-2025 economic context, however, a key consideration for ASEAN is to move beyond the purely economic in framing its integration strategies. **Sustainability** is a key concept for ASEAN economies in the context of the 2030 United Nations Sustainable Development Goals. The paper by Venkatachalam Anbumozhi, Ayu Pratiwi Muyasyaroh, and Citra Endah Nur Setyawati develops this concept in the regional context and discusses ways in which it could accompany and complement economic integration. Mia Mikic's paper discusses gender equality in the regional context, which is an aspect of sustainability in the Sustainable Development Goals context. Finally, Simon Feeny's paper looks at the concept of the development gap in ASEAN and discusses various metrics by which this gap can be understood and quantified, as well as the mechanisms that determine it, and, importantly, ways in which the region can work together to help narrow it.

Resilience is also a touchstone for economies all around the world following the crises of the early 21st century. In their chapter, Julia Tijaja and Albert Park develop the concept and operationalise it in the ASEAN context. Kensuke Molnar-Tanaka talks about the related concept of disaster risk, which is of particular importance in the Asia-Pacific and specifically in ASEAN.

In terms of frontier issues on the integration agenda, **digitalisation** looms large. The chapters by Lili Yan Ing, Yessi Vadila, Ivana Markus, and Livia Nazara, and by Mirra Burri and María Vásquez Callo-Müller, respectively, examine difference scopes and contexts for the use of digital technologies within the regional integration context in ASEAN. Then Lurong Chen's chapter moves those concepts towards a digitally empowered 'Factory Asia.'

These chapters all highlight emerging issues on the ASEAN integration agenda. Digital technologies, sustainability, and resilience need to be cornerstones of AEC development in the post-2025 period.

In making this shift, it is important not to lose sight of more traditional issues of market access, and trade and investment integration. It is these subjects that the remaining chapters deal with, emphasising both the progress that has been made on these issues, and the various ways in which future work could deepen and broaden integration in the region. Fukunari Kimura and Dionisius Narjoko discuss the foundational issue of production networks, where AMS have enjoyed substantial historical success. But they also address ways in which the agenda can be expanded to continue this progress over time. Ruth Banomyong discusses connectivity, focusing on soft as well as hard infrastructure, whilst Ben Shepherd takes on the related issue of trade facilitation. In terms of 'trade and' issues, the book covers energy security (Youngho Chan), competition (Susan Stone), investment (Hafiz Mirza), and service trade (Martin Roy and Pierre Sauve). Finally, Soo Yeo Kim deals with Free Trade Agreement (FTA) strategy.

AMS have made substantial progress on all these issues over the years. But the degree of progress is variable, so correspondingly, the agenda items carried over from past integration episodes are longer or shorter depending on the issue. Whilst there is much experience with production networks, for example, joint work on competition is less well developed. At the same time, as regional integration deepens in an increasingly interdependent global economy, implementing the post-2025 AEC agenda continues to remain relevant. Bernard Hoekman revisits the role of ASEAN institutions and governance, including the old issues of heavy (European Union model) or light (ASEAN model) institutions in terms of good regulatory practice and regulatory cooperation. Meanwhile, Aladdin D. Rillo, Philippe De Lombarde, and Tomy Waskitho explore the most appropriate monitoring mechanism for the AEC.

Taking all the chapters together, the book's contributions show that ASEAN has enjoyed real successes in its economic integration programme. But much remains to be done, so it is important to have both a deep and broad list of 'to do' items on the integration agenda post-2025. The diagnoses and policy proposals contained in the chapters can feed into policy processes at national and ASEAN levels and can make an important contribution to helping the region double down on its commitment to greater mutually profitable economic integration.

2.

Measuring the Impact of AEC Beyond 2025

Ken Itakura

1. Introduction

The Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) is the economic integration of the 10 ASEAN Member States, and it has been moving towards the free movement of goods, services, investments, and skills within the region. The AEC also promotes the development of production networks in the region and participation in global value chains. The AEC Blueprint, adopted in 2007, was the first master plan for economic integration, and the AEC was officially established in 2015. At the birth of the AEC, the successor to the master plan, the AEC Blueprint 2025, was approved for implementation, and the ASEAN Member States have made progress in the strategic areas identified in the plan (ASEAN, 2021).

As the AEC Blueprint 2025 approaches its final year, the ASEAN Member States (AMS) have begun to seek the future path for deeper economic integration beyond 2025. In their discussions, three themes – digitalisation, sustainability, and inclusiveness – are considered salient areas for the upcoming master plan. These three themes cover a wide range of issues, not limited to economic integration. Given the broad scope of these themes, this study narrows its focus to specific policy developments envisioned as future scenarios in the AEC.

This study attempts to evaluate future scenarios, postulating how the AEC will evolve beyond 2025. The future scenarios are constructed to characterise the development of specific events under the three themes of digitalisation, sustainability, and inclusiveness. For digitalisation, we explore the potential effect of e-commerce agreements, which may facilitate trade in goods and services in the AEC. For sustainability, the future scenarios are examined for global net-zero carbon dioxide (CO₂) emissions and emissions trading in the AEC. For inclusiveness, the effect of narrowing the gender gap in the labour force participation rate is explored for the AEC's economic potential.

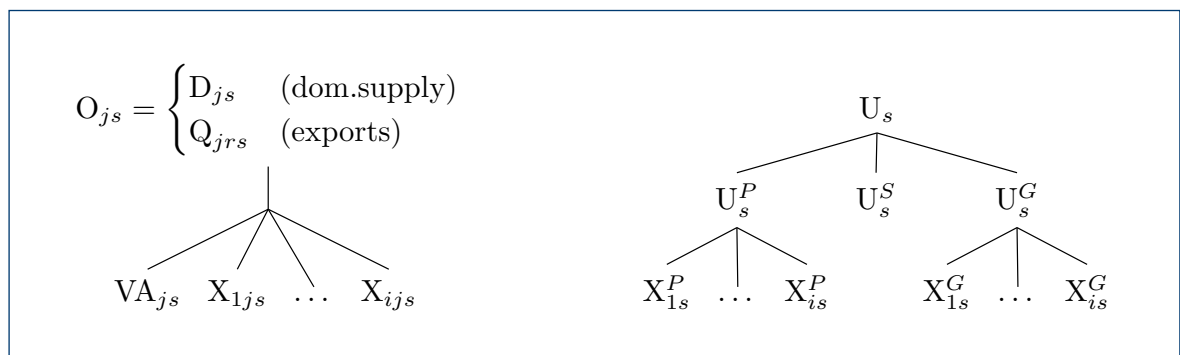
These future scenarios are evaluated in a general equilibrium framework, which quantitatively accounts for the interdependency in the AEC as well as in the global economy. We conduct a set of simulations with a recursively dynamic computable general equilibrium (CGE) model of the global economy for the period of 2014–2050. To capture the economic effect of the future scenario, each scenario is compared against the baseline, which is a hypothetical future state of the global economy without the development postulated in the future scenarios.

In Section 2, we present an overview of the CGE model and database used in this study. Section 3 explains the baseline and the future scenarios, and Section 4 reports the simulation results, followed by concluding remarks in Section 5.

2. Overview of Model and Database

For our simulations of the future scenarios in this study, we use a multiregional, multisectoral recursively dynamic CGE model (GDyn-E) developed by Golub (2013). The GDyn-E model incorporates the energy-environmental module, which was originally developed in a comparative static model (Burniaux and Truong, 2002; and McDougall and Golub, 2007), into the dynamic CGE model (Ianchovichina and McDougall, 2001; and Ianchovichina and Walmsley, 2012). The GDyn-E is an extension of the standard Global Trade Analysis Project (GTAP) model (Hertel, 1997; McDougall, 2003; Corong et al., 2017). In the standard GTAP model, capital is assumed to be mobile across sectors in one country, but not across international borders. The GDyn-E model preserves all the key features of the standard GTAP model: constant return to scale of production technology, perfectly competitive markets, and product differentiation by origin, known as the Armington assumption (Armington, 1969).

Figure 2.1. Structure of Production and Consumption

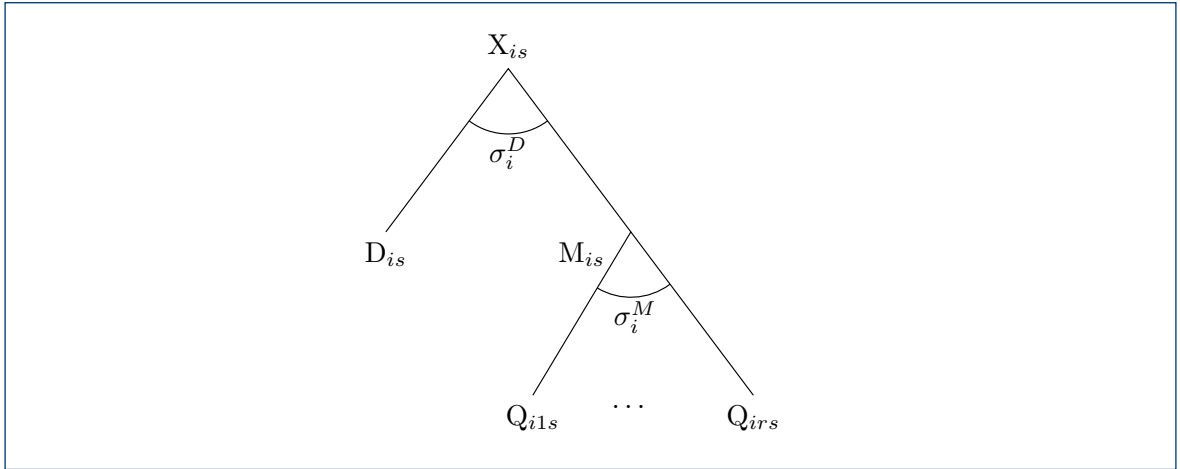


Source: Author's calculations.

The structure of the model is summarised in Figure 2.1. The tree diagram on the left illustrates the production structure. To produce an output Q_{js} of industrial sector j in country s , the Leontief production function combines the value-added composite VA_{js} and intermediate input bundle i , X_{ijs} . Sectoral output is supplied to the domestic market D_{js} for producers' intermediate input use, for private household consumption, and the government's expenditure. The sector output also serves foreign markets (indexed with r) through exports Q_{ijs} .

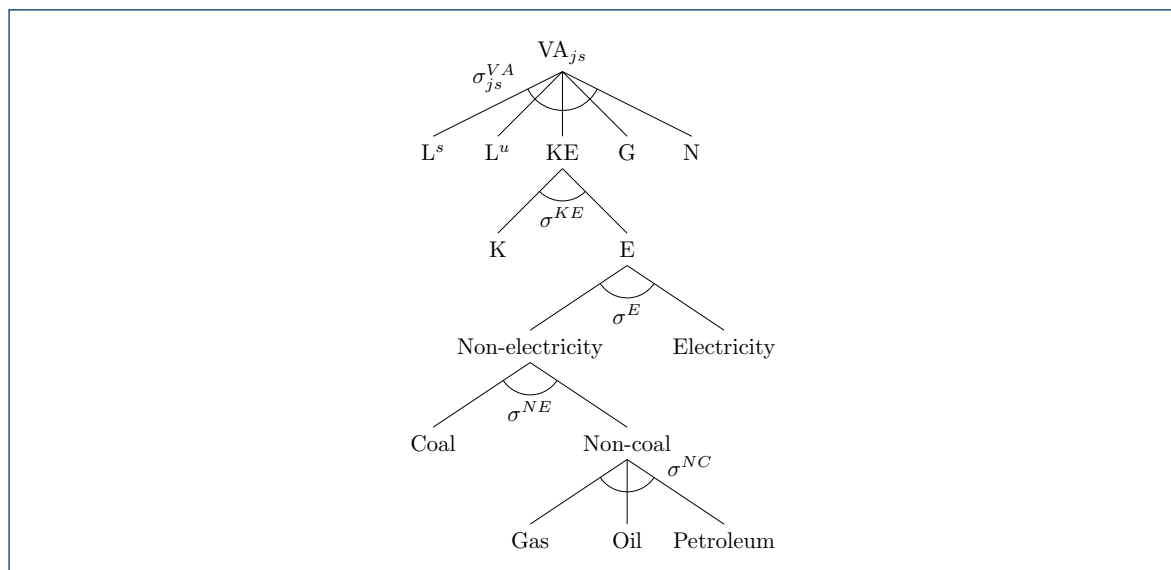
On the tree to the right, the representative household's utility U_s , the basis of the welfare measure, is derived from sub-utilities for the private household U_s^P , the government U_s^G , and savings U_s^S , with a Cobb-Douglas-type function. The private household's utility is, then, determined by the constant difference elasticity function of the composite goods i , X_{is}^P . For the government, a constant elasticity of substitution (CES) function is applied. Because of the non-homotheticity in the private household's sub-utility, an adjustment parameter to shift expenditure is introduced to the Cobb-Douglas-type function, following McDougall (2003).

Figure 2.2. Aggregation of Domestic and Imported Goods



Source: Author's calculations.

At the border of country s , imports of goods i from different countries r , Q_{irs} , are aggregated into an import composite M_{is} using a CES function (Figure 2.2). Then, the import composite is aggregated with domestically produced goods D_{is} . Thus, there are two stages of aggregation; first at the bottom of the diagram, aggregation from each import source to a composite, and then aggregation of the composite with a domestic good. This is the double-nested Armington import demand structure implemented in the GDyn-E model.

Figure 2.3. Value-Added Composite Structure

Source: Author's calculations.

Figure 2.3 illustrates the value-added composite defined in the GDyn-E model. Starting from the bottom, gas, oil, and petroleum products are aggregated into the non-coal subproduct via a CES function with substitution parameter of σ^{NC} . Non-electricity subproduct consists of the non-coal and coal. Further, electricity is combined with the non-electricity subproduct to become energy subproduct (E). Capital (K) is integrated with the energy subproduct and becomes capital-energy subproduct (KE) which is a primary factor input to production activity. The value-added (VA_{js}) is composed of skilled and unskilled labour (L^s , L^u), the capital-energy subproduct, and specific factors such as land (G) and natural resources (N).

In the GDyn-E model, each region is endowed with a fixed physical capital stock, and the physical capital is accumulated over time with new investments. Investment is sourced from regional households' savings. Investment is a composite of domestic investment and foreign investment. Incentive for investments is governed by rates of return, which would be equalised across regions if capital were to be perfectly mobile. However, this equalisation of the rates of return seems unrealistic, at least in the short run. The GDyn-E model allows for interregional differences in rates of return in the short run, which are eventually equalised in the long run.

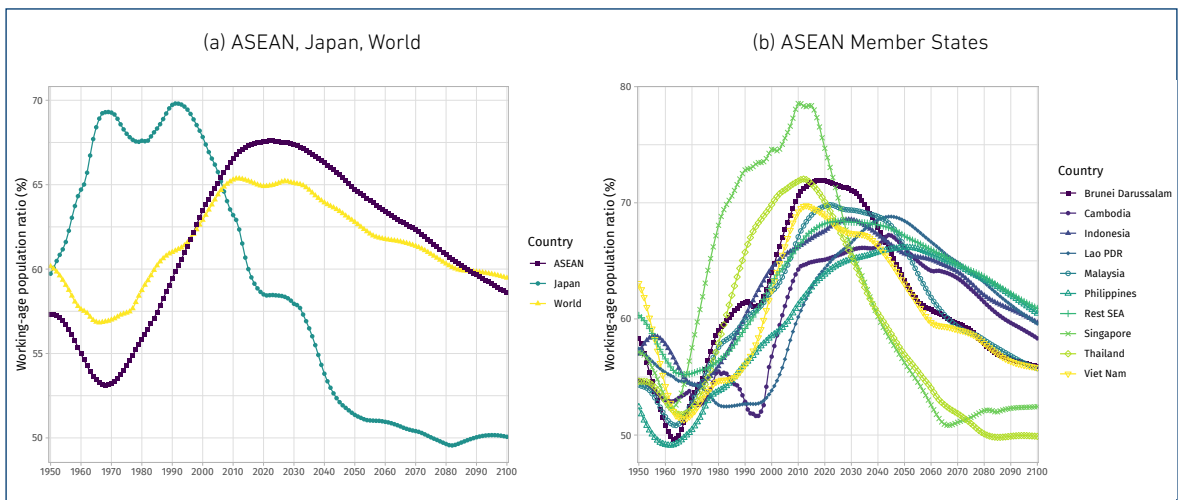
We use the GTAP database version 10 (Aguiar et al., 2019) and economic estimates and forecasts from international organisations. The GTAP database represents the global economy with detailed information about 65 industrial sectors for 141 countries and regions. With this database, we can observe the economic structure of production, international trade and protection, and consumption, benchmarked in the year 2014. The database is supplemented with international factor income flows arising from domestic and foreign asset holdings. For the energy-environmental data extension, we utilise the GTAP-E database. To reduce the computational burden, we aggregate the database to 25 countries and regions and 27 industrial sectors. The mappings from the original data are reported in Tables 2.A1 and 2.A2

3. Baseline and Future Scenarios in the ASEAN Economic Community

3.1. Baseline

For our simulation experiments, we construct a baseline scenario for 2014–2050 which is a hypothetical future state of the global economy without the events specified in each future scenario. The baseline scenario is used as the basis to measure the impact of future scenarios. We incorporate the projection of total population, working-age population, gross domestic product (GDP), and gross investment, into our baseline construction. Projections for the total and working-age population growth rates are computed from the United Nations's World Population Prospects (UN, 2022) based on the medium projection variant. Projections for the real GDP and gross investment are obtained from the International Monetary Fund (IMF)'s October issue of the World Economic Outlook (IMF, 2023). We extrapolate the real GDP growth rates in 2028 to the end of the simulation period. Given these estimates and projections for 2014–2050, the model can compute change in efficiency variables as a measure of productivity. To trace the CO₂ emission by country, we impose the emission data from the Global Carbon Budget (Global Carbon Project, used in our baseline scenario, Figure 2.4a shows the long-term demographic trend for ASEAN, Japan, and the world. From 1950 to 2100, the ratio of the working-age population to the total population peaks and declines thereafter, but the peak for ASEAN arrives later – around 2023 – as compared to Japan. Each ASEAN Member State shown in Figure 2.4b, shares a common pattern of long-term demographic change but there exists heterogeneity in the peak and the declining trend. 2022) for 2015–2021.

Figure 2.4. Working-Age Population Ratio in the Baseline (%)

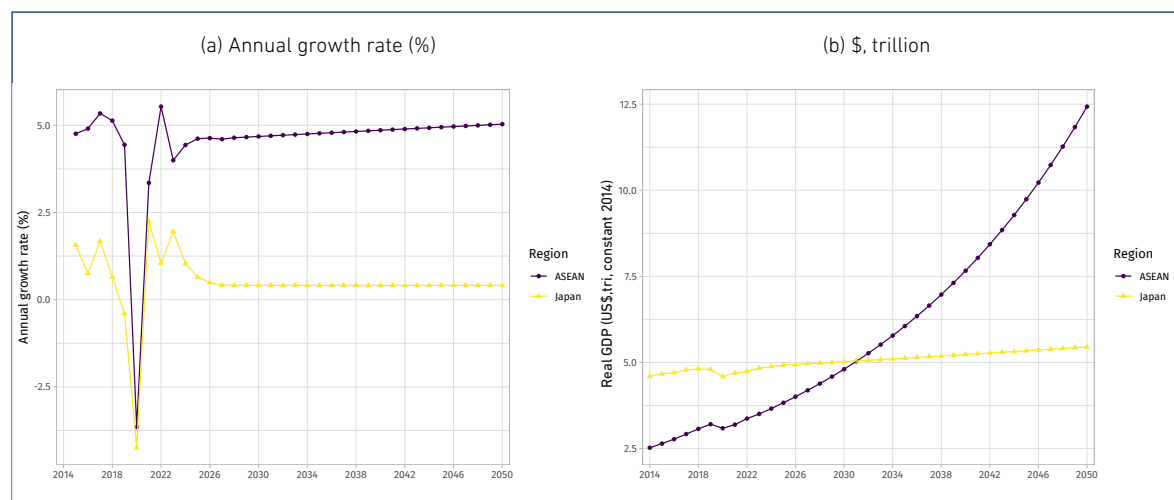


ASEAN = Association of Southeast Asian Nations, Lao PDR = People's Democratic Republic of Lao, SEA = Southeast Asia.

Source: Author's computation based on United Nations (2022).

To illustrate the projections, Figure 2.5a shows the annual growth rate of real GDP for ASEAN and Japan for comparison. ASEAN's annual growth rate of real GDP plummeted in 2020 to -3.7 % because of the coronavirus disease (COVID-19) pandemic, but it is projected to recover quickly to the pre-pandemic level at about 4.6%. IMF's World Economic Outlook provides the projection up to 2028, and they are extrapolated thereafter. Simple extrapolation is applied to extend the growth trend. Real GDP in level is drawn for 2014–2050 in Figure 2.5b. Given the annual growth rate of the real GDP projection, ASEAN's real GDP will continue to grow and exceed \$12 trillion¹ by 2050. In Figure 2.6, the economic presence of ASEAN in the world in terms of real GDP share also keeps growing, surpassing Japan in 2032, and it accounts for 6% of the world GDP in 2050.

Figure 2.5. Real Gross Domestic Product in the Baseline

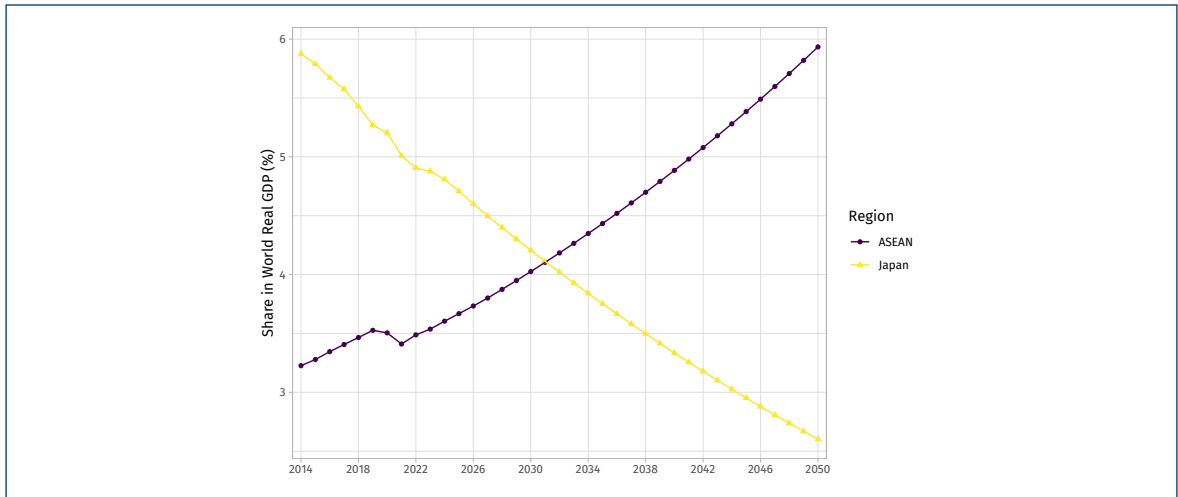


US\$ = US dollar, ASEAN = Association of Southeast Asian Nations, IMF WEO = International Monetary Fund World Economic Outlook, Tri = trillion.

Note: _TS is based on time-series projection by a state-space model.

Source: Author's computation based on IMF (2023).

¹ In this chapter, \$ refers to US dollars.

Figure 2.6. Share in the World Real Gross Domestic Product

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product.

Note: _TS is based on time-series projection by a state-space model.

Source: Author's computation based on IMF (2023).

3.2. Future Scenarios of the ASEAN Economic Community

Three scenarios are designed as the AEC's future scenarios in our simulation experiments, under the theme of digitalisation, sustainability, and inclusiveness. Each scenario is implemented to obtain the difference from the baseline, and this deviation is considered as the impact of AEC's future scenario. Given the breadth of each theme, we focus on specific events that are likely to occur when considering the AEC beyond 2025.

Scenario 1: Digitalisation

Effect of ASEAN's E-Commerce Agreement and the World Trade Organization (WTO)'s Joint Initiative

Scenario 2: Sustainability

Global net zero of CO₂ emissions and emissions trade

Scenario 3: Inclusiveness

Narrowing the gender gap in the labour force participation rate in ASEAN

For Scenario 1, we empirically estimate the effect of the e-commerce clause in trade agreements on trade cost, and then we apply the obtained estimates to the simulations with the GDyn-E model. For the simulations, we explore the ASEAN Agreement on E-Commerce and the WTO Joint Initiative on E-Commerce. Given that the ASEAN Agreement entered into force in December 2021 whilst the WTO Joint Initiative was under negotiation, we assume that the ASEAN Agreement takes effect in 2022 and the WTO Initiative in 2026. It should be noted that some ASEAN Member States – Cambodia, the Republic of the Union of Myanmar, and Viet Nam – are not taking signatories to the WTO Joint Initiative.

In our empirical ordinary least squares estimation, $trade\_cost_{ijt}$ between country i and j in year t is regressed on dummy variable of e-commerce agreement constructed from the Trade Agreements Provisions on Electronic Commerce and Data database (Burri, Callo-Müller, and Kugler, 2022) and fixed effects on importer–exporter, importer–year, and exporter–year. The estimating model can be expressed as follows,

$$trade\_cost_{ijt} = E-commerce_{ijt} + Y_{ij} + Y_{it} + Y_{jt} + E_{ijt}$$

where $trade\_cost$ =CIF/FOB is computed from the UN Comtrade data for 2000–2020, based on the Broad Economic Categories classification (UN, 2023).

Estimation results are reported in Table 2.1. Except for food and beverages, and the fuels and lubricants, the effect of e-commerce on trade cost is negative and statistically significant. It can be interpreted that the e-commerce agreement tends to lower the trade cost between the countries in the accord. The effect on industrial supplies shows 8.5% lower trade cost as compared with the country pairs without e-commerce agreement. In our simulations, we map the estimates to merchandise trade excluding primary products and energy products, and we exogenously reduce the iceberg trade cost variable defined in the GDyn-E model. We implement the ASEAN Agreement on E-commerce in 2022 and the WTO Joint Initiative in 2026. Because the exogenous decline in the trade cost is applied to international transactions and the trade cost on domestic transactions is left unchanged, the impact of e-commerce may be underestimated.

Table 2.1. Estimation Results

Dependent variable	Trade costs					
	(1)	(2)	(3)	(4)	(5)	(6)
Variables						
<i>E-commerce</i>	-0.007 (0.0213)	-0.0853 *** (0.0228)	-0.0442 (0.0552)	-0.0643 *** (0.0217)	-0.0564 * (0.0297)	-0.0726 *** (0.0232)
Fixed effects						
<i>Importer-exporter</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Importer-year</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Exporter-year</i>	Yes	Yes	Yes	Yes	Yes	Yes
Fit statistics						
<i>Observations</i>	243,881	290,284	114,024	253,643	195,809	267,012
<i>R²</i>	0.51112	0.47393	0.52633	0.48131	0.47744	0.53061

R^2 = coefficient of determination.

Note: Clustered (Importer–exporter) standard-errors in parentheses. Significant Codes: ***: 0.01, **: 0.05, *: 0.1.

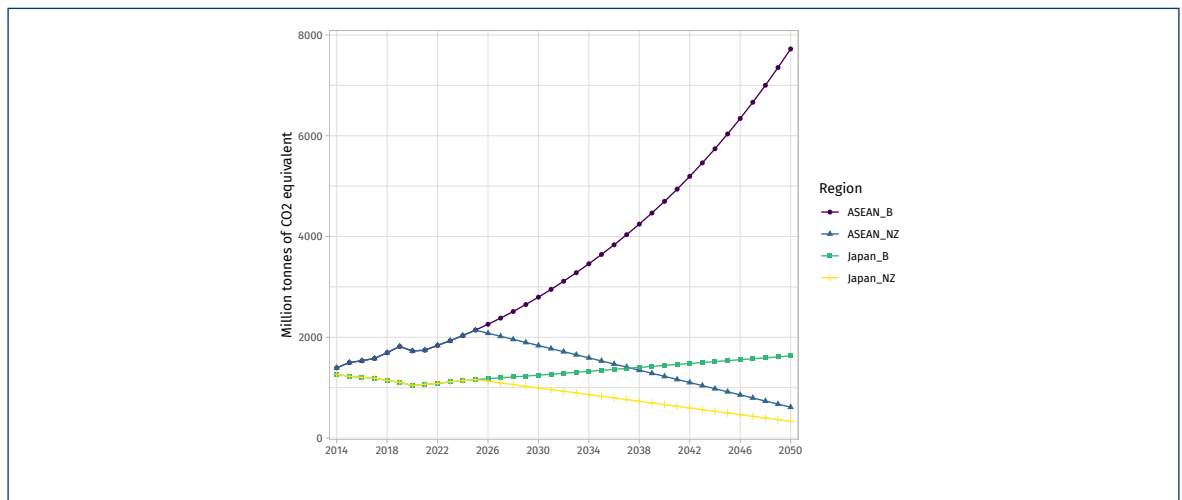
Broad Economic Categories classification: (1) Food and beverages, (2) Industrial supplies, (3) Fuels and lubricants, (4) Capital goods, (5) Transport equipment, (6) Consumption goods.

Source: Author.

For Scenario 2, we explore the global net zero of CO₂ emissions with and without emissions, trading in ASEAN and in the world. In the baseline, we trace CO₂ emissions by country based on the data from the Global Carbon Budget for 2015–2021 (Global Carbon Project, 2022). After that period, the model simulation produces the time path of CO₂ emissions. Figure 2.7 illustrates the CO₂ emissions for ASEAN and Japan for the baseline and the net-zero scenario. For the baseline, ASEAN's growing CO₂ emissions reflect the region's fast economic growth which makes a contrast with Japan, where the growth rate of real GDP is slower. It should be noted that no assumption on the improvement of energy efficiency is imposed on the baseline, so the increasing trend may be overestimated.

For the global net zero of CO₂ emissions, we assume that the net zero is globally attained in 2050 by imposing carbon pricing from 2026. Revenues accrued from the carbon pricing which acts as a tax are returned to the private household in a lump-sum. With this setting of carbon pricing, CO₂ emissions are linearly reduced towards 2050. Following the International Energy Agency's Net-Zero Emissions by 2050 Scenario, we also assume the decreasing trend of energy intensity by 4% per year. On top of the net zero of CO₂ emissions, we experiment with emissions trading amongst the ASEAN Member States and global emission trade. Within the emissions trading block, the carbon price is equalised because of the emissions trading.

Figure 2.7. Carbon Dioxide Emissions for the Baseline and the Net-Zero Scenario



B = baseline, CO₂ = carbon dioxide, NZ = net-zero scenario.

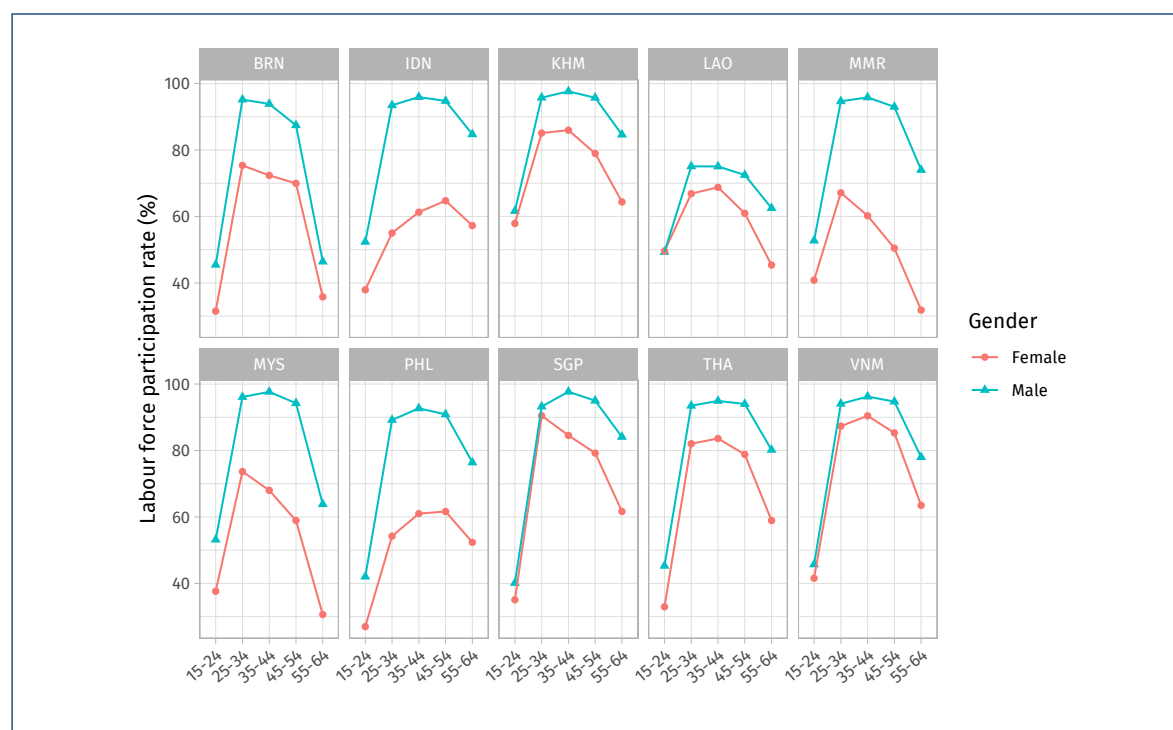
Source: Global Carbon Project (2022) and author's simulation results.

For Scenario 3, we simulate the potential effect of narrowing the gender gap in the labour force participation rate in the ASEAN Member States. As Figure 2.4 illustrates, the long run trend of the shrinking, working-age population relative to the total population is universal with no exception to ASEAN countries. Sustaining a high level of labour force participation rate is one of the key elements to help ASEAN to cope with the demographic change in the long run. Reducing the gender gap in the labour force participation rate can also serve that purpose.

Figure 2.8 shows the labour force participation rate by gender and age group for the ASEAN Member States. The International Labour Organization (2023) provides recent data on Indonesia, Singapore, Thailand, and Viet Nam for 2022; Brunei, Cambodia, the Republic of the Union of Myanmar, Malaysia, and the Philippines for 2019; and the People's Democratic Republic of Lao (Lao PDR) for 2017. The female participation rate is lower than that of the male's for all age groups in all countries, but the size of the gap is diverse across the ASEAN Member States.

For our simulation experiment under Scenario 3, we assume that the gender gap in labour participation rates is gradually reduced to half of the size in 2026–2050. As compared to the baseline, more labour force becomes available, thereby leading to more production activities.

Figure 2.8. Labour Force Participation Rate for the ASEAN (%)



BRN = Brunei Darussalam, IDN = Indonesia, KHM = Cambodia, LAO = People's Democratic Republic of Lao, MMR = the Republic of the Union of Myanmar, MYS = Malaysia, PHL = the Philippines, SGP = Singapore, THA = Thailand, VNM = Viet Nam.

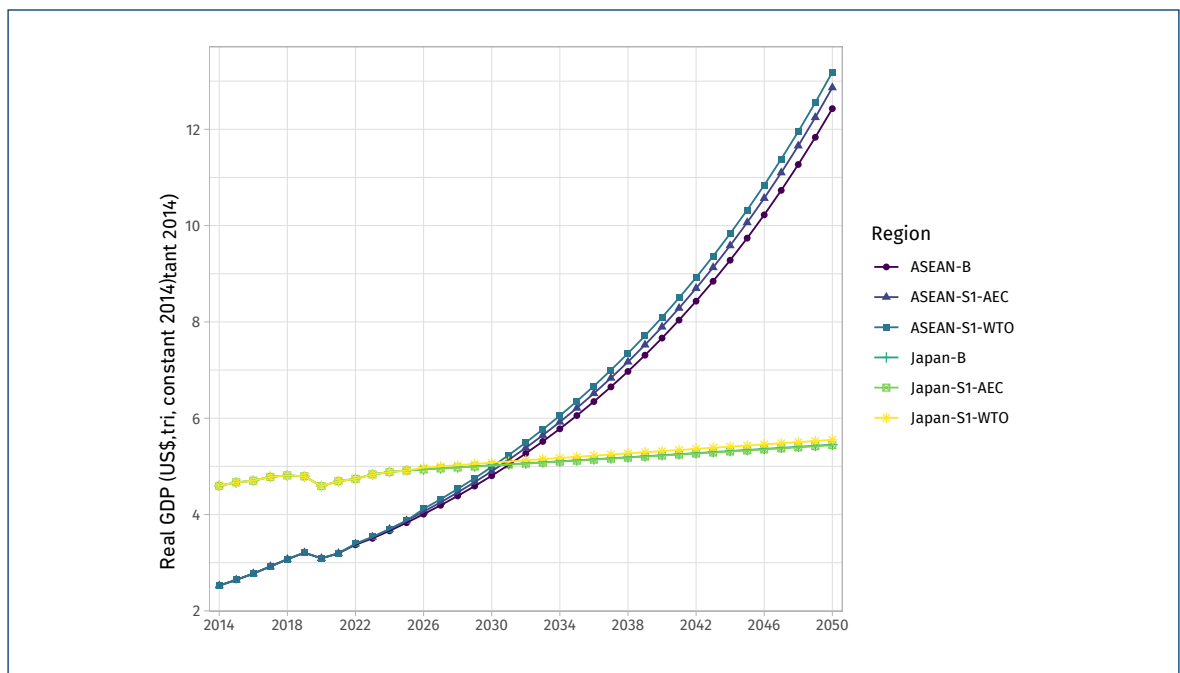
Note: Due to the data availability, figures for Indonesia, Singapore, Thailand, and Viet Nam are based on 2022 annual data; figures for Brunei Darussalam, Cambodia, Malaysia, the Republic of the Union of Myanmar, and the Philippines are based on 2019 annual data; and figures for Lao PDR are based on 2017 annual data.

Source: Author's computation based on ILO (2023).

4. Results of the Future Scenarios for the ASEAN Economic Community

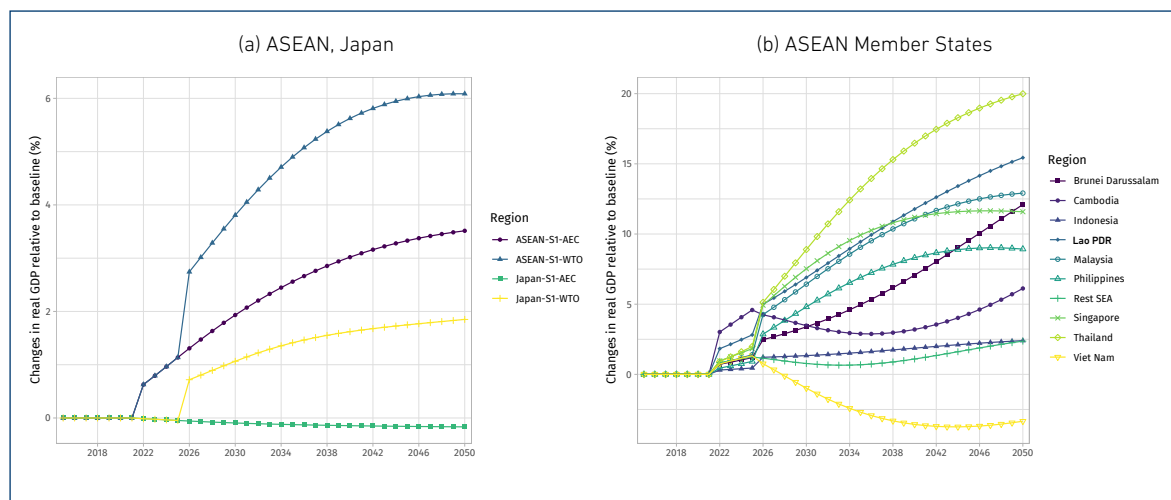
We simulate the AEC's future scenarios and compute the difference from the baseline by using the General Equilibrium Modelling Package software (Harrison and Pearson, 1996; Horridge et al., 2018). Figure 2.9 shows the impact of e-commerce agreements on the level of real GDP for ASEAN. We include the results in Japan for comparison. The e-commerce agreement brings down the trade cost for ASEAN in 2022 and for the member countries in the WTO Joint Initiative in 2026, stimulating trade and investment for the member countries. The ASEAN Agreement on E-Commerce raises the real GDP in 2050 to \$12.9 trillion from a \$12.4 trillion baseline, whilst the WTO Joint Initiative results in \$13.2 trillion for ASEAN. The difference from the baseline amounts to \$437 billion and \$756 billion, respectively. Although the impact of the WTO Joint Initiative is larger than the ASEAN Agreement in absolute size, additional gain from the WTO Joint Initiative is limited because some ASEAN countries are excluded from the accord.

Figure 2.9. Impact of the E-Commerce Agreement on Real Gross Domestic Product



US\$ tri, constant 2014 = US \$ trillion, constant 2014 prices; AEC = ASEAN Agreement on E-Commerce; B = baseline; GDP = gross domestic product; S1 = Scenario 1; WTO = World Trade Organization Joint Initiative.

Source: Author's simulation results.

Figure 2.10. Impact of the E-Commerce Agreement on Real Gross Domestic Product (%)

AEC = ASEAN Agreement on E-Commerce, ASEAN = Association for Southeast Asian Nations, GDP = gross domestic product, Lao PDR = People's Democratic Republic of Lao, S1 = Scenario 1, SEA = Southeast Asia, WTO = Joint Initiative.

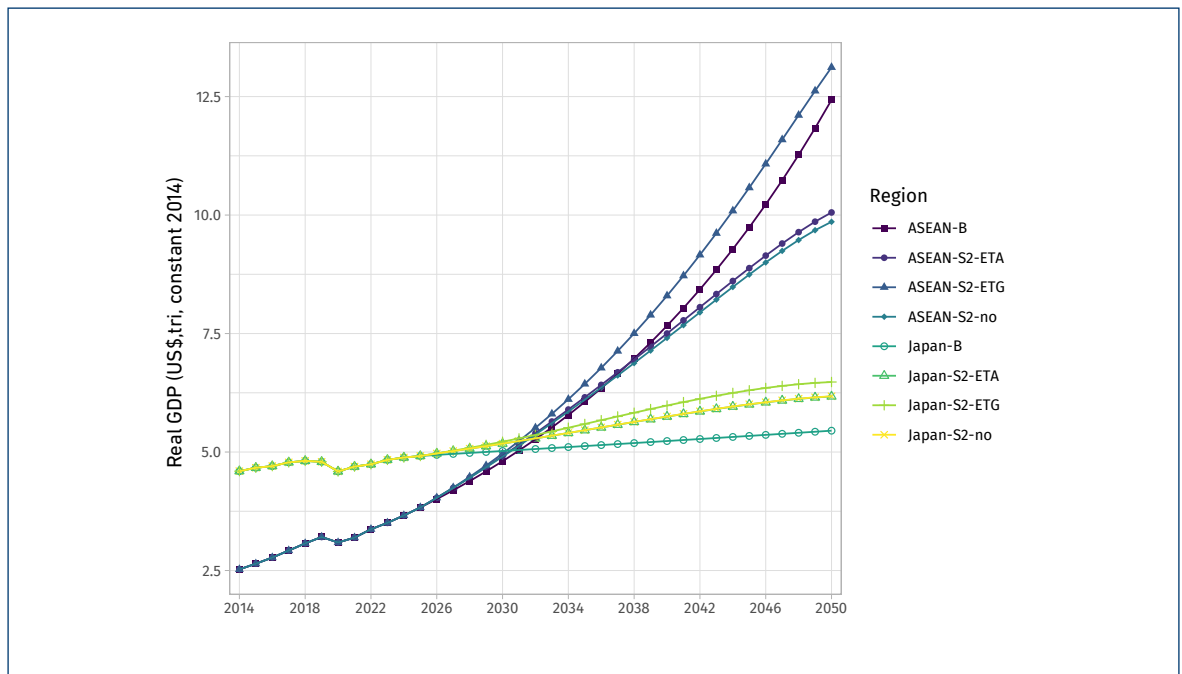
Source: Author's simulation result.

The difference from the baseline can be measured in percentage deviation, and Figure 2.10 shows the results for ASEAN as well as each member state. When the ASEAN Agreement on E-Commerce takes effect in 2022 (Figure 2.10a) the time path increases by about 0.6% and continues to rise to 3.5% by 2050. Because Japan is not a member of ASEAN, its real GDP becomes slightly lower than the baseline. Moreover, the WTO Joint Initiative in 2026 raises ASEAN's real GDP to 2.7% which becomes 6% by 2050. Figure 2.10b shows the impact for each ASEAN Member State in which diverse time paths are observed. The impact of the ASEAN Agreement on E-Commerce is dominated in magnitude by the WTO's Joint Initiative implemented in 2026 thereafter. Cambodia gains most from ASEAN's Agreement on E-Commerce, but the gain falls with the WTO Joint Initiative and recovers later in the simulation period. This reflects the fact that Cambodia is not in the WTO Joint Initiative. Thailand shows a significant positive impact reaching 20% higher real GDP in 2050 due to both agreements. Viet Nam, not in the WTO Joint Initiative agreement, experiences a negative impact (-3%) as compared to the baseline. This wide range of impacts can be attributed to the fact that there are 90 countries in the WTO Joint Initiatives so the impact can be magnified for the larger economies.

These results indicate that the AEC's push to establish the e-commerce agreement can benefit the Member States and that mega-regional agreements such as the WTO's Joint Initiative may contribute further to the Member States. Although it may not be realistic to assume the WTO's Joint Initiative will be realised in 2026, the result can highlight the potential gains from being a member of a mega-regional agreement. Also, there would be a considerable negative effect for the non-member countries.

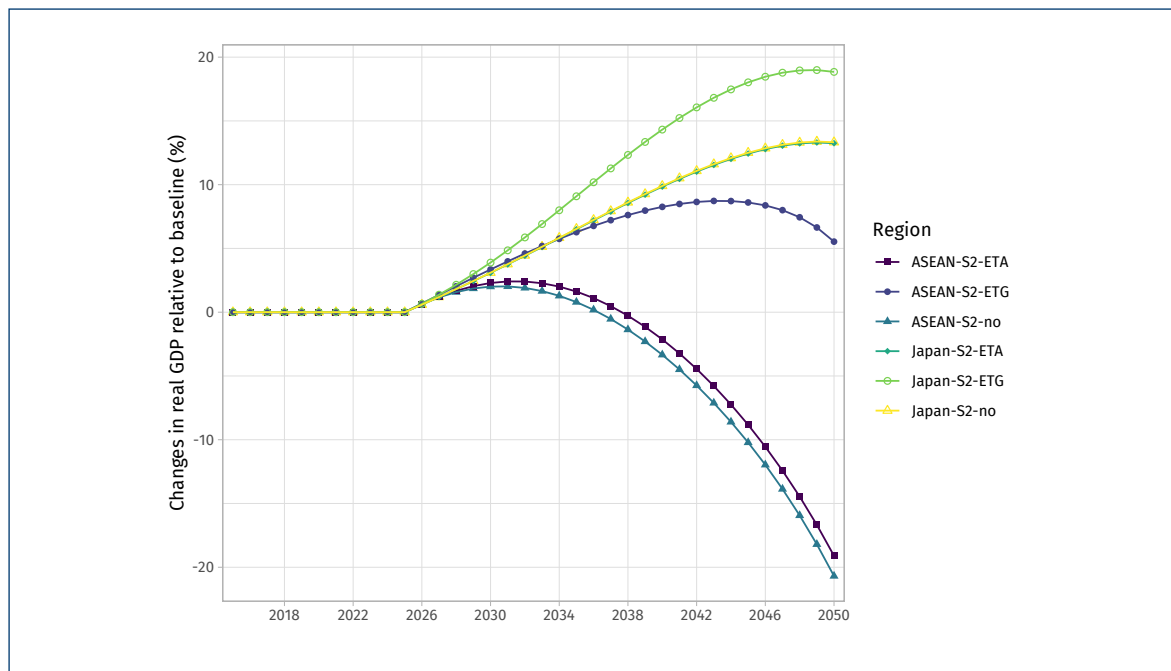
Figure 2.11 outlines the results from Scenario 2, the impact of global net zero of CO₂ emissions and emissions trade on real GDP. When the global net zero of CO₂ emissions has been gradually attained by 2050 through the introduction of carbon pricing, ASEAN's real GDP continues to grow but the level of real GDP in 2050 becomes \$2.6 trillion smaller than the baseline. In contrast, the real GDP of Japan is \$0.7 trillion larger than the baseline because of the relatively smaller amount of CO₂ emissions to be mitigated by carbon pricing. Allowing for emissions trading amongst ASEAN Member States, ASEAN's real GDP gain becomes larger than the no-emission-trading case by about \$200 billion. If the emissions trading is implemented at a global scale, ASEAN's real GDP exceeds the baseline at \$13.1 trillion.

Figure 2.11. Impact of Global Net Zero and Emission Trade on Real Gross Domestic Product



US\$ tri, constant 2014 = US dollar \$ trillion, constant 2014 prices; ASEAN = Association of Southeast Asian Nations; B = baseline; ETA = emission trade in ASEAN; ETG = global emission trade; GDP = gross domestic product; no = no emission trade; S2 = Scenario 2; tri = trillion,

Source: Author's simulation results.

Figure 2.12. Impact of Global Net Zero and Emissions Trading on Real Gross Domestic Product (%)

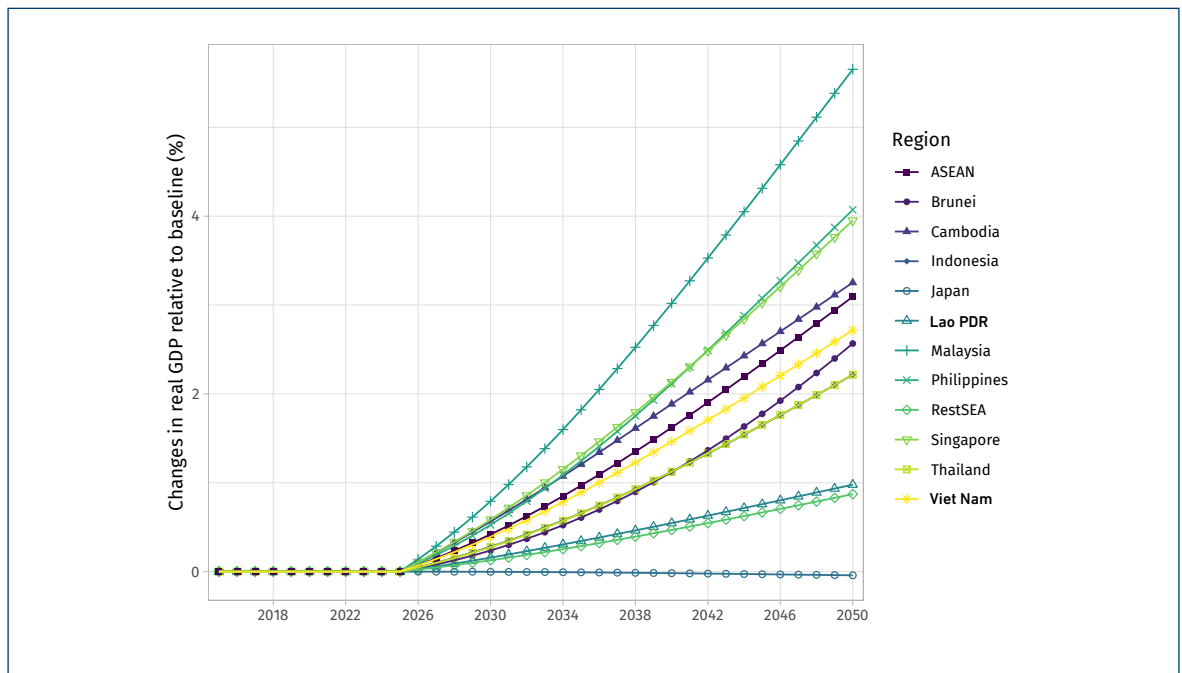
ASEAN = Association of Southeast Asian Nations, B = baseline, ETA = emission trade in ASEAN, ETG = global emission trade, GDP = gross domestic product, no = no emission trade, S2 = Scenario 2.

Source: Source: Author's simulation results.

The deviation from the baseline drawn in Figure 2.12 confirms these points. The imposition of carbon pricing to meet the global net zero of CO₂ emissions lowers ASEAN's real GDP below the baseline level by 20% for the no-emission-trading case and 19% for emissions trading within ASEAN. It should be noted that ASEAN's real GDP keeps growing under these scenarios (Figure 2.11). Global emissions trading leads to ASEAN's real GDP being higher than the baseline by 6% in 2050. These results suggest that under the global net-zero scenario, emissions trading amends the limiting effect of carbon pricing on ASEAN's real GDP and that it can be possible to reach a higher real GDP under the global emissions trading.

Lastly, for Scenario 3, we report the impact of narrowing the gender gap in the labour force participation rate in ASEAN Member States on real GDP. Figure 2.13 illustrates the impact in terms of change in real GDP relative to the baseline. In the simulation, we assume that the gender gap in the labour force participation rate is gradually closing from 2026, and the gap is eventually halved by 2050. Malaysia shows the largest impact in real GDP which amounts to 5.7% higher than the baseline in 2050. For the Philippines (4%), Singapore (3.9%), and Cambodia (3.3%), the impact is larger than the ASEAN average (3.1%). The impact on Lao PDR (1%) is smaller than the other ASEAN Member States because the gender gap is narrower whilst the overall labour participation rate is relatively low in the baseline. These positive impacts are attributed to the increasing labour supply as more females participate in the labour force, thereby leading to higher economic activity.

Figure 2.13. The Impact of Narrowing the Gender Gap in the Labour Participation Rate



ASEAN = Association for Southeast Asian Nations, GDP = gross domestic product, Lao PDR = People's Democratic Republic of Lao, SEA = Southeast Asia.

Source: Author's simulation results.

5. Conclusion

This study explores the future scenarios for the AEC beyond the year 2025 under three themes: digitalisation, sustainability, and inclusiveness. We evaluate these future scenarios through a general equilibrium framework, particularly focusing on the specific events under each theme. For digitalisation, we examine the impact of the ASEAN Agreement on E-Commerce and the WTO's Joint Initiative. For sustainability, we consider the effects of achieving global net zero of CO₂ emissions and emissions trading. For inclusiveness, we simulate the potential economic benefits of narrowing the gender gap in the labour force participation rate.

Simulation results indicate the potential economic benefit in terms of the real GDP for ASEAN as compared to the baseline. The ASEAN Agreement on E-Commerce results in real GDP that is 2.7% higher by 2050, and for the WTO Joint Initiative, real GDP is 6% higher by the same year. Whilst the global net zero of CO₂ emissions without emissions trading lowers ASEAN's real GDP below the baseline level, the global emissions trading raises it over the baseline by 6%. Halving the gender gap in the labour force participation rate in ASEAN contributes to a 3% higher real GDP in 2050. These results may involve far-reaching assumptions, but the implication for the AEC's future direction is to extend deeper economic integration of the ASEAN Member States to the global partners.

References

- Aguiar, A., M. Chepeliev, E. Corong, R. McDougall, and D. van der Mensbrugghe (2019), 'The GTAP Data Base: Version 10', *Journal of Global Economic Analysis*, 4(1), pp1–27. <https://jgea.org/ojs/index.php/jgea/article/view/77>
- Armington, P.S. (1969), 'A Theory of Demand for Products Distinguished by Place of Production', *IMF Staff Papers*, 16(1), pp.159–78. <https://www.elibrary.imf.org/view/journals/024/1969/001/article-A007-en.xml>
- Association of Southeast Asian Nations (ASEAN) (2021), *Mid-Term Review: ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/book/mid-term-review-report-of-the-aec-blueprint-2025/>
- Burniaux, J-M. and T.P. Truong (2002), 'GTAP-E: An Energy-Environmental Version of the GTAP Model', *Global Trade Analysis Project (GTAP) Technical Paper*, 16, West Lafayette: Purdue University. https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=923
- Burri, M., M.V. Callo-Müller, and K. Kugler (2022), *TAPED: Trade Agreement Provisions on Electronic Commerce and Data*. Lucerne: University of Lucerne. <https://unilu.ch/taped> (accessed 12 May 2023)

- Corong, E., T. Hertel, R. McDougall, M. Tsigas, and D. van der Mensbrugghe (2017), 'The Standard GTAP Model, Version 7', *Journal of Global Economic Analysis*, 2(1), pp.1–119. <https://doi.org/10.21642/JGEA.020101AF>
- Global Carbon Project (2022), *Global Carbon Budget 2022*. <https://www.globalcarbonproject.org>
- Global Trade Analysis Project (GTAP) (2024), *Global Trade Analysis Project*. West Lafayette: Purdue University. <https://www.gtap.agecon.purdue.edu>
- Golub, A. (2013), 'Analysis of Climate Policies with GDyn-e', *GTAP Technical Paper*, 32 (September), pp.1–31. https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=4292
- Harrison, W.J. and K.R. Pearson (1996), 'Computing Solutions for Large General Equilibrium Modeling Using GEMPACK', *Computational Economics*, 9, pp.83–127. <https://doi.org/10.1007/BF00123638>
- Hertel, T.W. (ed) (1997), *Global Trade Analysis: Modeling and Applications*. New York: Cambridge University Press.
- Horridge, M.J., M. Jerie, D. Mustakinov, and F. Schiffmann (2018), *GEMPACK Manual*. GEMPCK Software. <https://www.copsmodels.com/gpmanual.pdf>
- Ianchovichina, E. and R. McDougall (2001), 'Theoretical Structure of Dynamic GTAP', *GTAP Technical Paper*, 17, West Lafayette: Purdue University. https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=480
- Ianchovichina, E. and T. Walmsley (eds) (2012), *Dynamic Modeling and Applications for Global Economic Analysis*. New York, NY: Cambridge University Press. https://assets.cambridge.org/9781107011694/frontmatter/9781107011694_frontmatter.pdf
- International Labour Organization (ILO) (2023), *ILO Modelled Estimates Database*, Geneva: ILO. <https://ilostat.ilo.org/data/> (accessed 23 October 2023).
- International Monetary Fund (IMF) (2023) *World Economic Outlook Database*, Washington, DC: IMF (accessed 14 October 2023).
- McDougall, R. (2003), 'A New Regional Household Demand System for GTAP', *GTAP Technical Paper*, 20 (September): pp.1–57, West Lafayette: Purdue University. https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=942
- McDougall, R. and A. Golub (2007), 'GTAP-E: A Revised Energy-Environmental Version of the GTAP Model', *GTAP Research Memorandum*, 15. West Lafayette: Purdue University. https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=2959
- United Nations (UN) (2022), *World Population Prospects: The 2022 Revision*. New York: UN. <https://population.un.org/wpp/> (accessed 1 October 2022).
- UN (2023), *UN Comtrade Database*. New York, NY: UN. <https://comtradeplus.un.org> (accessed 22 June 2023).

Appendixes

Table 2.A1. Regional Aggregation

No.	Country	GTAP 141 regions
1	Brunei Darussalam	Brunei Darussalam.
2	Cambodia	Cambodia.
3	Indonesia	Indonesia.
4	Lao PDR	Lao PDR.
5	Malaysia	Malaysia.
6	Philippines	Philippines.
7	Singapore	Singapore.
8	Thailand	Thailand.
9	Viet Nam	Viet Nam.
10	Rest SEA	Rest of South East Asia.
11	Japan	Japan.
12	China	China; Hong Kong.
13	Korea	Korea.
14	Australia	Australia.
15	New Zealand	New Zealand.
16	India	India.
17	Taiwan	Taiwan.
18	US	United States of America.
19	Canada	Canada.
20	Mexico	Mexico.
21	Chile	Chile.
22	Peru	Peru.
23	EU	Austria; Belgium; Bulgaria; Croatia; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden.
24	UK	United Kingdom.
25	Rest of World	Rest of Oceania; Mongolia; Rest of East Asia; Bangladesh; Nepal; Pakistan; Sri Lanka; Rest of South Asia; Rest of North America; Argentina; Bolivia; Brazil; Colombia; Ecuador; Paraguay; Uruguay; Venezuela; Rest of South America; Costa Rica; Guatemala; Honduras; Nicaragua; Panama; El Salvador; Rest of Central America; Dominican Republic; Jamaica; Puerto Rico; Trinidad and Tobago; Caribbean; Switzerland; Norway; Rest of EFTA; Albania; Belarus; Russian Federation; Ukraine; Rest of Eastern Europe; Rest of Europe; Kazakhstan; Kyrgyzstan; Tajikistan; Rest of Former Soviet Union; Armenia; Azerbaijan; Georgia; Bahrain; Iran Islamic Republic of; Israel; Jordan; Kuwait; Oman; Qatar; Saudi Arabia; Turkey; United Arab Emirates; Rest of Western Asia; Egypt; Morocco; Tunisia; Rest of North Africa; Benin; Burkina Faso; Cameroon; Cote d'Ivoire; Ghana; Guinea; Nigeria; Senegal; Togo; Rest of Western Africa; Central Africa; South Central Africa; Ethiopia; Kenya; Madagascar; Malawi; Mauritius; Mozambique; Rwanda; Tanzania; Uganda; Zambia; Zimbabwe; Rest of Eastern Africa; Botswana; Namibia; South Africa; Rest of South African Customs; Rest of the World.

EFTA = European Free Trade Association, GTAP = Global Trade Analysis Project, Lao PDR = People's Democratic Republic of Lao.

Source: Author's aggregation based on Aguiar et al. (2019).

Table 2.A2. Sector Aggregation

No.	Sector	GTAP 65 sectors
1	Primary	Paddy rice; Wheat; Cereal grains nec; Vegetables, fruit, nuts; Oil seeds; Sugar cane, sugar beet; Plant-based fibers; Crops nec; Bovine cattle, sheep and goats; Animal products nec; Raw milk; Wool, silk-worm cocoons; Forestry; Fishing; Bovine meat products; Meat products nec; Vegetable oils and fats; Dairy products; Processed rice; Sugar; Food products nec; Beverages and tobacco products.
2	Coal	Coal.
3	Oil	Oil.
4	Gas	Gas; Gas manufacture, distribution.
5	Oil-pcts	Petroleum, coal products.
6	Electricity	Electricity.
7	TextWapp	Textiles; Wearing apparel; Leather products.
8	WoodPaper	Wood products; Paper products; publishing.
9	Chemical	Chemical products.
10	Pharma	Basic pharmaceutical products.
11	RubberPlstic	Rubber and plastic product.
12	Minerals	Mineral products nec.
13	BasicMetal	Ferrous metals; Metals nec
14	MetalProduct	Metal products.
15	CmpEletrncs	Computer, electronic and optic.
16	ElectrelEquip	Electrical equipment.
17	Machinery	Machinery and equipment nec.
18	Motorvehicle	Motor vehicles and parts.
19	TrnsprtEquip	Transport equipment nec.
20	OthMnfct	Minerals nec; Manufactures nec.
21	Utilities	Water.
22	Construction	Construction.
23	Trade	Trade.
24	Transports	Transport nec; Water transport; Air transport; Warehousing and support activi.
25	Comm	Communication.
26	FinsBusi	Financial services nec; Insurance; Real estate activities; Business services nec.
27	OthServices	Accommodation, Food and service; Recreational and other service; Public administration and defe; Education; Human health and social work a; Dwellings.

GTAP = Global Trade Analysis Project, nec = not elsewhere classified.

Source: Author's aggregation based on Aguiar et al. (2019).



Part II

Towards an Inclusive, Sustainable, and Digitally Integrated AEC

3.

ASEAN Digital Community 2045

Lili Yan Ing, Yessi Vadila, Ivana Markus, and Livia Nazara

1. Introduction

Digital transformation has changed not only the way we work but also the way we live. It has shifted the focus of goods and services trade, emphasising not only what is produced and traded, but also how it is traded, customised, and delivered (Ing, Grossman, and Christian, 2022). Digital transformation is defined as a profound transformation of business activities, organisations, processes, competencies, and models to fully leverage the changes and opportunities of a mix of digital technologies and their accelerating impact across society in a strategic and prioritised way (Benavides et al., 2020). At its core, it is driven by the tangible shift in the role of technology within an organisation, where technology is no longer seen as a support function but can enable driver and new innovative business models (Tang, 2021).

Digital transformation triggers a shift towards more digitally deliverable services, which in turn stimulates digital trade by enabling services and goods to be traded via digital platforms and networks. Notably, the services sector has experienced a significant rise in digitalisation, especially during the coronavirus disease (COVID-19) pandemic when there were limited socio-economic activities and less mobility. Trade in digitally deliverable services demonstrated relative resilience during this period. In Asia, the value of digitally deliverable services trade increased from \$120.8 billion¹ in 2005 to \$483.5 billion in 2019 (ADB, 2022). Trade in digitally deliverable services could be defined as those that can be delivered over information and communications technology (ICT) networks, including ICT services, sales and marketing services, financial services, professional services, and education and training services, amongst others (OECD, 2023).

¹ In this chapter, \$ refers to US dollars.

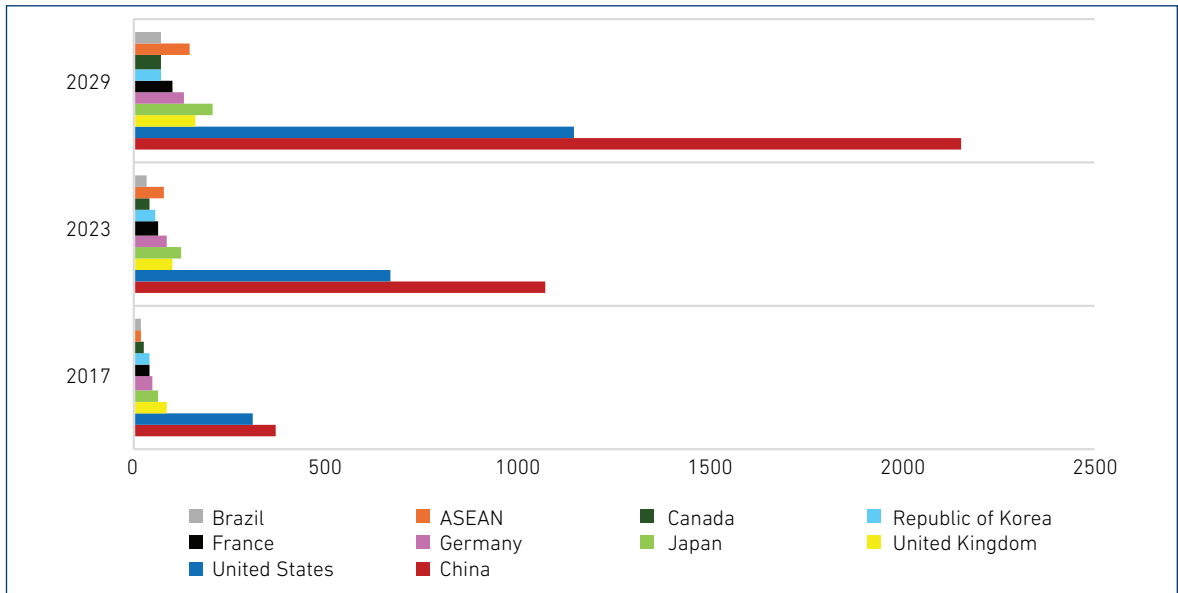
Whilst there is no single recognised definition of digital trade, it is defined by OECD as transactions in the trade of goods and services that are facilitated through digital means (López González and Jouanjean, 2017). Meanwhile, e-commerce, an abbreviation for electronic commerce, is defined as the process of buying or selling goods or services over computer networks, employing methods specifically devised for the purpose of placing or receiving orders (OECD, 2019). The global revenue in the e-commerce market reached \$5.78 trillion in 2023 and is anticipated to rise to \$6.33 trillion in 2024 and \$8.03 trillion by 2027 (Statista, 2024). As illustrated in Figure 3.1, ASEAN holds a significant portion of the world's e-commerce, generating revenues of \$78.6 billion in 2023. It is projected to exhibit an annual growth rate (compound annual growth rate 2024–2029) of 10.17%, leading to an estimated market volume of \$143.70 billion by 2029. ASEAN has ascended from the ninth position in 2017 to fifth in 2023 and is expected to surpass Germany to claim the fourth spot by 2029 (Statista, 2024).

ASEAN has an immense opportunity to grow its digital landscape further and develop its central role in the era of digital transformation. One of the key factors behind ASEAN expanding digital trade is its young, digital-savvy population. In 2022, internet users in ASEAN reached 460 million, up from 360 million in 2019 (Figure 3.2) – an increase of 100 million users in just 3 years of digital transformation (Baijal, et al., 2022). E-commerce (75%) and related sectors such as food delivery (71%), online transportation (64%), and online groceries (64%) dominated the digital adoption trends amongst ASEAN's internet users. In 2020, about 24% of firms received orders online, whilst more than 40% placed orders online (UNCTAD, 2022).

The other key success factor in ASEAN digital trade lies in the growth and effectiveness of digital payments. ASEAN stands out as the world's fastest-growing mobile wallet market (Lee, 2021). The rise of cross-border trade over the past decade has played a significant role in the increased utilisation of digital payments. Traditionally, cross-border trade has been associated with long processing times and high costs. Digital payments offer a solution to these challenges by providing users with convenience and efficiency. In ASEAN, the total transaction value of digital payments is projected to reach \$226.6 billion in 2023, with the largest market being digital commerce, estimated to have total transactions of \$193.8 billion (Statista, 2023).

Despite the immense potential, ASEAN grapples with challenges in digitalisation, ranging from infrastructure limitations to socio-cultural barriers, underscoring the need for concerted efforts to harness the full potential of digitalisation. Section 2 presents key challenges in digital transformation. Section 3 explains the existing ASEAN frameworks on digital issues from 2016–2023. Section 4 underscores the imperative for ASEAN to chart a long-term vision for embracing the digital potential, ensuring comprehensive development across economic, security, political, and socio-cultural dimensions. Section 5 outlines follow-up actions.

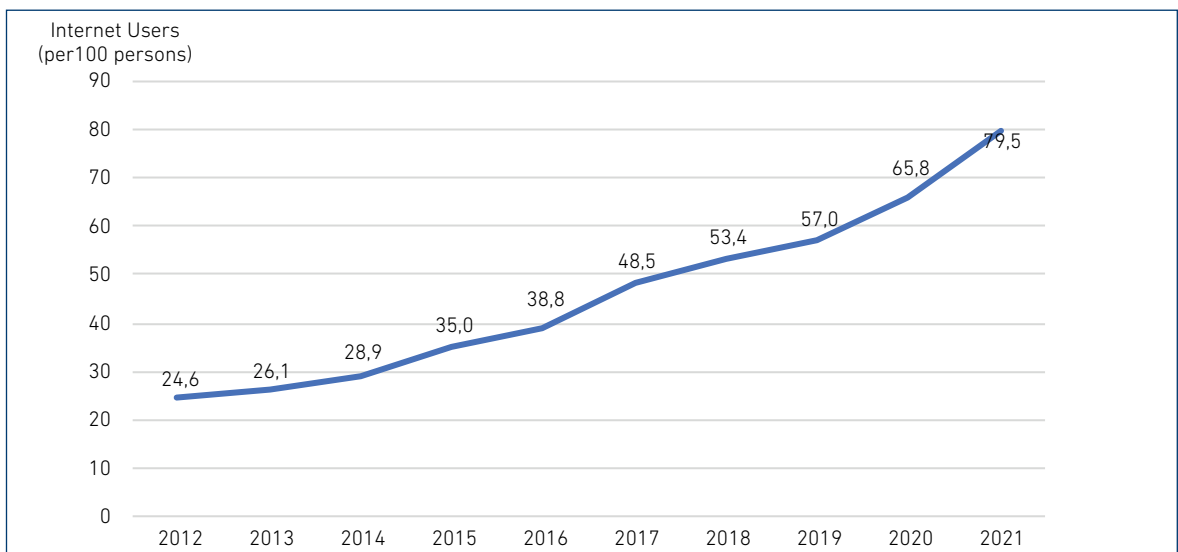
Figure 3.1. Top Ten Contributors to the E-Commerce Global Revenue (\$ billion)



\$ = US dollars, ASEAN = Association of Southeast Asian Nations.

Source: Authors calculation based on Statista (2022b) (updated on 1 March 2024).

Figure 3.2. Access to Internet Services in ASEAN, 2012–2021



Note: The ASEAN figures for 2020–2021 are estimated, as data for some ASEAN Member States are not available. For 2021, the figure is based on the latest available data, and data for Brunei Darussalam and the Republic of the Union of Myanmar are calculated based on the number of subscriptions to internet provider companies. Consequently, there is a possibility of one person being counted multiple times if they subscribed to more than one provider.

Source: ASEAN (2022).

2. Key Challenges in ASEAN Digital Transformation

2.1. Data, Cybersecurity, and Competition

Data and information from private individuals and institutions are exposed to service providers and the pervasive exchange of data has fuelled concerns about its use and misuse. The swift accumulation of digital data and the establishment of a global information infrastructures within the digital economy give rise to concerns about the privacy of data and the safeguarding of personal information (Kolbanev, Palkin, and Tatarnikova, 2020). The widespread proliferation of personal computers and the accessibility of international networks have caused a surge in security risks and breaches, underscoring the necessity for robust cybersecurity measures (Oppitz and Tomsu, 2018).

The expansion of rapid digitalisation and the use of data comes with increased threats against data, systems, and people. At the same time, technological advances enable firms to produce and operate in large economies of scale that build market concentration. Such market concentration reduces competition and can be a barrier to micro, small, and medium-sized enterprises (MSMEs) and start-ups enjoying a level playing field, as big tech players tend to use integration as a strategy to dominate markets and capture more revenue, at the cost of MSMEs and consumers. The convergence of competition law with the safeguarding of privacy in the realm of big data and social media presents a significant hurdle for competition authorities worldwide (Nielsen, Rohman, and Lopes, 2018).

In the case of ASEAN, the existing regulatory policies and frameworks may not adequately address emerging digital concerns such as data protection and cybersecurity (SIIA, 2022). These policies were not specifically designed to keep up with rapid advancements in the digital landscape, which could hinder the progress of ASEAN's digital economy. Moreover, varying levels of digital maturity and diverse regulatory frameworks across ASEAN Member States (AMS) create complexities in standardising regulations within the region. ASEAN's digital economy exhibits noticeable regulatory gaps and inconsistencies, encompassing areas such as competition, data privacy, cybersecurity, patents, and copyright laws across all AMS.

The widespread sharing of private information with service providers has raised numerous concerns regarding the use and misuse of data, whereas ASEAN data protection regulations exhibit disparities in their development.

ASEAN has demonstrated an increasing commitment to developing best practices for data governance in the region. The ASEAN Framework on Digital Data Governance (ASEAN, 2018) outlined strategic priorities for ASEAN, including facilitating cross-border data flows. However, the adoption of regional data governance still exhibits disparities amongst AMS and is in the early stages. Whilst countries such as Singapore and Thailand do not have data localisation policies, others such as Indonesia and Viet Nam still require data to be stored locally (SIIA, 2022).

Furthermore, countries such as Malaysia, the Philippines, Singapore, and Thailand have made notable strides to enact data protection laws, though these laws are dispersed across a variety of legislation and regulations, with certain nations having dedicated data protection statutes. Similar dynamics extend to the realm of cybersecurity, where certain AMS lag in implementing the regulations. Viet Nam stands out amongst these countries for its cybersecurity laws, mandating private companies operating within its borders to house data on local servers to ensure heightened security (Suvannaphakdy, 2022). Discrepancies in data protection laws and enforcement mechanisms can raise concerns about data breaches, unauthorised access, and misuse of personal information. Differences in data privacy laws, e-commerce regulations, intellectual property rights, and cybersecurity standards can hinder cross-border digital trade and investment.

2.2. Productivity

ASEAN countries exhibit different levels of development, with Singapore as the front runner in all economic, social, and human development indicators, compared with the Lao People's Democratic Republic and the Republic of the Union of Myanmar. The diversity of ASEAN's level of economic development and digitalisation has resulted in diverse progress in digitalisation and technology ecosystems in the region. According to the ASEAN Digital Generation Report by the World Economic Forum (WEF, 2021), productivity improvement is one of the greatest benefits of digital enhancement in the economy. The report reveals that MSME owners have found digitalisation to aid them in timesaving and automation, providing convenient access to information, expanding the availability of goods and services, and bolstering their capacity to generate additional income. These factors collectively contribute to enhancing business efficiency and optimisation for MSMEs. The digitalisation of production processes is expected to drive businesses to allocate tasks more efficiently, resulting in productivity gains. A study by the International Monetary Fund (Dabla-Norris et al., 2023) indicated that in Asia's developing countries, process innovation has a more pronounced impact on productivity than product innovation. However, the varying levels of economic development and digitalisation in ASEAN have led to uneven progress in digitalisation and technology ecosystems. Disparities in the adoption of digital technology across various levels of economic development are likely to further widen productivity gaps amongst AMS.

Moreover, working together as a region, ASEAN's primary digitalisation focus remains on the development of digital trade, digital platforms, and e-commerce. The United Nations Economic and Social Commission for Asia and the Pacific and ASEAN (UNESCAP and ASEAN, 2021) emphasised the critical role of reducing trade costs to facilitate robust engagement in global and regional value chains, ensuring that trade continues to serve as a fundamental driver of sustainable growth. Despite notable growth in the trade, finance, and investment sectors through digitalisation, the need remains urgent to broaden the scope of digital transformation to encompass other sectors. The concentrated focus on digital trade, platforms, and e-commerce has resulted in limited progress in expanding value-added beyond these domains, thereby impeding the comprehensive advancement of ASEAN's digital economy.

2.3. Connectivity

In recent years, ASEAN has made remarkable progress in bolstering its digital infrastructure to support the growth of its digital economy. A pivotal challenge in ASEAN's digital transformation lies in the deficiency of both digital and physical enablers, encompassing digital infrastructure and connectivity. The establishment of a robust digital infrastructure and seamless connectivity is imperative for advancing the digital economy within ASEAN. This encompasses cutting-edge networks, hardware, software, data centres, and widespread broadband connectivity to facilitate the seamless provision of digital services. Infrastructure Asia underscores the significance of prioritising digital connectivity, encompassing factors such as accessibility, bandwidth requirements, affordability of data connections, and device availability, to fortify the digital infrastructure across ASEAN (Infrastructure Asia, n.d.).

Nevertheless, digitalised systems and digitally deliverable goods and services still constitute a smaller proportion in lower-income countries compared with other global regions. The capability to deploy technology emerges as a pivotal concern in digital transformation, evident in the unequal distribution of technologies due to limited capacities. An examination of the primary indicators contributing to the digital divide – internet speed, usage, and technology production – reveals a significant disparity amongst AMS. For instance, Indonesia's internet speed is 21.95 megabits per second (Mbps), Singapore's is 211.36 Mbps, and the Republic of the Union of Myanmar lags at 18.35 Mbps (Ing and Markus, 2023). In this digital epoch, the synergy of digital and physical connectivity is the linchpin for successful digital transformation, resonating within the ASEAN region.

Digitalisation has the potential to elevate productivity and invigorate MSMEs through digitalising the payment system and the growth of online selling platforms (WEF, 2021). It helps MSMEs and women to engage more in the workforce through their small businesses. Moreover, digital lending or financing is also positively impacting the growth of MSMEs. However, the disparate progress in digital advancement amongst and within AMS could impede the positive impacts on productivity and various economic sectors within ASEAN. For instance, the scarcity of robust digital infrastructure deters AMS from adopting digital technologies across diverse value-added sectors. In addition, the Logistics Performance Index score of AMS could be significantly improved through the widespread adoption of digital technologies in the region (Ha and Chuah, 2023).

2.4. Digital Divide

Digital divides affect firms and individuals across and within countries in this region. Countries, governments, firms, and individuals vary greatly in their digital readiness, which is influenced by factors such as education, skill levels and available infrastructure. Differences in digital uptake emerge between AMS with robust digital infrastructure and capabilities, and those with limited resources in these areas. Moreover, within-country digital divides manifest as gaps between rural and urban communities, with rural areas facing restricted access to technology, low digital adoption, and limited internet availability. Digital skill development varies significantly across AMS, exemplified by Singapore that ranks first and Cambodia that ranks 75th on the Inclusive Internet Index (EIU, 2022), underscoring a substantial digital inclusion gap within the region. Similar disparities persist within individual countries, particularly between urban areas and rural areas where limited digital service access hampers rural communities.

Digital divides, marked by inequalities in access to, and utilisation of, digital technologies, are a considerable impediment to narrowing the disparities between regions, nations, and socio-economic strata (Lazovic and Durickovic, 2014). The capacity to deploy technology plays a vital role in digital transformation, evident in the unequal distribution of technologies due to limited capabilities. Technological advancements have led to increased market concentration, have reduced competition, and have posed challenges for MSMEs and start-ups striving for competitiveness.

Moreover, at the core, digital divides are not only about infrastructure, but also about human capital. The COVID-19 pandemic and technological disruptions have pushed marginalised workers in some AMS towards informal sector activities due to limited digital skills, whilst a significant portion of professionals have transitioned to remote work as employers digitise processes (Intaratat, 2022). The concept of the 'digital divide' has evolved to spotlight the skills gap between individuals with digital proficiency and those without. Possessing digital skills yields benefits such as employment opportunities, increased income, and improved social outcomes, whilst their absence hampers prospects (OECD, 2016). The contrast between the rising demand for advanced digital skills and the existing proficiency levels within the ASEAN workforce becomes increasingly apparent. For instance, to stay competitive, Singapore requires 1.2 million more digital workers by 2025, whilst Indonesia needs to secure an additional 600,000 digital talents by 2030 (Martinus and Seth, 2023).

2.5. Environmental Sustainability

It is recognised that the emergence of digital platforms and digital trade has led to a reduction in physical storefront consumption and an increase in waste production. Telecommunication is expected to cut carbon emissions, supporting the long-term health of our environment. However, contemporary digital technologies still incur environmental costs. Fuchs (2006) notes a misconception about telework, highlighting that its perceived reduction in environmental pollution and the need to travel is because teleworkers constitute only a small proportion of the overall workforce. Telework fosters new social connections, leading to increased travel. Whilst work-related travel contributes minimally to total carbon dioxide emissions, the overall distance travelled per worker is steadily increasing.

The growing awareness of digital technologies should be paired with a nuanced understanding of their environmental impact, both short- and long-term. Artificial intelligence (AI) and related digital technologies have significant environmental consequences, with notable carbon dioxide emissions linked to the energy consumption required for handling extensive data, mineral extraction for manufacturing technological components, and the generation of electronic waste (Samuel, Lucivero, and Somavilla, 2022). Therefore, the environmental costs of digital transformation should not be underestimated. A comprehensive understanding of these challenges is crucial to guide responsible, ethical, and sustainable progress in digital technologies.

3. The ASEAN Frameworks on Digitalisation (2016–2023)

This section presents an overview of the existing ASEAN digital frameworks and work plans established from 2016 to 2023, highlighting the region's commitment to embracing digital transformation.²

² The existing ASEAN initiatives, masterplan, frameworks, work plans, and action plans are ASEAN (2016; 2018; 2019; 2020a; 2020b; 2021a; 2021b; 2021c; 2021d; and 2023).

3.1. ASEAN Framework on Personal Data Protection (2016)

In 2016, to promote the responsible use and protection of personal data within the region, AMS agreed to form the ASEAN Framework on Personal Data Protection (ASEAN, 2016). The framework was established in response to the increasing importance of personal data in the digital economy and the need for a common set of principles and standards for data protection. The framework aims to establish a harmonised approach to personal data protection across AMS, promoting consistency and interoperability in data processing practices. It is intended to provide individuals with greater control over their personal data and foster trust in the digital economy. Key principles of the ASEAN Framework on Personal Data Protection include consent, notification and purpose, accuracy of personal data, security safeguards, access and correction, transfers to another country or territory, retention, and accountability.

One thing we note is that the ASEAN Framework on Personal Data Protection is a non-binding document, and its implementation is voluntary for AMS. However, it serves as a reference for AMS to develop or revise their national laws and regulations on personal data protection. Several AMS, such as Malaysia and Singapore, have already enacted legislation based on the framework. Whilst the framework provides a general structure for personal data protection, data protection laws and regulations vary amongst AMS. This can lead to inconsistencies and challenges when it comes to harmonising data protection practices across the region. The framework also aims to facilitate cross-border data transfers, but ensuring adequate protection for data transferred outside ASEAN may pose challenges. The lack of harmonised international data protection standards can make it difficult to ensure consistent protection of personal data in cross-border transactions.

3.2. ASEAN Digital Data Governance Framework (2018)

In 2018, the ASEAN Telecommunications and Information Technology Ministers Meeting endorsed the ASEAN Digital Data Governance Framework (ASEAN, 2018). The framework comprises four strategic priorities based on several principles. The first strategic priority focuses on the data life cycle and ecosystem, emphasising principles of data integrity, data use and access control, and data security. The second strategic priority centres on cross-border data flows, which consist of principles to ensure free data movement whilst upholding trust through ensuring requirements on cross-border data flows. The third strategic priority is digitalisation and emerging technologies, building principles on capacity development and upskilling for universities, organisations, and MSMEs. The fourth priority addresses legal, regulatory, and policy aspects, which consist of principles on harmonised personal data protection regulations, accountability in policy implementation, and the promotion of best practices in data governance across AMS.

In terms of framework implementation, AMS must provide regular biannual updates on their progress in implementing the framework within their respective working group levels. This approach can be utilised to oversee the advancements of each AMS concerning the framework. Subsequently, the framework's implementation plan centres on the establishment of the annual ASEAN Data Protection Forum, where AMS present their updates during the forum sessions. Since the framework is non-binding, it does not establish any legal rights or responsibilities for AMS, either domestically or internationally. The non-binding nature of the framework makes it hard to monitor its enforcement and implementation in ASEAN. In addition, commitment levels have differed since the framework lacks the legal obligations required, affecting the overall implementation across the ASEAN region.

3.3. ASEAN Digital Integration Framework Action Plan, 2019–2025 (2019)

Digital integration has begun to be considered crucial to close the digital divide and promote a more inclusive digital environment in the ASEAN region. Therefore, in 2019, ASEAN endorsed the ASEAN Digital Integration Framework Action Plan, 2019–2025 (DIFAP)(ASEAN, 2019) as a strategic framework to make it easier for AMS to integrate digital technologies and projects. The framework presents a thorough strategy for maximising the advantages of digital transformation, encouraging regional collaboration, and fostering economic progress in the digital era.

The DIFAP identifies the following key priority areas for digital integration: (i) facilitating seamless trade; (ii) protecting data whilst supporting digital trade and innovation; (iii) enabling seamless digital payments, which are crucial for promoting cross-border digital trade; (iv) broadening the digital talent base by partnering with the private sector on digital skills roadmaps and prioritised sectors in carrying out the upskill programmes; (v) helping emerging digital MSMEs' ease of doing business and navigating the business ecosystem to succeed; and (vi) establishing a designated ASEAN body to coordinate actions for the various areas of this digital integration framework, which includes effective prioritisation, as well as supervising and regulating the timelines and objectives.

To promote the digital integration progress within ASEAN, the six prioritised domains are transformed into a strategic roadmap known as the DIFAP. This plan delineates specific ASEAN bodies that are accountable for the implementation of the outlined initiatives. The coordinating sectoral body for the framework is the ASEAN Coordinating Committee on Electronic Commerce or its successor body.

The DIFAP integrates the correlated goals and strategies from the ASEAN Economic Community (AEC) Blueprint 2025. Notably, this encompasses the ASEAN ICT Masterplan 2020, the ASEAN Work Programme on Electronic Commerce 2017–2025, the Master Plan on ASEAN Connectivity 2025, and pertinent strategic action plans. Furthermore, the document summarises initiatives, outputs, timelines, implementing bodies, and implementation.

However, it is important to note that some initiatives within the DIFAP have not yet been implemented and there are no updated versions of the original DIFAP document available to track progress, outcomes, or further implementation efforts. Finally, the implementation of the DIFAP may face hurdles due to differences in country agendas, legislative complications, infrastructure limits, skills shortfalls, and data privacy issues. ASEAN consists of countries at diverse socio-economic stages, so the differences in development stages of AMS create obstacles to applying and implementing a one-size-fits-all framework within the region, without accounting for a country's specific conditions and needs.

3.4. Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce (2021)

In 2021, ASEAN agreed on the Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce (ASEAN, 2021d), which builds on the ASEAN region's ongoing efforts to support better regional e-commerce growth. The work plan is a living document that can be adjusted and altered, as necessary. By facilitating cross-border e-commerce transactions, creating an enabling environment of trust and confidence, and strengthening cooperation within the ASEAN region, this work plan envisions increasing the overall size of its digital economy by 2025 to represent a leading digital community that is competitive, inclusive, and forward-looking.

The work plan is divided into three high-level workstreams, which serve as priority areas that contribute to achieving the work plan's vision: (i) the cross-border focus tackles plans, initiatives, and leading e-commerce sector policies on a national level to increase cross-border coherence in ASEAN; (ii) the business focus tackles concerns that directly impact e-commerce business; and (iii) the consumer focus tackles concerns that directly impact e-commerce consumers.

To ensure that the work plan's vision is achieved, it is important to note that external parties, better known as 'workstream enablers,' play a key role. These workstream enablers provide collaboration on national e-commerce development, domestic capacity-building initiatives, donor partner support and financing, digital infrastructure connectivity, and data collection. The workstream objectives and activities include horizontal activities such as the Laws Reporting Scheme and associated activities, annual business surveys, the ASEAN Consumer Empowerment Index, stakeholder engagement activities, and pilot projects.

The annex of the work plan contains each desired outcome along with the associated metrics, including the key performance indicators, the target timeline, and the lead implementation body. From our assessment, the absence of an online update regarding the progress of the work plan is one of the notable drawbacks. Whilst the annex provides a comprehensive breakdown of the desired outcomes, associated indicators, activity details, implementation timelines, and responsible bodies, the lack of accessible information about the up-to-date status of the work plan overall is a limitation. Progress may have been made in specific areas and lead implementation bodies. However, tracking this progress effectively is challenging without easily accessible real-time information on the overall status of the work plan.

3.5. ASEAN Comprehensive Recovery Framework (2020)

Adopted at the 37th ASEAN Summit in November 2020, the ASEAN Comprehensive Recovery Framework (ACRF) (ASEAN, 2020a) serves as the consolidated exit strategy for the region from the COVID-19 crisis. It focuses on five broad strategies that prioritise health, humans, the economy, and digitalisation. One of its broad strategies focuses on accelerating inclusive digital transformation within the ASEAN region. Promoting e-commerce and the digital economy is one of the priorities, along with other initiatives on e-government and e-services, digital connectivity, the use of ICT in education, and the digital transformation of MSMEs. This framework also addresses the need for investment in digital infrastructure that focuses on data governance, cybersecurity, the legal framework, and institutional capacity.

Of the five broad strategies presented in the framework, broad strategy four on digitalisation aims to achieve several objectives. These include launching the ASEAN Access web portal, enhancing the implementation of the Go Digital ASEAN initiative to support the digital transformation of MSMEs in the region, adopting the Consolidated Strategy on the Fourth Industrial Revolution, launching the ASEAN Digital Integration Index Report, implementing the ASEAN Agreement on Electronic Commerce Work Plan, promoting good governance through digital innovation and the digitalisation of public services, advancing financial inclusion, and strengthening data governance and cybersecurity within the region.

The annex of the ACRF details the key priorities and initiatives. Nonetheless, no single, readily available, and easily traceable document permits monitoring of the progress of the ACRF's implementation. This absence results in a lack of transparency and accountability in the implementation of the plan. Moreover, the framework faces obstacles such as uneven implementation because AMS have different priorities and resources, a lack of enforceability (the framework is non-binding), funding restrictions, coordination problems, the potential exclusion of marginalised groups, ambiguous environmental strategies, and difficulties in tracking progress. In addition, due to the changing nature of the COVID-19 pandemic and subsequent recovery, priorities have changed since the ACRF was enacted in September 2020. As the repercussions from the pandemic are felt, the framework might not fully consider newly discovered problems or shifting dynamics.

3.6. ASEAN Digital Masterplan 2025 (2021)

The ASEAN Digital Master Plan (ADM) 2025, developed in 2021, envisions 'ASEAN as a leading and digital community and economic bloc, powered by secure and transformative digital services, technologies, and ecosystem' (ASEAN, 2021b:4). To accomplish the vision, key economic players – such as governments, regulators, and market players – should complement one another by working together to invest in new technologies, abolishing regulations that serve as market process barriers, fostering digital inclusion, and delivering high-speed connectivity through high-quality telecommunications infrastructure. ADM 2025 specifies three conditions to be met by governments and regulators to achieve the vision, which are providing high-quality connectivity across the ASEAN region through the telecommunications infrastructure, providing safe connections to fulfil the needs of end users, and performing other actions to boost digital literacy and digital skills to enhance productivity.

Demand for digital services has accelerated in ASEAN since the outbreak of the COVID-19 pandemic in 2020. However, the recessionary impacts of the pandemic have adversely affected users' ability to pay for these services. ADM 2025 plays a key role in speeding up the recovery from the COVID-19 pandemic. This can be achieved through governments, regulators, and key players funding the priority programmes, removing regulatory barriers, mitigating adverse pandemic impacts on the poor through digital inclusion, providing access to e-education and e-health services, reinvigorating trade after the pandemic, increasing the use of digital services to enhance the number of users and trust in the system, strengthening investment incentives for market players and governments, and dealing with climate change.

The Implementation of ADM 2025 requires that the indicators of each desired outcome be measured. Measuring the utilisation of digital services is an indicator of success in the completion of the ADM 2025 vision. This is because the uptake of digital services goes hand in hand with infrastructure and skills, thus it measures the overall effect of all elements in ADM 2025. The level of uptake in digital services in the ASEAN region can also serve as a basis for comparing ASEAN with other leading regions in digital services.

Despite its laudable strategic vision, our assessment notes that one of ADM 2025's limitations lies in the rapidly changing dynamics of the digital world. There are concerns about the 5-year duration of the master plan, as many aspects of the digital landscape are likely to evolve during the implementation period, requiring some initiatives to be revised to remain relevant.

3.7. ASEAN Data Management Framework (2021)

The ASEAN Data Management Framework (DMF) was designed to support the data life cycle and ecosystem strategic priority (ASEAN, 2021a). The DMF aims to assist all businesses operating in ASEAN to participate in the digital economy and practice data governance across all data types within an organisation throughout the data life cycle and to consider adequate protection for diverse types of data. With the DMF, organisations are better equipped to protect data and instil trust and confidence in their customers and organisations they interact with, whilst the data are leveraged for business innovation purposes. The DMF is designed to be customisable and adaptable to meet the specific data management requirements of businesses, allowing them to tailor it to their data management systems. 'Data,' as used in the DMF, refers to all data that a business creates, collects, accesses, processes, and transfers. This may include both personal and business transactional data. The DMF is intended for the use of all private sector businesses operating in ASEAN, including small and medium-sized enterprises.

The DMF aims to guide the effective management of data within AMS. However, we have identified certain shortcomings to consider in its implementation: (i) varied data management practices – AMS have different levels of maturity in terms of data management practices; (ii) limited adoption – the DMF is not legally binding and its adoption is voluntary, so not all AMS may choose to implement or fully adhere to the framework, resulting in the fragmentation of data management practices; and (iii) resource constraints – implementing effective data management practices requires financial, technological, and human resources, and some AMS may have limited resources and capacity to invest in data management capabilities, which could hinder the successful implementation of the framework.

3.8. Bandar Seri Begawan Roadmap (2021)

In 2021, as a response to the COVID-19 pandemic, which forced the region to accelerate the adoption of digital technology, ASEAN endorsed a digital roadmap that is referred to as the Bandar Seri Begawan Roadmap (BSBR) (ASEAN, 2021c). The BSBR is a digital transformation agenda for ASEAN to accelerate economic recovery and the integration of the digital economy. Through the roadmap, ASEAN aims to ensure that digital transformation within the region provides equitable benefits to all AMS. The BSBR aims to serve as a tool to achieve strong commitment and coherency in the ASEAN region and prioritise action on the use of technology as one of the key economic drivers within and across AMS.

The roadmap for 2021–2025 is divided into three phases: recovery (2021–2022), acceleration (2022–2024), and transformation (2025). The recovery phase consists of five measures that aim to accelerate the region's economic recovery and harness digital technology adoption as one of the region's efforts in the recovery phase (resume essential travel and strengthen institutional mechanisms and capacities

in the ASEAN Secretariat and relevant sectoral bodies). The acceleration phase consists of four measures that aim to include work from the DIFAP and accelerate its progress, including advancing trade facilitation and digitalisation, enabling cross-border digital payments, establishing a unified Internet Protocol services platform for ASEAN, and conducting a study on the ASEAN digital economy. The transformation phase consists of one measure to make the region a community of opportunity for all, as it aims to establish an open, secure, interoperable, competitive, and inclusive regional digital economy in the broader AEC-building agenda.

The ASEAN Coordinating Committee on Electronic Commerce functions as the coordinating sectoral body for the BSBR, with supervision from the Senior Economic Officials Meeting (SEOM) and contributions from representatives of the respective sectoral bodies of each AMS. SEOM will provide regular updates on the progress of the roadmaps to the AEC Council. Considering the complexity and multifaceted nature of the BSBR, progress on the roadmaps should be communicated regularly to relevant ministerial groups. The complexity of implementing the BSBR presents a challenge in coordination and cross-sectoral collaboration, as well as enforcement and compliance. Harmonising efforts amongst stakeholders and cooperation amongst various sectors could be particularly problematic due to different perspectives, priorities, and regulations within each sector.

3.9. Boracay Digital Declaration (2023)

In February 2023, at the third ASEAN Digital Ministers' Meeting, AMS adopted the Boracay Digital Declaration (BDD) (ASEAN, 2023). The BDD is a non-binding agreement that focuses on digital transformation and the digital economy within the ASEAN region. It recognises the importance of (i) a digitally inclusive society by addressing the digital divide; (ii) a trusted, secure, and safe digital market by adopting digital data governance, including data management, cybersecurity, and AI governance; and (iii) people-centred digital transformation. The declaration emphasises the need for regional cooperation to harness the benefits of the digital revolution and ensure inclusive and sustainable development.

The BDD has five key areas: (i) digital connectivity – acknowledging the importance of enhancing regional digital infrastructure and connectivity to promote seamless digital trade, investment, and collaboration; (ii) digital skills – highlighting the significance of developing digital skills and capabilities amongst ASEAN citizens to empower them to participate in the digital economy and leverage digital technologies effectively; (iii) digital innovation – recognising the role of digital innovation in driving economic growth and encouraging support for digital entrepreneurship and innovation ecosystems within the ASEAN region; (iv) digital trade facilitation – emphasising the need to create an enabling environment for digital trade, including e-commerce, by developing frameworks and regulations that facilitate cross-border digital transactions and reduce barriers to trade; and (v) cybersecurity and data protection – stressing the importance of enhancing cybersecurity measures and promoting data protection to build trust and confidence in digital transactions and technologies.

The implementation of the BDD requires coordination and collaboration amongst multiple stakeholders, including government agencies, private sector organisations, and civil society. Without effective implementation and alignment of strategies across countries, the BDD may not adequately address the existing digital divide within ASEAN, potentially leaving certain populations and regions at a disadvantage in terms of benefiting from digital transformation. Successful implementation of the BDD relies on factors beyond technology, such as education, skills development, and socio-economic conditions. Inclusivity and the ability to address socio-economic disparities are crucial to ensure that all segments of society share the benefits of digital transformation.

3.10. ASEAN Digital Economic Framework Agreement (2023)

The Digital Economic Framework Agreement (DEFA), which has been discussed since 2022, aims to establish an integrated and inclusive digital landscape within the region, with a focus primarily on e-commerce and digital trade. The AEC endorsed the DEFA Council at their 23rd Meeting during Indonesia's ASEAN Chairmanship on 3 September 2023 in Jakarta. It will be followed by the launch of negotiations, which are targeted to be completed by the end of 2025. The ASEAN Coordinating Committee on Electronic Commerce and Digital Economy, in collaboration with pertinent ASEAN sectoral bodies, and with the support of the ASEAN Secretariat, will be responsible for conducting the negotiations.

The ASEAN DEFA negotiations encompass a wide range of elements. These include digital trade to enhance cross-border trade through electronic processes, cross-border e-commerce for efficiency and fairness, digital payments and e-invoicing to foster innovation and regulation, digital identification and authentication for interoperable recognition, online safety and cybersecurity for a secure digital environment, cross-border data flows and data protection, competition policy for transparency and consumer choice, cooperation on emerging topics such as AI regulation, and talent mobility and cooperation to facilitate the movement of digital talent and collaboration in talent development within the region.

3.11. Overall Review

Although ASEAN's endeavours have undeniably propelled digital advancements in the region, one of the main criticisms of DEFA, the latest framework – as well as for the other ASEAN roadmaps, frameworks, work plans, and action plans – is that it is limited to economic issues. The other key issues have not yet been covered (e.g. security, political, and socio-cultural issues).

The limitations of the existing frameworks on ASEAN's digital economy stem from a range of hurdles that hinder the effectiveness of their implementation. One of these is the absence of a clear enforcement mechanism given the nature of the non-binding agreements and non-established legal obligations. The lack of a designated mechanism for real-time reporting on the progress of the frameworks' desired outcomes raises further questions regarding accountability and transparency during implementation. Stakeholders and the public have limited access to data on the progress of the frameworks' desired outcomes and objectives. In addition, the varied socio-economic landscape in ASEAN plays a key role in determining the feasibility of the digital frameworks' implementation. This includes differences in resources, digital adoption, infrastructure development, priorities, laws, and regulations amongst AMS. Furthermore, since the digital ecosystem is dynamic, digital frameworks must evolve to remain relevant in a digitalised ASEAN community.

4. The ASEAN Digital Community 2045

ASEAN faces diverse challenges on its digitalisation journey and requires a long-term strategy to fully harness the potential of digital technology for the benefit of its member states. Despite ongoing efforts to establish various frameworks for digital transformation, ASEAN's primary focus is on the economic sector, particularly in digital trade. Notably, the existing frameworks, whilst promising, lack a commitment to implementation and an evaluation mechanism, and they do not serve as a long-term vision for ASEAN.

Recognising the extensive potential and simultaneous challenges linked to digitalisation, ASEAN needs to oversee the comprehensive development of digitalisation across multiple domains. This endeavour should extend beyond the economic sector to encompass security, political, and socio-cultural aspects. To effectively address these challenges and fully embrace digital transformation, ASEAN should prioritise the development of a comprehensive framework that includes implementation commitment and evaluation mechanisms.

During the sidelines of the 42nd ASEAN Summit on 11th May 2023 in Labuan Bajo, Indonesia, ASEAN leaders directed ASEAN experts to craft a robust and inspiring vision for the next 20 years. The decision to formulate the 2045 vision followed the Leader's inaugural engagement with the High-Level Task Force on the ASEAN Community Post-2025 Vision. In this meeting, the leaders urged the task force to create a visionary, inspiring, robust, comprehensive, inclusive, and forward-looking ASEAN Community Post-2025 Vision. Additionally, the leaders stressed the need for an effective, efficient, balanced, inclusive, participatory, and coordinated drafting process, aiming to strike a balance between pragmatism and ambition, ensuring ASEAN's stability and progress whilst honouring its identity.

The ASEAN Digital Community (ADC) 2045 stands as a foundational framework to shape and propel ASEAN's digital economy agenda across all sectors. This framework will provide a sturdy base for a variety of initiatives aimed at fostering sustainable and inclusive growth within the ASEAN digital economy.

4.1. Three Pillars of the ASEAN Digital Community 2045

The ASEAN community is envisioned as a community with increased capacity and with the ability to effectively respond to problems and exploit opportunities (ASEAN, n.d.). ASEAN community comprises three pillars: (i) The ASEAN Political Security Community (APSC); (ii) The AEC; and (iii) The ASEAN Socio-Cultural Community. The APSC aims to achieve peace, stability, and cooperation in the region through political dialogue and conflict resolution mechanisms. The AEC focuses on economic integration, promoting free trade, investment, and the facilitation of goods and services across AMS. The ASEAN Socio-Cultural Community aims to enhance social inclusion, cultural diversity, and community engagement amongst the people of ASEAN.

These three pillars work together to create a unified and cohesive ASEAN community that strives for regional peace, stability, economic prosperity, and social progress. As ASEAN embraces digital transformation and seeks to leverage its potential, it is proposed that the ASEAN Digital Community 2045 will address digitalisation issues and advancements across these three main pillars of the ASEAN community.

4.1.1. The ASEAN Digital Political Security Community

The APSC is witnessing the profound impact of digital technology on democratic politics and military advancements. The rapid evolution of technology has transformed elections, campaigning, and communication – providing new infrastructure for public engagement and expanding opportunities for participation. However, the potential challenges and implications of digitalisation in politics are yet to be fully understood and addressed. Simultaneously, military technology has seen remarkable progress, with hybrid strategies combining automation, cyber programmes, robotics, AI, and cyberwarfare. Innovations such as digital healthcare automation, hypersonic missiles, the Internet of Military Things, and immersive technologies are shaping the future of military operations. Border surveillance, security imaging, joint military training in the metaverse, and other developments highlight the growing significance of digital technology in the APSC.

This digital transformation brings both opportunities and challenges. On one hand, digital technology enhances the efficiency and effectiveness of democratic processes, such as elections and public engagement, allowing for greater participation and transparency. On the other hand, it also presents new risks and threats, including cyber-attacks, disinformation campaigns, and the misuse of technology for malicious purposes. To ensure the security and stability of the region, it is crucial for ASEAN to strengthen its capacity in cybersecurity, intelligence gathering, and defence against emerging cyber threats (Bhattacharyya, 2010). Additionally, cooperation and collaboration amongst AMS in sharing information, best

practices, and developing joint strategies is essential to address the evolving challenges posed by digital technology in the APSC. The establishment of the ASEAN Digital Community 2045 can serve as a strategic framework to guide AMS in navigating the digital landscape and addressing these opportunities and challenges.

4.1.2. The ASEAN Digital Economic Community

The AEC aims to transform ASEAN into a unified market and production base, fostering competitiveness, equitable economic development, and seamless integration into the global economy. Projections indicate that ASEAN's digital trade could reach up to \$1 trillion by 2030 (Baijal, et al., 2022). To realise its potential and prevent any member country from being left behind, ASEAN must harness the power of digital technology to drive its transformation.

Envisioning the ASEAN Digital Economic Community 2045 is crucial for ensuring sustained prosperity, sustainable development, and inclusive growth in the era of AI and digitalisation. This initiative will enable ASEAN to capitalise on digital technology's potential to boost economic expansion, foster inclusivity, and bolster regional cohesion. By establishing the ASEAN Digital Economic Community 2045, ASEAN can streamline the flow of digital goods, services, and investments amongst AMS, thereby creating a dynamic digital economy whilst promoting collaboration amongst AMS to shape digital policies, regulations, and standards. This collective effort will facilitate the cohesive development of digital ecosystems across the region, enhancing its global competitiveness and resilience in the digital era.

4.1.3. The ASEAN Digital Socio-Cultural Community

Digital technology has showcased its transformative potential across various domains, notably in education and culture. Aimed at ensuring inclusive and equitable access to quality education, digital technology has emerged as an essential tool within educational systems, a trend that gained momentum during the COVID-19 pandemic. Moreover, it has facilitated skill development, cultural exchanges, and the incorporation of diverse perspectives.

The ASEAN Digital Socio-Cultural Community stands as a testament to the commitment to empower ASEAN citizens to reach their full potential. Embracing the advancement in digital technology is imperative for ASEAN to nurture the development of the ASEAN community in the socio-cultural sphere and prepare for the emergence of new digital cultures and values in the future.

By harnessing digital technology, ASEAN can elevate educational opportunities and cultural exchanges, ensuring universal access to high-quality learning resources and fostering a culture of lifelong learning. Additionally, digital platforms offer a means to preserve and promote diverse cultures, enabling ASEAN nations to showcase their heritage and traditions on a global platform. Moreover, ASEAN has the potential to

foster greater connectivity and collaboration amongst Member States. Through digital platforms, there is an opportunity for the exchange of ideas, knowledge, and experiences across various socio-cultural domains. This collaborative effort can pave the way for innovative solutions to common challenges such as poverty alleviation, social inclusion, and environmental conservation.

4.2. Five Elements Across the Three Pillars of ASEAN Digital Community 2045

The ASEAN Digital Community 2045 should encompass at least five key elements across its three pillars (political security, economic, and socio-cultural):

4.2.1. Data Governance

It is imperative for ASEAN to embrace regulatory transformation to address its outdated policies and regulatory frameworks. The modernisation of ASEAN policies and regulations is essential to keep pace with the rapidly evolving digital era faced by the region. Whilst ASEAN has made progress in regulating the digital economy in recent years, significant work remains to be done to regulate the ASEAN digital ecosystem effectively. Despite the emergence of noteworthy digital frameworks in ASEAN, such as the ASEAN Digital Data Governance Framework, the BSBR, and the ASEAN Digital Integration Framework, additional efforts are required to regulate the digital landscape in a comprehensive manner. ASEAN must prioritise dedicated efforts to enhance digital governance by establishing unified and standardised regulations pertaining to competition, data privacy, cybersecurity, patents, and copyrights across all AMS.

4.2.2. Productivity

The optimal utilisation of digital technology should aim to enhance value-added, revolutionise business models, and support development across all sectors. Whilst significant progress has been made in digital transformation within the finance, trade, and investment domains, ASEAN now faces the challenge of extending this success to all sectors of the economy. For example, the adoption of digital technologies in the healthcare and energy sectors has the potential to reduce costs, optimise operations, and improve the quality and accessibility of services. Digital health encompasses various technologies, including mobile health apps, connected wearable devices, and telemedicine, with the digital health market projected to reach \$6.66 billion by 2023 (Statista, 2022a). ASEAN's embrace of digital transformation across diverse sectors is expected to yield significant benefits through increased value-added, innovation, and economic growth in the region's digital economy.

4.2.3. Digital Connectivity

It is crucial to establish robust digital and physical infrastructure to unlock ASEAN's full economic potential. The development of strong physical and digital infrastructure is vital for ensuring connectivity. Physical infrastructure includes the construction of reliable roads, ports, railways, airports, power plants, and logistics hubs. Digital infrastructure encompasses the development of broadband access, hardware, software, data centres, and modern networks. By integrating digital payment systems and implementing modern digital technologies across governments and businesses in their production and service processes, ASEAN can facilitate seamless trade in goods and services throughout the region.

4.2.4. Digital Inclusivity

Reflecting on the accelerating pace of the digital era, it becomes evident that at its core, this digital transformation revolves around people. Amid the technological advancements and digital innovations, it is crucial to ensure that no one is left behind. The main imperative is to bridge the digital divide, increase the involvement of MSMEs, and reduce regional sectoral disparities, as digital technology holds the potential to improve productivity, promote trade, and create jobs in ASEAN. Digital inclusion is pivotal to empower economic players such as MSMEs to access financial services, expand operations, and partake in global digital transformation. By prioritising these efforts and initiatives, ASEAN can advance towards equitable growth and foster an inclusive digital economy.

4.2.5. Digital Sustainability

Digital technology has been extensively embraced across a broad spectrum of economic activities, necessitating an acknowledgement of the sustainability challenges in the region. The scope of digital transformation should encompass an understanding of the impact of digital technology on environmental sustainability. The prevailing mode of digital transformation often has adverse environmental effects, manifesting in unsustainable practices. Looking ahead, ASEAN should concentrate on promoting environmentally friendly usage of digital products, services, and centres. The initial steps towards sustainable digital transformation for the ASEAN community could involve the development of regional initiatives, the establishment of regional standards, and the provision of training on green digital transformation and the circular economy.

In conclusion, recognising the intricate interplay between digitalisation and its foundational three pillars, ASEAN has opportunities to leverage the potential of digital technology. This potential can be channelled to drive economic growth, elevate social well-being, and strengthen regional integration. Such an endeavour demands strategic investments and resource allocation, resilient regulatory frameworks, and collaborative efforts.

5. Follow-up Actions

The ADC 2045 aims to serve as a long-term vision for ASEAN to enhance the development of the region's digital landscape, aligning with the three pillars of ASEAN. To date, ADC 2045 has been endorsed by the AMS in the ASEAN Leaders' Declaration on ASEAN as an Epicentrum of Growth during the 43rd ASEAN Summit on 5th September 2023 (ASEAN, 2023). The leaders acknowledge that only through a steadfast commitment to a long-term digital vision can ASEAN optimise the use of digital technologies for its people, ensuring sustainable and inclusive growth for the entire region. To actualise this vision, ASEAN must now undertake follow-up actions to establish a thriving and comprehensive digital community by 2045.

First, it is imperative for ASEAN to embark on a feasible action plan as a strategic and concerted path forward. Translating aspirations into tangible outcomes requires the formulation of a comprehensive ASEAN action plan with clear targets. This plan should be complemented by individual national plans aligned with regional goals and accompanied by annual targets to ensure progress tracking.

Second, the completion of both national and regional action plans should be accompanied by a robust review and evaluation process. This critical step ensures an assessment of the effectiveness of policies and their implementation. A specific strategy involves addressing the need to mobilise resources for both physical and digital connectivity. It is essential for ASEAN to implement connectivity projects with adequate resources, ensuring seamless interconnectedness within the region.

Last, governments across ASEAN should prioritise upscale programmes to develop human capital at both regional and national levels. This involves (i) enhancing workers' skill sets through vocational training, enabling them to compete and excel in job markets; (ii) improving technological adoption and digital literacy rates by integrating digitalisation into the education curriculum and providing business incentives for utilising digital technologies; (iii) supporting entrepreneurs to create new businesses and foster innovation; and (iv) raising awareness of sustainable digital practices and amplifying research on environmentally friendly technologies.

ASEAN faces a significant journey to shape its digital economic community. The imperative lies in detailed and transparent coordination amongst AMSs, complemented by the formation of a task force. This is essential to ensure clear measures, indicators, and traceability of each AMS' digital economy status, advancing its digital development agenda. The envisioned realisation of the ASEAN Digital Community 2045 aims to empower the region to mount more adept responses to global economic disruptions and uncertainties. Furthermore, this initiative seeks to position ASEAN as a key player in the global digital economy, striving to achieve sustainable development with a commitment to leaving no one behind.

References

- Asian Development Bank (ADB) (2022), *Asian Economic Integration Report 2022: Advancing Digital Services Trade in Asia and the Pacific*. Manila: Asian Development Bank. <https://www.adb.org/publications/asian-economic-integration-report-2022>
- Association for Southeast Asian Nations (ASEAN) (2016), *Framework on Personal Data Protection*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2012/05/10-ASEAN-Framework-on-PDP.pdf>
- (2018), *Framework on Digital Data Governance*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2012/05/6B-ASEAN-Framework-on-Digital-Data-Governance_Endorsedv1.pdf
- (2019), *ASEAN Digital Integration Framework Action Plan (DIFAP) 2019–2025*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2018/02/AECC18-ASEAN-DIFAP_Endorsed.pdf
- (2020a), *ASEAN Comprehensive Recovery Framework*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2021/09/ASEAN-Comprehensive-Recovery-Framework_Pub_2020_1.pdf
- (2020b), *ASEAN Comprehensive Recovery Framework: Implementation Plan*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2021/08/ACRF-Implementation-Plan_Pub-2020.pdf
- (2021a), *ASEAN Data Management Framework: Data Governance and Protection Throughout the Data Lifecycle*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2-ASEAN-Data-Management-Framework_Final.pdf
- (2021b), *ASEAN Digital Masterplan 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2021/09/ASEAN-Digital-Masterplan-EDITED.pdf>
- (2021c), *The Bandar Seri Begawan Roadmap: An ASEAN Digital Transformation Agenda to Accelerate ASEAN's Economic Recovery and Digital Economy Integration*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2021/10/Bandar-Seri-Begawan-Roadmap-on-ASEAN-Digital-Transformation-Agenda_Endorsed.pdf
- (2021d), *Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2021/09/Work-Plan-Ecommerce-Agreement_Annex-A_Endorsed.pdf
- (2022), *ASEAN Statistical Yearbook 2022*. Jakarta: ASEAN Secretariat. <https://www.aseanstats.org/publication/asyb2022/>
- (2023), *Boracay Digital Declaration*. <https://asean.org/wp-content/uploads/2023/02/Boracay-Aklan-Digital-Declaration-ADOPTED-1.pdf>
- (n.d.) *Our Communities*. Jakarta: ASEAN Secretariat <https://asean.org/our-communities/>

- Baijal, A., F. Hoppe, W. Chang, S. Davis, and F.W. Hoong (2022), 'e-Conomy SEA 2022: Through the Waves, Towards a Sea of Opportunity', *Bain & Company*, 27 October. <https://www.bain.com/insights/e-conomy-sea-2022/>
- Bhattacharyya, A. (2010), 'Understanding Security in Regionalism Framework: ASEAN Maritime Security in Perspective', *Maritime Affairs: Journal of the National Maritime Foundation of India*, 6(2), pp. 72–89. <https://doi.org/10.1080/09733159.2010.559786>
- Benavides, L.M.C., J.A. Tamayo Arias, M.D. Arango Serna, J.W. Branch Bedoya, and D. Burgos (2020), 'Digital Transformation in Higher Education Institutions: A Systematic Literature Review', *Sensors*, 20(11), p.3291. <https://pubmed.ncbi.nlm.nih.gov/32526998/>
- Dabla-Norris, E., et al. (2023), 'Accelerating Innovation and Digitalization in Asia to Boost Productivity', *Departmental Papers*, Washington, DC: International Monetary Fund. <https://www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2023/01/08/Accelerating-Innovation-and-Digitalization-in-Asia-to-Boost-Productivity-523807>
- Economist Impact (EIU) (2022), *The Inclusive Internet Index*. London: The Economist Group. <https://impact.economist.com/projects/inclusive-internet-index/>
- Fuchs, C. (2006), 'The Implications of New Information and Communication Technologies for Sustainability', *Environment, Development, and Sustainability*, 10, pp. 291–309. <https://link.springer.com/article/10.1007/s10668-006-9065-0>
- Ha, H. and C.K.P. Chuah (2023), 'Digital Economy in Southeast Asia: Challenges, Opportunities and Future Development', *Southeast Asia: A Multidisciplinary Journal*, 23(1), pp.19–35. DOI:10.1108/SEAMJ-02-2023-0023
- Infrastructure Asia (n.d.), *The Catalytic Role of Digital Connectivity*. Singapore: Infrastructure Asia. <https://www.infrastructureasia.org/Insights/The-catalytic-role-of-digital-connectivity>
- Ing, L.Y., G. Grossman, and D. Christian (2022), 'Digital Transformation: "Development for All"?' in L.Y. Ing and D. Rodrik (eds.) *New Normal, New Technology, New Financing*. Jakarta: ERIA and IEA, pp.76–88.
- Ing, L.Y. and I. Markus (2023), 'ASEAN Digital Community 2040', *Policy Brief*, No. 2022-11. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA). <https://www.eria.org/research/asean-digital-community-2040/>
- Intaratat, K. (2022), 'Digital Literacy and Digital Skills Scenario of ASEAN Marginal Workers Under and Post COVID-19 Pandemic', *Open Journal of Business and Management*, 10(1), pp.118–33. https://www.researchgate.net/publication/357501406_Digital_Literacy_Digital_Skills_Scenario_of_ASEAN_Marginal_Workers_Under_Post_COVID-19_Pandemic
- Kolbanev, M.O., I.I. Palkin, and T.M. Tatarnikova (2020), 'The Challenges of the Digital Economy', *Hydrometeorology and Ecology*, 5, pp.156–67. <https://www.semanticscholar.org/paper/The-challenges-of-the-digital-economy-Kolbanev-Tatarnikova/f3856bfb877f36ae5f13e3021cb730e33ffe6a9a>

- Lazovic, V. and T. Durickovic (2014), 'The Digital Economy in Developing Countries – Challenges and Opportunities' in P. Biljanovic et al. (eds.) *2014 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO)*. Rijeka, Croatia: Croatian Society for Information and Communication Technology, Electronics and Microelectronics (MIPRO), pp.1580–85. <https://ieeexplore.ieee.org/document/6859817>
- Lee, Y. (2021), 'Southeast Asia is World's Fastest-Growing Mobile Wallet Market', *Bloomberg News*, 8 July. <https://www.bloomberg.com/news/articles/2021-07-08/southeast-asia-is-world-s-fastest-growing-mobile-wallet-market>.
- López González, J. and M. Jouanjean (2017), 'Digital Trade: Developing a Framework for Analysis', *OECD Trade Policy Papers*, 205, Paris: Organisation for Economic Co-operation and Development (OECD) Publishing, <https://doi.org/10.1787/524c8c83-en>.
- Martinus, M., and F.N. Seth (2023), 'Current Key Drivers of ASEAN Integration: Digital Skills and Mobilities', 6 July. <https://fulcrum.sg/current-key-drivers-of-asean-integration-digital-skills-and-mobilities/>
- Nielsen, M.M., I.K Rohman, and N.V. Lopes (2018), 'Empirical Analysis of the Current Digital Divides Since 2010', in A. Kankanhalli, A. Ojo, and D. Soares (eds.) *ICEGOV '18: Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance*. New York: Association for Computing Machinery, pp.616–25. DOI:10.1145/3209415.3209493
- Organisation for Economic Co-operation and Development (OECD) (2016), *Innovating Education and Educating for Innovation: The Power of Digital Technologies and Skills*. Paris: OECD. https://www.oecd.org/en/publications/innovating-education-and-educating-for-innovation_9789264265097-en.html
- (2019), *Unpacking E-commerce: Business Models, Trends and Policies*, Paris: OECD Publishing. <https://doi.org/10.1787/23561431-en>.
- (2023), *Key Issues in Digital Trade Review*. Paris: OECD. <https://doi.org/10.1787/b2a9c4b1-en>. [Accessed on 14 March 2024].
- Oppitz, M. and P. Tomsu (2018), 'Security and Privacy Challenges' in *Inventing the Cloud Century: How Cloudiness Keeps Changing Our Life, Economy and Technology*. Cham, Switzerland: Springer, pp.377–410. DOI:10.1007/978-3-319-61161-7_14
- Samuel, G., F. Lucivero, and L. Somavilla (2022), 'The Environmental Sustainability of Digital Technologies: Stakeholder Practices and Perspectives', *Sustainability* 2022, 14, 3791. <https://doi.org/10.3390/su14073791>.
- Singapore Institute of International Affairs (SIIA) (2022), *Charting ASEAN's Digital Future: Emerging Policy Challenges*. Singapore: Singapore Institute of International Affairs. <https://www.siiasonline.org/charting-aseans-digital-future-emerging-policy-challenges/>
- Statista (2022a), *Digital Health – Market Data Analysis and Forecast*. Hamburg: Statista. <https://www.statista.com/study/116507/digital-health-report-2022/#:~:text=The%20Digital%20Health%20market%20consists,US%24256.3%20billion%20by%202027>.

- (2022b), *eCommerce — ASEAN*. Hamburg: Statista. <https://www.statista.com/outlook/emo/ecommerce/asean?currency=USD> (accessed 13 March 2024)
- (2023), *Digital Payments – Southeast Asia*. Hamburg: Statista. <https://www.statista.com/outlook/dmo/fintech/digital-payments/southeast-asia> (accessed 6 July 2023).
- (2024), *Retail E-Commerce Sales Worldwide from 2014 to 2027*. Hamburg: Statista. <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/> (accessed 12 December 2024).
- Suvannaphakdy, S. (2022), *Better Safeguards Needed for Trusted Data Use in ASEAN Countries*, Singapore: ISEAS – Yusof Ishak Institute. <https://www.iseas.edu.sg/articles-commentaries/iseas-perspective/2022-67-better-safeguards-needed-for-trusted-data-use-in-asean-countries-by-sithanonxay-suvannaphakdy/>
- Tang, D. (2021), 'What Is Digital Transformation?' *The EDP Audit, Control, and Security Newsletter (EDPACS)*, 64(1), pp.9–13. <https://doi.org/10.1080/07366981.2020.1847813>
- United Nations Conference on Trade and Development (UNCTAD) (2022), 'Digital Trade: Opportunities and Actions for Developing Countries', *Policy Brief*, 92, Geneva: UNCTAD. <https://unctad.org/publication/digital-trade-opportunities-and-actions-developing-countries>
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and ASEAN (2021), *Digital and Sustainable Trade Facilitation in the Association of Southeast Asian Nations (ASEAN) 2021*. Bangkok: UNESCAP and Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2022/01/ASEAN-report-2021-FINAL_Low-res.pdf
- World Economic Forum (WEF) (2021), *ASEAN Digital Generation Report: Pathway to ASEAN's Inclusive Digital Transformation and Recovery*. Davos: WEF. https://www3.weforum.org/docs/WEF_ASEAN_Digital_Generation_2021.pdf

4.

ASEAN in the Post-2025 Digitally Empowered Factory Asia

Lurong Chen

1. Introduction

The Association of Southeast Asian Nations (ASEAN) has long been distinguished for its unique approach to regional integration, prioritising market-driven (de facto) processes over formal (de jure) mechanisms. This strategy has fuelled cross-border production linkages and fostered economic cooperation amongst its member states (Baldwin, 2005; Venables et al., 2006; Chen, 2007; Kimura, 2008; Nicholas, 2010). Over the past decade, ASEAN's strategic landscape has shifted substantially. The establishment of the ASEAN Economic Community (AEC) in 2015 marked a milestone, representing a pivotal step rather than an endpoint of ASEAN's integration journey (Chen et al., 2017; Intal and Chen, 2017; Rillo, 2018). The AEC Blueprint 2025, succeeding the 2015 blueprint, aims to advance economic integration with heightened emphasis on increasing connectivity; enhancing economic competitiveness; and advancing a people-oriented, people-centred ASEAN through technology and innovation.

ASEAN has made significant efforts in strengthening inter-regional ties and deepening engagement with global partners. The signing of the Regional Comprehensive Economic Partnership (RCEP) in November 2020 established the world's largest free trade area, covering nearly 30% of the global gross domestic product (GDP) and population. This agreement is poised to reshape trade dynamics across the region by simplifying customs procedures, setting new standards for e-commerce, and bolstering supply chain linkages (Chen, 2016). ASEAN continues to attract significant foreign direct investment (FDI). According to ASEAN Investment Report (2021), FDI inflows to ASEAN surpassed US\$137 billion in 2020, despite the global economic downturn. This resilience underscores ASEAN's enduring attractiveness to foreign investment and demonstrates the region's potential to maintain a fast pace of development in the next decade.

Globally, digitalisation has triggered some fundamental social-economic changes that are wider, deeper, and less predictable than ever. In the 21st century, digitalisation is transforming the world economy into a better-connected, smarter, and more efficient system (Chen, 2023). Beyond its economic implications, digitalisation is driving social transformation by reshaping the ways people connect and interact (Chen and Kimura, 2019). Despite the recessionary drag from the pandemic, digital

solutions have effectively supported government measures to limit mobility, whilst enabling people and businesses to grasp new market opportunities. From 2017 to 2021, global e-commerce revenue doubled. By the end of 2023, annual global e-commerce revenue reached US\$3.6 trillion (Statista, 2024).

ASEAN and East Asia now host the world's fastest-growing online market. By 2018, half of ASEAN's 680 million population had used digital payments to purchase goods and services, representing a market valued at US\$72 billion with an average annual growth rate of 25%–35% projected from 2018 to 2028 (Google and Temasek, 2019). Statista (2024) forecasts that from 2025 to 2030, ASEAN's average annual growth in e-commerce revenue relative to regional GDP will be twice the global ratio of e-commerce to GDP growth. This positions ASEAN to leverage digital technology and sustainable practices to empower Factory Asia and further unleash its potential for development.

The ASEAN policy landscape underscores the strategic importance of digitalisation in regional development. The AEC Blueprint 2025 and the ASEAN Socio-Cultural Community (ASCC) Blueprint 2025 highlight the integration of digitalisation into ASEAN regional development goals (ASEAN Secretariat, 2015, 2016). The ASEAN Digital Integration Framework Action Plan further outlines policy priorities such as expanding connectivity and enhancing regulatory frameworks to foster a digital-friendly environment that supports economic growth and innovation. As Intal and Chen (2017) argued, ASEAN's pursuit of a highly integrated and cohesive economy aims not only to position ASEAN at the forefront of Asian regionalism but also to enhance the overall competitiveness of the broader Asian economy on the global stage.

This chapter explains why ASEAN should prioritise digital transformation as a key regional development strategy in the post-2025 era. It discusses the challenges facing ASEAN and suggests that the region address these by accelerating digitalisation and deepening market integration. The rest of the chapters are organised as follows. Section 2 explores the formation of Factory Asia, showing its importance in global value chains (GVCs) and regional development. Section 3 illustrates how the digital revolution is transforming GVCs, elevating them to a new stage. Section 4 provides policy suggestions for empowering Factory Asia through digitalisation to achieve sustainable economic prosperity over the next decade.

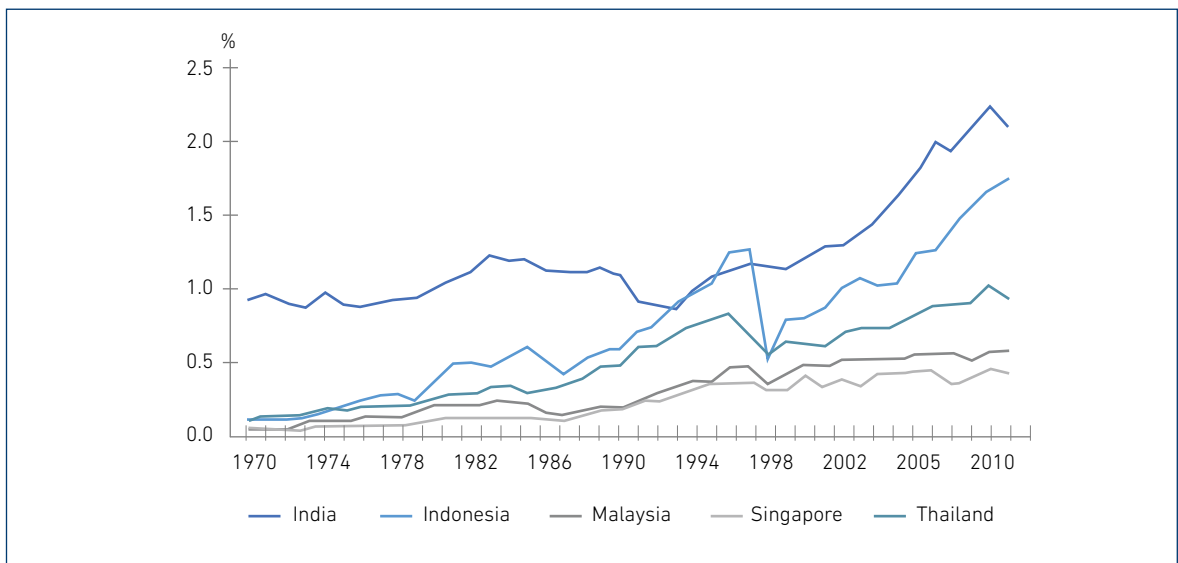
2. ASEAN as a Hub in Factory Asia

Globalisation in the second half of the 20th century diverged significantly from its 19th-century predecessor by widening the spectrum of goods and services entering international trade. This shift was driven by the fragmentation, unbundling, and offshoring of production processes. Unlike traditional integrated production patterns, fragmented production technologies allow discrete stages of production to be geographically distributed (Jones and Kierzkowski, 1990, 1998; Baldwin, 2007; Chen et al., 2017). This segmentation enables competitiveness to be assessed at the sub-stage of production rather than across an entire production chain. As a result, the characteristics and productivity of various labour categories can be more clearly defined, fostering a finer division of labour. This dynamic has underpinned the rise of global production sharing, in which trade and investments are increasingly organised within GVCs.

The development of an intensive regional production-sharing network is one of the core characteristics of the 'Asian way' of economic integration (Chen, 2007). This approach has fuelled what is often referred to as the 'East Asian miracle', where certain Asian economies achieved within a few decades levels of industrialisation that had taken advanced economies over a century to attain. Baldwin (2005) credits such success to the integrated network of production and supply chains across Asia – dubbed Factory Asia – characterised by multilayered networks interconnected by intensive cross-border production-sharing activities.¹

Within Factory Asia, ASEAN has established itself as a central hub, working symbiotically with East Asian economies. Manufacturing processes are internationally fragmented and shared amongst countries, leveraging their comparative advantages. This cooperative competition for outsourced tasks from advanced economies has fostered unilateral trade liberalisation and spurred regional integration across East Asia. ASEAN's evolution illustrates how deepening intra-regional connections and advancing economic globalisation can be mutually reinforcing (Chen and De Lombaerde, 2019). In addition to their commitment to community-building initiatives – such as the AEC, the ASSC, and the ASEAN Political Security Community – ASEAN Member States (AMS) have actively promoted trade liberalisation through multilateral and bilateral agreements. Initiatives such as the RCEP and various legal mechanisms for regional integration² have fostered cross-border economic interactions and coordination. This integrated approach has enabled ASEAN to function as a unified production base and an 'export platform' within the global economy. For instance, ASEAN's share of global manufacturing value has been increasing over time (Figure 4.1).

Figure 4.1. Manufacturing Value Added as Shares of Global Value Added



Source: Asian Development Bank (2013).

¹ Factory Asia evolved from the concept of 'wild-geese-flying' pattern, as envisioned by Akamatsu (1962) and Kojima (1970), which described the region-wide process of sequential industrialisation.

² Although ASEAN integration followed a top-down approach, the treaties and agreements amongst AMSs were either non-binding or, when binding, lacked a practical and effective mechanism for monitoring and enforcement (Chen and De Lombaerde, 2019).

ASEAN's development since the mid-20th century can be understood as the joint outcome of globalisation and regional integration. The evolution of Factory Asia occurred in dynamic markets shaped by the interplay of globalisation and the strengthening of economic linkages between economies. Factory Asia's structure was shaped by the principles of open regionalism, which ensured sustained economic integration and cooperation through non-discriminatory, transparent, and mutually beneficial policy, as Drysdale (1988) insightfully pointed out.

ASEAN's economy has become a critical link in GVCs. Over time, its strength has expanded beyond lower-end manufacturing to include high-tech products and services, attracting multinational corporations looking to leverage global competitiveness by outsourcing production activities to the region.

Factory Asia's performance is largely determined not only by global demand but also by the supply of high-tech inputs from the West, mainly via the exchange of parts and components, which are critical to its overall export capacity (Chen and Kimura, 2019). This deep interdependence with the world economy is, however, a double-edged sword. On the one hand, it provides the external circumstances necessary for successful export-driven growth. On the other hand, it exposes Asian economies to vulnerabilities during economic crises, trade tensions, or global disruptions such as the coronavirus disease (COVID-19) pandemic. For advanced economies such as Japan, these risks are mainly demand-driven. In contrast, for China and developing ASEAN countries, which remain competitive in labour-intensive activities, vulnerabilities stem from both the demand and the supply sides of the equation.³

3. Digitalisation as a New Driver of Global Value Chains

Baldwin (2016) divides the progression of technological innovation and economic globalisation since the 18th century into four distinct stages,⁴ showing how this evolution gave birth to international trade and nurtured its development. Throughout these stages, technological progress has consistently reduced costs, enabling finer levels of economic specialisation. Alongside globalisation, new technologies have facilitated an increasingly detailed international division of labour.

ASEAN's success is inextricably linked to the expansion of GVCs, which emerged during the era of the second unbundling. This expansion was driven by the international fragmentation of production, enabled by advancements in communication and information technology (ICT). The 20th century information revolution, which first saw the use of radio, television, satellites, and analogue office automation devices, later progressed to the use of personal computers, computer networks, and digital devices. These innovations significantly reduced transport and communication costs, making remote business administration more accessible and affordable. This technological progress revolutionised

³ The performance of Asian economies during the 2008–2009 crisis exposed Factory Asia's high level of vulnerability to external shocks. This vulnerability mainly originated from the passive position of the region in value chains due to its heavy reliance on foreign demand and technological inputs within the real economy (Chen and De Lombaerde, 2010).

⁴ The four stages are (i) the pre-globalisation world, (ii) the first unbundling (the separation of production and consumption), (iii) the second unbundling (the international fragmentation of production), and (iv) the third unbundling (further fragmentation of production tasks).

the organisation of international economic activities. Production, which was traditionally an integrated process, became fragmented, geographically dispersed, and interconnected through service links. These links enabled different stages of production to take place in various locations whilst remaining efficiently coordinated.

The second unbundling lowered the thresholds for joining the international division of labour, allowing more firms, especially small and medium-sized enterprises (SMEs), to benefit from global production sharing. For developing countries, participation in GVCs provides new thoughts on economic development. Trade and investment liberalisation became widely accepted, and the East Asian 'economic miracle' provided compelling evidence that economic openness and market integration facilitate access to global markets, driving prosperity. Service links, especially those in business and financial services that facilitate GVC coordination, have made great strides.

As a result, the world economy has become increasingly interconnected via GVCs, with more goods being traded and more countries participating in international trade. This is evident in the rapid growth of worldwide maritime trade, where transport volumes have nearly tripled from 4 billion tonnes in 1990 to over 11 billion tonnes in 2021. Asia, as the 'factory of the world', has remained the leader in maritime freight. According to the United Nations (UN) Trade and Development (2023), Asian ports account for over 40% of all goods loaded worldwide and handle almost two-thirds of total goods discharged worldwide.

Since its early development, the Factory Asia model has faced challenges, especially the need to upgrade technological capabilities and develop human capital within ASEAN. These challenges also present opportunities, motivating the region to move towards higher-value, technology-driven industries. The 21st century marked the onset of the third unbundling, which opened a new chapter in economic globalisation whilst continuing the trends triggered and promoted by the first and second unbundling. The second unbundling enabled and facilitated international production sharing, whilst the third unbundling focused on facilitating international idea sharing. Digital technologies⁵ are driving down trade costs across all dimensions, especially those associated with people-to-people connections. These advancements enable people separated by vast distances to share ideas and collaborate in real time via cyberspace.

The third unbundling extends and deepens GVCs. Digital solutions blur the boundaries between different stages of value chains, enabling firms to fragment tasks further across international borders whilst benefiting from the reduced cost of people-to-people connections. Digitalisation increases automation and makes supply chains 'smarter'. With data as the new oil, the adoption of digital technologies strengthens GVC efficiency by improving connectivity, increasing network transparency, and reducing vulnerabilities to external shocks.

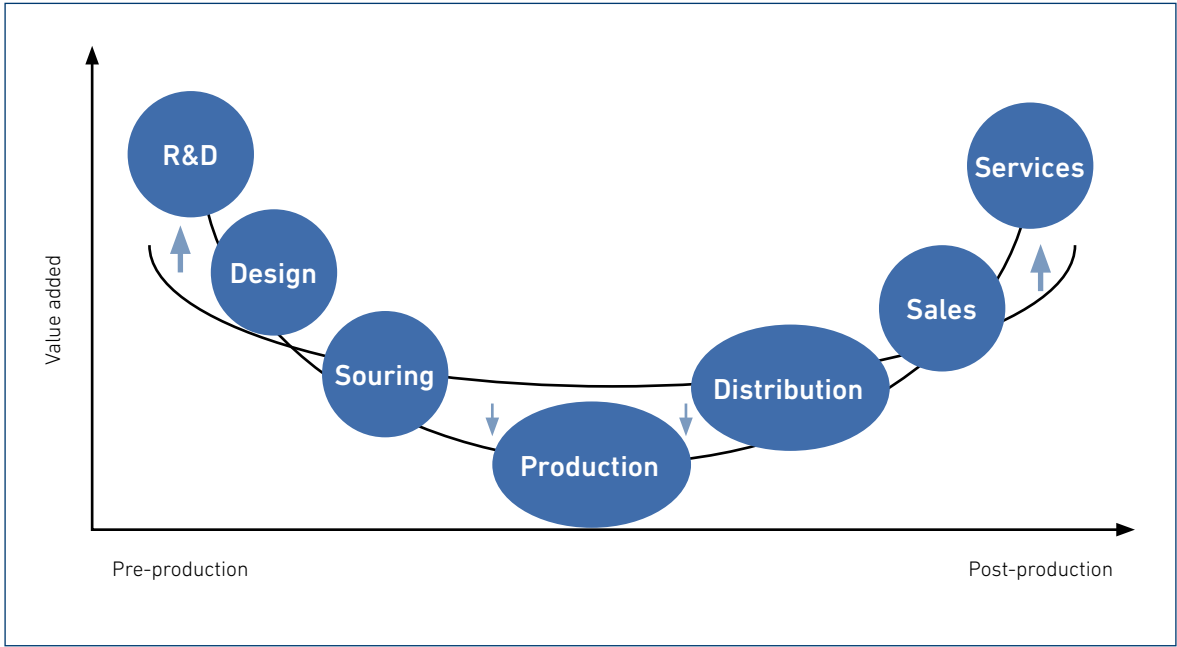
The application of digital technologies and related business models makes services much more innovative and productive. Digital-empowered service links, whether digitally enabled or digitally born, improve GVC coordination and drive network extension. For that reason, the overall efficiency of production is determined not only by the productivity of sub-stage production activities but also by the efficiency of service activities that link the value chains.

⁵ The use of SMACI technologies (social media, mobile apps, artificial intelligence, cloud computing, and Internet of Things) has further facilitated the movement of people, skills, and services.

These advancements have substantially lowered the barriers to international collaboration in innovation. Beyond manufacturing, research and development (R&D) and scientific activities now benefit from global sharing, as well. A prime example is the Human Genome Project (HGP), which shows how a large, well-organised, and highly collaborative international effort can achieve one of the most ambitious and important scientific endeavours in history.

The HGP aimed to comprehensively sequence the exact order of chemical base pairs that make up segments of DNA (deoxyribonucleic acid). Given that human genomic DNA is composed of 3 billion chemical base pairs, decoding its sequence initially seemed beyond the capacity of any single institute or country when the project was initiated in the 1990s. The key to the HGP's success was global sharing. The project assembled interdisciplinary groups from 20 universities and research centres across the United States, the United Kingdom, France, Germany, Japan, and China. Experts in engineering, biology, computer science, and other fields worked collectively to achieve the sequencing of the entire human genome by 2003. This success story highlights the significance of global R&D sharing in inspiring human creativity. As a result, R&D and service activities tend to generate higher value-added contributions, further accentuating the upward curve of the GVC 'smiling curve' (Figure 4.2).

Figure 4.2. GVC Smiling Curve



Source: Author.

The development of the digital economy relies heavily on support from GVCs. Integrating digital technologies into business operations creates opportunities for new products, services, and markets. Combining digital technology with innovations in materials and energy is widely recognised as a key to unlocking huge market potential. Estimates by the World Economic Forum and Kearney (2018) show that adopting Industry 4.0 in ASEAN could increase the region's overall productivity by more than US\$200 billion and increase revenue by over US\$40 billion.

It is worth noting that today's technologies – especially cutting-edge innovations with the most promising market prospects, such as artificial intelligence, autonomous vehicles, drones, cloud computing, inventory optimisation algorithms, and predictive analytics – are far more complex than ever. AI, for instance, is not a stand-alone technology but a set of systems that enable machines to perform human-like cognitive functions. These cover machine learning, rule-based reasoning algorithms,⁶ recognition technologies for communication, and embodiment technologies such as autonomous robotics and human augmentation, which allow machines to operate like humans. Such increasing technological complexity necessitates the expansion and deepening of GVCs. Collaborative approaches amongst firms and countries are essential to nurturing and advancing these developments.

The semiconductor industry serves as a prime example of such collaboration. As one of the most innovative sectors underpinning the rapid evolution of digital technologies, semiconductor chips represent some of the most complex products ever manufactured. It would be wrong to think that chips could be made by a single company or even a single country. Chip production depends on intricate value chains that weave through several specialised segments, including chip intellectual property (IP) cores, electronic design automation tools, specialised materials, manufacturers of wafer fab equipment, chip designers, and chip foundries. Each segment is highly specialised and innovation-intensive. Companies within these segments feed their innovations up the value chain, culminating in fabrication plants that transform the designs into physical semiconductor chips.⁷

The increasing complexity of technology necessitates global production sharing within each specialised segment. For example, the dual-stage extreme ultraviolet (EUV) lithography system, a machine essential for making high-end chips, is more structurally complex and requires more components than an Airbus aeroplane. Comprising over 400,000 highly specialised, technology-intensive parts and components, its production demands an intricate global supply chain. ASML, the world's leading innovator in photolithography equipment, relies on a network of more than 4,600 tier-one global suppliers to produce EUV systems. Even more impressive, ASML employs over 14,000 R&D specialists across 16 R&D innovation centres in several countries to support its advanced technological capabilities and drive product development efforts (Figure 4.3).

⁶ These guide the machine on how to think, including in areas such as decision-making, expert systems, knowledge representation, planning and scheduling, search and optimisation, and more.

⁷ Their joint efforts in innovation have reduced the size of a transistor that a chip can optimally feature, from 130 nanometres in 2001 to 3 nanometres in 2022.

Figure 4.3. ASML's Global Network of Production and Innovation



Source: Author.

This will have deep implications for the development of Factory Asia in the digital era. Digitalisation and globalisation enable organisations to tap into a global talent pool, collaborate with experts worldwide, and leverage diverse skills and perspectives. Open-source platforms and online learning provide broader access to the latest technology, allowing individuals and organisations to actively participate in innovation.⁸ These developments accelerate workforce reskilling and upskilling, fostering the creation of more innovative solutions and products. To capitalise on this potential, Factory Asia must prioritise empowering its workforce through digitalisation.

4. Post-2025 Digital ASEAN

Digitalisation is reshaping the innovation landscape in the post-2025 era, making it faster, more collaborative, and more data-driven. Innovation is becoming a globally shared endeavour, and GVCs are evolving into ecosystems that are better connected, smarter, and more efficient (Chen, 2021). For ASEAN, a key priority in its post-2025 agenda should be strengthening regional competitiveness within GVCs by leveraging digitalisation. Policies must focus on integrating digital technologies, such as big data, cloud computing, and AI analytics, into R&D activities to speed up prototyping, testing, and iteration of new technologies.

⁸ Digital platforms, such as Apple's App Store and Google Play, provide a framework for third-party developers to create innovative applications and services, thereby expanding the ecosystem.

To keep ASEAN competitive in the digital economy – also known as the ‘creative economy’ or the ‘innovative economy’ – supporting innovative economic growth should stay at the core of regional development strategies. Despite their negative effects on regional development, the development gaps across AMSs and the coexistence of various patterns of economic unbundling can provide policymakers greater flexibility and an expanded policy space. Policymakers must design strategies that take into account global tendencies and regional or sector-specific conditions, balancing sequential economic upgrades and leapfrogging strategies for deeper integration into GVCs (Kimura and Chen, 2018). Integrating new technologies into traditional economic sectors can polish their competitive edge in the new economy.

To empower Factory Asia through digitalisation, ASEAN must prioritise policy efforts that support market-driven forces, with a focus on improving people-to-people connections as a core principle of decision-making. Digitalisation plays a pivotal role in this transformation, marking the third unbundling of economic globalisation. The market is poised to reward products or services that align with this global trend and actively facilitate people-to-people connections. More importantly, digital transformation extends beyond economic changes, representing a profound shift in how people live, work, and study. It is not merely an economic transformation but a social one as well. ASEAN should highlight the improvement of people-to-people connections as a cornerstone of post-2025 regional community-building, recognising digitalisation’s important implications for Asia’s development. The next Asian growth miracle could emerge from the digital transformation of Factory Asia into a new era (Chen, 2021). To accelerate this process, ASEAN must commit to sustained efforts to improve digital connectivity and establish robust digital trade rules.

4.1. Improving Digital Connectivity

Connectivity remains at the core of GVCs’ digitalisation. Factory Asia was built upon a well-connected regional production-sharing network and, in the digital era, effective connectivity requires more than just robust logistics and infrastructure to facilitate trade and the movement of factors. It also requires secure and efficient cyberspace connections to support seamless communication and information exchange. ASEAN must overcome difficulties arising from development gaps, including cross-border and urban–rural disparities, as well as constraints stemming from a lack of capital, skilled labour, and technological expertise.

Efforts to improve digital connectivity in the post-2025 ASEAN framework should be consistent with the three strategic pillars⁹ defined in the 2011–2015 master plan on connectivity and the five groups of strategic objectives¹⁰ specified in the Master Plan on ASEAN Connectivity 2025. However, these efforts must place greater emphasis on the significance of digital elements. Improving service quality to upgrade connection networks¹¹ is as important as building new infrastructure. Beyond ongoing investments in logistics and infrastructure, ASEAN should prioritise the development of connectivity-

⁹ The three strategic pillars are physical connectivity, institutional connectivity, and people-to-people connectivity (ASEAN, 2010).

¹⁰ The five groups of strategic objectives are sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility (ASEAN, 2017).

¹¹ Quality as measured based on speed, accuracy, transparency, reliability, and resilience.

related services to meet market demands for near-sourcing, omnichannel solutions, and faster transport options (Inbound Logistics, 2014). This dual approach – increasing network efficiency and meeting market needs – can simultaneously increase the utilisation and effectiveness of connection networks, generate jobs, and create more business prospects for micro, small, and medium-sized enterprises.

The adoption of digital solutions has already strengthened regional connectivity and delivered significant benefits for ASEAN's development over the past decade. The widespread use of smartphones, e-payment systems, and mobile applications has made internet access more accessible. According to Google and Temasek (2019), 90% of Southeast Asians use smartphones as their primary gateway to accessing information, social media, messaging platforms, and entertainment such as music and videos. Similarly, e-payment solutions have overcome obstacles posed by traditional banking networks, increasing financial inclusivity and enabling greater access to financial services. To accelerate digital transformation, prioritising the improvement of data connectivity is essential. A seamless flow of information, data, and ideas across various platforms, devices, and networks enables real-time collaboration, data sharing, and the integration of various technologies and systems, regardless of geographical location.

However, a bigger challenge lies in reaching an international consensus to realise the free flow of data with trust amongst countries. This issue has deep implications for the performance of Factory Asia in the digital era. On one hand, advancements in technology, such as the widespread use of smartphones, the internet, and technologies that facilitate data collection, processing, storage, and distribution, have eliminated many technical barriers to data flow. Today, much of the data is digital-born, inherently borderless, with its life cycle existing entirely in cyberspace.

On the other hand, the concept of 'trust' raises critical concerns about data accuracy, safety, and privacy protection. Whilst advancements in ICT facilitate broader use of data, they also increase risks such as data breaches, theft, or misuse. The free flow of data must be safeguarded by robust policy frameworks, especially as data increasingly becomes the main carrier of value.

Chen et al. (2019) propose a policy framework in which the free flow of data serves as a logical benchmark and is supported by the following measures: (i) policies for liberalisation and facilitation, (ii) policies to correct or mitigate market failures,¹² (iii) policies to reconcile social values and concerns with economic efficiency, (iv) policies to integrate data flows and data-related businesses into domestic policy regimes, and (v) strategic trade and investment policies (Figure 4.4). As Chen and Kimura (2019) point out, the overall efficiency of digital connectivity is determined by three key factors: the efficiency of physical connectivity, the robustness of connectivity within cyberspace, and the seamless integration between cyberspace and the physical parts of the network.

¹² In a data-driven economy, potential market failures may arise from network externalities, economies of scale, information asymmetry, or a combination of these factors.

Figure 4.4. Free Flow of Data with Trust Supporting Policy

Source: Chen et al. (2019).

4.2. Digital Trade Rule Setting

Despite the variety in definitions of digital trade provided by governments and organisations, international rule setting should build on a common understanding of digital trade governance. First, digital trade involves the trade of goods and trade of services. Digital solutions have shown their capacity to facilitate the transaction of materials, products, and capital, whilst digitalisation has transformed many previously non-tradable sectors into tradable ones.

Second, digitalisation has sharpened the competitive edge of data-driven business models. The delivery of an end product no longer marks the conclusion of a sale but represents a milestone leading to ongoing producer–consumer interactions (Chen, 2019). For that reason, cross-border data flows are a critical component of free trade. These flows facilitate other forms of trade, ranging from goods and services to international factor mobility, and enable the emergence of more efficient trade forms as new technologies develop.

Third, digital solutions create new sources of value-added for businesses. Accordingly, rules governing digital trade should address governing the whole GVC, including the trade of intermediate products and the service activities interwoven throughout production networks. This is particularly important as digitally enabled communication methods expand the coverage and depth of GVCs.

Fourth, digital trade is not solely a trade issue but a critical element of development and economic integration, especially in the context of the green economy, sustainability, and inclusive growth. Promoting digital trade calls for a broader regulatory framework addressing a wide range of related issues. The Group of Twenty (G20) Trade and Investment Working Group has identified the potential impact of digital trade across five domains: (i) market access, (ii) trade facilitation, (iii) data flow-related issues, (iv) competition, and (v) development impact. Table 4.1 categorises policies to mitigate digital trade barriers into four groups.

Table 4.1. Policies to Mitigate Digital Trade Barriers

Policy category	Issues
'Conventional' trade issues	Tariff, non-tariff measures (NTMs), trade facilitation, connectivity, dispute settlement mechanisms, etc.
Digital service trade	Digital taxation, intellectual property rights, business registration and licensing, competition law and regulation, border measures, labour movement, minimum service requirements, etc.
Free flow of data	Data governance, privacy protection, trust building, cybersecurity, etc.
Regulatory framework of digital trade	Interoperability, standardisation, industrial policy, domestic reform, etc.

Source: Compiled from Chen (2019).

4.2.1. 'Conventional' Trade Issues

The largest category of trade challenges contains 'conventional' issues affecting trade in goods and services. In many respects, international trade in the digital era is still subject to barriers that hindered free trade in the 20th century. Whilst these measures are generally referred to as 'conventional', digitalisation adds new complexities and elements that warrant further policy consideration.

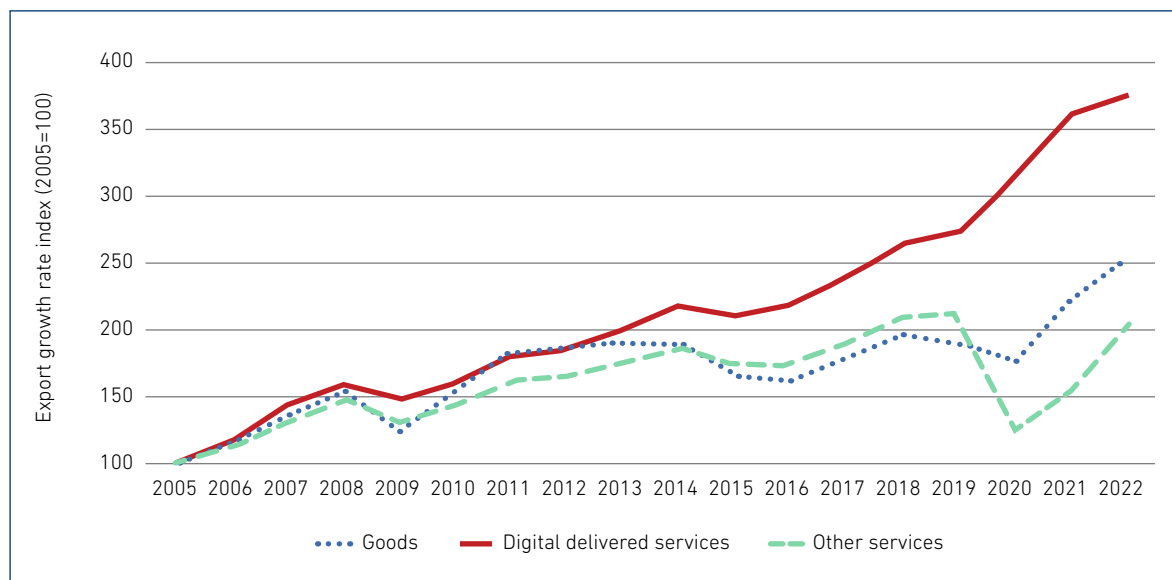
For example, with the fast growth of online markets and cross-border e-commerce, the 1998 World Trade Organization (WTO) Ministerial Declaration on Global Electronic Commerce and the 2019 moratorium on 'not imposing customs duties on electronic transmissions' have come under scrutiny. Tariffs on e-commerce have emerged as a contentious issue in the WTO's ministerial conferences. Although the literature on international trade illustrates that free trade benefits all parties, the advent of digital marketplaces has exposed mismatched paces of trade liberalisation between online and offline markets. This divergence can create regulatory gaps and distort fair competition. Indeed, measures restricting the liberalisation of the service sector and labour mobility in the physical world similarly hinder trade and factor mobility in cyberspace.

Wu (2017) points out that non-tariff measures (NTMs) associated with traditional trade can extend into digital trade, creating discretionary patterns that favour certain local players. Digitalisation can facilitate the emergence of new NTMs due to the growing complexity of global and investment networks or the use of digital means in policy design (Chen and Rillo, 2024). Administrative measures for digital products or services, such as technical standards for digital goods or quality inspection for digital services, may create technical barriers that restrict market access. Whilst these measures can yield long-term benefits, such as improved consumer or environmental protection, they can also impede trade in the short term.

Given the complexity of NTMs, the Asia-Pacific Economic Cooperation (APEC) (2018) suggested seven principles to mitigate their possible trade-restrictive effect. First, the application of NTMs and their procedures should be transparent to users. Second, the use of NTMs should lead to predictable and coherent outcomes. Third, NTMs must align with multilateral commitments and obligations, based on relevant and non-discriminatory international standards. Fourth, NTMs should be based on global standards. Fifth, NTMs must not favour specific players or discriminate unfairly. Sixth, NTMs should be limited in scope, targeting only precise and legitimate objectives. Finally, NTMs must not create unwarranted barriers to technological progress and innovation. ASEAN should incorporate these principles into its post-2025 initiatives to facilitate trade within the Factory Asia framework.

4.2.2. Digital Service Trade

The development of the service sector is crucial to unleashing the full potential of the digital economy. Digitalisation introduces new sources of value-added for businesses by facilitating the servicification of manufacturing activities. (Chen, 2023). As a result, a significant share of digital trade comprises trade in services, and many service-related trade issues have already been included in negotiations aimed at liberalising trade in services. A joint study by the World Bank, the WTO, the Organisation for Economic Co-operation and Development (OECD), and the UN shows that global exports of digitally deliverable services have been growing steadily, outpacing the growth of goods and other service exports (Figure 4.5).

Figure 4.5. Global Exports of Digitally Deliverable Services

Source: World Bank, World Trade Organization, Organisation for Economic Co-operation and Development, and United Nations (2023).

Given the importance of GVCs in the Asian economy, intellectual property rights (IPR) within the service sector should be prioritised as a key factor in attracting foreign investment and facilitating technology diffusion. Effective IP protection has become a de facto prerequisite for countries seeking to get involved in GVCs. Therefore, ASEAN must enhance its focus on strengthening IPR protections to promote cross-border technology transfer and innovation.

According to WTO statistics, IP-related services¹³ accounted for one-eighth of digitally delivered services exports in 2022. This was surpassed only by business, professional, and technical services (40%), computer services (20%), and financial services (16%) (WTO, 2023), showing the increasing importance of IPR in international trade in services. Addressing IPR-related trade barriers requires equal treatment of online violations, such as copyright and trademark infringements, on par with offline infringements. However, from the perspective of developing countries, a more important consideration in trade negotiations involving IP-related provisions should be to ensure that IP protection can subsequently contribute to technology transfer and innovation. It is essential to tailor protection strategies to meet the specific needs and schedules of latecomers, including the provision of targeted technical assistance.

¹³ IP-related services encompass a range of activities designed at helping individuals and organisations in protecting, managing, and leveraging their IPR. These services are crucial for navigating the complexities of IPR law and ensuring that creators and innovators can fully benefit from their intellectual efforts and investments.

4.2.3. Free Flow of Data

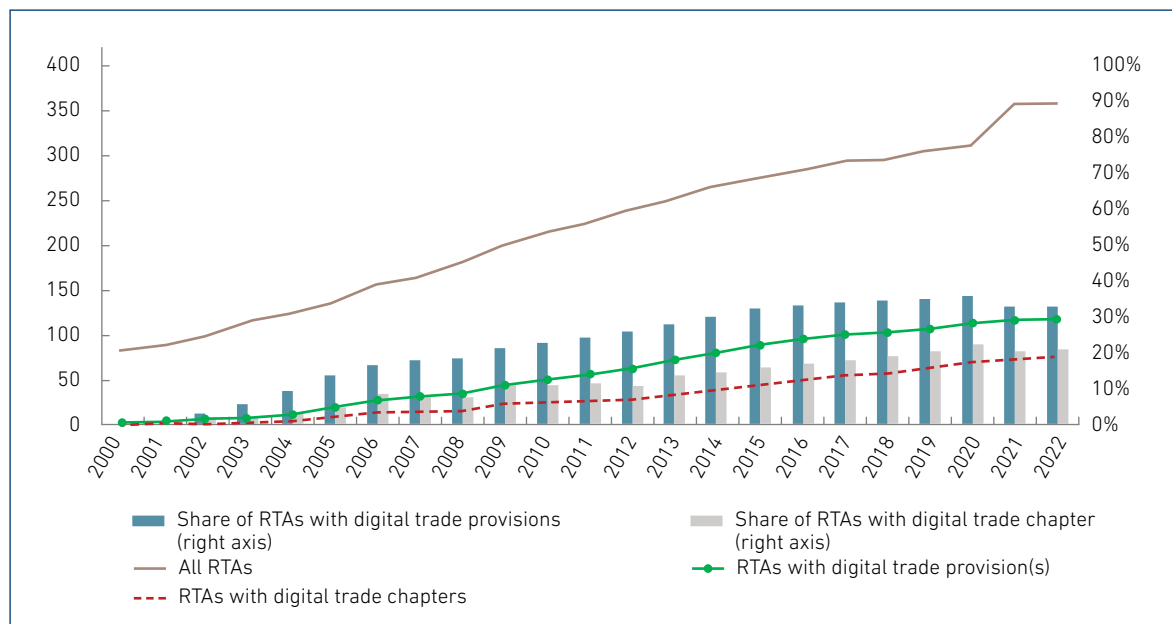
Compared to conventional sources of trade barriers, policy measures governing cross-border data flows are a topic of hot debate. The value and power of data in the digital economy cannot be overstated. From an economic point of view, any restrictions on the free flow of data cause losses in economic efficiency. For instance, data localisation requirements pose barriers for firms relying on big data and cloud computing for decision-making, lowering operational efficiency. Similarly, policies such as filtering, blocking, or impeding internet access distort markets and increase cross-border transaction costs, much like NTMs affect traditional international trade. The freer the flow of data, the higher the potential economic gains. Cross-border data transfers are subject to different privacy and data regulations across countries, creating challenges in balancing the need for unrestricted data flows to facilitate digital trade with the legitimate privacy and security concerns of individuals and nations.

ASEAN's post-2025 development strategy should prioritise trust-building and cybersecurity, framing the concept of 'free flow of data with trust' as a critical aspect of digital connectivity backed up by a supporting policy package.

One key focus should be international cooperation to improve data security and harmonise privacy legislation, as trust is fundamental to ensuring the smooth flow of data. Cyber threats and cybercrime, especially when orchestrated transnationally, can severely distort markets by disrupting business operations and supply chains. Despite their significant impact, there is still no comprehensive international legal framework to regulate transnational cybercrime and cyber fraud. In its post-2025 plan, ASEAN leaders must address these barriers by adopting a dual approach: develop international security standards or cross-compliance recognition frameworks for the design, architecture, and certification of critical infrastructure to ensure the safety and reliability of data flows; and through international cooperation, promote international norms of behaviour in cyberspace and intensify efforts to combat cybercrime. This involves a higher level of collaboration to strengthen data security and align cybersecurity practices.

4.2.4. Regulatory Framework of Digital Trade

It is recommended that AMS adopt a systematic approach to establish a comprehensive framework for facilitating digital trade whilst ensuring a rule-based competitive environment for the digital economy. In addition to multilateralism, negotiations on digital trade governance have increasingly taken place within bilateral and regional trade agreements. As of 2022, there were 116 such agreements containing digital trade provisions, representing 33% of all agreements notified to the WTO (Figure 4.6). These agreements cover a range of cross-cutting issues, including digital trade facilitation, privacy and data protection, consumer protection, source code regulations, customs duties on electronic transmissions, and cybersecurity collaboration to strengthen data security and align cybersecurity practices.

Figure 4.6. Regional Trade Agreements Containing Digital Trade Provisions

RTA = regional trade agreement.

Source: World Trade Organization (2023).

In Asia, Chapter 11 of the RCEP and Chapter 18 of the Comprehensive and Progressive Agreement for the Trans-Pacific Partnership (CPTPP) include provisions to facilitate cross-border e-commerce. When this chapter was being drafted, ASEAN was developing the Digital Economy Framework Agreement (DEFA), which seeks to establish a regulatory framework for digital trade. According to BCG (2023), DEFA negotiations will cover critical areas such as digital trade, cross-border e-commerce, digital payments, digital ID and authentication, online safety and cybersecurity, cross-border data flows and data protection, competition policy, talent mobility and cooperation, and regional cooperation on emerging issues.

To transform DEFA into a regional blueprint for development in the digital era, ASEAN must ensure interoperability between its regional rules and those of other parts of the world. This can be achieved by integrating guidance, such as the OECD's Going Digital Integrated Policy Framework, into regional policy design. Table 4.2 summarises the key elements of the framework.

Table 4.2. Summary of the Organisation for Economic Co-operation and Development's Going Digital Integrated Policy Framework

Policy Area	Notes
Access to communication infrastructure, services, and data	Policies addressing the availability and quality of digital infrastructure, such as broadband and mobile networks, internet access and affordability, and data management frameworks
Digital government	Adoption of digital technologies in public services, including e-government initiatives, digital public services, and citizen engagement
Digital skills and jobs	Efforts to improve workforce readiness, including digital literacy, skills development, and adaptation of the labour market to digitalisation
Trust in the digital environment	Ensuring trust and security in digital activities by addressing cybersecurity, data privacy, and consumer protection in the digital realm
Use of digital technologies	Promoting the adoption of digital technologies in business processes and fostering digital innovation
Market openness in the digital age	Improving the regulatory and policy environment for developing digital markets, including trade, competition, and investment in the digital sector
The broader impact of digital transformation on society and the economy	Policies addressing digital inclusion, the impact on well-being, and the digital divide

Source: Organisation for Economic Co-operation and Development (2020).

5. Conclusion

The internet and online activities have become an integral part of daily life. Online solutions have proven to be efficient substitutes for offline practices in many areas of society, from doing business to remote working and studying. These developments have driven significant shifts in attitudes towards digitalisation, both for institutions and individuals.

For Asia, accelerating digital transformation offers an opportunity to strengthen its position in GVCs and enhance its influence in global affairs. Achieving this requires an inclusive ecosystem supported by international norms to ensure a level playing field in the digital economy. The free flow of data is vital for 21st-century GVCs. However, this can only be realised through robust international rules and regulations that set clear boundaries for data use. It is important to bear in mind that digital solutions can either facilitate or hinder data flow and information sharing, depending on how they are applied. The biggest obstacle to global rule setting is not necessarily ideological and social-economic differences between countries but rather a lack of mutual trust. In the context of the 'free flow of data with trust', the concept of trust highlights concerns about data accuracy, safety, and privacy protection (Chen et al., 2019). Whilst advancements in ICT facilitate data usage, they also increase risks such as data breaches, theft, and misuse. Cross-border data flows are only feasible when trust amongst countries is established, backed by sound legal and regulatory frameworks.

Deepening regional integration with a focus on sustainability and the digital economy should stay at the core of ASEAN's post-2025 strategy of improving the global competitiveness of a more resilient and innovative Factory Asia. The region's achievements in integration provide a relatively high starting point for trust-building. For instance, the establishment of the RCEP facilitates integration by creating unified standards and reducing trade barriers amongst member countries and their partners. Similarly, ASEAN's bilateral dialogue mechanisms serve as platforms for sharing ideas and enhancing mutual understanding, paving the way for agreements that support the free flow of data with trust (Chen and Rillo, 2024). Whilst technological progress is the most important factor of digitalisation, other factors, such as changes in the global economic order, geopolitical shifts, and resulting social transformations, can influence or even alter its direction. Policymakers must account for these factors when making decisions.

To sustain its role in the post-2025 digitally empowered Factory Asia, ASEAN needs a full package of backup policies that comprehensively cover various areas of development. Improving digital connectivity and establishing robust regulatory frameworks for digital trade are crucial to creating a digital-friendly ecosystem that can facilitate the region's digital transformation and unleash its potential for sustainable growth.

A more pressing long-term challenge for ASEAN lies in nurturing talent. The success of Factory Asia hinges on a highly skilled labour force. Digital technologies must, first and foremost, serve human development. Like any other technological progress, digitalisation can drive social progress positively only when it empowers human productivity. The widespread use of social media and online learning platforms has made access to information both convenient and affordable. An open, trustworthy, and democratic cyberspace can further enable knowledge acquisition and foster human development. The advancement of human capital will, in turn, reinforce the progress of digital technologies. In the post-2025 era, education will still play a key role in developing human capital. To this end, ASEAN must focus on the following: (i) cultivating a spirit of innovation and entrepreneurship; (ii) integrating ICT training into school curricula; (iii) leveraging ICT to increase the efficiency of teaching and learning, and (iv) promoting non-formal education initiatives, such as technical and vocational education and training (TVET), as well as certification programmes for various industrial qualifications, whilst strengthening their links with formal education systems.

References

- Akamatsu, K. (1962), 'A Historical Pattern of Economic Growth in Developing Countries', *The Developing Economies*, 1(1), pp.3–25.
- Asia-Pacific Economic Cooperation (2018), *Cross-cutting Principles on Non-Tariff Measures (NTMs)*. https://www.apec.org/meeting-papers/annual-ministerial-meetings/2018/2018_amm/cross-cutting-principles-on-non-tariff-measures (accessed 01 June 2024).
- Asian Development Bank (2013), *Beyond Factory Asia: Fuelling Growth in a Changing World*. <https://www.adb.org/sites/default/files/publication/30223/beyond-factory-asia-fuelling-growth.pdf>.

- Association of Southeast Asian Nations (2010), *ASEAN 2011–2015 Master Plan on Connectivity*. <https://asean.org/wp-content/uploads/2021/08/Master-Plan-on-ASEAN-Connectivity.pdf> (accessed 1 August 2024).
- Association of Southeast Asian Nations (2015), *ASEAN Economic Community (AEC) Blueprint 2025*. https://asean.org/wp-content/uploads/2021/08/AECBP_2025r_FINAL.pdf (accessed 1 August 2024).
- Association of Southeast Asian Nations (2016), *ASEAN Socio-Cultural Community (ASCC) Blueprint 2025*. <https://www.asean.org/wp-content/uploads/2012/05/8.-March-2016-ASCC-Blueprint-2025.pdf> (accessed 1 August 2024).
- Association of Southeast Asian Nations (2017), *Master Plan on ASEAN Connectivity 2025*. <https://asean.org/wp-content/uploads/2018/01/47.-December-2017-MPAC2025-2nd-Reprint-.pdf> (accessed 1 August 2024).
- Association of Southeast Asian Nations (2021), *ASEAN Investment Report 2020–2021: Investing in Industry 4.0*. <https://asean.org/wp-content/uploads/2021/09/AIR-2020–2021.pdf> (accessed 1 August 2024).
- Baldwin, R.E. (2005), 'Asian Regionalism: Promises and Pitfalls', in C. Y. Ahn, R. E. Baldwin, and I. Cheong (eds.), *East Asian Economic Regionalism*. Boston: Springer. pp.157–174.
- Baldwin, R.E. (2007), *Offshoring: General Equilibrium Effects on Wages, Production and Trade*. https://www.nber.org/system/files/working_papers/w12991/w12991.pdf (accessed 15 January 2009).
- Baldwin, R.E. (2016), *The Great Convergence: Information Technology and the New Globalization*. Cambridge: Belknap.
- BCG (2023), *Study on the ASEAN Digital Economy Framework Agreement*. https://asean.org/wp-content/uploads/2023/10/ASEAN-Digital-Economy-Framework-Agreement-Public-Summary_Final-published-version-1.pdf (accessed 1 August 2024).
- Chen, L. (2007), 'A Two-Hub Trading Bloc in East Asia?', in J.-K. Kim and P.-B. Ruffini (eds.), *Corporate Strategies in the Age of Regional Integration*. Cheltenham: Edward Elgar, pp.200–218.
- Chen, L. (2016), 'RCEP is not the Anti-TPP', *The Diplomat*, December 2016. <https://thediplomat.com/2016/12/rcep-is-not-the-anti-tpp/> (accessed 15 December 2024).
- Chen, L. (2020), 'Improving Digital Connectivity for E-Commerce: A Policy Framework and Empirical Note', in L. Chen and F. Kimura (eds.), *E-commerce Connectivity in ASEAN*. Jakarta: ERIA, pp.6–30.
- Chen, L. (2022), 'Digital Connectivity', in F. Kimura (ed.), *Comprehensive Asian Development Plan 3.0*. Jakarta: ERIA.
- Chen, L. (2023), 'The Indo-Pacific Partnership in Global Digital Trade Rule-Settings', in P. Anita (ed.), *Regional Integration in Indo-Pacific: Connectivity, Cooperation, and New Supply-Chain Linkages*. Jakarta: ERIA, pp.80–95.

- Chen L., W. Cheng, D. Ciuriak, F. Kimura, J. Nakagawa, R. Pomfret, G. Rigoni, and J. Schwarzer (2019), 'The Digital Economy for Economic Development: Free Flow of Data and Supporting Policies', *T20 Policy Brief*. <https://t20japan.org/wp-content/uploads/2019/03/t20-japan-tf8-4-digital-economy-economic-development.pdf> (accessed 15 December 2024).
- Chen, L., L. Cuyvers, and P. De Lombaerde (2017), 'Markets Matter: The Potential of Intra-Regional Trade in ASEAN and Its Implications for Asian Regionalism', *Asian Economic Papers*, 16(2), pp.1–19.
- Chen, L. and P. De Lombaerde (2019), 'ASEAN Between Globalization and Regionalization', *Asia Pacific Business Review*, 25(5), pp.729–50.
- Chen, L. and F. Kimura (2019), *Developing the Digital Economy in ASEAN*. New York: Routledge.
- Chen, L. and A.D. Rillo (2024), *Further ASEAN-China Cooperation for Joint Prosperity: Envisioning ACFTA 3.0 in the Digital Era*. Jakarta: ERIA.
- Drysdale, P. (1988), *International Economic Pluralism: Economic Policy in East Asia and the Pacific*. Sydney: Allen & Unwin Press.
- Intal, P. and L. Chen (2017), *ASEAN and Member States: Transformation and Integration*. Jakarta: ERIA.
- Jones, R.W. and H. Kierzkowski (1990), 'The Role of Services in Production and International Trade: A Theoretical Framework', in R. Jones and A. Krueger (eds.), *The Political Economy of International Trade*. Oxford: Basil Blackwell.
- Jones, R.W. and H. Kierzkowski (1998), 'Globalization and the Consequences of International Fragmentation', in R. Dornbusch, G. Calvo, and M. Obsfeld (eds.), *Money, Factor Mobility and Trade: The Festschrift in Honor of Robert A. Mundell*. Cambridge: MIT.
- Kimura, F. (2008), 'The Strategic Framework for Deepening Integration', in H. Soesastro (ed.), *Deepening Economic Integration: The ASEAN Economic Community and Beyond*. Jakarta: ERIA, pp.3–23.
- Kojima, K. (1970), 'Towards a theory of agreed specialization: The economics of integration', in W. A. Eltis, M. F. Scott, and J. N. Wolfe (eds.), *Induction, Growth and Trade: Essays in Honour of Sir Roy Harrod*. Oxford: Clarendon Press.
- Nicolas, F. (2010), 'De Facto and De Jure Regional Economic Integration in East Asia: How Do They Interact', *The Singapore Economic Review*, 55(01), pp.7–25.
- Organisation for Economic Co-operation and Development (2020), 'Going Digital Integrated Policy Framework', *OECD Digital Economy Papers* 292. Paris: OECD.
- Rillo, A.D. (2018), *ASEAN Financial Integration: Opportunities, Risks, and Challenges*. https://www.mof.go.jp/english/pri/publication/pp_review/ppr14_05_04.pdf (accessed 15 December 2024).
- Statista (2024), 'eCommerce: Market Data & Analysis', *Market Insights Report*, 42335.
- UN Trade and Development (2023), *Review of Maritime Transport 2023. Towards a Green and Just Transition*. Geneva: United Nations.

- Venables, A.J., L.A. Winters, and L. Yueh (2006), *Economic Integration in Asia: European Perspectives*. https://www.ide.go.jp/library/English/Publish/Reports/Jrp/pdf/138_1.pdf (accessed 15 January 2009).
- World Bank, WTO, OECD, and UN (2023). *Digital Trade for Development*. https://www.wto.org/english/res_e/booksp_e/dtd2023_e.pdf (accessed 15 December 2024).
- World Economic Forum and A.T. Kearney (2018), *Shaping ASEAN's Future Readiness: Collaborations to Advance Manufacturing and Production*. https://www3.weforum.org/docs/WP_Shaping_ASEAN_Future_Readiness_report_2018.pdf (accessed 15 December 2024).
- World Trade Organization (2023), *World Trade Statistical Review 2023*. https://www.wto.org/english/res_e/booksp_e/wtsr_2023_e.pdf (accessed 15 December 2024).
- Wu, M. (2017), *Digital Trade-Related Provisions in Regional Trade Agreements: Existing Models and Lessons for the Multilateral Trade System*. Geneva, Switzerland: International Centre for Trade and Sustainable Development.

5.

Data Policies for AEC Post-2025 Vision

Mira Burri and María Vásquez Callo-Müller

1. A Paradigm Shift: Data-Driven Trade

The digitalisation of the global economy has brought about a significant shift in international trade, with data being the driving force of this transformation. The Association of Southeast Asian Nations (ASEAN) regional digital ecosystem is an excellent example of this development, with industry behemoths such as Grab, Carousell, and Momo, establishing networks for the commercialisation of digital goods and services, and making the ASEAN region the world's fastest-growing internet market (Google, Temasek, and Bain & Company, 2020). As economic transactions increasingly migrate to online platforms, data is collected, processed, and held by public and private organisations on a regular basis. Technologies that are critical for growth and innovation, such as artificial intelligence (AI), are also highly dependent on data inputs. Therefore, policy choices regarding data governance can, in many ways, condition the future of the data-driven economy, and concomitantly, international trade.

The increased dependence on data, however, has raised new issues concerning trust, privacy, data sharing, intellectual property, and national security. For instance, data collection, data use, and data transfer have an impact on individuals' privacy. This has been widely acknowledged by policymakers and governments have responded in a variety of ways. For external safeguards, states have sought new ways to assert control over data by prescribing diverse measures that localise the data, its storage, or suppliers, so as to keep it within the state's sovereign territory. For internal safeguards, government efforts around the world have concentrated on the adoption or reform of data protection laws. The reform initiatives are, however, fragmented as they reflect different societies' understandings of constitutional values, relationships between citizens and the state, and the role of the market, to name but a few issues. National security concerns about data have also escalated recently, showcasing that beyond privacy concerns, data (as well as access to and control of data) have become a major geopolitical and geoeconomic factor.

Against this backdrop, global data governance rule-making has occurred predominantly in preferential trade venues. This is despite notable efforts to overcome the stalemate at the multilateral forum of the World Trade Organization (WTO), through the negotiations of the Joint Statement Initiative on Electronic Commerce (E-Commerce JSI). The foremost data governance issues that have arisen in preferential trade agreements (PTAs) are data protection, cross-border data flows, and data localisation. These issues are key to the regulation of the data-driven economy, both domestically and internationally.

In this paper we analyse how ASEAN economic and regional integration addresses issues of data governance, with a focus on cross-border data flows and data localisation. We leave aside the issue of data protection, as the evidence in PTAs reveals that there is much more consensus towards agreeing on rules for privacy protection in PTAs than on the issues of cross-border data flows and data localisation (Burri, Vásquez Callo-Müller, and Kugler, 2024). The analysis that we undertake in the next sections seeks to feed into current efforts to devise the ASEAN Economic Community (AEC) Post-2025 Vision. Section 2 presents an overview of the digital and data-related instruments in the AEC Blueprint 2025. It showcases that ASEAN has developed several initiatives to ease data flows as part of regional integration efforts. This drive to promote seamless digital markets in ASEAN is also reflected in the current negotiations towards an ASEAN Digital Economy Framework Agreement (DEFA), which is dealt with in Section 3. Against the background of the policy efforts as part of the AEC Blueprint 2025 and the negotiations towards the DEFA, Section 4 outlines the data governance models that have emerged from PTAs. Our emphasis is placed on the ASEAN PTAs, which should also clarify the relevant details of the negotiation of data policies in the DEFA. Finally, Section 5 suggests concrete policy options to be considered in the AEC Post-2025 agenda. It particularly highlights the flexibilities found in some PTAs, which can potentially bridge the differences between the most advanced models of data governance and less developed ones, particularly in countries with limited capacity for negotiation and in the early stages of developing their own domestic data governance frameworks. This can be especially useful for a diverse region such as ASEAN.

2. Digital and Data Instruments in the ASEAN Economic Community Blueprint 2025

The AEC Blueprint 2025 (ASEAN, 2015), which outlines the main goals of ASEAN economic integration, already contains different elements regarding digital and data governance. For instance, it lists amongst its five key characteristics a competitive and dynamic ASEAN in addition to enhanced connectivity and sectoral cooperation (ASEAN, 2015:12, 21). Important elements within these broad aspirations encompass the need to consider global mega trends and emerging trade-related issues (such as cross-border data flows), improving various sectors (such as telecom and information and communication technology (ICT), as well as the promotion of e-commerce (ASEAN, 2015:21,23,24). The implementation of these characteristics and elements is still ongoing, as noted by the 2021 Mid-Term Review of the AEC 2025 (the Mid-Term Review) (ASEAN, 2021a). However, in the effort to understand how data governance policies could evolve in a Post-AEC 2025 Vision, it is important to take stock of some of the outcomes thus far.

On the promotion of e-commerce, the Mid-Term Review highlights the conclusion of the ASEAN Agreement on Electronic Commerce, which entered into force in December 2021. The Mid-Term Review also notes other efforts undertaken to promote e-commerce, including the ASEAN Digital Integration Framework and its Action Plan (2019–2025), the ASEAN Digital Integration Index, the Guidelines on Accountabilities and Responsibilities of E-Marketplace Providers, the ASEAN Online Business Code of Conduct, and the ASEAN Guidelines on Cross-Border Business-to-Consumer Complaints, amongst others (ASEAN, 2021a:16). Regarding improving ICT infrastructure, the Mid-Term Review also mentions other notable achievements, particularly those corresponding to the sub-area of data governance. These include the ASEAN Framework on Digital Data Governance and the ASEAN Framework on Personal Data Protection. Moreover, other achievements regarding data governance are found in the 2021 Bandar Seri Begawan Roadmap (ASEAN, 2021b) instrument that was published after the Mid-Term Review.

The 2021 Bandar Seri Begawan Roadmap, endorsed at the 20th AEC Council in 2021, sets out concrete steps to develop an enabling environment for a robust ASEAN digital economy. These steps are planned to be undertaken in three periods: (i) recovery (2021–2022); (ii) acceleration (2022–2024); and (iii) transformation (2025). During the current period of acceleration, the Bandar Seri Begawan Roadmap sets important goals related to data policies, which, amongst other things, require the implementation of the ASEAN Cross-Border Data Flow mechanism by 2025 (ASEAN, 2021b: 8–9). The Workplan similarly seeks to deepen cooperation on Agreement commitments and not to require the localisation of computing facilities, which will be operationalised by a notification mechanism on data localisation requirements (ASEAN, 2021b:14–15). Another relevant objective is that all ASEAN Member States (AMS) have frameworks for the protection of personal data by 2025 (ASEAN, 2021b: 44–45). Furthermore, the Bandar Seri Begawan Roadmap emphasises the need to promote and monitor the adoption of implementation guidelines of the ASEAN Data Management Framework and the ASEAN Model Contractual Clauses. Both initiatives were developed by the ASEAN Working Group on Digital Data Governance chaired by Singapore.

For the transformation phase, the Bandar Seri Begawan Roadmap establishes the goal of working towards the ASEAN DEFA, which is discussed in detail in Section 3. It is however worth noting that all the above-mentioned initiatives, including the launch of negotiations towards the DEFA, showcase the commitment and entrepreneurship of ASEAN as a region to advance policies that strongly support digitalisation and cross-border data flows. Yet, whilst all these frameworks and roadmaps are comprehensive and capture the different policy reforms that are required for digitalisation to truly enable growth and innovation, a recurrent criticism is the limited capacity to enforce them. This challenge is due to their largely soft (non-binding) nature. This means that all these initiatives promote cooperation, capacity building, and experience-sharing (ASEAN, 2021b:18). They, however, do not entail legally binding and enforceable obligations. The Mid-Term Review of AEC 2025 notes the need for a shift in approach. Specifically, the Mid-Term Review advocates for regional guidelines and high-level principles [that need] to be translated into stronger commitments and for soft cooperation activities to have clearer targets towards regulatory coherence, or even regional strategies on convergence, common ASEAN frameworks, regional platforms, and infrastructure (ASEAN, 2021b: 33). These suggestions are not limited to intra-ASEAN relations, but are also applicable to ASEAN relations with other partners, where deeper cooperation is desirable (ASEAN, 2021b: 18). We provide an overview of these instruments in Table 5.1.

Table 5.1. The ASEAN Instruments on Data Governance

Name of the instrument	Year of signature
ASEAN Framework on Personal Data Protection	2016
ASEAN ICT Master Plan 2016–2020	2016
Master Plan on ASEAN Connectivity (MPAC) 2025	2016
ASEAN Work Programme on Electronic Commerce 2017–2025	2017
ASEAN Framework on Digital Data Governance	2018
ASEAN Digital Integration Framework	2018
ASEAN Digital Integration Framework Action Plan 2019–2025	2019
ASEAN Agreement on Electronic Commerce	2019
Work Plan on the Implementation of ASEAN Agreement on E-Commerce	2019
ASEAN Comprehensive Recovery Framework	2020
ASEAN Digital Masterplan 2025	2021
ASEAN Data Management Framework	2021
Bandar Seri Begawan Roadmap	2021
ASEAN Model Contractual Clauses for Cross-Border Data Flows	2021
Implementing Guidelines for ASEAN Data Management Framework and Cross-Border Data Flows	2021
ASEAN–EU Joint Guide on Model Contractual Clauses for Data Transfers	2023
Boracay Digital Declaration	2023
ASEAN Digital Economy Framework Agreement	2023

ASEAN = Association of Southeast Asian Nations, EU = European Union, ICT = information and communications technology.

Source: Authors' research.

3. The Digital Economy Framework Agreement

The 2021 Bandar Seri Begawan Roadmap outlines an important instrument for ASEAN digital integration: the DEFA. Formal negotiations towards the DEFA were launched during the 43rd ASEAN Summit in September 2023 (ASEAN, 2023a), with the first negotiation round taking place in December of the same year. The DEFA has significant potential for ASEAN (ASEAN, 2023b). It will constitute the world's first region-wide Digital Economy Agreement (ASEAN 2023c: 12) and, moreover, it is expected to unlock \$2 trillion¹ by 2030 in the region's digital economy (ASEAN, 2023c: 3). Sections 3.1 and 3.2 provide an overview of the objectives and scope of the DEFA and then explain its significance as the first region-wide Digital Economy Agreement (DEA).

¹ In this chapter, \$ refers to US dollars.

3.1. Digital Economy Framework Agreement's Objectives and Scope

As stated in the Framework for Negotiating the ASEAN Digital Economy Framework Agreement (DEFA Framework), adopted in September 2023 (ASEAN, 2023d), the DEFA has the objectives to provide a coherent, harmonised, collaborative, and rules-based approach to ASEAN's cooperation in the digital ecosystem to establish an open, secure, interoperable, competitive, and inclusive regional digital economy in the broader AEC-building agenda (ASEAN, 2023d:1). It aims to build upon the ASEAN Agreement on Electronic Commerce and the ASEAN Digital Integration Framework. The DEFA, moreover, will not detract from relevant terms and conditions in other ASEAN and ASEAN-plus agreements (ASEAN, 2023d:2, Principle 8). On the contrary, it intends to have broader and deeper engagement and will seek to improve on existing commitments (ASEAN, 2023d:1, Principle 3). Whilst this may appear ambitious, the negotiations will most likely accommodate differences in the level of development across ASEAN Member States, creating a structure that can cater to different levels of readiness.

In terms of scope, the DEFA will cover a broad range of digital trade issues. The DEFA Framework lists the following elements: digital trade; cross-border e-commerce; payments, and e-invoicing; digital ID and authentication; online safety and cybersecurity; cross-border data flows and data protection; competition policy; cooperation on emerging topics; and talent mobility and cooperation (ASEAN, 2023d:2).² The Framework thus explicitly states that the DEFA will cover data governance issues (and in particular, cross-border data flows), which advances the initiatives that ASEAN has previously developed on the subject, as explained in Section 2.

The DEFA negotiations are framed ambitiously and expected to be concluded by 2025. They run in parallel with other advancements at the multilateral level, specifically, the current negotiations for an E-Commerce JSI under the auspices of the WTO. The E-Commerce JSI negotiations include provisions on personal data protection, but they do not currently include provisions on the banning of data localisation requirements; nor do they cover cross-border data flows (WTO, 2024a; 2024b). In fact, it has been acknowledged that the proposals on data flows and localisation, in addition to source code, although these represent important issues for many participants, will require substantially more time for discussions as divergent approaches and sensitivities remain (Department of Foreign Affairs and

² See Elements/Scope and Coverage.

Trade, Australia et al., 2023). Currently 91 WTO Members,³ which account for over 90% of global trade, are participating in E-Commerce JSI negotiations, which are co-convened by Australia, Japan, and Singapore. All ASEAN Member States are party to these negotiations, except for Viet Nam.

3.2. Digital Economy Framework Agreement as a Region-Wide Digital Economy Agreement

It has been explicitly stated in preparatory studies for the DEFA negotiations that it is its intention to become the first region-wide DEA (ASEAN, 2023c:3). DEAs are, in fact, a significant development in digital trade and data regulation. They are dedicated agreements covering only digital trade. Currently, there are, at least, five such agreements: the US–Japan Digital Trade Agreement (DTA); the Digital Economy Partnership Agreement (DEPA); the Singapore–Australia DEA (SADEA); the UK–Singapore DEA, and the Republic of Korea, henceforth Korea–Singapore DEAs. Of those, only two – the US–Japan DTA and DEPA – are stand-alone agreements. The other three DEAs (SADEA, UK–Singapore, and Korea–Singapore) are part of, and upgrade, an existing PTA. However, there is no indication that the negotiations of these DEAs included issues beyond digital trade. It should also be noted that the driving force behind the proliferation of DEAs is Singapore, which has participated in four out of the five DEAs, and is currently negotiating similar agreements with the European Union (EU) and European Free Trade Association (EFTA) (European Commission and Ministry of Trade and Industry, Singapore, 2023; EFTA and Government of Singapore, 2024).⁴ This indicates Singapore’s strong interest in digital trade and its legal entrepreneurship in this area.

DEAs contain innovative provisions on data not found in traditional PTAs. Next to provisions on enabling cross-border data flows or prohibitions of data localisation requirements, all DEAs have provisions on open government data. They generally require that it is anonymised, has descriptive metadata, is machine readable, and is in open format that allows it to be searched, retrieved, used, reused, and redistributed.⁵ Provisions on open data not only help to promote good practices in government, but may also constitute an invaluable resource for data-based innovation. DEAs also include provisions

³ Albania; Argentina; Australia; Austria; Bahrain, Kingdom of; Belgium; Benin; Brazil; Brunei Darussalam; Bulgaria; Burkina Faso; Cabo Verde; Cameroon; Canada; Chile; China; Colombia; Costa Rica; Côte d'Ivoire; Croatia; Cyprus; Czech Republic; Denmark; Ecuador; El Salvador; Estonia; Finland; France; Gambia; Georgia; Germany; Greece; Guatemala; Honduras; Hong Kong, China; Hungary; Iceland; Indonesia; Ireland; Israel; Italy; Japan; Kazakhstan; Kenya; Korea, Republic of; Kuwait, the State of; Kyrgyz Republic; Lao, People's Democratic Republic of; Latvia; Liechtenstein; Lithuania; Luxembourg; Malaysia; Malta; Mauritius; Mexico; Moldova, Republic of; Mongolia; Montenegro; Myanmar, Republic of the Union of; Netherlands; New Zealand; Nicaragua; Nigeria; North Macedonia; Norway; Oman; Panama; Paraguay; Peru; Philippines; Poland; Portugal; Qatar; Romania; Russian Federation; Saudi Arabia, Kingdom of; Singapore; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu; Thailand; Türkiye; Ukraine; United Arab Emirates; United Kingdom; United States; Uruguay.

⁴ EFTA Member States are Iceland, Liechtenstein, Norway, and Switzerland.

⁵ Article 20, US–Japan DTA; Article 27, SADEA; Article 9.5, DEPA; Article 8.61–H, UK–Singapore DEA; and Article 14.26, Korea–Singapore DEA.

on aspects that affect the broader framework in which data-driven businesses operate. For instance, they contain provisions on competition policy related to the digital economy; digital identities; digital inclusion; fintech and lawtech cooperation; AI governance; standardisation; interoperability; and mutual recognition regarding electronic means.⁶ Some of these issues have permeated into PTAs' digital trade chapters, showcasing the influence of DEAs on PTAs and the interrelatedness of global data governance frameworks. For example, the India–UAE Comprehensive Economic Partnership Agreement of 2022 includes provisions on digital identities.⁷ The New Zealand–UK Free Trade Association, in addition to the provisions on digital identities, also includes language on AI.⁸

Despite the apparent forward-looking policies found in DEAs, it is important to note that some of the key commitments can be subject to exceptions. For instance, all DEAs contain commitments not to prohibit cross-border data flows, yet these provisions are subject to exceptions for legitimate public policy reasons. Similarly, all DEAs prohibit data localisation requirements as a condition for market access or conducting business in the territory of the other party/parties. However, these provisions are also subject to exceptions. Moreover, the majority of DEAs provisions are of a soft law character, and in some cases, some provisions are explicitly excluded from the dispute settlement mechanism, which reduces their normative value.

Despite these conditionalities, DEAs reveal a tendency for legal innovation, as they include new issues that otherwise have not appeared in digital trade negotiating agendas. The intention of the DEFA negotiations to follow a DEA template can be thus linked to the inclusion of novel areas that could accelerate the already existing ASEAN regional digital integration, building upon the ASEAN instruments on data governance, as detailed in Table 5.1. However, it should be noted once again that whilst DEAs are broad in scope, they are also largely of soft law nature. This should not be seen as failure to reach binding and enforceable commitments, but as a starting point for dedicated digital trade integration and a platform for closer cooperation on contemporary and future data economy issues. One of the interesting aspects of DEAs, such as the DEPA between Chile, New Zealand, and Singapore, is that they are living agreements. An example of this is the adoption of the Protocol to the DEPA in 2023 (New Zealand Foreign Affairs and Trade, 2023), which, amongst other things, subjects the provisions on cross-border transfer of information, location of computer facilities, and non-discrimination of digital products to dispute resolution under the treaty, reinforcing their legal bindingness.

⁶ See the relevant provisions on cooperation on competition policy in Article 16, Australia–Singapore DEA; Article 8.4, DEPA, Article 8.61-U, UK–Singapore DEA; and Article 14.27, Korea–Singapore DEA. On digital identities, see Article 9.7, India–UAE CEPA and Article 14.36, Korea–Singapore DEA. On digital inclusion, see Article 11.1, DEPA (covering also inclusion of Indigenous Populations) and Article 8.61-P, UK–Singapore DEA. On fintech, see Article 32, SADEA; Article 8.1, DEPA; and Article 14.29, Korea–Singapore DEA. On AI, see Article 31, SADEA; Article 8.2, DEPA; Article 8.61-S, UK–Singapore DEA; and Article 14.28, Korea–Singapore DEA. On standards and conformity assessment procedures, see Article 30, SADEA; Article 8.61-D, UK–Singapore DEA; and Article 14.32, Korea–Singapore DEA. On lawtech, see Article 8.61-T, UK–Singapore DEA.

⁷ See Article 9.7, India–UAE CEPA.

⁸ See Article 15.19(3)(a), New Zealand–UK DEA.

An additional remark should be made at this point. Whilst the intention of the DEFA is to follow the DEA model, not all ASEAN Member States are party to existing DEAs. In fact, the only ASEAN Member State party to DEAs is Singapore. This shows that whilst it is important to analyse how the DEFA will match most advanced DEAs templates, it is similarly important to understand what the scope of digital trade commitments, and specifically, data-related provisions, is in ASEAN PTAs. This is an aspect that should also inform an AEC Post-2025 Vision, and which we explore in Section 4.

4. Data-Driven Policies and the ASEAN Preferential Trade Agreements

Data policies are at the heart of current digital trade policymaking for a simple reason: digital trade depends on the seamless movement of data across borders. Domestic policies affecting data flows, which in practice may require that certain data (or a copy of it) must be stored on servers in the country where the data was originally collected, or other measures of data localisation, can concomitantly affect and reduce trade flows. As explained in Section 1, data flow restrictions can be applied for a variety of reasons, including privacy but also emerging national security concerns.⁹ When such restrictions go beyond legitimate public policy reasons and are of a discriminatory nature, they can entail a significant cost for enterprises, which can face limitations, for instance, to use cloud storage services or other third-party services (e.g. software) that would significantly affect their operations. Interestingly and importantly, the costs are borne not only by foreign businesses but also by local ones.

The impact of divergent regulatory requirements for personal data protection and for cross-border data flows has led countries to pursue different mechanisms to promote interoperability, so that the fragmentation of regulatory regimes is tempered and does not restrict trade. Some efforts to minimise cross-border data flow friction are reflected in trade agreements, which have emerged as laboratories for data-related policies. Since the adoption of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in 2018, to which four AMS are signatories (Brunei Darussalam, Malaysia, Singapore and Viet Nam), we have witnessed a keen interest shared by governments around the world to regulate digital trade and data with specifically designed treaty templates. The CPTPP template was an important baseline of these efforts that sought to facilitate digital trade and to enable cross-border data flows. The CPTPP model has been replicated and expanded by subsequent agreements. This is true also for the United States, an original party to the trans-Pacific partnership, which confirmed the liberal US approach to digital trade, as initiated by its 2001 Digital Agenda. The renegotiated North American Free Trade Agreement, which is now referred to as the United States–

⁹ It should be noted that some ASEAN countries have significant data localisation requirements in place – for instance, for online (cyberspace) service suppliers (Viet Nam) and for providers of public services (Indonesia).

Mexico–Canada Agreement (USMCA) follows all critical lines of the CPTPP regarding facilitating digital trade and ensuring unhindered data flows. Beyond these similarities, the USMCA goes CPTPP-plus in some respects by (i) including algorithms in the ban on requirements for the transfer of, or access to, source codes; (ii), limiting the liability of interactive computer services providers for third-party content; and (iii), providing for open government data.

Whilst there is a trend for going CPTPP-plus, this is not true for all stakeholders involved. The EU, for instance, has been a relatively late mover on digital trade issues, and now that it has defined its template,¹⁰ this differs in important aspects from the provisions described above. On the one hand, the EU digital trade chapters converge with the CPTPP/USMCA model to cover issues such as software source code, facilitation of electronic commerce, online consumer protection, spam, and open government data. On the other hand, they do not include provisions on non-discrimination of digital products and, in reflection of the EU stance on trade and culture, consistently exclude audiovisual services from the scope of the application of the digital trade chapter. Beyond this, and critically for the regulation of the data-driven economy, the EU is willing to permit data flows only if coupled with the high data protection standards of the EU General Data Protection Regulation. So, whilst the EU and its partners seek to ban data localisation measures and subscribe to a free data flow, these commitments are conditioned: first, by a dedicated article on data protection, which clearly states that: Each Party recognises that the protection of personal data and privacy is a fundamental right and that high standards in this regard contribute to trust in the digital economy and to the development of trade, (e.g. EU–New Zealand FTA, Art. 12.5 (1)) followed by a paragraph on data sovereignty. Several other safeguards are included too – such as a review possibility that can be linked to new restrictions, as well as a broadly defined right to regulate. Similarly, under the Regional Comprehensive Economic Partnership (RCEP), one sees a more flexible and pragmatic framework that allows developments at different speeds that reflect varieties and sensibilities across the different countries. For instance, whilst the RCEP includes many of the issues around the facilitation of digital trade, its language is more cautious on data governance issues. Whilst the RCEP electronic commerce chapter includes a ban on localisation measures, as well as a commitment to free data flows, there are clarifications that protect the RCEP parties policy space for a variety of reasons, including a self-judging test for the protection of essential security interests.

ASEAN PTAs, on the other hand, fall short of the digital trade commitments found in RCEP, which includes all ASEAN countries as well as Australia, China, Japan, Korea, and New Zealand. Although most digital trade rules in RCEP are soft cooperation commitments, they do cover various aspects relevant to digital markets and their regulation, including important provisions relating to digital trade facilitation and conditional cross-border data flows. Table 5.2 highlights the gaps in key data provisions amongst ASEAN PTAs.

¹⁰ Representative of the new EU approach are the adopted agreements with the United Kingdom (Trade and Cooperation Agreement) and with New Zealand, as well as the draft digital trade chapters of the currently negotiated deals with Australia and Tunisia.

Table 5.2. Data-Related Provisions in the Association of Southeast Asian Nations Preferential Trade Agreements

Name of Agreement	Date of entry into force	Provision, chapter or entire agreement	Data protection	Cross-border data flows	Data localisation prohibited	Data innovation	Digital inclusion	Open gov. data	AI	Dispute settlement applicable to e-commerce chapter
ASEAN–China Framework Agreement (as amended)	2003									
ASEAN–China Trade in Goods Agreement	2005									
ASEAN–China Trade in Services Agreement	2007									
ASEAN–Japan CEPA (as amended)	2008	Provision		X*						
ASEAN–India Framework Agreement (2010)	2010									
ASEAN–Australia–New Zealand FTA (as amended)	2018	Chapter	X	X***	X***		X	X		Yes
ASEAN–Korea Trade in Goods Agreement	2019									
ASEAN–India (Goods)	2019									
ASEAN–India (Services)	2019									
ASEAN–Hong Kong FTA	2020	Provision								
ASEAN Agreement on Electronic Commerce	2021	Entire agreement	X		X**					Yes
ASEAN Trade in Services Agreement	2021	Provision		X*						
RCEP	2022	Chapter	X	X***	X***					No****

AI = artificial intelligence, ASEAN = Association of Southeast Asian Nations, CEPA = Comprehensive Economic Partnership Agreement, e-commerce = electronic commerce, FTA = Free Trade Association, gov = government, RCEP = Regional Comprehensive Economic Partnership.

Notes:

(a) **Yellow**: Soft provision; **Green**: Hard provision.

(b) *Only for financial services and/or telecom services.

(c) *** Subject to domestic law; *** Subject to exceptions; **** Explicitly excluded from dispute settlement

Source: Author's research, based on Burri, Vásquez Callo-Müller, and Kugler (2024).

Based on an overview of ASEAN PTAs, it is possible to argue that they do not currently meet the scope of the RCEP data governance provisions. To date, the only agreement that has been amended to cover more digital and data governance issues than RCEP is the ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA), the upgrade of which was signed in August 2023. One notable change in the upgraded AANZFTA is that it explicitly makes the dispute settlement chapter applicable to the e-commerce chapter, which was not the case in the original agreement. Additionally, to account for the varying levels of readiness of AMS regarding certain provisions, such as banning localisation requirements for computer facilities and cross-border data flows, the dispute settlement chapter only applies to those provisions 3 years after the upgraded agreement comes into effect. It is also worth noting that the dispute settlement chapter is not currently applicable to Cambodia, the People's Democratic Republic of Lao (Lao PDR), and the Republic of the Union of Myanmar.¹¹ These provisions in the AANZFTA shed light on the different strategies that can be adopted in ASEAN PTAs to reach an agreement on key issues, such as notably sequencing commitments (i.e. phasing-in certain obligations over time). The flexibilities incorporated in the AANZFTA also reflect the current proposals in the context of the E-Commerce JI negotiations, which provides, amongst other things, a provision for special and differential treatment (SDT) for least developed countries and mechanisms for capacity building.

To be sure, AMS may consider going even beyond the commitments of AANZFTA. ASEAN PTAs can strive to better reflect the elements included in ASEAN instruments on data governance, which are very detailed and focus on the operationalisation of key issues, such as cross-border data flows. For example, they could explicitly reference ASEAN instruments on data governance, in a similar way that the USMCA refers to international instruments, such as the Asia-Pacific Economic Community Cross-border Privacy Rules System. This could raise awareness of the relevant ASEAN frameworks amongst policymakers and create a platform for discussion and exchange to make them interoperable with other countries or regional frameworks. Moreover, a heightened level of ambition for ASEAN PTAs also seems to be necessary given the provisions included in DEAs – provisions, which currently do not form part of key ASEAN PTAs. Table 5.3 clarifies the existing gaps between the more advanced frameworks found in DEAs and key ASEAN PTAs.

¹¹ Article 20, of Chapter 10, of Upgraded AANZFTA.

Table 5.3. Data-Related Provisions in Key ASEAN Preferential Trade Agreements vis-à-vis Digital Economy Agreements

Name of Agreement	Date of entry into force	Provision, chapter or entire agreement	Data protection	Cross-border data flows	Data localisation prohibited	Data innovation	Digital inclusion	Open gov. data	AI	Dispute settlement applicable to e-commerce chapter
ASEAN–Australia–New Zealand FTA (as amended)	2010	Chapter	X	X***	X***		X	X		Yes
ASEAN Agreement on Electronic Commerce	2021	Entire agreement	X		X**					Yes
RCEP	2022	Chapter	X	X***	X***					No****
Digital Economy Partnership Agreement (DEPA)	2020	Entire agreement	X	X***	X***	X	X	X	X	Yes*****
Singapore–Australia Digital Economy Agreement	2020	Entire agreement	X	X***	X***	X		X	X	Yes
Singapore–UK DEA	2022	Entire agreement	X	X***	X***	X	X	X	X	Yes
Korea–Singapore DEA	2023	Entire agreement	X	X***	X***	X		X	X	Yes

AI = artificial intelligence, ASEAN = Association of Southeast Asian Nations, DEA = Digital Economy Agreement, FTA = Free Trade Agreement, Gov = government, RCEP = Regional Comprehensive Economic Partnership.

Notes:

(a) **Yellow**: Soft provision; **Green**: Hard provision

(b) ** Subject to domestic law; *** Subject to exceptions; **** Explicitly excluded from dispute settlement; ***** Explicitly excludes cross-border data flows.

Source: Author's research, based on Burri, Vásquez Callo-Müller, and Kugler (2024).

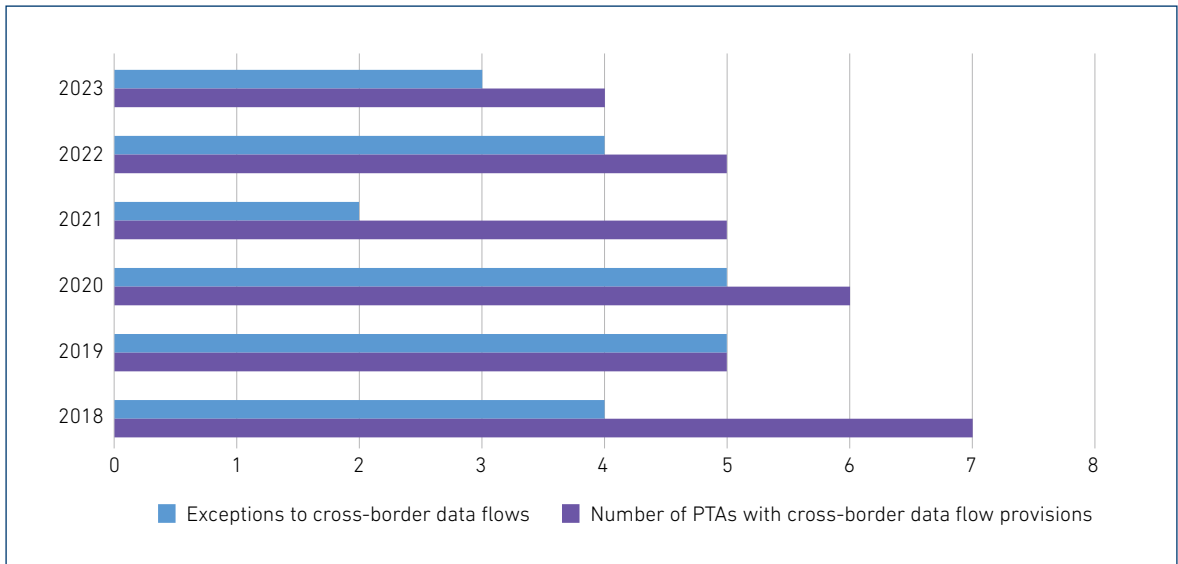
A final issue that should be mentioned regarding data-related commitments in ASEAN PTAs is their level of implementation at the national level. More efforts should be made to gather information about this aspect, which is of crucial importance to interface international and domestic regulatory frameworks. So far, such evidence is largely absent in policy and academic research.

5. Adapting an ASEAN Economic Community Post-2025 Vision for Data-Driven Trade: Policy Implications and Recommendations

As mentioned at the beginning of this paper, ASEAN has made considerable efforts to promote policies that support digitalisation and the data-driven economy. The AEC 2025 agenda has set the characteristics or broad aspirational goals that AMS wish to achieve, as well as the elements that should help them achieve these goals. Moreover, ASEAN has, over the years, adopted a myriad of instruments that have a digital component, and which, for the most part, are voluntary. The soft nature of these instruments highlights the difficulty of agreeing on binding rules on digital and data issues, reflecting the different stances and different levels of development of ASEAN countries in this regard. This difficulty extends to ASEAN PTAs, which except for the amended AANZFTA, have fallen short of the commitments included in modern DEAs and other relevant PTAs, such as RCEP.

To bolster the digital environment across the ASEAN region and to unleash the potential of digital trade, it is crucial to embrace a thorough strategy encompassing the reconsideration of data-related commitments in ASEAN PTAs. Part of this effort is already occurring with the negotiations towards the DEFA, which is expected to have cross-border data flows and data localisation provisions, in addition to a comprehensive set of digital trade rules. One pivotal aspect of cross-border data flow and data localisation commitments involves adopting flexibilities to bridge the gaps between the level of ambition, and the capacity to liberalise data markets across negotiating parties. Recognising the diverse needs and capacities of AMS, these flexibilities could encompass (i) tailored exceptions; (ii) limited application of dispute settlement to data-related commitments; (iii) SDT mechanisms, including longer periods of implementation; and (iv) capacity building. Such approaches can alleviate concerns regarding sovereignty, privacy, and technological readiness whilst promoting consensus and agreement on these critical issues.

Tailored exceptions for cross-border data flow and data localisation provisions allow countries to carve out policy space for limiting the free flow of data, including for sensitive data or data protection. These exceptions have become more detailed and expansive over the years, providing more policy space for the parties to trade agreements. To illustrate this point, in the last few years, most trade agreements with cross-border data flow provisions include exceptions within the same clause, as showcased in the Figure 5.1.

Figure 5.1. Exceptions in Cross-Border Data Flows Provisions in Preferential Trade Agreements

PTA = Preferential Trade Agreement.

Source: Author's research, based on Burri, Vásquez Callo-Müller, and Kugler (2024).

Moreover, these data flows-specific exceptions are layered with the other applicable horizontal exceptions that might be included in the general exceptions chapter of a PTA. These often include general exceptions such as in Article XX of the General Agreement on Tariffs and Trade 1994 and Article XIV of the General Agreement on Trade in Services, which in some cases are stated to apply *mutatis mutandis* or are replicated in full in the relevant section of the treaty. Some treaties devise specific legitimate public policy exceptions that are textually more open than the WTO counterparts. Increasingly, there is also a specific personal data protection exception. Additionally, countries can add security exceptions, which could also be made in reference to Article XXI of the General Agreement on Tariffs and Trade 1994 or Article XIVbis of the General Agreement on Trade in Services *mutatis mutandis* or reproduced in the treaty. These exceptions relate to the essential security interests of a country, including in times of war. All such exceptions safeguard policy space and can be invoked by a country in the event of a legal challenge/dispute.

Parties to a treaty can also decide on the non-applicability of dispute settlement chapters, either indefinitely or for a period. This can allow a country to protect eventual data restrictions for public policy purposes against legal challenges. This is the case even when the data flows provision itself is a binding commitment. For example, in RCEP, the electronic commerce chapter, which has hard commitments on cross-border data flows, is (at the moment) not subject to dispute settlement. RCEP's dispute settlement chapter will apply to the parties that have agreed to its application after the 5-yearly general review.

As mentioned in the previous sections, parties can also decide to review the application of dispute settlement provisions to cross-border data flow and localisation provisions after some time. For example, in the case of DEPA, it was only with the adoption of the 2023 Protocol that the parties decided to subject the provisions on cross-border transfer of information and location of computer facilities to dispute resolution under the treaty, reinforcing their legal bindingness. Similarly, in the case of the AANZFTA, it is only with the Second Protocol to upgrade the AANZFTA, signed on 21 August 2023, that parties to the treaty decided to make the electronic commerce chapter subject to dispute settlement.

In addition, AMS can also consider adding review clauses to delay the entry into force of certain obligations and/or to monitor them. These clauses are particularly common in EU FTAs. For example, in the EU–Japan and EU–Mexico FTAs, the parties included a review period to include provisions on cross-border data flows three years after the entry into force of the agreement, which indeed materialised in the treaty with Japan in 2023. In more recent EU treaties, the data flows/data localisation commitments include a future-oriented review clause in which the parties agree to periodically review and assess the implementation of these obligations. Review clauses may or may not be linked to monitoring mechanisms embedded in the agreement. Certain agreements, such as DEPA, have a Joint Committee and Contact Points with far-reaching competences. In general, institutionalised mechanisms strengthen the cooperation amongst the parties, contribute to legal certainty, and may offer pragmatic avenues to operationalise the agreement.

AMS can also consider including SDT provisions for least developed members, as a strategy to mitigate or phase-in the more stringent obligations. This could be, for example, those related to bans on data localisation. By including these type of provisions countries that still grapple with the lack of clarity over what the trade-offs of engaging in cross-border data flows and data localisation requirements are, may be more likely to agree to these provisions. In RCEP, for example, Cambodia, Lao PDR and the Republic of the Union of Myanmar (all least developed countries) are allowed up to 8 years to implement the cross-border data flows and data localisation provisions, whilst Viet Nam is permitted up to 5 years. SDT for least developed countries can also include forms of capacity building and regulatory exchange.

Next to incorporating flexibilities to facilitate a political agreement on data-related issues, the AEC Post-2025 Vision should continue to promote the ASEAN instruments that already exist on data governance, as detailed in Table 5.1. This is the case, for instance, for the ASEAN model contractual clauses, which are a concrete mechanism to promote cross-border data flows. By incorporating such mechanisms into the DEFA, AMS can promote the interoperability of these instruments with other similar regional efforts, such as those taking place in Europe. This can be done by referencing these instruments in cross-border data flows provisions, or by adding a protocol to data protection and cross-border data flows to the DEFA, which recognises key ASEAN instruments on data governance to facilitate data protection and promote cross-border data flows.

To conclude, the scope and depth of data-related provisions in DEFA and future ASEAN PTAs will influence the potential to deepen interoperability of data policies at the ASEAN regional level. Therefore, it is important to be innovative as well as pragmatic in fostering digital markets integration and the interoperability of data policies. Member States should leverage the considerable efforts made in the past to promote streamlined digital trade operations in ASEAN that ensure legal predictability.

References

- Association of Southeast Asian Nations (ASEAN) (2015), *Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/asean-economic-community-blueprint-2025/>
- ASEAN (2021a), *Mid-Term Review: ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/book/mid-term-review-report-of-the-aec-blueprint-2025/>
- ASEAN (2021b), *The Bandar Seri Begawan Roadmap: An ASEAN Digital Transformation Agenda to Accelerate ASEAN's Economic Recovery and Digital Economy Integration*. Jakarta: ASEAN. https://asean.org/wp-content/uploads/2021/10/Bandar-Seri-Begawan-Roadmap-on-ASEAN-Digital-Transformation-Agenda_Endorsed.pdf
- ASEAN (2023a), *Chairman's Statement of the 43rd ASEAN Summit*. Jakarta: ASEAN Secretariat.5 September. <https://asean.org/wp-content/uploads/2023/09/CHAIRMAN-STATEMENT-OF-THE-43RD-ASEAN-SUMMIT-FIN-2.pdf>
- ASEAN (2023b), *Leaders' Statement on The Development of The ASEAN Digital Economy Framework Agreement (DEFA)*. Jakarta: ASEAN. <https://asean.org/leaders-statement-on-the-development-of-the-asean-digital-economy-framework-agreement-defa/>.
- ASEAN (2023c), *ASEAN Digital Economy Framework Agreement: Unlocking Southeast Asia's Potential*. Tech for Good Institute. https://techforgoodinstitute.org/wp-content/uploads/2023/12/TFGI_DEFA-Report.pdf
- ASEAN (2023d), *Framework for Negotiating ASEAN Digital Economy Framework Agreement*. Jakarta: ASEAN. https://asean.org/wp-content/uploads/2023/09/Framework-for-Negotiating-DEFA_ENDORSED_23rd-AECC-for-uploading.pdf.
- Burri, M., M.Vasquez Callo-Müller, and K. Kugler (2024), 'The Evolution of Digital Trade Law: Insights from TAPED', *World Trade Review*, 23(2), pp.190–207. <https://www.cambridge.org/core/journals/world-trade-review/article/evolution-of-digital-trade-law-insights-from-taped/8C9B4DA7D7FA50B10913BD7575929750>
- Department of Foreign Affairs and Trade, Australia; Ministry of Foreign Affairs, Japan; Ministry of Economy, Trade and Industry, Japan; and Ministry of Trade and Industry, Singapore (2023), *WTO Joint Statement Initiative on E-Commerce: Co-Convenor Statement by Australia, Japan and Singapore*. Geneva: WTO. https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm
- European Commission and Ministry of Trade and Industry, Singapore. (2023), *Joint Statement on the Launch of Negotiations for an EU-Singapore Digital Trade Agreement*. Brussels: EC. https://policy.trade.ec.europa.eu/news/joint-statement-launch-negotiations-eu-singapore-digital-trade-agreement-2023-07-20_en

- European Free Trade Association (EFTA) and Government of Singapore (2024), *EFTA and Singapore Convene for Seventh Round of Negotiations Towards a Digital Economy Agreement*. Geneva: EFTA. <https://www.efta.int/Free-Trade/news/EFTA-and-Singapore-convene-seventh-round-negotiations-towards-Digital-Economy-Agreement-539806>
- Google, Temasek, and Bain & Company, (2020), *e-Economy SEA 2020 – At Full Velocity: Resilient and Racing Ahead*, Bain.com. <https://www.bain.com/insights/e-economy-sea-2020/>
- New Zealand Foreign Affairs and Trade (2023), DEPA Text and Resource: Protocol to the DEPA. New Zealand Foreign Affairs and Trade. <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-in-force/digital-economy-partnership-agreement-depa/depa-text-and-resources/>
- World Trade Organization (WTO) (2024a), *Electronic Commerce Negotiations: Draft Chairs Text*. Geneva: WTO. chrome-extension://efaidnbmnnnnibpcajpcglclefindmkaj/https://www.bilaterals.org/IMG/pdf/jsi_ecomm_chair_text_rev2_27_march_2024.pdf
- World Trade Organization (WTO) (2024b), Joint Statement Initiative on Electronic Commerce, INF/ECOM/87, 26 July 2024. <chrome-extension://efaidnbmnnnnibpcajpcglclefindmkaj/https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/INF/ECOM/87.pdf&Open=True>

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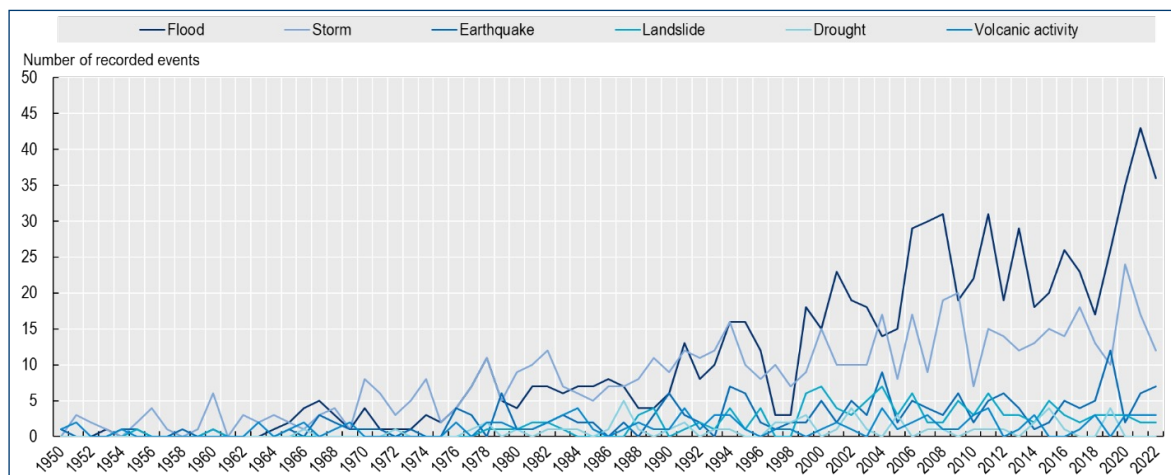
Holistic and Interdisciplinary Approaches to Disaster-Resilient Development in ASEAN: Concept and Policy Checklist

Kensuke Molnar-Tanaka

1. A Paradigm Shift: Data-Driven Trade

The Association of Southeast Asian Nations (ASEAN) region is the most disaster-prone in the world, and countries there have been increasingly exposed to natural catastrophes in recent years (Figure 6.1). Typhoon Haiyan, for example, struck the Philippines in 2013, resulting in approximately \$13 billion¹ in total damages. In 2015, drought affected 42 provinces in Thailand, causing around \$4 billion in overall damages. In the same year, Viet Nam suffered from drought, causing at least \$8 billion in damages. The 2018 an earthquake, tsunami, and liquefaction in Indonesia had a devastating impact, affecting around two million people, with total damages reaching nearly \$2 billion, according to the EM-DAT database (CRED, 2024).

¹ In this chapter, \$ refers to United States dollar.

Figure 6.1. Recorded Occurrences of Disasters in ASEAN, 1950–2023

Source: CRED (2024).

Therefore, determining how to achieve disaster-resilient development is one of the most important challenges in ASEAN. Disasters and development are closely interlinked as disasters not only cause loss of assets and livelihoods in the short-term but also affect long-term development. Beyond direct physical losses, disasters cause further indirect impacts that affect access to healthcare, education, and human capital development, resulting in broader adverse development impacts (Husted, Oppen, and Park, 2022; Molnar-Tanaka, Choi and Park, 2024). The effects of disasters can also be seen in Southeast Asia through various outcomes, such as changes in consumption and investment behaviour. For instance, Typhoon Ketsana caused an average decline in consumption of \$100 per capita amongst affected households in central Viet Nam (Gröger and Zylberberg, 2016). Molnar-Tanaka, Ibrahim, and Hean (2023) examine the effect of disasters on consumption in Thailand and the Philippines using major disasters for each country from 2011–2017 and observed declines in total consumption in both countries. Households affected by the 2011 Cambodian floods experienced a decrease in productive investment and increasing investment in self-insurance (Chantararat et al., 2015).

Development is much broader than simply growth; it is commonly defined as a concept that encompasses social, economic, and institutional processes that ensure an improved quality of life (Flammang, 1979; Soubbotina and Sheram, 2000: 96). Various development theories offer approaches to explain engines of development, but current development models do not necessarily incorporate disaster risks well. Given the broad scope of disaster impacts, it is vital that disaster-resilient development be achieved using a holistic and interdisciplinary approach. Governments can play significant roles in coordinating disaster responses, strengthening interregional and intersectoral cooperation, and fortifying health and education services, whilst also taking advantage of new technologies and options for disaster risk financing.

This paper briefly discusses the conceptual nature of the relationship between disasters and development. It then discusses policy prescriptions for achieving disaster-resilient sustainable development. The paper examines integrated strategies for key economic sectors that highlight the importance of a holistic and interdisciplinary approach. As part of such an approach, the paper also reviews regional cooperation initiatives on disaster risk management and response in ASEAN.

2. Disasters and Development: Theoretical Considerations

Theories of economic development propose different mechanisms to explain the engines of development (Box 1), but the effects of disasters receive limited attention. At the same time, the notion of resilience has gained broad acceptance in both academic and policy discussions as a means of reducing society's vulnerability to natural hazards. The traditional view of resilience, initially characterised by the ability to 'bounce back' to the pre-disaster state and to maintain basic functions under pressure, has evolved due to a deeper understanding of system complexity and interconnectedness (Norizan, Hassan, and Yusoff, 2021). Resilience now encompasses learning from past events and surroundings, emphasising adaptation to dynamic environments rather than mere persistence (Folke et al., 2010; Norizan, Hassan, and Yusoff, 2021). As such, the United Nations Office for Disaster Risk Reduction has defined resilience as 'the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.' (UNDRR, 2017). Enhancing resilience to disasters has been a consistent goal of global development initiatives since the release of Our Common Future report by the World Commission on Environment and Development in 1987. This led to the 1990s being designated as the International Decade of Natural Disaster Reduction and to endorsement of an International Framework of Action. Furthermore, in response to the escalating risks posed by climate change, the concept of climate-resilient development, defined as 'a process of implementing greenhouse gas mitigation and adaptation measures to support sustainable development for all' (Schipper et al., 2022: 2660) has gained increased attention in global policy and practice over the last 20 years.

The Hyogo Framework, adopted in 2005, represents a paradigm shift from prevention to resilience, which is further reinforced in the Sendai Framework. The Hyogo Framework identified three areas, along with related subareas, for enhancing the resilience of a country or community against the impacts of disasters. These areas are i) ecosystem management, covering environmental and natural resources management; ii) social and economic development practices, including food security, health, education, infrastructure, social safety nets, livelihoods, and insurance; and iii) land-use planning, encompassing urban planning and management, rural development, and building codes and standards. In 2015, the Sendai Framework further expanded these elements by incorporating additional sectors such as supply chain management and tourism, livestock, culture, heritage and private sectors. Sustainable disaster risk reduction demands attention to development management and environmental stewardship alongside pure disaster risk management (Pal et al., 2021).

Box 1. Evolving Theories of Development

The literature on economic development in social science research encompasses many different theories, for instance the linear stages of growth model, structural change models and patterns of development, the international dependence revolution, the neoclassical and endogenous growth theories, and the Big Push theory of Rosenstein-Rodan (1943), which suggests that a 'big push' industrialisation policy could benefit all sectors simultaneously. Participatory development as advocated by Robert Chambers (1992) further revolutionised development practices, emphasising participatory process for more inclusive development. For instance, community-based development approaches suggest that the poor should have more control over development assistance, allowing for a more informed and involved population that can undertake self-initiated development activity (Mansuri and Rao, 2004). Furthermore, as the concept of economic development has continued to evolve, several new approaches have emerged, such as the capability approach proposed by Amartya Sen (1989), and sustainable development. These approaches view economic development beyond gross domestic product, shifting emphasis from measuring economic production to measuring people's well-being (Stiglitz, Sen, and Fitoussi, 2009).

The stages of growth theories, as exemplified by Rostow's stages of growth (1960) and the Harrod-Domar growth model (Boianovsky, 2015), view the process of development as a sequential progression of economic growth that every country is expected to undergo. The model presents insufficient formation of new capital as the primary challenge to development, but neglects other important aspects of economic development, such as sound institutional and economic governance and a sufficient stock of skilled labour (Coccia, 2019).

Structural change models are centred on the processes of a transition from a traditional agriculture-based economy to one based on industry and services. W. Arthur Lewis (1954) developed one of the most renowned models of structural change that highlights the movement of surplus labour from agriculture to industry, driving economic growth through increased employment and capital accumulation. The patterns of development approach examines the sequential transformation of an underdeveloped country's economic, industrial, and institutional structure to provide room for new industries as a catalyst for growth, acknowledging that increased saving and investment are conditions that are necessary but insufficient for growth and that characteristics of international relationships also play a significant role (Todaro and Smith, 2003).

The neoclassical growth theory explains how the three main economic factors of labour, capital, and technology interact to generate steady economic growth, with the Solow model being the most widely recognised. It suggests that long-term economic growth converges amongst countries through the idea of a 'steady state'. Neoclassical theory places much of the credit for economic growth on an exogenous process of technological advancement. In contrast, endogenous growth

models emphasise internal factors to explain growth, such as investment in human capital, innovation, and knowledge. These theories have been criticised for focusing on increasing real income and promoting economic growth whilst neglecting human well-being. Amartya Sen's capability approach offers an alternative by portraying development as something that broadens people's opportunities and abilities, including for healthcare, education, and participation in society. Sustainable development builds on this view by integrating economic, social, and environmental considerations in defining development (Banuri, 2013).

Source: Author.

Schumacher and Strobl (2011) stated that the connection between wealth and disasters is primarily influenced by exposure to disaster risks. Their research demonstrates that losses increase with exposure to disasters and decline as these countries develop. The international community acknowledges the profound impact of economic losses stemming from disasters, recognising them as substantial barriers to achieving the United Nations Sustainable Development Goals outlined in Agenda 2030 (JICA, 2017). At the same time, the level and quality of development within a region or a country can significantly influence the extent to which hazards affect both individuals and economies (UN, 2012). For instance, disaster risk can impede development opportunities, by impacting poverty levels (Benson, 2016) and reducing productivity due to physical damage to infrastructure and loss of capital (DFID, 2005).

Several studies exploring whether disasters have positive effects on development (Hallegatte and Dumas, 2009), whether they promote economic growth (Azhar et al., 2022; Okuyama, 2003), and whether development lowers the extent of damage caused by disasters (Schumacher and Strobl, 2011; Taghizadeh-Hesary et al., 2021) have reached differing conclusions. Bănică, Kourtit, and Nijkamp (2020) point out that neoclassical growth models, which focus on short-term economic growth, may overlook the broader negative impacts of disasters on the economy. Similarly, Barone and Mocetti (2014) argue that the neoclassical growth model oversimplifies the impact of disasters by failing to account for various channels through which they may affect the production function, inputs, and the use of those inputs.

Loayza et al. (2012) note that most empirical studies of the impact of disasters on growth have used one-sector growth models, yet there is no evidence to assume that disasters would affect all economic sectors in the same manner. In contrast, some endogenous growth models recognise that disasters can stimulate economic growth since disasters may serve as catalysts for reinvestment and increase the productivity of capital stock (Shabnam, 2014; Fang et al., 2019). Some scholars refer to this effect as the Schumpeter's creative destruction hypothesis, which states that disasters can accelerate the replacement of existing capital stock, thereby supporting long-term economic growth (Fang et al., 2019). Skidmore and Toya (2002) highlight that within an endogenous growth framework, disaster risk could spur increased investment in human capital due to a relative increase in its returns compared to physical capital, potentially leading to higher rates of growth. Analysis from Zhang et al. (2021) indicates that rescue funds can alter the trajectory of recovery and mitigate negative factors, leading to sustained improvement in economic performance. Daly et al. (2020) find that livelihood assistance and aid programmes in Aceh following the 2004 tsunami significantly contributed to the region's

reconstruction, indicating that investment in livelihood assistance is worthwhile. De Janvry, del Valle, and Sadoulet (2016) discovered that access to disaster funding increases local economic activity by 2%–4% in the year following a disaster, with the positive effects lasting up to 18 months after disasters.

Several experiences from ASEAN countries suggest how policy choices can affect the extent of damages from disasters and recovery processes. For instance, in the Republic of the Union of Myanmar, the devastating effects of Cyclone Nargis in 2008 were deemed to have been worsened by failure to provide adequate early warning, slow emergency responses, and the reluctance to allow foreign relief workers into the country (Martin and Margesson, 2008). Meanwhile, in Indonesia, the 2018 tsunami that hit Palu and the surrounding areas exposed fatalistic evacuation behaviour amongst locals, highlighting authorities' challenges in equipping communities with effective disaster preparation and response plans (Triyanti et al., 2023). In the Lao People's Democratic Republic (Lao PDR), significant disaster risks and the effects of climate change are worsened by overexploitation of natural resources. As an example, the rate of deforestation adversely affects forest-dependent households, worsens weather-related risks, and hampers the potential growth of sectors such as tourism and sustainable agriculture (World Bank, 2017).

3. Holistic and Interdisciplinary Approaches to Disaster-Resilient Development

Developing disaster resilience requires a holistic approach; one that incorporates disaster risk considerations into development policies, strategies, and projects. A holistic approach accounts for factors that strengthen synergies in disaster risk reduction by identifying potentially beneficial opportunities across policies and programmes (UNDRR, 2023). Robust coordination underpins a successful holistic approach. Weak coordination also hampers quick and effective responses in times of emergency (OECD, 2024a).

The increasingly complex and multifaceted nature of disaster risk reduction highlights the importance of taking a holistic approach. Single policies or organisations cannot cope with the full scope of disaster risk (McEntire, 2001). For instance, a strategy implemented to boost preparedness might not be as effective as expected due to a lack of education, ineffective warning systems, or lack of community capacity (Palliyaguru, Amaratunga, and Baldry, 2014). Becker (2009) highlights that the advocacy for holistic approaches to disaster risk does not always clearly outline the potential drawbacks of disregarding these approaches and explains that disregarding interdependencies leads to suboptimal responses and that monitoring and assessing the true impact of international cooperation in disaster risk reduction requires consideration of interdependencies. In a similar vein, Raikes et al. (2021) argue that disaster risk reduction and human development often remain disconnected in many countries and communities despite international efforts to encourage governments and stakeholders to address disaster risk in a more holistic way. They further suggest that effective disaster risk reduction necessitates a wider involvement with human development systems tailored to specific local circumstances. This involves integrating disaster risk information into human development initiatives as well as addressing aspects such as poverty, healthcare, climate risk mitigation, and human empowerment. In addition, successful approaches to disaster risk management will also be interdisciplinary (Righi et al., 2021). Ingham et al. (2012) argue that interdisciplinary approaches are most effective in disaster management as they not only foster the field's development but also enable the transfer of knowledge from various contexts to inform policy and practice across all phases of disaster management.

A holistic and interdisciplinary approach should encompass diverse elements across multiple policy areas, aligning with the principles outlined in both the Hyogo and Sendai Frameworks. These elements include strong institutional frameworks, education, finance, infrastructure, land-use planning, health, innovation, and technology, amongst others. The following subsections² discuss essential policy considerations for such an approach (Box 2).

Box 2. Holistic approach to disaster-resilient development

The framework proposed by OECD (2024a) offers a structured approach for assessing current policy landscapes across ASEAN countries. It aims to identify key challenges and recommend future policy directions for building disaster-resilient development. The report emphasises the need for a holistic strategy and highlights several essential elements:

- improving governance and institutional capacity
- strengthening disaster risk reduction education
- investing in disaster-resilient infrastructure
- developing disaster-related technology
- ensuring adequate disaster response budgets
- expanding disaster risk financing options
- establishing comprehensive land-use planning
- improving healthcare responses to disasters
- facilitating the role of the private sector.

Strengthening governance involves clear disaster risk management plans with defined roles and coordination mechanisms. Investment in resilient infrastructure should focus on systems that both withstand and mitigate disaster impacts, including robust ICT networks to support preparedness and response. Sufficient budgeting and diversified financing mechanisms are also essential for effective disaster management. Land-use planning must steer development away from high-risk zones, whilst health systems need to maintain continuity of care and respond rapidly to emergencies. Finally, the private sector can play a critical role in risk reduction and disaster preparedness.

Source: OECD (2024a).

² The discussions in these subsections are modified from OECD (2024a).

3.1. Institutional Capacity

ASEAN countries face significant institutional challenges in building disaster resilience. Multilayered bureaucracies and fragmented national policies impede a coordinated approach to disaster risk reduction. Disaster risk management should be proactive, although most national and local governments in the region tend to take a reactive approach.

Disaster risk management structures in ASEAN Member States usually involve a national body for core policy making. Supplementing national efforts with prudent decentralisation can help local authorities meet locally specific needs, but appropriate coordination is essential for a decentralised approach to function properly (GFDRR, World Bank, and UN, 2011). Improving the capacity of local governments and developing comprehensive monitoring and evaluation systems are also crucial. Improving the capacity of local governments will allow for disaster management strategies to be tailored to local needs. Robust monitoring and evaluation systems are important for the prioritisation of outcomes, projects, and activities; clear description of roles and responsibilities amongst mandated agencies and local governments; and appropriate, clear, and identified funding sources for each of the priority outcomes.

Develop robust risk assessment. A well-developed risk assessment mechanism is essential, and risk assessment should be made compulsory in formulating disaster risk management policies and measures. The risk assessment should consider the evolving nature of disasters, which are expected to become increasingly systemic and complex, and should be aligned with a highly dynamic institutional and governance mechanism. Such a mechanism also requires technical knowledge of all aspects of communities vulnerable to disasters, including economic, environmental, social, and cultural dynamics.

Ensure sustained ex-ante investments. Planning and preparedness are crucial for an effective disaster management strategy. Ex-ante planning ensures that response efforts can be initiated promptly when a disaster happens. Even so, governments across countries in the region often struggle to implement activities due to a lack of financial resources. Increasing flexibility in budget allocation and supporting disbursement of funds from the national or central government to local authorities are important areas for improvement. Local government units should ensure transparency and accountability of their disaster risk management budgets to facilitate effective use and allocation of the funds. Local input and participation in disaster planning and preparedness is essential to help ensure the consideration of needs and priorities down to the community level.

Develop capacity-building programmes for all levels of government. Capacity building is crucial in disaster management. It can help make local communities aware of their vulnerabilities and contribute to increasing their involvement in planning, preparedness, and emergency response. Capacity-building programmes should cover all aspects of disaster management, as well as relevant disaster risk management regulations, guidelines, and procedures. Fostering technical skills for governments and agencies to develop comprehensive risk assessments and build effective emergency response strategies is crucial.

Review and update disaster management laws and regulations. With more frequent disasters and extreme climatic events, countries in the region are facing changes in the disaster risk landscape. To mitigate and respond effectively to the evolving disaster risks, countries need to adapt their disaster management laws and regulations. Laws and regulations should be regularly reviewed and refined to ensure that government agencies at the national and local level can identify their roles and responsibilities and avoid unclear and overlapping functions. Disaster management operationalisation should incorporate and maximise the use of technology, such as new ways to collect data, perform analysis, and conduct risk assessment.

3.2. Disaster Budgeting

Insufficient disaster budgets can present another impediment to disaster preparedness and recovery and the disaster budgets for many emerging Asian countries fall below sustainable levels (ESCAP, 2023). Ways to improve disaster-related budgets include bolstering the budgets of local governments, including allocations for ex-ante measures.

Increase the availability of funds for ex-ante disaster risk reduction measures. Despite investments in disaster risk reduction being more cost-effective than investments in disaster response and recovery, those ex-ante investments are often neglected. Ideally, ex-ante investments can provide disaster risk reduction whilst mitigating climate risk at the same time (UNDRR, 2015). Budgets for ex-ante and ex-post measures can be separated in the funding structures, so that funds for ex-ante measures do not have to compete with post-disaster activities.

Strengthen local government disaster budgets. The limited fiscal capacity of local governments – often relying on central government transfers for their disaster risk management budgets – can limit their ability to plan and implement timely and appropriate activities. Several measures can be considered to increase the availability of local governments' disaster budgets. For example, countries may consider tying them directly to fiscal income at the respective level (Villacin, 2017). Implementing interregional fund sharing to allow local governments to share their disaster budgets with disaster-affected neighbouring governments is another option. Unexpended funds at the end of a fiscal year can be accumulated in trust funds and invested in insurance or disaster-related capital market instruments to improve the capacity to respond to large-scale disasters.

3.3. Disaster Risk Financing

Formulate a grand design. Broadening disaster risk financing involves formulating a grand design that covers the whole of the economy and all levels of government. The financial aspect of an appropriate grand design has two main pillars: risk pooling and risk transfer. Risk pooling improves resilience and can act as an insurance provider where private sector insurers are unwilling, or unable, to do so or they can act as reinsurers which bolster the capacity of private insurers to carry more risk. Risk transfer usually takes place through market-based solutions such as insurance-linked securities or catastrophe (CAT) bonds (OECD, 2024b).

Improve access to disaster insurance. Improving access to disaster insurance is crucial, since insurance penetration rates are still low in many countries in the region. Simplifying disaster insurance and making it more accessible could increase penetration amongst households or firms with lower financial literacy. Digitalisation has the potential to bridge insurance protection gaps, as well as providing incentives for insurance companies to create user-friendly and transparent insurance products. However, setting insurance premiums in a way that they reflect risk yet remain affordable is challenging. Moreover, the region is also facing challenges in developing the private insurance market due to barriers on both the supply and demand side of the market.

Improve training and education. Enhancing financial literacy and risk exposure awareness is critical to help close the insurance gap. The uptake of insurance can be improved by raising awareness of available financial protection options and the necessity of financial strategies to mitigate disaster risks. Policy priorities could include adding a financial component to public disaster preparedness messaging and providing appropriate training for households and firms.

Use community-based approaches effectively. Community-based approaches can be used in disaster risk financing. Microfinance programmes, for example, have the potential to provide financial solutions based on community enforcement and may act as a form of insurance for those with no access to traditional markets. However, the flexibility offered by microfinance programmes may come at the cost of high interest rates. Therefore, they must be properly structured to remain accessible amid post-disaster financial challenges. Agriculture insurance, which can protect farmers from the financial impacts of disasters, has been scaled up in some countries in the region.

Explore alternative financing tools such as CAT bonds. CAT bonds offer an alternative means of disaster risk finance. The CAT bond market worldwide has grown steadily since the 1990s, though it is still very limited in ASEAN countries. To get maximum benefit from CAT bonds, countries will need to take a number of measures, including constructing a grand design for disaster risk finance, investing in measurement infrastructure and enhancing the quality of disaster data, developing tailor-made catastrophe risk models, enhancing capacity building for finance and insurance officials, broadening investor bases, constructing CAT bonds, preparing distribution schemes for the funds, and developing local-currency bond markets (OECD, 2024b).

3.4. Disaster Risk Reduction Education

Many countries in the region have already implemented national education frameworks to improve public knowledge on disasters and have made efforts to integrate disaster risk reduction education into their curricula. However, they are facing challenges due to the diverse nature of their geographic, socio-economic, and cultural backgrounds.

Ensure clear policies and systematic management. Policies for implementing disaster risk reduction education into curricula are often unclear and fail to recognise the unique needs of rural and remote areas, an issue that should be corrected urgently. A successful implementation of disaster risk education requires clear policies and systematic management. A centralised mandate, along with clear policies and frameworks for curriculum content, teacher training emergency response protocols are necessary to ensure a successful integration of disaster risk reduction education into curricula. However, implementation of the framework should be adapted to local contexts.

Create rich and regularly updated learning materials. The content of disaster risk reduction education should be rich and balanced and should include an explanation of the benefits of disaster risk reduction and appropriate responses to disasters. The content should be complemented by active learning methods such as simulations, drills, games, and contests. Both central and local authorities should also ensure that all learning materials remain relevant and are updated regularly to reflect changing risk profiles and the development of new best practices.

Assess performance regularly. An efficient and multifaceted evaluation and monitoring system is crucial to measure progress on implementation of disaster risk reduction education policies. Adequate data collection and analysis tools are needed, such as surveys, interviews, and document analysis instructions for the qualitative assessment of textbooks. All relevant stakeholders should be involved in evaluation and measures for self-assessment should be provided.

Conduct regular training sessions for school staff and the public. Providing regular training sessions for teachers is also crucial in disaster risk reduction education. Teachers must ensure that the information they convey is current and the knowledge they transfer is accurate. Disaster risk education training could be integrated into teachers' professional development programmes and certificate curricula. Furthermore, disaster risk reduction education should also be directed to those who are not enrolled in formal education. Regular disaster risk education for communities is important to improve disaster preparedness. This can be done through community workshops, public awareness campaigns, and seminars. Disaster prevention learning facilities can also offer interactive and realistic experiences to learn practical skills.

3.5. Disaster-Resilient Infrastructure

The construction of disaster-resilient infrastructure is another vital component of any successful disaster risk reduction strategy, especially in Asia, where floods are the most common disasters, and infrastructure bears the brunt of flood-related losses (ADB, 2022). Examples of disaster-resilient infrastructure include earthquake-proof buildings, landslide-resistant retaining walls, flood-resistant concrete seawalls, and new or improved dams and dikes.

The construction of more resilient infrastructure is an important step in the efforts to adapt to climate change. Areas of difficulty include inadequate application of disaster risk assessments, insufficient financing, imprudent operation and lack of maintenance, lack of concrete monitoring and evaluation plans, inadequate collaboration with stakeholders, and undue reliance on grey infrastructure. These areas need to be addressed with appropriate policies to scale up disaster-resilient infrastructure effectively. Policy areas to consider include the following:

Increased application of disaster risk assessments on infrastructure projects. Disaster risk assessments provide information on the likelihood of hazard impact and its severity which allows stakeholders to take efficient long-term decisions. Disaster risk assessments need to be integrated into development plans; policy plans; investments; and planning for programmes, projects, and activities. Countries in the region are face challenges to develop risk assessments, such as lack of knowledge and expertise, incomplete or outdated data, lack of standardised methodologies, and insufficient budgets.

Increased financing, including encouragement of private sector participation. Ensuring investment and effective financing for disaster-resilient infrastructure requires holistic collaboration of relevant stakeholders including government, the private sector, civil society, and international organisations. Investments in disaster-resilient infrastructure remain limited in the region, with the major share of funding coming from the public sector. Maximising the involvement of the private sector is therefore needed to close financing gaps, and public-private collaboration is essential for developing innovative blended finance instruments.

Prudent operation and maintenance of disaster-resilient infrastructure. Maintaining effectiveness of disaster resilient infrastructure through its life cycle is also necessary. Operation and maintenance approaches that can support disaster resilience before, during, and after catastrophic events should be prioritised. Collaboration of governments, private investors, and other stakeholders is also needed for the development of an operation and maintenance framework to protect disaster-resilient infrastructure.

Creation of concrete monitoring and evaluation plans. It is vital to develop and implement monitoring and evaluation plans over the lifespan of infrastructure. This allows for regular updates, risk assessments, and state-of-the-art asset life-cycle management of infrastructure projects. Regular assessments allow for early detection of malfunctions and damage to infrastructure, enabling timely interventions such as repairs, reinforcements, or upgrades.

Greater collaboration with stakeholders. It is crucial to make use of the diverse skills of stakeholders at all levels from local to international. This is important for the successful development of disaster-resilient infrastructure. It can bring together a diverse range of skills and perspectives which contribute to the whole process of infrastructure development.

Striking a balance between grey infrastructure and a nature-based solutions approach. It is vital to use an appropriate combination of tools rather than relying only on grey infrastructure. Considering the complex nature of risks, an appropriate combination of tools is essential. Integrating nature-based solutions into infrastructure development plans can help to fortify climate resilience (Molnar-Tanaka and Surminski, 2024). Nature-based solutions, which remain underexplored in Southeast Asia, can support traditional infrastructure and offer a complementary approach.

3.6. Risk-Sensitive Land-Use Planning

Disasters can also affect land-use patterns, such as the transformation of farmland into residential or commercial areas (Gopal and Anbumozhi, 2019) or changes in the types of farming that occur in certain areas of farmland. Comprehensive land-use planning is important to identify the goals of communities in disaster-prone areas. Risk-sensitive land-use planning helps direct development away from the land with the highest disaster risk exposure.

Policies to be considered to improve the efficiency of land use and achieve disaster resilience could include the following actions.

Take a proactive approach to land use change and urbanisation. A proactive and sustainable approach to reducing vulnerability and improving resilience through strategic planning, community engagement, and the integration of ecosystem-based approaches will enable countries to cope with changes in land use due to the process of urbanisation.

Integrate disaster resilience into recovery. This can be done by establishing new land-use regulations and guidelines that prioritise risk reduction, environmental conservation, and community engagement.

Develop a comprehensive land-use management approach. This should involve strategic planning, policy development, and regulatory frameworks to guide land-use decisions that are in line with the goals and values of the society.

Undertake a risk-sensitive land-use planning approach. This should include the use of zoning, restrictions to avoid development in vulnerable areas and to redirect new development to safer areas, coastal setbacks, and mandatory environmentally friendly practices.

Conduct property buy-outs and acquisition. This will support owners of damaged properties to establish buffer zones and remove vulnerable land from the market.

Relocate damaged infrastructure away from disaster-vulnerable areas. This could be the best way of preventing repeat damage. However, the restoration of infrastructure is often critical to the post-disaster recovery process. It is therefore important to balance the use of public assistance funding between restoration and relocation projects.

3.7. Health Responses to Disasters

The physical and mental health effects of disasters can be enormous and long-lasting, and can stress healthcare resources (physical and human) that frequently face distributional issues. This subsection discusses policy considerations for mobilising healthcare to disaster-stricken areas, preserving healthcare capacity in the aftermath of a disaster and scaling up healthcare capacity.

Enable intricate coordination. Health responses to disasters involve various stakeholders and often require intricate coordination amongst different levels of government, military personnel, and external support. Clear lines of communication should, therefore, be established between national and subnational governments, together with clearly defined hierarchies, roles and responsibilities to avoid unnecessary duplication of efforts.

Encourage resource flexibility. At the local level, there may be an overwhelming need to allocate resources for basic needs and human health, requiring help from outside. This could mean encouraging the temporary movement of medical personnel from areas with lower medical need to areas of greater need in response to a disaster. Medical equipment and supplies could also be redistributed in this way during a disaster.

Consider the health of the general population. Access to clean water, safe food, hygiene services, and health services must be preserved during, and following, disasters. Advisory messaging to always stockpile water, non-perishable food, and necessary medications can help the community take a proactive approach. In addition to these measures, it is important to care for pregnant women and people who were already hospitalised prior to the disaster as well as preserving the schedules of patients undergoing regular treatments.

Scale up mental health care. Mental health care should be scaled up both for disaster victims and responders (Ministry of Health of Singapore, 2021; OECD, 2023; WHO, 2019; and WHO, n.d.) as disasters can cause trauma or extreme stress for both groups. Disaster preparedness therefore requires that medical personnel be trained to cope with those types of mental health issues. Mental health services in countries in the region still have significant room for improvement, since the proportion of psychologists and psychiatrists in the population lags the OECD average which makes accessing professional care difficult even in normal times.

3.8. Advanced Disaster-Related Technology

Adoption of advanced technology can reduce deaths and economic losses from disasters by providing timely and accurate information to guide policy during all phases of the disaster cycle. Examples of available technologies include resident-engaged disaster risk mapping, early warning systems, cutting-edge information and communications technology, disaster management platforms, unmanned aerial vehicles, and social media.

Technologies such as the internet of things, drones, search-and-rescue robots, big data, artificial intelligence and blockchain technology can strengthen disaster risk management capacity. Collection and analysis of big data – often with the help of artificial intelligence – can provide information on the

reactions to disasters and can enable responses to be coordinated, based on that information. Some artificial intelligence applications have predictive capabilities that allow authorities to issue warnings, coordinate evacuations, and mobilise physical and human resources in advance of a disaster.

However, the use of new technologies for disaster resilience is still limited in the region. To achieve the successful adoption of disaster-related new technologies, policy considerations could include the following:

Research and development policies. Policies to promote research and development can include fiscal and financial incentives such as intergovernmental or government-to-company grants, tax incentives, loans, tariff exemptions for infrastructure equipment, and bonds of subsidised services.

Open- and fair-trade policies. These contribute to innovation through improved access to foreign markets and increased competition that encourages firms to invest more in research and development.

Policies that strengthen access to new technologies. Policies that deploy new technology and provide access to it, increase the use of technology more broadly. Policies could, for example, promote improvements to basic facilities such as telecommunications infrastructure; promote greater internet access; advance technical upskilling, human capital formation, and education – in particular in the science, technology, engineering, and mathematics subjects; expand access to data and software; and adapt regulatory frameworks to facilitate the acceptance of cutting-edge tools.

In sum, this section discusses policy directions in disaster management, by addressing several key issues, summarized in Table 6.1. By implementing holistic approaches, ASEAN countries can make significant advances towards disaster-resilient development.

Table 6.1. Policy Checklist for Disaster-Resilient Development

Institutional capacity	• Develop robust risk assessment • Ensure sustained ex-ante investments • Develop capacity-building programmes for all levels of government • Review and update disaster management laws and regulations
Disaster budgeting	• Increase the availability of funds for ex-ante disaster risk reduction measures • Strengthen local government disaster budgets
Disaster risk financing	• Formulate a grand design • Improve access to disaster insurance • Improve training and education • Use community-based approaches effectively • Explore alternative financing tools such as CAT bond
Disaster risk reduction education	• Ensure clear policies and systemic management • Create rich and regularly update learning materials • Assess performance regularly • Conduct regular training sessions for school staff and the public
Disaster-resilient infrastructure	• Increased application of disaster risk assessments • Increased financing • Prudent operation and maintenance • Creation of concrete monitoring and evaluation plans • Greater collaboration with stakeholders • Striking a balance between grey infrastructure and a nature-based solutions approach

Risk-sensitive land-use planning	• Take a proactive approach to land use change an urbanisation • Integrate disaster resilience into recovery • Develop a comprehensive land-use management approach • Undertake a risk sensitive land-use planning approach • Conduct property buy-outs and acquisition • Relocate damaged infrastructure away from disaster-vulnerable areas
Health response to disasters	• Enable intricate coordination • Encourage resource flexibility • Consider the health of general population • Scale up mental health care
Advance disaster-related technology	• Research and development policies • Open – and fair-trade policies • Policies that strengthen access to new technologies

CAT = catastrophe bond.

Source: Author.

4. Disaster-Resilient Development through Regional Efforts in ASEAN

In the context of ASEAN, regional cooperation in disaster management is underpinned by the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), which is a legally binding agreement amongst ASEAN Member States that has been in effect since December 2009. The agreement focuses on disaster risk reduction, emergency response, and recovery. It has galvanised ASEAN to take concrete action towards building a safe and united ASEAN community through disaster risk reduction and climate change adaptation initiatives. Given the projected increase in future disaster risks, strengthening regional cooperation that can assist national and regional preparedness and response remains essential.

AADMER serves as the primary regional policy framework for reducing disaster losses and enhancing joint emergency response efforts. The AADMER Work Programme 2010–2015 incorporated four strategic components: Risk Assessment, Early Warning and Monitoring; Prevention and Mitigation; Preparedness and Response; and Recovery. To build a sturdy foundation for the four strategic components, six building blocks were deemed essential during the implementation process. These are the institutionalisation of AADMER, partnership strategies, resource mobilisation, outreach and mainstreaming, a training and knowledge management system, and information management and communication technology (ASEAN, 2013). Whilst the first work programme was largely successful, some gaps remained. The AADMER Work Programme 2016–2020 continued the work set out in the previous work programmes. Eight priority programmes, which covered a wide range of topics related to risk assessment, disaster prevention and mitigation, disaster preparedness and emergency response, disaster recovery, and knowledge and innovation were implemented (ASEAN, 2016).

The current AADMER Work Programme 2021–2025 aims to enhance and support ASEAN’s disaster risk reduction and disaster management capabilities and capacities through intersectoral cooperation, scalable innovation, resource mobilisation, new partnerships, and coordination amongst ASEAN Member States (ASEAN, 2020). The programme will be implemented through five priority programmes related to risk assessment and monitoring, prevention and mitigation, preparedness and response, resilient recovery, and global leadership.

AADMER has also bolstered the regional humanitarian response structure, providing a robust policy framework to ensure disaster preparedness. Since 2003, the ASEAN Regional Disaster Emergency Response Simulation Exercise has been regularly conducted to test regional emergency response coordination and operations mechanisms through multi-level exercises (ASEAN, 2020). Three scenarios that have been explored are a Metro Manila earthquake in the Philippines, a Mentawai megathrust tsunami in Indonesia, and a large-scale cyclone event in the Republic of the Union of Myanmar. These scenarios are expected to increase the preparedness and response capacity of each region. However, challenges remain; complex emergencies due to the coincidental occurrence of disasters, transboundary disasters, pandemics, and conflict, have not been incorporated into the scenarios (ASEAN, 2016; ASEAN, 2020).

In addition to AADMER, the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) was created in 2011 upon the agreement of ASEAN foreign ministers. The AHA Centre developed a Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP) to establish joint response mechanisms that connect national response and preparedness systems with those established at the regional level. Under the SASOP, the Secretary-General of ASEAN serves as ASEAN Humanitarian Assistance Coordinator during disasters and is responsible for coordinating regional responses. Through this role, the ASEAN Secretary-General was able to mobilise resources for the communities affected by Typhoon Haiyan in 2013 (ASEAN, 2010; ASEAN, 2020). The SASOP was updated in 2018 to enhance ease of use, and the new edition was used widely to channel offers of assistance during the response to the 2018 Central Sulawesi earthquake and tsunami, proving the value of ASEAN's regional initiatives. In response to regional and global developments since that time, the content is undergoing further revision to bring it in line with the new disaster landscape where pandemics and conflict must also be considered (ASEAN, 2016; ASEAN, 2020).

Furthermore, due to constant development, environmental change, and risk manifesting in new areas and amongst new populations, identifying high-risk populations and understanding the current capacities of each community is crucial. To strengthen ASEAN's capacity in risk and vulnerability assessment, the Working Group on Risk Assessment and Awareness conducted a regional workshop to review the draft guidelines, secure adoption of the guidelines by the ASEAN Committee on Disaster Management and review the progress of implementing the guidelines. The ASEAN Regional Risk and Vulnerability Assessment Guidelines were disseminated in 2017 and translated into seven ASEAN languages in 2018. Since then, they have become a critical tool for disaster risk reduction, providing high-level guidance to the National Disaster Management Organisations in identifying vulnerabilities and developing mitigation strategies. Currently, ASEAN countries are working on building a regional network of automatic disaster alert systems and promoting formal information sharing agreements and information flows to enhance data sharing.

Moreover, to support the affected Member States during the initial phases of disasters, the ASEAN Emergency Response Assistance Teams (ASEAN-ERAT) and the ASEAN Resilient Recovery Toolbox were established. The ASEAN-ERAT training course comprises sessions with several international organisations, ongoing recovery site visits, and simulation exercises. During Typhoon Bopha in 2012, Typhoon Haiyan in 2013, Typhoon Hagupit in 2014, and Typhoon Rammasun in 2014, ASEAN-ERAT deployment took place within 24 hours of acceptance of the offer of assistance by the affected Member States (ASEAN, 2010; ASEAN, 2020). In addition, ASEAN-ERAT trainers have collaborated with the United States Agency for International Development on exercises as part of a 'training of trainers' programme. The ASEAN Resilient Recovery Toolbox was developed in 2018 as an online repository of recovery policies, assessments, monitoring, and other tools. It provides Member States

with policy options and tools that they can use during recovery, and it can be deployed by ASEAN Member States that need to strengthen their recovery systems and initiatives (ASEAN, 2016; ASEAN, 2020). Furthermore, the ASEAN Disaster Recovery Reference Guide was published in 2016 to provide a coherent regional framework, and it also helps Member States to prepare for recovery. The Guide aims to enhance the performance of recovery programmes and disaster resilience across the ASEAN Member States (ASEAN, 2016; ASEAN, 2020).

In 2011, the ASEAN Disaster Risk Financing and Insurance (DRFI) Roadmap was adopted to establish a strategic plan for enhancing financial resilience against disasters within the ASEAN region and to develop mechanisms for effective disaster risk financing and insurance systems. Accordingly, DRFI Programme Phase I was implemented, and, as a result, the Cross-Sectoral Committee was established in 2013. As the programme is intersectoral, extensive coordination with various sectors and reliance on technical assistance from partners is required. (ASEAN, 2010; ASEAN, 2020). To build financial resilience to climate impacts, ASEAN+3³ established the Southeast Asia Disaster Risk Insurance Facility in 2018. The initiative aims to give Member States access to robust sources of disaster risk financing through tailored financial products and to enhance their financial resilience by providing administrative services. The first financial product includes a 3-year insurance policy against the risk of floods developed in response to a request from Lao PDR. The current financial support solution offered by the Southeast Asia Risk Insurance Facility involves a reinsurance-backed catastrophe risk pool for Lao PDR and Myanmar. The Philippines has also issued CATs, and it is hoped that other ASEAN Member States will be able to do so in the future (OECD, 2024b).

The ASEAN Leaders' Declaration on Sustainable Resilience, issued in 2023 (ASEAN, 2023), focuses on enhancing regional collaboration and partnership for climate and disaster resilience aligned with global frameworks such as the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals, and the Paris Agreement. Setting 12 goals, the Declaration on Sustainable Resilience emphasises the need to strengthen partnerships, share knowledge and information, and build capacity to address sustainable resilience challenges. The Declaration also calls for improved disaster risk governance, the refining of early warning and dissemination systems, and greater financial resilience through risk financing and insurance. It advocates for science, technology, and innovation to be leveraged to ensure inclusive resilience practices, and for local communities to be supported by integrating global commitments into a harmonised approach. The goal is to let ASEAN take the lead in disaster management by ensuring multilateral cooperation and a people-centred approach, by which ASEAN can enhance its ability to prevent, prepare for, respond to, and recover from disasters.

³ The ASEAN+3 consists of the ten ASEAN Member States, plus China, Japan, and the Republic of Korea, henceforth Korea.

5. Conclusion

The ASEAN region is the most disaster-prone in the world and exposure to natural hazards has increased in recent years. Therefore, achieving disaster-resilient development is one of the most pressing challenges for ASEAN Post-2025. This paper examines strategies for doing so in many policy areas that highlight the importance of holistic and interdisciplinary approaches.

Key challenges include the following:

- **Holistic and interdisciplinary approaches.** Development models in the region should integrate disaster risk management. Achieving disaster-resilient development requires the strategic introduction of holistic and interdisciplinary approaches.
- **Coordination.** Effective coordination is essential at both country and regional level. As with disaster risk management, it should include strong institutional frameworks for education, finance, infrastructure, land-use planning, health, innovation, and technology. National disaster management authorities, together with the ASEAN Committee, play an important role in encouraging cooperation. Implementing AADMER effectively at both national and regional level will be important.
- **Resource allocation.** Appropriate resource allocation is key. Governments should allocate both financial and human resources to disaster risk management structures. Facilitating resource mobilisation and giving incentives for implementing stronger institutional frameworks are additional key priorities. Disaster risk financing through the DRFI programme in the region must also be strengthened to bolster the stock of financial resources available.
- **Capacity building.** Strengthening capacity building at both country and regional level is critical. Priority areas for such strengthening include risk assessment, response coordination, resource mobilisation, and deployment of regional disaster management capacity through existing ASEAN mechanisms.

References

- Asian Development Bank (ADB) (2022), *Disaster-Resilient Infrastructure: Unlocking Opportunities for Asia and the Pacific*. Mandaluyong City: ADB. <https://www.adb.org/sites/default/files/publication/791151/disaster-resilient-infrastructure-opportunities-asia-pacific.pdf>
- Association for Southeast Asian Nations (ASEAN) (2010), *ASEAN Agreement on Disaster Management and Emergency Response Work Programme for 2010–2015*. Jakarta: ASEAN Secretariat. <https://www.asean.org/wp-content/uploads/images/2012/publications/AADMER%20WP%202011.pdf>
- (2013), *ASEAN Agreement on Disaster Management and Emergency Response Work Programme 2010–2015*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2021/01/2013-12.-Dec-AADMER-Work-Programme-4th-Reprint.pdf>

- (2016), *AADMER Work Programme 2016–2020*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2021/01/AADMER-Work-Programme-2016-2020-v1.6.pdf>
- (2020), *AADMER Work Programme 2021–2025*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2021/08/AADMER-Work-Programme-2021-2025.pdf>
- (2023), *ASEAN Leaders' Declaration on Sustainable Resilience*. Jakarta: ASEAN. <https://asean.org/wp-content/uploads/2023/09/ASEAN-Leaders-Declaration-on-Sustainable-Resilience.pdf>
- Azhar, T., M.S.A. Majid, S. Sartiyah, and T.C. Dawood (2022), 'Impact of Disaster on Economic Performance of ASEAN-9: Does Philanthropy Help?', *Jurnal Ekonomi & Studi Pembangunan*, 23(1). <https://journal.umy.ac.id/index.php/esp/article/view/12593>
- Bănică, A., K. Kourtit, and P. Nijkamp (2020), 'Natural Disasters as a Development Opportunity: a Spatial Economic Resilience Interpretation', *Review of Regional Research*, 40, pp.223–49. <https://doi.org/10.1007/s10037-020-00141-8>
- Banuri, T. (2013), 'Sustainable Development is the New Economic Paradigm', *Development*, 56, pp.208–17. <https://doi.org/10.1057/dev.2013.38>
- Barone, G. and S. Mocetti (2014), 'Natural Disasters, Growth and Institutions: A Tale of Two Earthquakes', *Journal of Urban Economics*, 84. <https://doi.org/10.1016/j.jue.2014.09.002>
- Becker, P. (2009), 'Grasping the Hydra: The Need for a Holistic and Systematic Approach to Disaster Risk Reduction', *Jambá: Journal of Disaster Risk Studies*, 2(1), pp.12–24. <https://lucris.lub.lu.se/ws/portalfiles/portal/2576784/2294986.pdf>
- Benson, C. (2016), 'Promoting Sustainable Development through Disaster Risk Management', *ADB Sustainable Development Working Paper Series*, 41. <https://www.adb.org/publications/sustainable-development-through-disaster-risk-management>
- Boianovsky, M. (2015), 'Beyond Capital Fundamentalism: Harrod, Domar and the History of Development Economics', *CHOPE Working Paper*, 2015-12. <http://hdl.handle.net/10419/149739>
- Chambers, R. (1992), 'Rural Appraisal: Rapid, Relaxed, and Participatory', *IDS Discussion Paper*, 311. <https://www.ids.ac.uk/download.php?file=files/Dp311.pdf>
- Chantararat, S., K. Chheng, K. Minea, S. Oum, K. Samphantharak, and V. Sann (2015), 'The Effects of Natural Disasters on Households' Preferences and Behaviours: Evidence from Cambodian Rice Farmers After the 2011 Mega Flood', in Y. Sawada and S. Oum (eds), *Disaster Risks, Social Preferences, and Policy Effects: Field Experiments in Selected ASEAN and East Asian Countries*, ERIA Research Project Report FY2013, 34. Jakarta: ERIA, pp.85–130.
- Coccia, M. (2019), 'Theories of Development', in: Farazmand, A. (ed), *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Springer. https://doi.org/10.1007/978-3-319-31816-5_939-1
- Centre for Research on the Epidemiology of Diseases (CRED) (2024), *EM-DAT, The International Disaster Database*. Louvain: CRED. <https://www.emdat.be/>

- Daly, P., et al. (2020), 'Rethinking Relief, Reconstruction and Development: Evaluating the Effectiveness and Sustainability of Post-Disaster Livelihood Aid', *International Journal of Disaster Risk Reduction*, 49. <https://doi.org/10.1016/j.ijdisaster risk reduction.2020.101650>
- Department for International Development (DFID) (2005), *Disaster Risk Reduction: a Development Concern*, London: DFID. https://www.ipcc.ch/apps/njlite/srex/njlite_download.php?id=6175
- Economic and Social Commission for Asia and the Pacific (ESCAP) (2023), *Seizing the Moment: Targeting Transformative Disaster Risk Resilience*. Bangkok: ESCAP. <https://repository.unescap.org/handle/20.500.12870/6258>
- Fang, J., C.K.M. Lau, Z. Lu, W. Wu, and L. Zhu. (2019), 'Natural Disasters, Climate Change, and Their Impact on Inclusive Wealth in G20 Countries', *Environmental Science and Pollution Research*, 26, pp.1455–63. <https://doi.org/10.1007/s11356-018-3634-2>
- Flammang, R.A. (1979), 'Economic Growth and Economic Development: Counterparts or Competitors?', *Economic Development and Cultural Change*, 28(1), pp.47–61. <https://www.journals.uchicago.edu/doi/pdf/10.1086/451152>
- Folke, C., S.R. Carpenter, B. Walker, M. Scheffer, T. Chapin, and J. Rockström (2010), 'Resilience Thinking: Integrating Resilience, Adaptability and Transformability', *Ecology and Society*, 15(4). <http://www.jstor.org/stable/26268226>
- Global Facility for Disaster Reduction and Recovery (GFDRR), World Bank, and United Nations (2011), *Thai Flood 2011: Rapid Assessment for Resilient Recovery and Reconstruction Planning*, Bangkok: The World Bank. https://www.gfdr.org/sites/default/files/publication/Thai_Flood_2011_2.pdf
- Gopal, T. and V. Anbumozhi (2019), 'Effects of Disasters and Climate Change on Fisheries Sectors and Implications for ASEAN Food Security', in V. Anbumozhi, M. Breiling, and V. Reddy (eds.), *Towards a Resilient ASEAN Disasters, Climate Change, and Food Security: Supporting ASEAN Resilience*. pp.161–88, Jakarta: Economic Research Institute for ASEAN and East Asia.
- Gröger, A. and Y. Zylberberg (2016), 'Internal Labour Migration as a Shock Coping Strategy: Evidence from a Typhoon', *American Economic Journal: Applied Economics*, 8(2), pp.123–53.
- Hallegatte, S. and P. Dumas (2009), 'Can Natural Disasters Have Positive Consequences? Investigating the Role of Embodied Technical Change', *Ecological Economics*, 68(3), pp.777–86. <https://enpc.hal.science/hal-00719266>
- Husted, L., I. Opper, and R. Park (2022), 'The Impact of Natural Disasters on Human Capital', *EdWorking Paper*, 22-548. <https://doi.org/10.26300/bkah-we19>
- Ingham, V., J. Hicks, M.R. Islam, I. Manock, and R. Sappey (2012), 'An Interdisciplinary Approach to Disaster Management, Incorporating Economics and Social Psychology', *International Journal of Interdisciplinary Social Sciences*, 6(5), pp.93–106.
- de Janvry, A., A. del Valle, and E. Sadoulet (2016), 'Insuring Growth: The Impact of Disaster Funds on Economic Reconstruction in Mexico', *World Bank Policy Research Working Paper*, 7714. <https://ssrn.com/abstract=2811362>

- Japan International Cooperation Agency (JICA) (2017), *Disaster Resilience Society for All: Integrating Disaster Risk Reduction Challenges with Sustainable Development*: JICA.
- Lewis, W.A. (1954), 'Economic Development with Unlimited Supplies of Labour', *The Manchester School*, 22(2), pp.39–91. <https://doi.org/10.1111/j.1467-9957.1954.tb00021.x>
- Loayza, N.V., E. Olaberria, J. Rigolini, L. Christiaensen (2012), 'Natural Disasters and Growth: Going Beyond the Averages', *World Development*, 40(7), July 2012, pp.1317–36, <https://doi.org/10.1016/j.worlddev.2012.03.002>
- Mansuri, G. and V. Rao (2004), 'Evaluating Community-Based and Community-Driven Development: A Critical Review of Evidence', *Policy Research Working Paper*, 3209.
- Martin, M.F. and R. Margesson (2008), 'Cyclone Nargis and Burma's Constitutional Referendum', *Congressional Research Service Report for Congress*. <https://apps.dtic.mil/sti/tr/pdf/ADA481355.pdf>
- McEntire, D.A. (2001), 'Triggering Agents, Vulnerabilities and Disaster Reduction: towards a Holistic Paradigm', *Disaster Prevention and Management*, 10(3), pp.189–96. <https://doi.org/10.1108/09653560110395359>
- Ministry of Health of Singapore (2021), 'Sufficiency of Number of Practising Psychiatrists and Psychologists in Singapore', *Notice Paper*, 738. <https://www.moh.gov.sg/news-highlights/details/sufficiency-of-number-of-practising-psychiatrists-and-psychologists-in-singapore>
- Molnar-Tanaka, K., B-G. Choi, and J. Park (2024), Disasters and Capital Accumulation: *the Case of Southeast Asia*. *Applied Economics Letters*, 1–4. <https://doi.org/10.1080/13504851.2024.2407511>
- Molnar-Tanaka, K., P. Ibrahim, and O. Hean (2023), 'How Did Disasters Change Consumption Behaviour in Thailand and the Philippines?', *Journal of Southeast Asian Economies*, 40(2), pp.175–97. <https://www.jstor.org/stable/27241203>
- Molnar-Tanaka, K. and S. Surminski (2024), 'Nature-Based Solutions for Flood Management in Asia and the Pacific', *OECD Development Centre Working Papers*, 351. <https://doi.org/10.1787/f4c7bcbe-en>
- Norizan, N.Z.A., N. Hassan, and M.M. Yusoff (2021), 'Strengthening Flood Resilient Development in Malaysia through Integration of Flood Risk Reduction Measures in Local Plans', *Land Use Policy*, 102. <https://doi.org/10.1016/j.landusepol.2020.105178>
- Organisation for Economic Co-operation and Development (OECD) (2023), 'Healthcare Resources: Physicians by Categories', OECD. [database], Accessed 14 November 2023.
- (2024a), *Economic Outlook for Southeast Asia, China and India 2024: Developing amid Disaster Risks*, Paris: OECD Publishing. <https://doi.org/10.1787/3bbe7dfe-en>
- (2024b), *Fostering Catastrophe Bond Markets in Asia and the Pacific*, The Development Dimension, Paris: OECD Publishing. <https://doi.org/10.1787/ab1e49e-en>
- Okuyama, Y. (2003), 'Economics of Natural Disasters: A Critical Review', *Regional Research Institute Working Papers*, 131. https://researchrepository.wvu.edu/rri_pubs/131

- Pal, I., R. Shaw, S. Shrestha, R. Djalante, and R.A.W.C. Cavuilati (2021), 'Towards Sustainable Development: Risk-Informed and Disaster-Resilient Development in Asia', *Disaster Resilience and Sustainability*, pp.1–20. <https://doi.org/10.1016/B978-0-323-85195-4.00001-9>
- Palliyaguru, R., D. Amaratunga, and D. Baldry (2014), 'Constructing a Holistic Approach to Disaster Risk Reduction: the Significance of Focusing on Vulnerability Reduction', *Disasters*, 38(1), pp.45–61. <https://doi.org/10.1111/disa.12031>
- Raikes, J., T.F. Smith, C. Baldwin, and D. Henstra (2021), 'Linking Disaster Risk Reduction and Human Development', *Climate Risk Management*, 32. <https://doi.org/10.1016/j.crm.2021.100291>
- Righi, E., P. Lauriola, A. Ghinoi, E. Giovannetti, and M. Soldati (2021), 'Disaster Risk Reduction and Interdisciplinary Education and Training', *Progress in Disaster Science*, 10. <https://doi.org/10.1016/j.pdisas.2021.100165>
- Rosenstein-Rodan, P.N. (1943), 'Problems of Industrialisation of Eastern and South-Eastern Europe', *The Economic Journal*, 53(210/211), pp.202–11. <https://doi.org/10.2307/2226317>
- Rostow, W.W. (1960), *The Stages of Economic Growth*, Cambridge: Cambridge University Press. <https://www.cambridge.org/core/books/stages-of-economic-growth/9CB46055035A1915509CE15A57848A07>
- Schipper, E.L.F. et al. (2022), 'Climate Resilient Development Pathways' in H-O. Pörtner et al. (eds), *Climate Change 2022: Impacts, Adaptation and Vulnerability*, Cambridge and New York: Cambridge University Press, pp.2655–807. <https://doi.org/10.1017/9781009325844.027>
- Schumacher, I. and E. Strobl (2011), 'Economic Development and Losses due to Natural Disasters', *Ecological Economics*, 72, pp.97–105. <https://www.sciencedirect.com/science/article/abs/pii/S0921800911003648>
- Sen, A. (1989), 'Development as Capability Expansion', *Journal of Development Planning*, 19, pp.41–58. <https://livelihoods.net.in/wp-content/uploads/2020/05/DEVELOPMENT-AS-CAPABILITY-EXPANSION.pdf>
- Shabnam, N. (2014), 'Natural Disasters and Economic Growth: A Review'. *International Journal of Disaster Risk Science*, 5, pp.157–63. <https://doi.org/10.1007/s13753-014-0022-5>
- Skidmore, M. and H. Toya (2002), 'Do Natural Disasters Promote Long-Run Growth?', *Economic Inquiry*, 40, pp.664–87. <https://doi.org/10.1093/ei/40.4.664>
- Soubbotina, T.P. and K. Sheram (2000), *Beyond Economic Growth: Meeting the Challenges of Global Development*. World Bank Publications,
- Stiglitz, J.E., A. Sen, and J.P. Fitoussi (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress*. <https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf>.
- Taghizadeh-Hesary, F., T. Sarker, N. Yoshino, A. Mortha, and X.V. Vo (2021), 'Quality Infrastructure and Natural Disaster Resiliency: A Panel Analysis of Asia and the Pacific', *Economic Analysis and Policy*, 69, pp.394–406. <https://doi.org/10.1016/j.eap.2020.12.021>

- Todaro, M.P. and S.C. Smith (2003), *Economic Development*, Harlow: Parson Addison Wesley. <http://www.c3l.uni-oldenburg.de/cde/OMDE625/Todaro/Todaro%20Chapter%203.pdf>
- Triyanti, A., G.A.K. Surtiari, J. Lassa, I. Rafliana, N.R. Hanifa, M.I. Muhidin, and R. Djalante (2023), 'Governing Systemic and Cascading Disaster Risk in Indonesia: Where do we Stand and Future Outlook', *Disaster Prevention and Management*, 32(1), pp.27–48. <https://doi.org/10.1108/DPM-07-2022-0156>
- United Nations (UN) (2012), *UN System Task Team on the Post-2015 UN Development Agenda: Disaster Risk and Resilience Thematic Think Piece*. Geneva: United Nations. https://www.un.org/en/development/desa/policy/untaskteam_undf/thinkpieces/3_disaster_risk_resilience.pdf
- United Nations Office for Disaster Risk Reduction (UNDRR) (2015), *Sendai Framework for Disaster Risk Reduction 2015–2030*. Geneva: UNIDRR. <https://www.undisaster-risk-reduction.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
- (2017), 'Definition: Resilience', *The Sendai Framework Terminology on Disaster Risk Reduction*, Geneva: UNDRR. <https://www.undrr.org/terminology/resilience>
- (2023), *Technical Guidance on Application of Climate Information for Comprehensive Risk Management*, Geneva: UNDRR. <https://www.undrr.org/publication/technical-guidance-application-climate-information-comprehensive-risk-management>
- Villacin, D. (2017), 'A Review of Philippine Government Disaster Financing for Recovery and Reconstruction', *Philippine Institute for Development Studies (PIDS) Discussion Paper Series*, No. 2017-21, PIDS. <https://www.econstor.eu/bitstream/10419/173598/1/pidsdps1721.pdf>
- World Health Organization (WHO) (2019), *WHO Global Health Observatory Data Repository*, (data from 25 April 2019). Geneva: WHO. <https://apps.who.int/gho/data/view.main.HWF11v>
- (n.d.), *WHO Mental Health Atlas*, Geneva: WHO. <https://www.who.int/teams/mental-health-and-substance-use/data-research/mental-health-atlas>
- World Bank (2017), *Lao PDR: Systematic Country Diagnostic*, Washington, DC: The World Bank. <https://documents1.worldbank.org/curated/en/983001490107755004/pdf/Lao-PDR-SCD-03-09-2017-03162017.pdf>
- Zhang, Z. et al. (2021), 'Analysis of the Impact of Dynamic Economic Resilience on Post-Disaster Recovery 'Secondary Shock' and Sustainable Improvement of System Performance', *Safety Science*, 144. <https://doi.org/10.1016/j.ssci.2021.105443>

7.

A Social Contract for an Integrated Sustainability Framework for AEC and a Transformative ASEAN

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1. ASEAN Integration Mechanisms and the Unfolding of An Economic Renaissance

ASEAN's continued growth and stability rests, first and foremost, on each of the ASEAN Member States (AMS) pursuing sound policies for their own sake – which is precisely how many have grown so fast in recent decades (Anbumozhi, 2017). As trade and financial links within the region grow, each Member State's outlook for sustainable economic growth increasingly depends on what happens to their neighbours. A shock – including a policy decision – that originates in one AMS can quickly and forcefully affect others. To the extent that ASEAN's economic integration is a vital factor in luring fragmented production to the region, currency dislocations could prove highly disruptive. Since ASEAN economies are increasingly synchronised, they may sometimes gain from formulating a common response. In principle, there could also be gains to formulating different responses to common shocks insofar as different countries are affected differently by the same shocks. This could be seen in the Asian economic crisis of 1997, the global financial crisis of 2008, and the coronavirus disease (COVID-19) pandemic in 2021. Broadly, three types of regional economic policy cooperation were conceived during normal times that were accelerated during the crisis, namely information sharing, new regime setting, and policy coordination (Ferry, 2021). The most rudimentary, information sharing within the ASEAN Economic Community (AEC), involves a mechanism for dialogue, and possibly surveillance, that seeks to improve each AMS's understanding of the economic integration performance, macroeconomic and structural issues, policy objectives, and policy choices faced by its peers. This enhanced the region's economic welfare after the 1997 financial crisis by enabling each country's policymakers to use more accurate information about neighbours in their own decisions. Regime setting involves agreeing on common rules of the game, within which individual countries can pursue independent policies that suit their economic interests. This type of policy cooperation includes regional agreements on removing

tariff barriers, financing arrangements, rules for exchange rate management, and frameworks for action such as the AEC in 2015 as well as the ASEAN Comprehensive Recovery Framework in 2020 (ASEAN, 2015a; ASEAN, 2020a). Under these frameworks, policy coordination across the countries and sectoral bodies takes place in various forms and in varying intensities. A weaker form might involve acting in concert to avoid unexpected spillovers such as the Chiang Mai Initiative (Asami, 2005). This took place in the 1990s when the task of fiscal expansion or currency appreciation was assigned to a group of countries. In its most ambitious form, the economies' policymakers would act as if the region were a single economy to maximise a weighted sum of their economic welfare. The successful launch of the Regional Comprehensive Economic Partnership is a good example of this, although arguably it can go even further to include stringent sustainability issues.

ASEAN cannot rely entirely on a global framework, however, to help address the challenges associated with increasing regional spillovers of economic integration and enhancing the delivery of public goods such as climate change, biodiversity, and the circular economy. Some kind of formal policy dialogue and cooperative framework is needed, if only to mitigate the political tensions that may arise from increasing macroeconomic interdependence; and because institution-building takes time, it must begin now. Thus, the main task of the AEC is to strengthen existing mechanisms of information sharing, policy dialogue, and mutual surveillance, and to identify areas in which agreeing on common policy regimes could yield mutual gains for sustainability across the sectors and countries.

Cooperation is also needed to build a global architecture based on the principles of regional cooperation to secure sustainability. For crises such as climate change, a global framework for managing and resolving diverging solutions provided too little help. It also showed that contagion has a geographic dimension because neighbouring economies tend to share similar characteristics, are more closely connected than other economies, and are perceived as similar by outside investors. There is thus a case for establishing regional sustainability doctrine under the framework conditions of AEC, to complement, not be a substitute for, the global framework.

2. Mega Trends in the Economic Integration and Sustainability Challenges of ASEAN

2.1. Poverty and Inequality

Given the complexity of ASEAN's social development problems, efforts to tackle poverty and inclusion need to rest on systematic information about which groups are left behind and why. Much progress has been made in recent years – especially in the context of the Sustainable Development Goals (SDGs) towards understanding the scope and causes of multidimensional inequality and poverty, in both its income and non-income dimensions. The good news is that ASEAN looks set to meet the SDGs of halving extreme poverty by 2030. Extreme poverty fell by just under a third in the Philippines between 1994 and 2023 (World Bank, 2022). Across ASEAN the fall in those living on less than \$2 a day has been less impressive: in no country has it halved in the last decade or so. The persistence of inequality

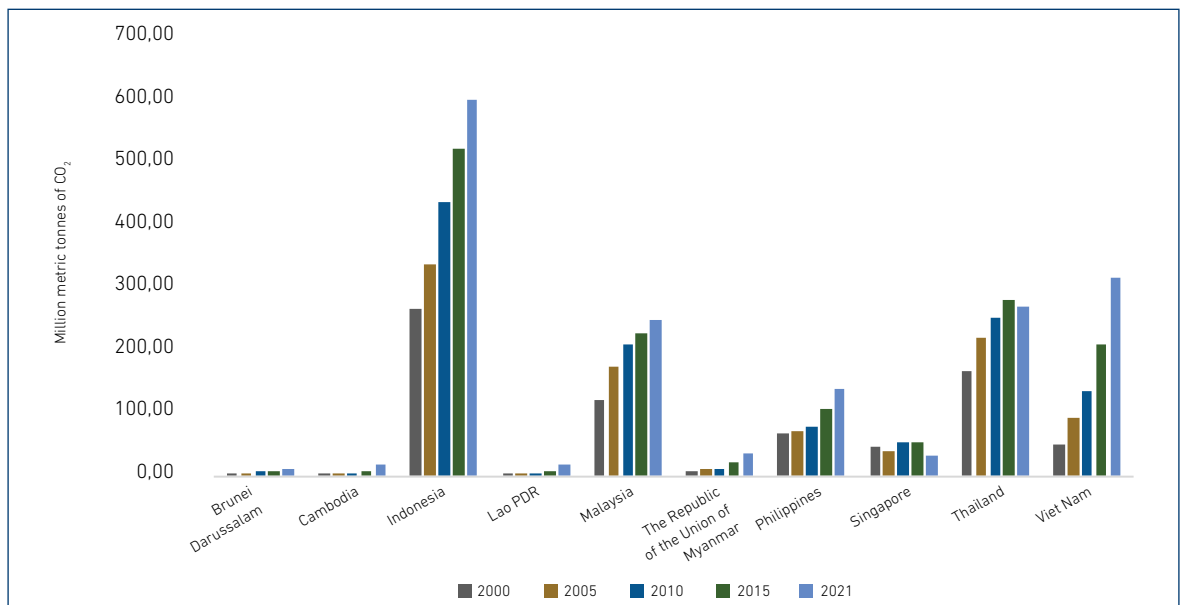
is socially unacceptable and may undermine support for regional integration. Whilst the pattern of export-driven industrial development in ASEAN is uneven, the economies in the region are growing fast, therefore the gaps start shrinking.

More worrying, perhaps, is that inequality within many Asian countries is high and rising. Measured by the Gini coefficient, inequality has fallen in Thailand and Viet Nam. Even so, this does not involve ‘the poor getting poorer and the rich getting richer’, rather the ‘rich getting richer faster than the poor’ (Ali and Zafaralla, 2007). The region’s overall development model is working, but the gains need to be shared more equally. Several studies suggest that high inequality can limit the impact of economic growth on poverty reduction. This, in turn, lessens its impact on regional integration. It may also hinder growth itself since the potential of the less fortunate is wasted. It may spur demands for growth-sapping redistributive policies. Cross-country data suggests that inequality hurts growth, particularly in low-income countries within ASEAN. The causes of growing inequality vary, but one is that, in general, the rich are better equipped to exploit the opportunities offered by environmental issues.

2.2. Resource Consumption, Pollution, and Carbon Emissions

Environmental concerns in ASEAN are increasing, particularly because economic growth in much of the region remains fuelled by carbon-intensive production. As AMS continues to grow, so will their demand for energy. The challenge is to achieve an orderly and affordable energy supply and demand.

Figure 7.1. The Evidence of Increased Levels of Carbon Dioxide, 2000–2021



CO₂ = carbon dioxide, Lao PDR = The People’s Democratic Republic of Lao.

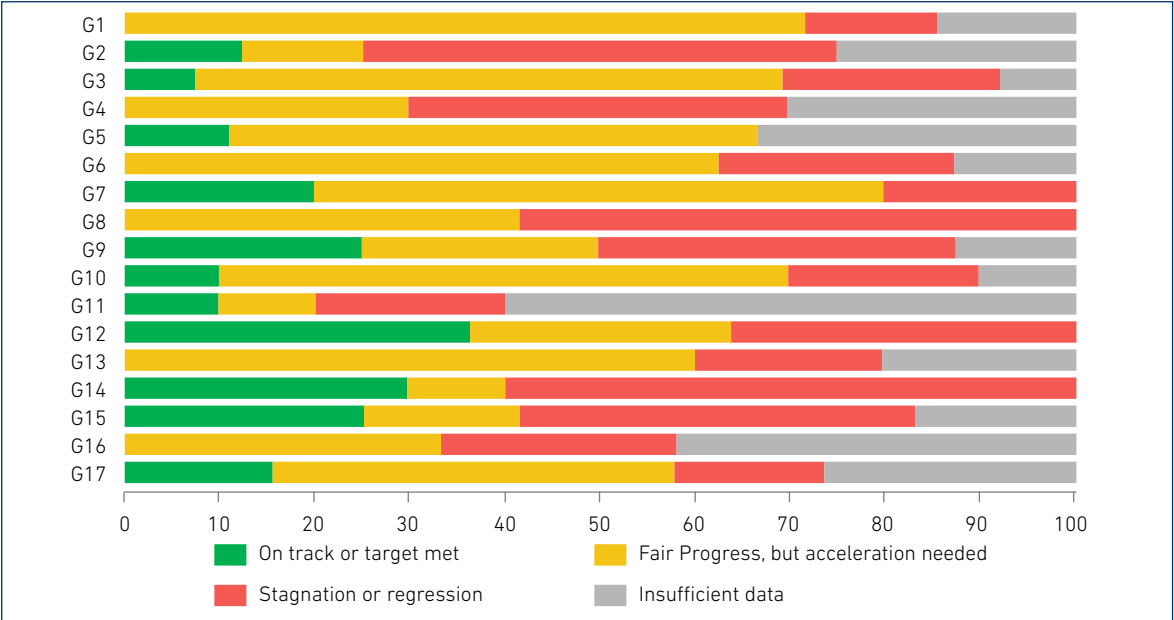
Source: Author’s calculations in 2024 generated from data provided by Global Carbon Project (2024).

Figure 7.1 depicts CO₂ emissions that have been produced since 2000. Human actions have been the trigger that has accelerated global warming to unprecedented levels. Climate change is inextricably linked to sustainability, in that the effects that climate change brings, have multiplying consequences for sustainability (IPCC, 2023). Many of ASEAN’s major urban centres have unacceptably poor indoor and outdoor air quality (UNEP, 2018). Dangerous air pollutants remain at dangerously high levels in many cities. The region’s water bodies – including its major water supplies – are also under stress. The discharge of untreated waste and pollutants from households, farms, industries, and municipalities also contributes to the spread of waterborne diseases and is a major public health issue.

The region’s environmental problems are increasingly caused by factors that cut across national borders. For example, the transboundary haze that covers most of Indonesia, Malaysia, and Singapore, is caused by pollutants released by the burning of fossil fuels and rural biomass across ASEAN. Problems such as desertification and dust storms, which plague Cambodia, the People’s Democratic Republic of Lao (Lao PDR), and Viet Nam, cut across national boundaries. Water and natural resources that are shared by several countries are often a source of friction. Sudden shifts in regional weather patterns, such as monsoons and El Niño, may also raise the risk of natural disasters whilst rising temperatures will spread the range of vector borne diseases such as malaria and dengue fever (Sawada and Oum, 2011).

2.3. Sustainable Development Goals

Figure 7.2. The Progress of the Global Sustainable Development Goals Halfway through 2030 (%)



G = Goal.
Source: UN DESA (2023a).

Halfway through 2030, the world has made worrying progress on its SDG track. Half of the 140 targets that can be examined are somewhat or seriously off-course. Of these 70 targets, 30% have undergone stagnation or regression below 2015 levels (Figure 7.2) (UN DESA, 2023b). There is a need to intensify collective global efforts to keep SDGs on track (UN DESA, 2023a). To achieve this, discussions and decisions around sustainability have revolved around enacting sound standards for disclosure that increase transparency and reduce the potential for confusion between genuine sustainable products and greenwashing. As a result, stringent environmental, social, and governance requirements and potential litigation risks are envisaged.

In addition, energy security is still a priority over climate mitigation strategies in the global sustainability regime, reinforcing the role of fossil fuels as an energy source that is hard-to-replace in the energy systems of many countries. Consequently, climate adaptation strategies are more prominent than mitigation action to ameliorate the climate risks that countries bear, as well as to safeguard the productive capability of the economy. It is estimated that \$160–\$340 billion in adaptation finance will be required annually to tackle climate risks by 2030, especially those risks associated with water scarcity (UNEP, 2022). Thus, investments that address water scarcity issues are currently more sought after by companies and investors. As the interconnection between nature and the economy becomes more apparent, NRM solutions will be increasingly integrated into the architecture of sustainability policies (Allen et al., 2023). (Figure 7.3)

3. ASEAN Responses to Sustainability Challenges in the 2025 Framework

ASEAN Community Vision 2025 (n.d.) envisions a peaceful, stable, and resilient community with an increased capacity to respond to challenges effectively. The region's operations must be balanced between inward-looking cooperation and outward-looking collaboration with non-Member States. Regarding sustainability, Vision 2025 emphasises the importance of incorporating the global goals of 2030 into regional efforts to improve the living standards of the region's citizens.

This section sets out how ASEAN responds to the global sustainability trends. Four visions that serve as the pillars of ASEAN community are explored, to assess in what way and to what extent sustainability has been incorporated in the community visions: (i) the AEC; (ii) the ASEAN Socio-Cultural Community (ASSC); (iii) the ASEAN Political Security Community (APSC); and (iv) the ASEAN Connectivity 2025 (ASEAN, 2015a).

3.1. The ASEAN Economic Community (AEC)

ASEAN selectively opted for 'community' instead of 'union' in AEC to signify that the grouping had no intention of building a unification such as that of the European Union (EU). Therefore, efforts towards regional economic integration should be carried out without underserving, let alone handicapping, national importance (Drysdale, 2017). However, challenges to recover from the COVID-19 pandemic, tackle the current global pressing issues, and prepare to deal with future shocks have encouraged the AEC to promote collective action on three priority areas: digital transformation, sustainable development, and deepening regional and global market integration. As a strategic move to maintain the region's economic competitiveness and resiliency, ASEAN has actively mainstreamed the sustainability agenda across all sectors. The AEC Council Ministers recently engaged in fruitful discussions on several sustainability subjects, including the circular economy, carbon neutrality, the taxonomy of sustainable finance, and the electric vehicle ecosystem, during the Special Retreat Session held on 7 May 2023 (ASEAN, 2023a).

3.2. The ASEAN Socio-Cultural Community (ASCC)

The ASSC Blueprint 2016–2025 serves as a guideline for AMS to realise a community that satisfies four criteria: inclusivity, sustainability, resilience, and dynamism. Overall, the Blueprint has made satisfactory progress in implementation of its aims. For 'inclusive' criteria, the region can engage more people through public outreach and capacity building, resulting in a higher rate of activity implementation, (76.8% of 387 total activities) (ASEAN, 2021a). For 'sustainable' criteria, ASEAN has shown noticeable progress in sectoral activities. They have, for instance, enhanced the Nationally Determined Contributions of AMS as well as increasing regional initiatives that promote sustainable use of biodiversity (ASEAN, 2021a). For the 'resilient' criteria, ASEAN Member States (AMS) have enhanced their financial systems and the interconnected areas of food, water, energy, and social safety nets to address crises caused by climate change and COVID-19, particularly during the period of 2016–2019. (ASEAN, 2021a). Lastly, key progress was also demonstrated in the 'dynamic' criteria through an increased number of visitors to the ASEAN website, research collaborations, and prominent efforts to promote movies produced by AMS at international levels (ASEAN, 2021a).

3.3. The ASEAN Political Security Community (APSC)

The APSC works to ensure that people in AMS live in peace within ASEAN, and with the rest of the world in a just, democratic, and harmonious environment (ASEAN, 2016). In its implementation, APSC embodies the following characteristics: (i) a people-centred community bound by fundamental principles, shared values, and norms; (ii) a resilient community that is fully prepared to face turmoil that challenges the common good of the region; (iii) an outward-looking community that deepens cooperation with externals and (iv) a community with strengthened institutional capacity to address today's pressing challenges, such as sustainability (ASEAN, 2016). For 2025, the APSC set a more ambitious goal of enhancing ASEAN's centrality whilst also playing a constructive role globally in realising an inclusive community, that is, a community where human rights and social justice are satisfied whilst the capacity to respond effectively to emerging challenges is enhanced. The regional response to sustainability in APSC is more limited than in other visions, focusing on the preservation of the sustainable use of maritime resources and the protection of biodiversity (ASEAN, 2016).

3.4. The ASEAN Connectivity Plan 2025

The Master Plan on ASEAN Connectivity 2025, adopted by ASEAN leaders in 2016, aims to achieve a seamlessly and comprehensively connected and integrated ASEAN (ASEAN, 2021b). It consists of 15 initiatives divided into five strategic areas, that, if completed, will primarily address sustainability issues: (i) sustainable infrastructure; (ii) digital innovation; (iii) seamless logistics; (iv) regulatory excellence; and (v) people mobility (The ASEAN, 2021b). Significant progress was shown in each area. Within sustainable infrastructure, projects worth \$35.9 billion have been identified (ASEAN, 2021b). By 2030, a robust digital governance framework will have streamlined the trading process in the region, allowing ASEAN to generate over \$100 billion in exports. Seamless logistics driven by better border facilitation, resulting in an assumed 50% reduction in transit time and costs across 34 ASEAN borders from 2015 onwards, could add 0.05% to ASEAN gross domestic product by 2025 (ASEAN, 2021b). Regulatory convergence on Non-Tariff Measures could reduce regional average agricultural product prices by up to 4% and industrial product prices by up to 1.5%. Lastly, there has been an average increase in GDP of 0.08% due to the free mobility of the workforce in the region (ASEAN, 2021b).

3.5. Managing the Sectoral and Community Actions Towards Shared Prosperity and Sustainability

ASEAN is keen to achieve mutual prosperity and sustainability. This is carried out by being committed to realising the four visions set out through the AEC; the ASSC; the APSC; and ASEAN Connectivity 2025 (ASEAN, 2015a). Through AEC, ASEAN seeks to accelerate regional economic growth, bolster job creation, and improve living standards for all. In ASSC, the region focuses on distributing the benefits of rapid economic growth in an inclusive manner, such as equal access to healthcare and education for all. For APSC, ASEAN strives to maintain all benefits from development that flourishes in the region to be resilient enough to withstand current shocks and uncertainties in the future. Finally, as a region that applies open regionalism, ASEAN is also keen to promote and preserve its relationship with non-Member States. Therefore, physical, and socio-economic barriers that hinder the region from extending its relationships with other countries are addressed in ASEAN Connectivity 2025.

Low-income countries cannot single-handedly cope with the increased frequency and intensity of natural disasters as the ASEAN Agreement on Transboundary Haze Pollution and ASEAN Framework for Environmentally Sustainable Cities show. Regional bodies such as the ASEAN Smart City Network could play an important role to promote cooperation on sustainability issues and provide much-needed technical advice and financial support. Subregional initiatives provide a good model for other countries in the region.

Figure 7.3. Trends in Discussions and Decisions about Global Sustainability



Source: Allen et al. (2023).

4. Imperatives for a Transformative, Inclusive, and Sustainable ASEAN Economic Community

The implementation of the AEC has faced several challenges since its inception in 2003. These challenges can be grouped into various categories, including economic, political, and social. Some of the key challenges that the AEC has encountered in its implementation include

- i. **Diverse economic development levels:** AMS have varying levels of economic development, which makes it challenging to harmonise economic policies and standards. Countries such as Malaysia and Singapore are more advanced economically than others, such as Cambodia and the Lao PDR. Bridging these economic disparities is a significant challenge (Chia, 2013).
- ii. **Infrastructure gaps:** Inadequate infrastructure, including transportation, energy, and digital connectivity, remains a significant challenge. Addressing these infrastructure gaps is crucial for the efficient movement of goods, services, and investments across the region (ASEAN, 2020b).
- iii. **Skill mismatch:** The AEC's goal of labour mobility and the free flow of skilled labour has faced challenges due to differences in education and skills training across AMS. This has resulted in a mismatch between labour supply and demand (Weno and Anggraini, 2022).
- iv. **SME integration:** Integrating small and medium-sized enterprises (SMEs) into the AEC is a challenge. Many SMEs lack the resources and knowledge to navigate cross-border trade and may struggle with compliance and access to finance (Thanh, Narjoko, and Oum, 2010).
- v. **Lack of public awareness:** Public awareness of the AEC's goals and potential benefits is often limited. Governments and institutions need to engage in public outreach and education to create a supportive environment for regional integration (Amindoni, 2015).
- vi. **Political will and coordination:** Political commitment amongst Member States is crucial for effective AEC implementation. Ensuring that all countries remain committed to the common objectives and collaborate on policy changes is an ongoing challenge (ERIA, 2012).

AEC continues to face new and evolving challenges as it seeks to deepen economic integration and regional cooperation. Some of the new challenges for the AEC include:

- i. **Digital transformation:** The rapid digital transformation of economies poses both opportunities and challenges. AMS need to adapt to new technologies, e-commerce, and digital platforms whilst ensuring data privacy, cybersecurity, and equitable access to the digital economy (ASEAN, 2022).
- ii. **Pandemic resilience and economic recovery post-pandemic:** The COVID-19 pandemic has emphasised the need for better health infrastructure, healthcare cooperation, and pandemic preparedness within ASEAN. AMS must work together to enhance health systems and secure a resilient response to future health crises. Additionally, it is important to work together to promote economic recovery, stimulate job creation, and address the economic fallout from the pandemic (ASEAN, 2020a).
- iii. **Sustainable development and climate change:** AEC countries are increasingly focusing on sustainability, environmental protection, and addressing climate change. This includes implementing green policies, promoting renewable energy, and developing sustainable infrastructure to balance economic growth with environmental concerns (Ding and Beh, 2022).
- iv. **Regulatory harmonisation and trade facilitation:** Continued efforts to harmonise regulations, reduce trade barriers, and streamline customs procedures are needed to ensure the smooth flow of goods and services across the region (ASEAN Trade Facilitation, n.d.).
- v. **Cross-border infrastructure development:** ASEAN needs to continue investing in cross-border infrastructure projects to improve transportation, energy, and digital connectivity. These projects are essential for facilitating trade and fostering economic development (Anbumozhi and Singh, 2023).

- vi. **Labour mobility and skills development:** Whilst labour mobility is a key component of the AEC, challenges remain to ensure that workers can move across borders with appropriate skills and qualifications. Bridging the skills gap and promoting lifelong learning are essential (Demetrios et al., 2015).

To address these challenges, AMS need to continue working together, making necessary policy changes, investing in infrastructure, and promoting a culture of regional cooperation. Overcoming these challenges is essential to achieve the AEC's vision of a single, integrated economic community in Southeast Asia.

4.1. Transformative Action Areas in an ASEAN Single Market

As the AEC moves towards a more integrated single market beyond 2025, a critical challenge for the region is how to build a resilient future that delivers growth, sustainability, and inclusion. With new risks emerging (e.g. economic fragmentation) and existing ones intensifying (e.g. climate change, post-pandemic, and geo-political tensions), the path ahead for the AEC can be profoundly daunting. Evidence suggests that growth, sustainability, and inclusion are deeply connected (Sternfels et al., 2021). Without growth, market integration is unlikely to flourish; and without considerations of environmental sustainability, markets can fail to ensure resilient economic and social outcomes. The impacts of human-induced climate change on the natural environment, individual economies, and societies are likely to be intense and far-reaching with Southeast Asia being highly affected. The ASEAN Comprehensive Recovery Framework also articulated how the path to post-pandemic recovery should be linked to a holistic resilience and a sustainability agenda focusing on growth, health and human security, and digitalisation.

In the post-2025 AEC, therefore, environmental sustainability, social inclusion, and economic integration cannot be viewed as trade-offs, but rather as ideal goals that can be pursued simultaneously and whose linkages can be harnessed to deliver broad-based prosperity. To achieve this, ASEAN should adopt a different approach to market integration, i.e. one that is more dynamic and can implement measures in response to changing social, environmental, and economic conditions. A good example of this is the way that climate change mitigation can help drive new green growth and job generation opportunities. As the trade policy landscape is evolving rapidly towards a single market, embracing broad modern digital technologies also requires agreements on mitigating climate change, adopting sustainable production and consumption models, and reducing other transboundary environmental and health risks. These transitions require a fundamental shift in the sectoral policies that are designed with an outcome-based approach. Unfortunately, this is something that is yet to be fully addressed under the AEC. Whilst sustainability is discussed, it is done as a sectoral issue (e.g. decarbonisation in the energy sector, circular economy in the agricultural sector, or climate finance in the finance sector) but not as part of the overall strategies of the AEC.

4.2. Importance of Embedding Sustainability in an ASEAN Single Market

Since the 1990s, ASEAN's efforts to open their economies and conduct liberal trade policies – from the ASEAN Free Trade Area in 1993 to the AEC in 2015 – have supported the region's economic growth. This growth also coincides with dramatic changes in productivity and efficiency gains, particularly in manufacturing (Tonby, Ng, and Mancini, 2014), deepening participation in global value chains, lowering trade and logistic costs (ASEAN and World Bank, 2013), and leading to a decline in poverty (ADB, 2023). Unfortunately, despite the progress in economic growth, deep fractures in the market system have also become more visible. One issue is the inability to translate market outcomes into higher opportunities and living standards for the people. For example, although poverty incidence in the region has declined significantly, from an average of 7.3% in 2010 to 2.2% in 2020, income inequality remains high (Anbumozhi, Kalirajan, and Kimura, 2022). The region's average Gini coefficient of 0.37 has stood almost the same since 2010s, whilst the income ratio of the highest 20% to lowest 20% income levels has also hardly changed (Anbumozhi, Kalirajan, and Kimura, 2022). Despite signs of continuous progress in economic integration, several SDGs are delayed by the COVID-19 pandemic, and achieving the targets by 2030 remains a major challenge to all AMS (Anbumozhi, Kalirajan, and Kimura, 2022).

Another issue is the failure of markets to support sustainable development outcomes, particularly the adverse impact of climate change and environmental degradation on growth. Anbumozhi and Singh (2023) estimate that ASEAN needs a total of \$580 billion per year (or roughly 3.6% of regional gross domestic product) to achieve net zero emissions by 2060, in addition to higher investments needed to decarbonise emission-intensive sectors such as power, transport, and buildings. This higher spending relative to GDP will not only stifle growth but will also expose lower-income households that are disproportionately vulnerable to climate change risks and environmental impacts. ASEAN countries account for a growing share of carbon emissions as the global production structures are influenced by the rise of global value chains, population dynamics, and technological change.

Given the scale and complexity of sustainability challenges, one priority for AEC is to ensure that sustainability is well embedded in the market integration process. Embedding sustainability in regional economic integration means the ability to 'drive growth and generate long-term value through incorporation of balanced natural, social, human, and financial capital values' (WEF, 2019). In turn, sustainable markets enable the region to orient towards high-quality growth and develop enhanced resilience against future shocks.

There is an intricate relationship between international trade, global value chains, and SDGs. In practice, both sustainability and market integration can reinforce each other. Whilst the former can enhance regional cooperation and integration by addressing shared economic, environmental, and social challenges, the latter helps pool together regional resources and knowledge and facilitate possible policy coordination and regulatory harmonisation amongst Member States to pave the way to achieving sustainability. The implications are also far-reaching.

First, prioritising sustainability can promote ASEAN trade and investment as environmentally responsible and socially inclusive, particularly addressing the needs of rural communities, indigenous people, and marginalised groups. Moreover, ASEAN's commitment to global sustainability agendas can enhance the region's international standing and consolidate its integration in the global value chains.

Second, ASEAN countries are rich in natural resources and biodiversity, which are assets for the long-term economic and social well-being of the region. But this also means that the region is very vulnerable to environmental challenges such as deforestation, air pollution, or even rising sea levels and disasters caused by extreme climate events. Bearing sustainable development in mind, AEC provides a regional mechanism for managing shared resources and environmental challenges effectively, promoting long-term economic stability and prosperity.

Third, sustainable production and consumption practices can help ASEAN countries diversify their economic dependence on resource-intensive industries and increase their capacity to withstand economic fluctuations and changes in the environment. For instance, many ASEAN countries rely heavily on agriculture and fisheries. Securing food and water for the region's growing population calls for protection against overfishing, soil degradation, water pollution, and so on. Moreover, the region's growing energy demands necessitate more investment in renewable and green energy and accelerate the transition to a low-carbon economy.

Finally, many ASEAN countries are experiencing rapid urbanisation. Ensuring sustainability of ecosystem services in this transition involves not only digitally enhanced smart city measures but also the preservation of the rich cultural and historical heritage in ASEAN, which is a key component of the indigenous regional identity. Economically, it increases ASEAN's attractiveness as a destination for tourism and investment and lifts the historically underserved traditional local communities.

4.3. Missing Elements in Achieving Deep Sustainability in a Single Market

To achieve all the above, an integrated approach to sustainability is needed where both sustainability and inclusion drive market integration in a resilient way and reinforce each other. They should develop a system where market integration outcomes are aligned with environmental resilience and social equality. Such a system will also ensure that all emerging sustainability initiatives and frameworks under the AEC are well-connected and can transform market mechanisms to work for sustainability.

4.3.1. Climate Change and Low-Carbon Energy Systems

ASEAN is vulnerable to the impacts of climate change due to its location and socio-economic conditions. Addressing climate change and transitioning to low-carbon energy systems are critical priorities for ASEAN. The region is making progress in these areas through cooperation, policy development, and investments in sustainable and clean energy technologies. ASEAN Plan of Action for Energy Cooperation (APAEC) outlines key strategies for energy cooperation within ASEAN, with an emphasis on sustainability, including the promotion of low-carbon and renewable energy sources (ACE, 2021).

Due to the various manifestations of climate change, stakeholders, including those who were initially sceptical, have come to acknowledge its reality and the importance of investing in strategies to mitigate its effects (Azhgaliyeva and Rahut, 2022). Therefore, reducing greenhouse gas emissions and mitigating climate change through low-carbon energy systems is a multifaceted and urgent challenge.

A low-carbon energy system is a fundamental component of efforts to mitigate climate change and transition to a more sustainable and environmentally responsible energy landscape (IEA, 2017). Implementing a low-carbon energy system involves a comprehensive approach that includes policy development, technological advancements, infrastructure improvements, and behavioural changes. It comprises the following elements:

Policy development. In the context of policy development, setting clear and measurable goals for reducing carbon emissions and increasing the use of low-carbon energy sources is imperative. ASEAN had set a collective target to achieve 23% of its primary energy share from renewable energy sources by 2025 (ACE, 2020b). This target was outlined in the APAEC from 2021 to 2025.

Technological advancement and infrastructure improvements. In response to the rising challenges posed by growing energy demand, ASEAN is keen to advance low-carbon technologies and strengthen infrastructure. This endeavour is carried out by bolstering energy security, facilitate energy accessibility, adoption of novel renewable energy technologies, and ensure affordability in the region (ACE, 2021).

Behavioural change. This is a crucial and often underestimated component of transitioning to a low-carbon energy system. Whilst technological and policy solutions are essential, changing individual and collective behaviours plays a significant role in achieving sustainability and reducing carbon emissions. The implementation of behavioural changes aimed at reducing energy use has the potential to enhance both individual welfare and public health, whilst also playing a significant role in the process of decarbonisation (IEA, n.d.; Niamir et al., 2018).

4.3.2. Circular Economy and Sustainable Consumption

The circular economy encompasses a range of industrial processes and business strategies that aim to minimise waste generation by promoting the repeated use of natural resources (Figure 7.4). The core of the circular economy lies in economic principles and competitiveness, urging companies to enhance their economic advantage by adopting resource optimization strategies like reducing waste, reusing products, and recycling by-products. (Anbumozhi and Kimura, 2018). The approach to resource efficiency employed in this system merges the principles of cleaner production and industrial ecology into a border economic growth paradigm. This approach involves industrial enterprises or networks of firms, to support optimal use of resources (Di Maio and Rem, 2015). The Framework for Circular Economy for the AEC was endorsed by ASEAN during the 20th AEC Council Meeting in 2021 (ASEAN, 2021c). The primary objective of the framework is to provide guidance to ASEAN in the pursuit of its overarching objectives, which include the development of a robust economy, the promotion of resource efficiency, and the attainment of sustainable and inclusive growth. ASEAN, as a regional bloc, has recognised the importance of the circular economy. The ASEAN Plan of Action for Cooperation on Environment and the Joint Declaration on Circular Economy are notable examples of the region's commitment to promoting a circular economy. These agreements reflect the commitment of AMS to address environmental and sustainability challenges whilst fostering economic growth and innovation through the adoption of the circular economy.

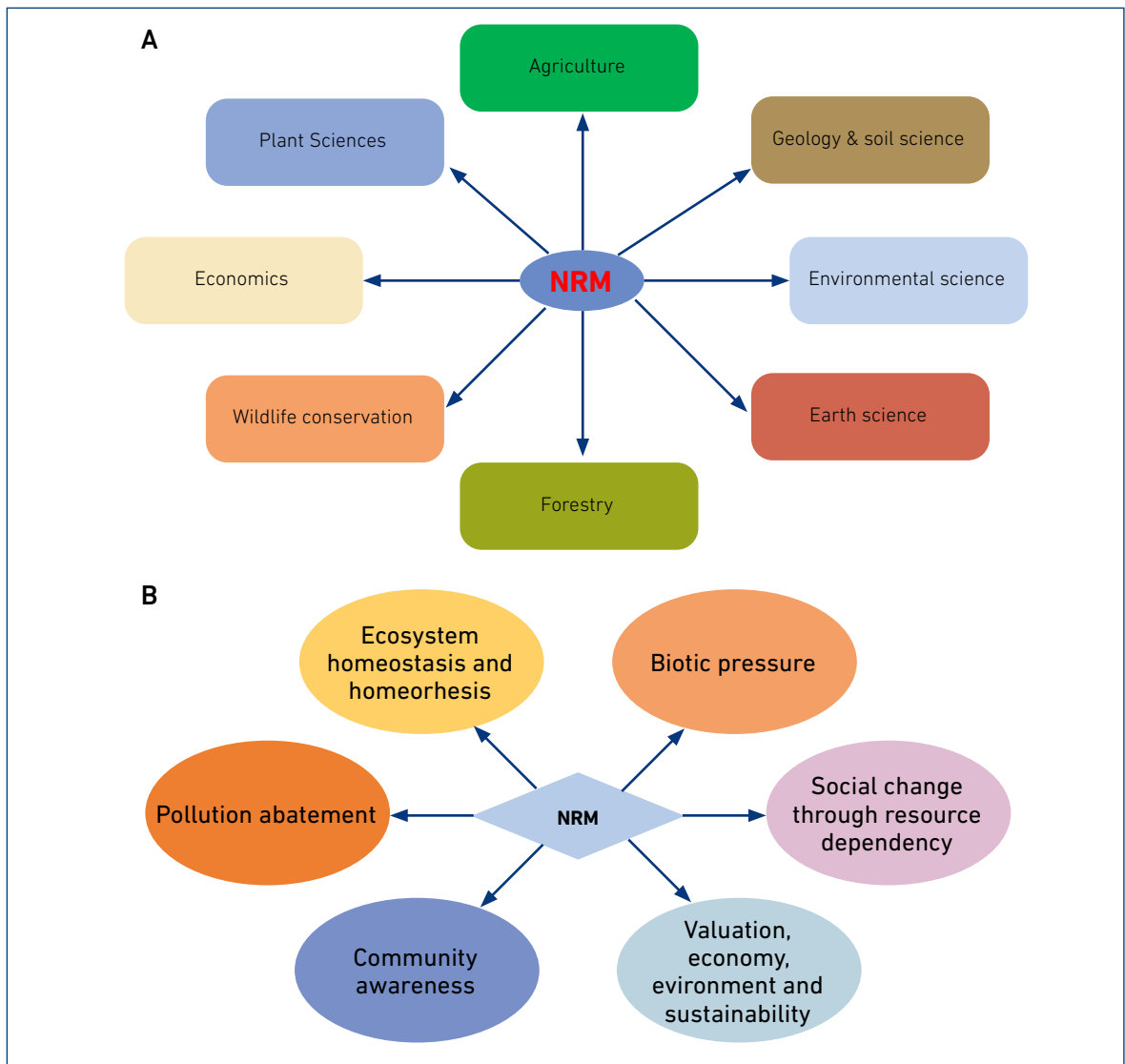
Figure 7.4. A Simplified Model of the Circular Economy



Source: EEA (2016).

The concept of the circular economy is centred around the objective of reducing waste generation whilst simultaneously optimising resource utilisation. In contrast, sustainable consumption promotes the adoption of decision-making processes by individuals and enterprises to make choices that reduce resource consumption. Collectively, their objective is to maximise the utilisation of resources, guaranteeing their effective allocation and minimising wastage. Both concepts aim to minimise the environmental impact of production and consumption. The circular economy paradigm facilitates sustainable consumption patterns and guides both public and private investment decisions, ultimately fostering economic development (Grytsyshen, Sergiienko, and Ksendzук, 2020).

Figure 7.5. Natural Resource Management as a Multidisciplinary Approach (A); Sphere of Natural Resource Management (B)



NRM = natural resource management.

Source: Jhariya, Meena, and Banerjee (2021).

The concept of the circular economy presents a viable approach to mitigating waste, preserving resources, and fostering a resilient and prosperous future. Although the concept of the circular economy has significant potential, it is not without its obstacles and hurdles (Sustainable Insights, 2023). A successful circular economy requires the promotion of sustainable consumption behaviours and the cultivation of an approach that values quality, durability, and circularity to influence consumer behaviour; governments that provide incentives to promote the implementation of circular models and create an enabling environment that supports companies in their transition towards circularity; and the cooperation of businesses, politicians, academics, and civil society to tackle systemic obstacles, exchange successful strategies, and foster innovation to expand circular initiatives.

4.3.3. Natural Resource Management

NRM is concerned with the responsible use of natural resources, such as land, water, air, minerals, forests, fisheries, and wild flora and fauna (Muralikrishna and Manickam, 2017). Collectively, these resources contribute to the provision of ecosystem services that enhance the overall quality of human existence. Natural resources play a crucial role in sustaining life by offering essential consumptive and public-good services (Muralikrishna and Manickam, 2017). NRM is complex in its pursuit of sustainable development and long-term sustainability (Jhariya, Meena, and Banerjee, 2021), requiring a study of resource consumption patterns that includes sustainable harvesting practices, optimal utilisation of resources, and the preservation and management of biodiversity (Raj et al., 2022).

As shown in Figure 7.5, NRM approach is a comprehensive management process that adheres to the 'plan-do-check-act' cycle commonly seen in traditional management processes. Its primary objective is to attain sustainability across several domains (Jhariya, Meena, and Banerjee, 2021). The process encompasses capacity building, the adoption of a multidisciplinary approach, the creation of a comprehensive resource inventory, and the fostering of global collaboration to achieve sustainable development. To ensure the successful implementation of NRM, it is imperative to engage in thorough planning, accurate forecasting, and active community engagement. These procedures are crucial to achieve the desired outcomes and effectively manage natural resources (Jhariya, Meena, and Banerjee, 2021).

ASEAN has developed various agreements, frameworks, and initiatives to foster regional cooperation in NRM, recognising that many environmental challenges cross national borders. Examples include the ASEAN Agreement on Transboundary Haze Pollution, which addresses forest fires and haze pollution, and the ASEAN Centre for Biodiversity, which focuses on biodiversity conservation.

Efforts in NRM within ASEAN are essential for the region's environmental sustainability, economic development, and the well-being of its people. By working collectively, AMS aim to strike a balance between resource use and conservation, ensuring a brighter future for the region and its natural assets.

4.3.4. Climate Compatible Urban Areas

Climate compatible urban areas are cities and urban environments that are designed and developed in ways that consider climate change challenges and aim to mitigate their impact (Taylor et al., 2021). Climate compatible development (CCD) is defined as 'development that minimises the harm caused by climate impacts whilst maximising the many human development opportunities presented by a low emission, more resilient future' (Mitchell and Maxwell, 2010: 1). The CCD framework serves as a guiding tool for aligning policies, programmes, and initiatives to achieve 'triple-wins' in the areas of development, mitigation, and adaptation. Its purpose is to identify and promote synergies and commonalities across these components whilst minimising conflicts (Figure 7.6).

Urban areas serve as centres for economic development and the generation of innovative ideas, but they also contribute to increased emissions and are susceptible to climate change (Khan and Khan, 2023). Given ASEAN's projected increase in population to 790 million by 2050 (Shofa, 2023), it is imperative that AMSs use inventive strategies to construct cities that are compatible with the environment and which move away from a reliance on fossil fuels.

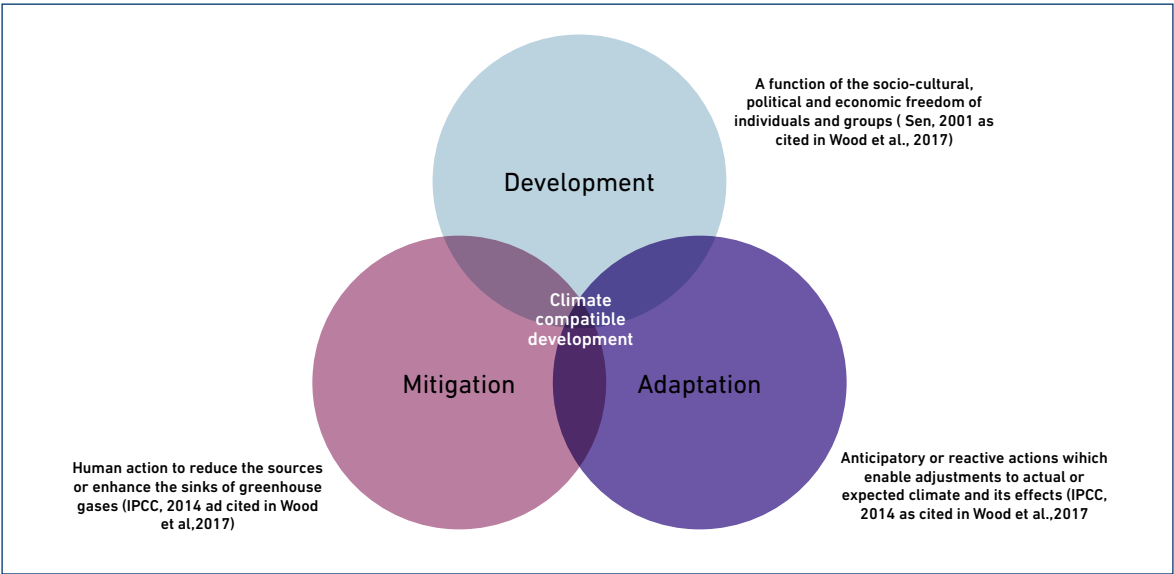
The concept of climate compatible urban areas aims to create cities that are both environmentally sustainable and resilient in the face of climate change, ultimately enhancing the quality of life for urban residents whilst minimising their carbon footprint. Crucial elements of climate compatible urban planning include the following (Affolderbach and Schulz, 2017; Vancouver, 2012; Broto and Westman, 2020):

- i. **Climate resilience.** This refers to the capacity of infrastructure, buildings, and urban planning to endure and adapt to the adverse effects of climate change including, but not limited to, extreme weather events, sea-level rise, and heatwaves;
- ii. **Sustainable mobility.** This includes advocating for the utilisation of public transport, cycling, and walking as viable alternatives to personal automobiles, with the aim of mitigating greenhouse gas emissions;
- iii. **Energy efficiency.** By incorporating energy-efficient technology into sectors such as buildings, transportation, and utilities, the aim is to lower energy consumption and reduce carbon emissions;
- iv. **Green spaces.** Increasing vegetation in urban settings, through the creation of parks, green roofs, and gardens enhances air quality, offers shade, and facilitates the absorption of surplus rainwater;
- v. **Waste management.** Implementing efficient strategies for trash reduction, recycling, and composting mitigates the environmental consequences associated with the generation of garbage in metropolitan regions;
- vi. **Climate adaptation.** This involves formulating and executing plans aimed at effectively responding to the challenges posed by shifting climatic conditions, such as the management of water resources, flood control measures, and the establishment of disaster preparation protocols; and
- vii. **Low-carbon technology.** This technology includes renewable energy sources, electric public transit, and energy-efficient appliances.

4.3.5. Sustainable Tourism

Achieving green economic growth requires many things. The tourist sector, which has experienced significant economic setbacks during the COVID-19 pandemic (Fotiadis, Polyzos, and Huan, 2021; Zhang et al., 2023), has the potential to play a pivotal role in promoting sustainable economic growth. It is important to note that actions within the tourism sector should align with environmental concerns. This is the so-called ‘ecotourism’ or ‘green tourism.’ In their recent publication, Sørensen and Grindsted (2021) examine the emergence of sustainable tourism as a novel concept aimed at fostering the growth of the environmentally conscious tourism sector that facilitates development objectives in a more rapid and streamlined manner.

Figure 7.6. The Popularised Depiction of Climate Compatible Development and Definitions of its Components



Source: Adapted from Wood et al. (2017).

The UN Environment Programme and UN World Tourism Organization define sustainable tourism as ‘tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities’ (World Bank and IFC, 2017:5). It is recognised that sustainable tourism can greatly influence a destination’s capacity to uphold or establish a robust reputation and a competitive brand, and can augment preexisting associations with local communities, tourists, and other pertinent stakeholders (ASEAN, 2023b). The ASEAN Framework on Sustainable Tourism Development in the Post-COVID-19 Era was launched in early 2023 to provide guidance for ASEAN’s sustainable tourism development strategy.

The main objective for Southeast Asia, as set out in the AEC Blueprint 2025, is to transform the region into a 'high-calibre tourism destination' characterised by a distinctive and multifaceted ASEAN encounter with a steadfast commitment to the sustainable advancement of tourism (ASEAN, 2015b). ASEAN Tourism Ministers have collectively adopted the ASEAN Framework for Sustainable Tourism Development in the Post-COVID-19 Era, with the assistance of the Economic Research Institute for ASEAN and East Asia (ERIA), to advance this goal (ASEAN, 2023b). The framework identifies the existing sustainability initiatives and key areas of new development within ASEAN tourist industry (ASEAN, 2023b). The framework delineates five pillars and their corresponding strategic goals.

- i. **Sustainable economic growth.** The promotion of sustainable economic growth includes the prioritisation of policy and strategy pertaining to sustainable tourism, investments in green infrastructure, and the implementation of sustainability-focused marketing strategies.
- ii. **Social inclusiveness, employment, and poverty reduction.** Promoting the importance of social inclusion, employment, and poverty reduction in the tourism sector emphasises the need to prioritise the creation of quality jobs that offer fair wages and benefits. Additionally, it highlights the need to ensure the widespread and equitable distribution of economic and social advantages. The framework also addresses the challenges faced by women in the tourism industry and emphasises the need for targeted interventions to address these issues. Furthermore, it explores the role of public–private–community partnerships to engage and empower local communities in the tourism sector.
- iii. **Resource efficiency, environmental protection, and climate change.** Prioritising resource efficiency, environmental protection, and climate change mitigation addresses the challenges posed by climate change. It emphasises the need to adopt low-carbon practices and promote the efficient use of resources to minimise environmental impact. Additionally, it highlights the significance of preserving ecosystems and conserving biodiversity as part of broader environmental protection efforts. By focusing on these key areas, society can effectively mitigate the adverse effects of climate change and ensure a sustainable future.
- iv. **Cultural values, diversity, and heritage.** Promoting cultural values, diversity, and heritage in the context of cultural tourism highlights the importance of protecting both tangible and intangible cultural heritage, as well as showcasing live culture and creative enterprises.
- v. **Mutual understanding and peace; health, safety and security.** The Framework discusses key security areas such as promoting mutual understanding and peace; prioritising the management of security challenges; preparing for crisis readiness; implementing multi-hazard risk management strategies; fostering increased communication and cooperation; and engaging in information sharing through international initiatives.

5. Post-2025 Framework on a Transformative and Sustainable ASEAN

5.1. Factors Shaping the Sustainability of ASEAN's Economic Integration

A 'Post 2025 Framework' seeks a forward-looking plan or vision for how ASEAN intends to pursue and achieve sustainable development and transformation beyond the year 2025. Such a framework would aim to foster sustainable economic growth, environmental protection, social well-being, and equitable development within the ASEAN region, contributing to the broader global sustainability agenda. This framework might include the following elements and goals:

- i. **Setting global and regional objectives.** ASEAN should align its objectives with the global SDGs, as well as establishing distinct, regional targets pertaining to environmental, social, and economic sustainability.
- ii. **Enhancing climate resilience.** This would involve adapting and mitigating the consequences of climate change in the region and should encompass techniques for reducing catastrophe risks and conserving resources. Building climate resilience in ASEAN is vital to ensure that the region can thrive in a changing climate, protect its people and resources, and maintain its economic growth and stability. Given the region's environmental and economic diversity, addressing climate resilience will require customised strategies for different Member States whilst fostering regional cooperation and knowledge sharing.
- iii. **Promoting a circular economy.** Promoting a circular economy would aim to transition towards a system that minimises waste generation, whilst simultaneously fostering recycling and responsible utilisation of resources. Promoting a circular economy in ASEAN is essential for reducing environmental impact, conserving resources, and fostering economic sustainability. The region's economic and population growth make it particularly important to adopt strategies that decouple economic development from resource depletion and waste generation.
- iv. **Promoting transboundary cooperation.** It will be important to engaging in collaborative efforts with neighbouring countries to effectively tackle common environmental and sustainability concerns. This cooperation is crucial for promoting peace, stability, and sustainable development in the region. It is an integral part of ASEAN's efforts to build a stable and prosperous Southeast Asia (ASEAN, 2023b).
- v. **Embracing technological advancements** This would entail the utilisation of technology to promote sustainability, including developments in renewable energy, environmental monitoring, and green transportation.

5.2. An Integrated Sustainability Framework for the ASEAN Economic Community

The challenges that a Post-2025 Sustainability Framework needs to address in the AEC are huge: climate change; biodiversity loss; fossil fuel use; food, water, and financial stability; and more recently, the pandemic. These challenges reflect the structural weaknesses and unresolved risks to economic integration. The causes of these challenges vary, but at a fundamental level, they all share a common feature: the gross misallocation of capital – human, technological, and financial – at the expense of natural capital. This misallocation has led to unchecked social and environmental externalities. As a response to address these concerns, several sectoral frameworks and initiatives have been implemented under the AEC. Table 7.1 summarises the key sectoral AEC initiatives on sustainability. These frameworks recognise that economic integration is needed for inclusive growth, but it must be done sustainably so that income-producing opportunities are not pursued in ways that limit or close off opportunities for future generations.

Whilst these initiatives have raised the importance of market integration to support sustainable and inclusive growth, the lack of interconnections amongst them, particularly in the implementation of activities, has created a divergence rather than a common pathway to achieve the sustainability objectives under the AEC. Despite sectoral frameworks that reflect and complement global efforts on sustainability, crises such as climate change, biodiversity loss, increased energy demand and resource use call for increased sectoral coordination. Enhanced sectoral coordination can create more coherent and predictable policies towards market integration, increase interoperability, and mobilise financial resources to overcome capacity constraints and promote the deployment of green technologies.

An Integrated AEC Sustainability Framework is being proposed to provide a coherent strategy to understand the different aspects of sustainability and how they interact to support economic integration. Figure 7.7 shows that the starting point of the Framework is the recognition that achieving integrated sustainability in the AEC is about systems, i.e. understanding the interconnections between different stakeholders, initiatives, incentives, and market mechanisms to achieve inclusive and sustainable economic growth. This means that the AEC is not only concerned with market contestability, but also about making the links between nature, economy, society, and human well-being work for long-term posterity.

Table 7.1. Sectoral Frameworks and Sustainability Initiatives in ASEAN Economic Community

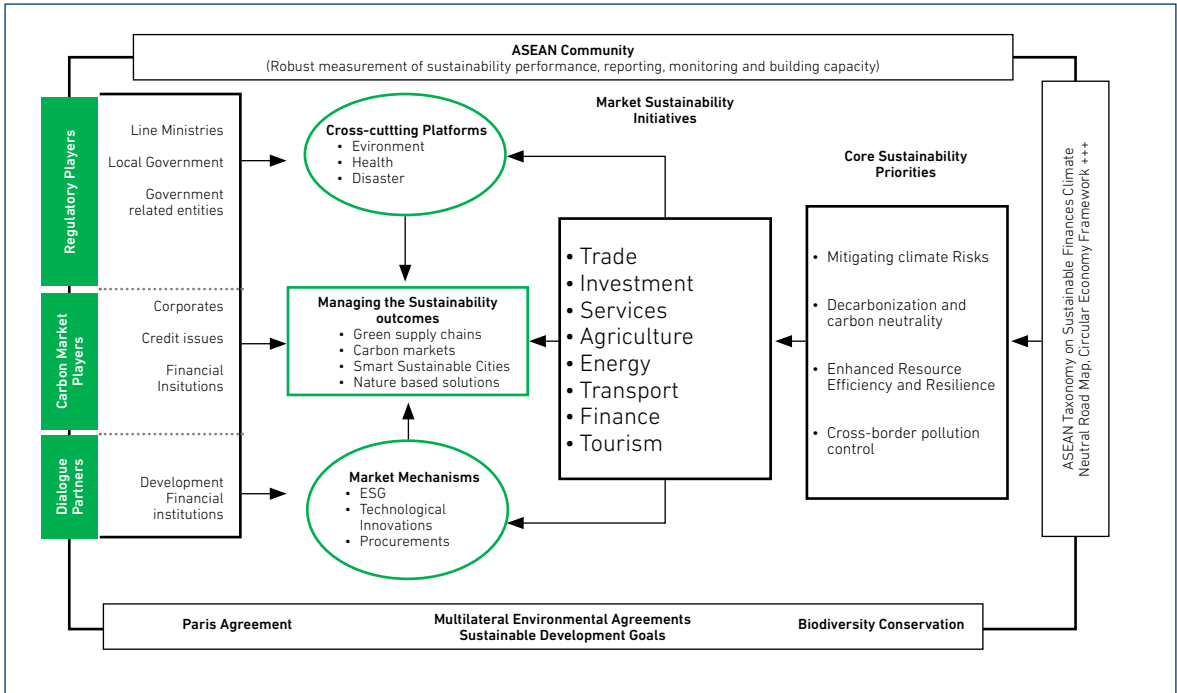
Sustainability initiative	Objective	Embedded ASEAN/AEC values	Progress in implementation	Gaps and way forward
ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN Sector: Agriculture Adopted at the 44th AMAF MEeting in 2022	To promote sustainable agricultural practices, enhance food security and nutrition, mitigate climate change, and reduce greenhouse gas emissions, amongst others	Enhanced Connectivity and sectoral Cooperation	To succeed the guidelines' implementation, ASEAN Action Plan on Sustainable Agriculture (draft) will be adopted in November 2024 by the ASEAN Summit. The draft delineate the specific programs, projects, and activities to realize sustainable agriculture in the region	Due to different stages of development and sustainability targets between AMS, it become important if individual AMS can jointly discuss how to harmonize their approaches in collectively establishing criteria, indicators, and initiatives towards sustainable agriculture in the region
ASEAN Taxonomy for Sustainable Finance Sector: Finance Endorsed by ASEAN Finance Ministers and Central Bank Governor in 2021	To help guide capital mobilization in ASEAN, to advance the sustainable agenda in the region	A Resilient, Inclusive, People-Oriented and People-Centred ASEAN	Two versions of the taxonomy have already been released. Version 1 was designed to define the overall framework of the taxonomy. Version 2 was focused on further refining the taxonomy to better align with relevant taxonomies in AMS whilst also ensuring its interoperability with international taxonomies, such as EU	The coverage of environmental objectives (EOs) and sectors in the taxonomy remains limited, which may limit the taxonomy's inclusiveness. thus, looking forward, it becomes critical for the taxonomy to expand its application in term of sectors and environmental objectives
The ASEAN Trade in Goods Agreement (ATIGA) Sector: Trade Entered into force in 2010	To achieve free flow of goods, to establish a single market and production base in ASEAN	Highly integrated and cohesive economy	ATIGA has indeed leveraged ASEAN's position in the global supply chain by the following achievements: • Eliminated more than 90% of their intra-regional tariff • Facilitating the removal of non-tariff trade barriers • Domestic brand expands beyond ASEAN level, significantly increasing the region's	Sustainability was not embedded as one of the key elements in ATIGA. As an ASEAN flagship trade agreement, it becomes necessary to deepen the application of ATIGA to address sustainability concerns arising from trade within the region

Sustainability initiative	Objective	Embedded ASEAN/AEC values	Progress in implementation	Gaps and way forward
- The ASEAN Regional Strategy on Sustainable Land Transport - The ASEAN Fuel Economy Roadmap for the Transport Sector - The Guidelines for Sustainable	To advance sustainable transportation in the region, improve energy efficiency, and reduce climate change emissions.	Enhanced Connectivity and sectoral Cooperation	All documents provide guidance, aspirational goals, and indicators that individual AMS can adopt to their transport sector; the documents also provide recommended actions on how AMS can converge their initiatives in transport, to realize regional sustainable transport in	The lacking presence of the ASEAN Mandate is perceived to discourage sectoral cooperation, such as between transport and energy. This situation has caused many activities in the region's sustainable transport to become dependent on International
ASEAN Plan of Action for Energy Cooperation (APAEC) Sector: Energy Endorsed at the 32nd AMEM Meeting in 2014	To promote multilateral energy cooperation and integration to achieve the goals of the ASEAN Economic Community (AEC)	Enhanced Connectivity and sectoral Cooperation	Through the seven programs of the APAEC, ASEAN has made key achievements to satisfy the region's sustainable energy targets. The seven programs are: (i) ASEAN Power Grid; (ii) Trans ASEAN Gas Pipeline; (iii) Coal & Clean Coal Technology; (iv) Energy Efficiency & Conservation; (v) Renewable Energy; (vi) Regional Energy Policy & Planning; (vii) Civilian Nuclear Energy	Energy transition requires massive funding. ASEAN needs to engage more agencies to help the region in such a transition, for instance Just Energy Transition Partnership (JETP)
ASEAN Framework and Sustainable Tourism Development (AFSTD) Sector: Tourism Released in 2023	To identify focus areas in tourism sectors and seeks to capitalise on the initiatives already undertaken in the sector	Enhanced Connectivity and sectoral Cooperation	The framework becomes the pioneer in defining the vision, strategic goals, guiding principles, and priorities of what refer to sustainable tourism in ASEAN, especially in the post COVID-19 era	There is a need to further specify (i) action plan; (ii) effective governance; (iii) strong monitoring system in implementing the framework
The ASEAN strategic action plan for consumer protection (ASAPCP) 2016-2025 Sector: Consumer protection Set out for 10 years (2016-2025)	To facilitate ASEAN to work towards a common consumer protection framework, to increase ASEAN citizens' confidence in the ASEAN Economic Community (AEC), to incorporate consumer concerns into all other ASEAN policies, and to maximize the AEC's benefits for consumers and	A Competitive, Innovative and Dynamic ASEAN	The action plan was able to specify the descriptions of the strategic goals, outcomes, and initiatives to satisfy the embedded AEC value in it, in order to generate prosperity for consumers and businesses	Sustainability is rarely described as an explicit term in the action plan. It is only described as an embedded value in the outcome 3.3 "Sustainable Consumption is promoted through policy dialogues and information"

AEC = ASEAN Economic Community, AMAF = ASEAN Ministers on Agriculture and Forestry, AMS = ASEAN Member State, ASEAN = Association of Southeast Asian Nations, ATIGA = ASEAN Trade in Goods Agreement, COVID-19 = coronavirus disease, EU = European Union.

Source: Authors' research.

Figure 7.7. Integrated Association of Southeast Asian Nations Economic Community Sustainability Framework based on Public–Private–People Partnership Model



ASEAN = Association of Southeast Asian Nations, ESG = environmental, social, and governance.

Source: Authors' research.

Under the Framework, all AEC sectoral frameworks and agreements (e.g. Taxonomy for Sustainable Financing, Blue Economy Framework, Circular Economy Framework, etc.) must address the four core sustainability priorities, namely, mitigating climate risks, decarbonisation, enhancing resource efficiency, and controlling pollution. In turn, these goals must guide the development and implementation of market-based mechanisms under each sector to reduce environmental risks and enhance sustainability benefits. Unlike in existing frameworks where initiatives are created in silos, the Integrated Framework recognises seamless coordination amongst sectors. This ensures that actions in one sector relate to those in other sectors to address the same sustainability challenges, such as a shift away from carbon-based production, or the provision of new opportunities for the existing global value chain models. The development of sustainability standards along the agricultural value chains – for example, where certain production requirements must be complied with by producers along the chains–can help ensure that commodity-driven trade can still flourish without aggravating biodiversity loss in the agriculture and forestry sectors. This close coordination of actions amongst economic sectors is what the Framework aims to achieve.

5.3. Agents of Transformation for Moving Forward with a New Sustainability Framework

5.3.1. Intersectoral and Multi-Pillar Coordination for a Sustainable ASEAN

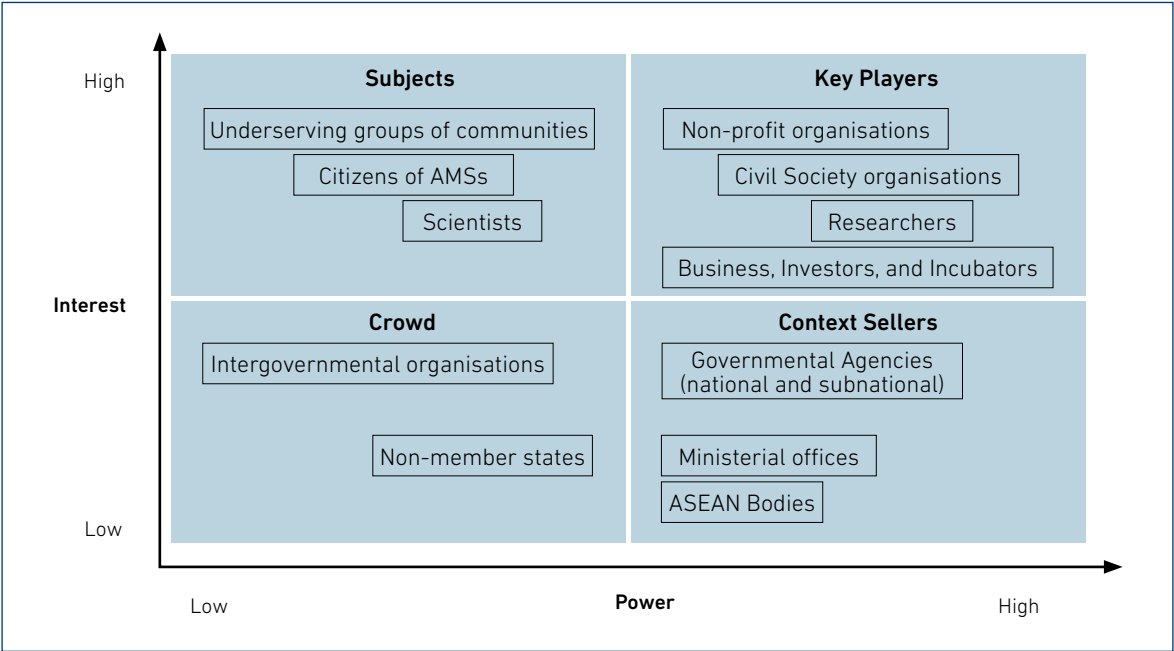
The 'ASEAN way' that strives for flexibility, trust, mutual respect, and consensus has become the social contract that brings citizens in this region together (Anbumozhi, 2017). The region does not pursue unification as the outcome of such a social contract. As a result, rather than relying on official authorities and binding rules, ASEAN enacts numerous frameworks and refers to international law as enablers of streamline cooperation in the region (Anbumozhi, 2017; Laowonsiri, 2016). In practice, this means that transformation in ASEAN should not undermine the growth plans of the AMS at the national levels, allowing any integration initiatives in this region to take place under economic interdependencies, common challenges, and mutual benefits, rather than to transcend into much broader arrangements (Drysdale, 2017). Inevitably, 'community' is the aspiration that ASEAN prominently carries, rather than union, as the EU does. Maintaining sovereignty is prominent in such a 'community' spirit, leading ASEAN to become an institution that is intergovernmental without a central bureaucracy (Varral, 2009). ASEAN operates under the principle of shared but differentiated responsibilities, indicating that it acknowledges that each member state is at a different stage of development. AMS reached an agreement on common measures. The implementation, however, is decided at the national level, and is sectoral-oriented, yet not legally binding (Varral, 2009). At this stage of implementation, the 'ASEAN way' becomes challenging. Relying on frameworks and international law without non-binding mechanisms to govern the intricacies that stem from converging the diverse ASEAN can become problematic if not monitored carefully.

5.3.2. Agents of Innovation for Sustainability

Due to the diverse levels of development within the ASEAN region, it is essential to prioritize efforts that are tailored to the national context of each ASEAN Member State (AMS). Given the varied level of development, resource availability, and demand across the ASEAN region, country-driven efforts become paramount. Therefore, the government plays an important role in dictating the direction and speed of the sustainability agenda in each AMS. Unfortunately, poor efforts to localise SDGs in each AMS have meant that the global agenda is not immediately aligned with the national strategic plan. Consequently, national governments may have less capacity to implement SDGs. Lack of political consonance from state actors has discouraged efforts from grassroots civil society organisations, including women and youths, to mainstream sustainability targets at national and subnational levels (UNDP, 2019). The market, therefore, plays a crucial role to redirect sustainability as the main agenda in AMS' operations by shifting consumer behaviour.

Researchers and businesses play a crucial role in catalysing innovation for sustainability. However, their interests may not be purely to protect the environment, but because of other motives, such as money and prestige. It is, therefore, the non-profit organisations that will be most helpful to advocate for the significance of the 2030 agenda through protests and campaigns, re-framing the perceptions of researchers and businesses to fully support sustainability as their core agenda. Figure 7.8 assesses relationships between power and interest and their relative levels using the interest–influence matrix template of Reed et al. (2009).

Figure 7.8. Interest–Influence Matrix of Sustainability Agenda in ASEAN



AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations.
Source: Authors' research.

The ASEAN model of regional environmental governance has allowed AMS to build mutual trust and understanding, operating at a relatively convenient pace for the region. Nonetheless, as environmental shocks and future uncertainties become more complex, ASEAN is confronted with unprecedented challenges. Thus, it becomes necessary for the region to better align its regional strategic plan under the following three pillars: AEC; ASSC; and the APSC, with a broader agenda in sustainability, as pledged by the SDGs (Anbumozhi, 2017). One starting point could be enhancing their Nationally Determined Contributions to be more ambitious as well as enshrining net zero emissions in their laws.

5.3.3. Actions Bundles for a Regional Social Contract for Sustainability

To deal with unprecedented challenges in sustainability, ASEAN has integrated the global goals in its three pillars. The ASEAN Economic Community will require actions to achieve integrated, cohesive, competitive, innovative, and dynamic economic growth without neglecting the outward orientation of the global AEC economy. Such ambitious economic growth will be a mere aspiration, rather than a reality, if not supported by the 'community'. The community in question should be in line with the region's renewed spirit, that is, one vision, one identity, one community. Such a spirit envisages citizens in ASEAN to live in a safe, inclusive, resilient manner, embracing diversities to tackle adversities, staying cohesive and responsive to deal with unprecedented shocks and uncertainties, to achieve the APSC vision. The community is built from people. People who strive for mutual understanding, inclusive collaboration, and dynamic operation are the key factors to realise a strong and cohesive ASCC.

Given the multidimensional nature of sustainability challenges in AEC, tackling them successfully will require multiple actions from all sectors and broad participation across other market and non-market actors. In the Framework, cross-cutting platforms as well as market-based mechanisms are integral to achieve sustainable outcomes through such channels as green supply chains, smart cities, well-functioning carbon markets, and enhancing environmental, social, and governance investments.

6. Conclusion

This Framework does not replace the sectoral frameworks; but recognises that achieving sustainability rests almost entirely on getting the economy and capital allocation right. This needs a sector-wide monitoring, reporting, and verification mechanism for sustainability outcomes. As the principles of the sectoral frameworks and new pathways involve multiple stakeholders—regulators, private sector, and international organisations—additional policies and capacity building may be needed to ensure market resilience, integrity, and confidence and help to strengthen the sectoral bodies' ability to contribute to an orderly transition.

This paper proposed a new approach to looking at sustainability in the context of the AEC, where new market initiatives and mechanisms are well integrated into promoting shared prosperity. This approach will be built upon securing long-term economic resilience, safeguarding the natural resources and community of ASEAN, and ensuring social inclusion. As a way forward and to operationalise this Framework, the following points are suggested.

First, since the Framework is just a guide for AEC to address sustainability issues more holistically, market-based tools such as sustainability standards and certification schemes must be developed across economic sectors. These standards can serve as an incentive to market players such as producers to improve their sustainability performance and accountability. Sustainability standards and certification schemes also help in the movement of sustainable products and services across the region.

Second, cross-ministerial cooperation mechanisms involving key sustainability sectors in economic and socio-cultural pillars of the ASEAN Community can be developed, where high-level discussions from trade, environment, health, and disaster risk reduction, for example, can be facilitated to address cross-cutting issues and agree on accelerating the SDGs targets using the framework.

Finally, the framework is only as good as its results. Therefore, a monitoring mechanism must be in place to measure sustainability performance and impacts. An immediate need is to identify an appropriate set of sustainability indicators and appropriate methods to assess the priority sustainability risk across the sectors. The capacity of the ASEAN Integration Monitoring Division must be enhanced to analyse the progress of the Sustainability Framework. The ASEAN Integration Monitoring Division will also coordinate with other divisions at the ASEAN Secretariat as well as engaging in meaningful consultation with key stakeholders in academia, the business world, and international organisations to develop a monitoring, reporting, and verification mechanism.

References

- Affolderbach, J. and C. Schulz (2017), 'Positioning Vancouver through Urban Sustainability Strategies? The Greenest City 2020 Action Plan'. *Journal of Cleaner Production*, 164, pp.676–85. <https://doi.org/10.1016/j.jclepro.2017.06.234>
- Ali, I. and C.L.T. Zafaralla (eds) (2007), *Asian Development Review*, 24(2), Manila: Asian Development Bank (ADB). <https://www.adb.org/sites/default/files/publication/28870/adr-vol24-2.pdf>
- Allen, L. et al. (2023), Key Sustainability Trends that Will Drive Decision-Making in 2023. S&P Global. 16 January. <https://www.spglobal.com/esg/insights/featured/special-editorial/key-sustainability-trends-that-will-drive-decision-making-in-2023>
- Amindoni, A. (2015), 'Public Awareness of AEC Remains Low'. *The Jakarta Post*, 2 December. <https://www.thejakartapost.com/news/2015/12/02/public-awareness-aec-remains-low.html>
- Anbumozhi, V. (2017), 'Ensuring ASEAN's Sustainable and Resilient Future'. in A. Baviera and L. Maramis (eds.), *ASEAN@50 Building ASEAN Community: Political-Security and Socio-Cultural Reflections (Volume 4)*. Jakarta: ERIA., pp.309–23. https://www.eria.org/ASEAN_at_50_Vol_4_Full_Report.pdf
- Anbumozhi, V. and B.K. Singh (2023), *Cross-Border Integration of Renewable Energy Systems*. Milton Park: Taylor & Francis. <https://www.taylorfrancis.com/books/oa-edit/10.4324/9781003433163/cross-border-integration-renewable-energy-systems-venkatachalam-anbumozhi-bhupendra-kumar-singh>

- Anbumozhi V, K. Kalirajan, and F. Kimura (2022), 'Regional Catalysts for the Realisation of SDGs in the Post-Pandemic Era' in Anbumozhi V, K. Kalirajan and F. Kimura (eds), *Sustainable Development Goals and Pandemic Planning*, Springer, pp1–26.
- Anbumozhi, V. and F. Kimura (2018), *Industry 4.0: Empowering ASEAN for the Circular Economy*. Jakarta: ERIA. https://www.eria.org/uploads/media/ERIA-Books-2018-Industry4.0-Circular_Economy.pdf
- Asami, T. (2005), 'Chiang Mai Initiative as the Foundation of Financial Stability in East Asia', *Documents*, 702. <https://elischolar.library.yale.edu/ypfs-documents2/702>
- Asian Development Bank (ADB) (2023), *Key Indicators for Asia and the Pacific 54th Edition*. Manila:ADB. <https://www.adb.org/publications/key-indicators-asia-and-pacific-2023>
- Association of Southeast Asian Nations (ASEAN) and World Bank (2013), *ASEAN Integration Monitoring Report. A Joint Report by the ASEAN Secretariat and the World Bank*. Jakarta: ASEAN and Washington, D.C.: World Bank. <https://asean.org/wp-content/uploads/2021/09/association-of-southeast-asian-nations-asean-integration-monitoring-report-a-joint-report-by-the-asean-secretariat-and-the-world-bank-english.pdf>
- (2015a), *A Blueprint for Growth ASEAN Economic Community 2015: Progress and Key Achievements*. Jakarta: ASEAN Secretariat. https://asean.org/wp-content/uploads/2021/09/1.-AEC-2015-Progress-and-Key-Achievements_04.11.2015.pdf
- (2015b), *ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. ASEAN Economic Community Blueprint 2025 - ASEAN Main Portal
- (2016), *ASEAN Political Security Community Blueprint 2025*. Jakarta: ASEAN Secretariat. https://resourcecentre.asean.org/Book_Detail/?ID=2037
- (2020a), *ASEAN Comprehensive Recovery Framework: FINAL Adopted at 37th ASEAN Summit*. Jakarta: ASEAN. Secretariat. https://asean.org/wp-content/uploads/2020/11/2-FINAL-ACRF_adopted-37th-ASEAN-Summit_12112020.pdf
- (2020b), *Framework for Improving ASEAN Infrastructure Productivity*. Jakarta: ASEAN. <https://connectivity.asean.org/wp-content/uploads/2020/10/Publication-Framework-for-Improving-ASEAN-Infrastructure-Productivity.pdf>
- (2021a), *Mid-Term Review of the Implementation of ASEAN Socio-Cultural Community Blueprint 2025*. Jakarta: ASEAN Secretariat. Mid-Term Review of the ASEAN Socio-Cultural Community Blueprint 2025 - Final Report - ASEAN Main Portal
- (2021b), *Master Plan on ASEAN Connectivity 2025: Mid-Term Review*. Jakarta: ASEAN Secretariat. <https://connectivity.asean.org/resource/the-mid-term-review-of-master-plan-on-connectivity-mpac-2025/>
- (2021c), 'ASEAN Adopts Framework for Circular Economy', *ASEAN*, 21 October. <https://asean.org/asean-adopts-framework-for-circular-economy/>
- (2022), 'ASEAN Revs up Digital Transformation', *The ASEAN*, Jakarta: ASEAN Secretariat. 23. Retrieved 2 May 2024 from <https://asean.org/wp-content/uploads/2022/11/Issue-23-Digital-Transformation-digital-version.pdf>

- (2023a), 'The 22nd Meeting of the ASEAN Economic Community Council. Chairs-Media-Statement', Jakarta: ASEAN Secretariat. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://asean.org/wp-content/uploads/2023/05/Chairs-Media-Statement-AECC22-as-of-7-May-rv_FINAL.pdf
- (2023b), 'ASEAN Launches Framework on Sustainable Tourism Development Post-COVID-19', *ASEAN*, 25 January. <https://asean.org/asean-launches-framework-on-sustainable-tourism-development-post-covid-19/>
- ASEAN Trade Facilitation. (n.d), 'Trade Facilitation: Overview', *ASEAN*. <https://asean.org/our-communities/economic-community/trade-facilitation> (Accessed 2 May 2024)
- Azhgaliyeva, D. and D.B. Rahut, (eds) (2022), *Climate Change Mitigation: Policies and Lessons for Asia*. Tokyo: ADBI. <https://www.adb.org/sites/default/files/publication/838246/climate-change-mitigation.pdf>
- ASEAN Community Vision 2025. (n.d.) ASEAN 2025 Forging Ahead Together -FINAL CORRECT.pdf
- ASEAN Centre for Energy (ACE) (2020a), *The 6th ASEAN Energy Outlook (AE06)*. Jakarta: ACE. <https://aseanenergy.org/publications/the-6th-asean-energy-outlook/>
- (2020b), *the 7th ASEAN Energy Outlook 2020–2050*. The 7th ASEAN Energy Outlook 2020–2050 - ASEAN Main Portal
- (2021), *ASEAN Plan of Action for Energy Cooperation (APAEC) 2016–2025, Phase II: 2021–2025*. Jakarta: ACE. <https://asean.org/wp-content/uploads/2023/04/ASEAN-Plan-of-Action-for-Energy-Cooperation-APAEC-2016-2025-Phase-II-2021-2025.pdf>
- Anbumozhi, V. and B. Kumar Singh (2023), Cross-Border Integration of Renewable Energy Systems. *Cross-Border Integration of Renewable Energy Systems*.
- Broto, V.C. and L.K. Westman (2020), 'Ten Years after Copenhagen: Reimagining Climate Change Governance in Urban Areas', *Wiley Interdisciplinary Reviews (WIREs): Climate Change*, 11(4).
- Chia, S.Y. (2013), 'The ASEAN Economic Community: Progress, Challenges, and Prospects', *ADB Working Paper Series*, 440. Tokyo: Asian Development Bank Institute (ADBI). <https://www.adb.org/publications/asean-economic-community-progress-challenges-and-prospects>
- Demetrios, G., D.G. Papademetriou, G. Sugiyarto, D. Rannveig Mendoza, and B. Salant (2015), *Achieving Skill Mobility in the ASEAN Economic Community*. Manila: ADB. <https://www.adb.org/sites/default/files/publication/178816/skill-mobility-asean.pdf>
- Di Maio, F. and P.C. Rem (2015), 'A Robust Indicator for Promoting Circular Economy through Recycling', *Journal of Environmental Protection*, 06(10), pp.1095–104. <https://doi.org/10.4236/jep.2015.610096>
- Ding, D.K. and S.E. Beh (2022), 'Climate Change and Sustainability in ASEAN Countries', *Sustainability*, 14(2). <https://doi.org/10.3390/su14020999>
- Drysdale, P. (2017), 'ASEAN: The Experiment in Open Regionalism that Succeeded', in R.S. Maria, S. Urata, and P.S. Intal J. (Eds.), *ASEAN@50 The ASEAN Economic Community into 2025 and Beyond (Volume 5)*, ERIA and the Government of the Philippines, Department of Foreign Affairs https://www.eria.org/ASEAN_50_Vol_5_Complete_Book.pdf

- Economic Research Institute for ASEAN and East Asia (ERIA) (2012), *Mid-Term Review of the Implementation of AEC Blueprint*, Jakarta: ERIA. <https://www.eria.org/publications/mid-term-review-of-the-implementation-of-aec-blueprint-executive-summary/>
- European Environment Agency (EEA) (2016), '*Circular Economy in Europe – Developing the Knowledge Bas*', EEA. <https://www.eea.europa.eu/publications/circular-economy-in-europe> (accessed 2 May 2024)
- Ferry, M. (2021), 'Pulling Things Together: Regional Policy Coordination Approaches and Drivers in Europe', *Policy and Society*, 40(1), pp. 37–57. <https://doi.org/10.1080/14494035.2021.1934985>
- Fotiadis, A., S. Polyzos, and T.C.T. Huan, (2021), 'The Good, the Bad and the Ugly on COVID-19 Tourism Recovery', *Annals of Tourism Research*, 87, 103117. <https://doi.org/10.1016/j.annals.2020.103117>
- Grytsyshen, D., L. Sergiienko, and V. Ksendzuk (2020), 'The System of Public–Private Partnership in the Sphere of State Policy Implementation of Circular Economy', *Journal of Corporate Responsibility and Leadership*, 6(3), p.29. <https://doi.org/10.12775/jcrl.2019.010>
- The Intergovernmental Panel on Climate Change (IPCC) (2023), 'Summary for Policymakers', in H. Lee and J. Romero (Eds.) *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Geneva: IPCC, pp.1–34, <https://www.ipcc.ch/report/ar6/syr/summary-for-policymakers/>
- International Energy Agency (IEA) (2017), 'Southeast Asia Energy Outlook 2017', *World Energy Outlook 2017*, Paris: IEA. <https://www.iea.org/reports/southeast-asia-energy-outlook-2017>
- (n.d), 'Behavioural Changes', *World Energy Outlook*, Paris: IEA. <https://www.iea.org/energy-system/energy-efficiency-and-demand/behavioural-changes>
- Intergovernmental Panel on Climate Change (IPCC) (2014) Glossary. *AR5 Climate Change 2014: Impacts, Adaptation, and Vulnerability*. https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-AnnexII_FINAL.pdf
- Jhariya, M.K., R.S. Meena, and A. Banerjee (2021), 'Ecological Intensification of Natural Resources towards Sustainable Productive System', in M.K. Jhariya, R.S. Meena, and A. Banerjee (eds), *Ecological Intensification of Natural Resources for Sustainable Agriculture*. Singapore: Springer <https://link.springer.com/book/10.1007/978-981-33-4203-3>.
- Khan, H. and I. Khan (2023), 'The Effect of Technological Innovations, Urbanisation and Economic Growth on Environmental Quality: Does Governance Matter?', *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1239288>
- Mitchell, T and S. Maxwell (2010), 'Defining Climate Compatible Development', *Policy Brief, Climate and Development Knowledge Network (CDKN)*, November. https://cdkn.org/sites/default/files/files/CDKN-CCD-Planning_english.pdf
- Muralikrishna, I. V. and V. Manickam (2017), 'Natural Resource Management and Biodiversity Conservation', *Environmental Management*, pp.23–35. <https://doi.org/10.1016/b978-0-12-811989-1.00003-8>

- Niamir, L., T. Filatova, A. Voinov, and H. Bressers (2018), 'Transition to Low-Carbon Economy: Assessing Cumulative Impacts of Individual Behavioural Changes' *Energy Policy*, 118, pp.325–45. <https://www.sciencedirect.com/science/article/pii/S0301421518301782>
- Raj, A., M.K. Jhariya, A. Banerjee, R.S. Mena, N. Khan, and S.K. Yadav. (2022), 'Ecological Wisdom for Natural Resources Management and Sustainability', in M.K. Jhariya, R.S. Meena, A. Banerjee, S.N. Meena (eds), *Natural Resources Conservation and Advances for Sustainability*, pp.219–41, Elsevier. <https://doi.org/10.1016/B978-0-12-822976-7.00017-X>
- Reed, M.S. et al. (2009), 'Who's in and Why? A Typology of Stakeholder Analysis Methods for Natural Resource Management', *Journal of Environmental Management*, 90(5), pp.1933–49. <https://www.sciencedirect.com/science/article/abs/pii/S0301479709000024>
- Sawada, Y. and S. Oum (2011), 'Economic and Welfare Impacts of Disasters in East Asia and Policy Responses', *ERIA Research Project Report 2011*, 8. <https://www.eria.org/uploads/media/Research-Project-Report/RPR-2011-8.pdf>
- Sen, A. (2001), *Development as Freedom*. Oxford, UK: Oxford University Press.
- Shofa, J.N. (2023), 'ASEAN's Natural Gas Demand to More Than Double in 2050', *Jakarta Globe*, 21 February. <https://jakartaglobe.id/news/aseans-natural-gas-demand-to-more-than-double-in-2050#:~:text=ASEAN's%20real%20gross%20domestic%20product,2050%2C%20the%20GECF%20data%20showed.>
- Sørensen, F. and T.S. Grindsted (2021), 'Sustainability Approaches and Nature Tourism Development', *Annals of Tourism Research*, 91, 103307. <https://doi.org/10.1016/j.annals.2021.103307>
- Statista, *Territorial Carbon Dioxide (CO2) Emissions in Southeast Asia from 1960 to 2022, by Country (in million metric tons of CO2)*. Hamburg: Statista. <https://www.statista.com/statistics/1288198/asean-co2-emissions-by-country/> (Accessed 5 December 2024)
- Sternfels, B., T. Francis, A. Madgavkar, and S. Sven (2021), 'Our Future Lives and Livelihoods: Sustainable and Inclusive and Growing' *McKinsey & Company*. <https://www.mckinsey.com/featured-insights/sustainable-inclusive-growth/our-future-lives-and-livelihoods-sustainable-and-inclusive-and-growing>
- Sustainable Insights (2023), *The Rise of Circular Economy: Redefining Sustainable Consumption*. Retrieved on May 2, 2024 from <https://www.linkedin.com/pulse/rise-circular-economy-redefining-sustainable/>
- Taylor, A., C. Jack, A. McClure, S. Bharwani, R. Ilunga, and J. Kavonic (2021), 'Understanding and Supporting Climate-Sensitive Decision Processes in Southern African Cities', *Current Opinion in Environmental Sustainability*, 51, pp.77–84. <https://doi.org/10.1016/j.cosust.2021.03.006>
- Thanh, V.T., D. Narjoko, and S. Oum (2010), *Overview: Integrating Small and Medium Enterprises (SMEs) into the More Integrated East Asia*, Jakarta: ERIA. <https://www.eria.org/publications/integrating-small-and-medium-enterprises-smes-into-the-more-integrated-east-asia/>
- Tonby, O., J. Ng, and M. Mancini (eds) (2014), *Understanding ASEAN: The Manufacturing Opportunity*. McKinsey Productivity Sciences Centre. https://www.mckinsey.com/~/_media/mckinsey/our%20people/matteo%20mancini/understanding_asean_the_manufacturing_opportunity.pdf

- UNDP (2019), *SDG Localization in ASEAN: Experiences in Shaping Policy and Implementation Pathway*. UNDP. <https://www.undp.org/publications/sdg-localization-asean-experiences-shaping-policy-and-implementation-pathways>
- United Nations Environment Programme (UNEP) (2018), 'Southeast Asia Actions Taken by Governments to Improve Air Quality', UNEP. <https://wedocs.unep.org/handle/20.500.11822/31913>
- UNEP (2022), *Too Little, too Slow: Climate Adaptation Failure Puts World at Risk. Adaptation Gap Report 2022*. UNEP. <https://www.unep.org/resources/adaptation-gap-report-2022>
- United Nations Department of Economic and Social Affairs (UN DESA) (2023a), *The Sustainable Development Goals Report 2023: Special edition Towards a Rescue Plan for People and Planet*. UN DESA Publications <https://desapublications.un.org/publications/sustainable-development-goals-report-2023-special-edition>
- (2023b), *Progress Towards the Sustainable Development Goals: Towards a Rescue Plan for People and Planet. Report of the Secretary General (special edition)*. UN DESA. <https://sdgs.un.org/documents/sdg-progress-report-special-edition-52549>.
- City of Vancouver (2012), *Climate Change Adaptation Strategy*. City of Vancouver. <https://vancouver.ca/files/cov/vancouver-climate-change-adaptation-strategy-2012-11-07.pdf>
- Varral, M. (2009), 'ASEAN's Way to Sustainable Development', *Disruptive Asia*. <https://disruptiveasia.asiasociety.org/aseans-way-to-sustainable-development>
- Weno, R. and R.L. Anggraini (2022), 'In Focus: Addressing Skill Mismatch through Collaboration with Industries in TVET', *ASEAN for Business Monthly Bulletin August 2022*, Jakarta. ASEAN Secretariat.
- Wood, B.T., C.H. Quinn, L.C. Stringer, and A.J. Dougill (2017), 'Investigating Climate Compatible Development Outcomes and their Implications for Distributive Justice: Evidence from Malawi', *Environmental Management*, 60(3), pp.436–53. <https://doi.org/10.1007/s00267-017-0890-8>
- World Bank (2022), *Overcoming Poverty and Inequality in the Philippines*. World Bank. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099325011232224571/p17486101e29310810abaf0e8e336aed85>
- World Bank and International Finance Corporation (IFC) (2017), *20 Reasons Sustainable Tourism Counts for Development*. World Bank and IFC. <https://documents1.worldbank.org/curated/en/558121506324624240/pdf/119954-WP-PUBLIC-SustainableTourismDevelopment.pdf>
- World Economic Forum (WEF) (2019), 'We Need an Economic Model that Works for People and the Planet', *Sustainable Development Impact Summit*. Geneva:WEF. <https://www.weforum.org/stories/2019/09/how-to-make-markets-more-sustainable/>
- Zhang, H., Q. Liang, Y. Li, and P. Gao (2023), 'Promoting Eco-Tourism for the Green Economic Recovery in ASEAN', *Economic Change and Restructuring*, 56(3), pp.2021–36. <https://link.springer.com/article/10.1007/s10644-023-09492-x>

8.

Engendering the ASEAN Economic Community

Mia Mikic

1. Introduction

The notion that gender equality and women's economic empowerment (WEE) are not just ethically right but also economically smart has been supported by empirical evidence that shows how much economic potential is lost if gender inequality persists (World Bank Group, 2012 and 2023; WEF, 2017; McKinsey & Company, 2015; amongst others). For Southeast Asia another calculation estimates that, if gender inequality were eliminated, the region could boost their collective gross domestic product by \$370 billion¹ a year by 2025 (McKinsey & Company, 2018). These organisations argue that empowering women leads to broader economic benefits, such as increased productivity, economic diversification, and improved income equality. Despite such compelling evidence and widespread advocacy, the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) still does not include specific key measures related to WEE that are obviously instrumental to deliver overall economic objectives (ASEAN, n.d.a). Whilst some indicators linked to economic activities across ASEAN Member States (AMS) show relatively good performance, there are still significant gender gaps in employment, income, and in particular, leadership positions, suggesting that WEE is still far from being realised.

The AMS individually and collectively have been active, however, and have responded to the challenge of addressing gender inequality.² At the national and whole-community level there have been many documents, declarations, and strategies adopted that reference gender equality.³ In the post-2015 era, the 2017 Action Agenda on Mainstreaming Women's Economic Empowerment (ASEAN, 2017a) aimed to encourage greater gender-responsiveness throughout the AEC and to encourage AMS to mainstream

¹ In this chapter, \$ refers to United States dollar.

² On gender equality ASEAN also collaborated with intergovernmental institutions such as the European Union, the United Nations, and bilateral development partners. Its Member States adopted many policies targeting different aspects of gender equality. Significant improvements were made related to domestic violence, access to education, improved healthcare, and gender-based wage gaps.

³ As often is the case, the number of instruments/policies enacted may not be as crucial as their quality. The operative parts and implementation of these declarations are what matters the most. For a full list of all ASEAN-level instruments and measures, see Appendix 4.

WEE through innovation, trade and inclusive business, and human capital development. Post-2020, several more actions were taken; three deserving our attention. The ASEAN Gender Mainstreaming Strategic Framework 2021–2025 (AGMSF) was agreed in 2021 (ASEAN, 2021). It laid out an ambitious roadmap towards achieving gender equality. With its four broad goals, the AGMSF sought to embed gender equality across the spectrum of ASEAN's community pillars. However, the specificity of actions to take, especially within the AEC, were missing. The AGMSF was followed by Policy Recommendations to Accelerate AGMSF Implementation, (ASCC, 2023) endorsed in 2023.⁴ The document attempted to provide general recommendations for integrating gender mainstreaming in ASEAN. Also in 2023, the Declaration on Gender Equality and Family Development (ASEAN, 2023a) was adopted. Whilst aiming high in terms of its objectives and commitments, it undershoots in its operative part (Appendix 1).

Despite a relative rush of new recommendations and declarations, there was no significant change in what has been seen as the ASEAN 'funnelled gender policies' that continued to omit clearly articulated WEE objectives. The approach to gender policies in ASEAN largely remained 'framed in terms of protection, rather than empowerment' (PHILWEN and Oxfam, 2021).

This neglect⁵ is particularly troubling in the economic sphere given the evidence suggesting that the AEC's implementation, whilst beneficial overall, has not adequately addressed the needs of women and other marginalised gender groups. Research from ASEAN (2016) and Dominguez (2019) indicates that whilst the AEC's implementation has spurred overall economic gains, it has done little to specifically uplift women and other under-represented gender groups. Moreover, the principles and objectives of the AEC Blueprints (ASEAN, 2008 and 2015) have largely overlooked the gender dimension, with the notable exception of entrepreneurship. The example in this regard is the AEC 2025 Consolidated Strategic Action Plan (ASEAN, 2018). Out of the 153 strategic measures listed (and numerous key action items), women are mentioned 12 times within eight measures, and gender equality is mentioned once (in relation to climate change). Considering the AEC's comprehensive coverage of economic governance within ASEAN, this omission of gender-targeted measures and actions represents a significant missed opportunity for promoting good economics and providing an environment to encourage gender-responsible business and investment.

⁴ In a note accompanying this document, the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children points that, 'This policy recommendation refers to the result of the Chairman Statements at the 42nd ASEAN Summit that is in line with the targets of Sustainable Development Goals (SDGs) and ASEAN Community Vision 2025. Specifically, for this Socio-Cultural Community Policy Recommendation, it refers to the ASCC Blueprint 2025, the ASEAN Declaration on the Gender-Responsive Implementation of ASEAN.'

⁵ The word 'neglect' is used carefully and projects a bracketed statement in point 4.2 (page 10) of the Declaration: '[However, the AEC and APSC Blueprints pay relatively less attention to these issues.]'

This chapter aims to contribute to the ongoing ideation⁶ about how to fill the gap between what the AEC could deliver for gender equality and WEE in future and its actual contribution. It will indicate how to go about setting gender-informed and gender-responsive options for the future AEC blueprint.⁷ By integrating gender perspectives into the core of ASEAN's economic policies and strategies, we can foster a more inclusive and equitable economic environment for all in the ASEAN Community. This is *conditio sine qua non* for sustainable development (UN, 2021).

The chapter has six sections. After this introduction, Section 2 reviews the status of gender equality and women's empowerment in ASEAN focusing on economic activities. The review is based on six established international sources. The section also refers to the Asia-Pacific Economic Cooperation (APEC) Women and the Economy Dashboard (APEC, 2023) (with Appendix 2) and points out the possibility of adopting the approach to complement what is available from ASEANStats on gender equality and women's empowerment, which seems to be limited to few infographics and Sustainable Development Goals (SDG) 5 indicators (ASEANStats, (n.d.)).⁸ Section 3 introduces the concept of gender mainstreaming and reviews ASEAN's commitments towards gender mainstreaming. This entails a review of the main policy documents in the recent period to establish gaps in policy commitment towards gender mainstreaming. Section 4 focuses on the AEC and considers some options for incorporating gender mainstreaming into the future AEC. Section 5 discusses the linkages between AEC and the other two ASEAN communities, the ASEAN Socio-Cultural Community (ASCC) and the ASEAN Political Security Community (APSC) in the context of necessary cooperation for a cohesive strategy towards integrated gender mainstreaming, and Section 6 closes with a summary and a few takeaways for policymakers. It also shares hope that further work on gender mainstreaming throughout the ASEAN community intensifies and deepens, including by adopting a gender parity for women's participation in ASEAN leadership (including in the Secretariat).

⁶ The author benefited from the workshops organised in preparation of this volume and discussions that covered this and other topics. She has also consulted six ASEAN-based experts and former government officials to brainstorm about several aspects of this topic. The insights from these colleagues have been thoroughly considered and taken on board as appropriate deemed by the author, with thanks and usual disclaimers. The drafting of the chapter was completed in April 2024.

⁷ There is sparse public information about the ASEAN process towards formulation of its Post-2025 Vision. Typically, these forward-looking vision strategies span a decade, but it appears that the Post-2025 Vision might extend to cover the next two decades, up to 2045. No publicly available materials are available, although the ASEAN website shared images from a couple of meetings of the High-Level Task Force on ASEAN Economic Integration (ASEAN, 2023c), including seeking the views from business community (ASEAN, n.d.b).

⁸ In addition to a few indicators based on sex-disaggregated data on population, education, health, and labour force.

2. Status of Gender Equality and Women's Economic Empowerment in the ASEAN/ ASEAN Member States

For this section, it is useful to understand two concepts: gender equality and women's empowerment. Gender equality is a fundamental human right and a multidimensional concept. Gender equality occurs when people of all genders have equal rights, responsibilities, and opportunities to exercise power. Gender relates to the various roles, responsibilities, command of resources, and attributes that a society ascribes to women and men, girls and boys, and persons of diverse gender identities. Equality does not mean that women and men are the same, must become the same, or must be treated identically all the time, but that an individual's rights, responsibilities, and opportunities do not depend on whether they are born male or female. It can be seen as a precondition for people-oriented and people-centred development.

The concept of women's empowerment refers to both an outcome and a process by which women gain power and control over their own lives and acquire the ability to make strategic choices. Women's empowerment has five components: (i) women's sense of self-worth; (ii) their right to have and to determine choices; (iii) their right to have access to opportunities and resources; (iv) their right to have power to control their own lives both within and outside the home; and (v) their ability to influence the direction of social change to create a more just social and economic order, nationally and internationally (EIGE, n.d.).

Furthermore, WEE specifies empowerment in the economic sphere and in the world of work. When the qualifier 'economic' is added, the term covers better choices to expand economic opportunities and rights at work, and women's meaningful participation in economic decision-making.

Measurements of gender equality and WEE range from economic factors, such as participation in the labour market and the extent of wage gaps, to healthcare, educational, and other socioeconomic statistics, and to the number of leadership roles in politics and business. There are many approaches to measurement; most use simple or composite indicators based on quantitative and qualitative data and analyses. These indicators are (mostly) publicly available through several well-established and cited databases maintained by international organisations or think tanks. In this paper we use the measurements of gender equality only to indicate results of many years of efforts made by the AMS and to confirm that there is still a great range of results amongst them.⁹ The task of this chapter is not to comment on methodologies and the quality of individual indices since there is a separate body of literature dealing with these issues and necessary improvements of measurements.¹⁰

⁹ This chapter does not provide longitudinal data series and does not comment on the existence (or not) of convergence within ASEAN or between AMS and the other countries.

¹⁰ For example, Buvinic, Pryor, and O'Donnell (2020).

We use six global indices in this chapter:¹¹ (i) the Gender Development Index (GDI) and (ii) the Gender Inequality Index (GII), both by the United Nations Development Programme (UNDP) (UNDP, n.d.a. and n.d.b.); (iii) the Global Gender Gap Report (GGG) by the World Economic Forum (WEF) (WEF; 2023) (iv) the Social Institutions and Gender Index (SIGI) by the Organisation for Economic Co-operation and Development (OECD) (OECD, n.d.); (v) the Women, Business, and Law Index (WBL) by the World Bank (World Bank, n.d.); and (vi) the Sustainable Development Goal Gender Index (SDG GI) by Equal Measures 2030 (Equal Measures 2030, n.d.). These indices collectively provide a multifaceted view of gender equality and women's empowerment for individual economies, regionally and globally, each with a unique focus area, from legal frameworks to economic and political participation disparities. A brief description of these six indices' characteristics precedes the findings for AMS for the latest year available. The results for AMS are summarised in Figure 8.1 and Table 8.2.

The UNDP GDI measures gender inequalities (female and male achievements) across three dimensions of human development: health, education, and command over economic resources. Gender-disaggregated data is used in each dimension. The health dimension is captured by female and male life expectancy at birth. Education is measured using two indicators – female and male expected years of schooling for children and female and male mean years of schooling for adults aged 25 and older. Command over economic resources is measured by female and male estimated earned income. The GDI is calculated as the ratio of female human development index to the male one. The values of the index range from 0 to 1; values below 1 indicate higher human development for men than women, whilst values above 1 indicate the opposite. In Figure 8.1 and Table 8.2 we have multiplied the original results by 100 to ease the comparisons with other indices (therefore, the results should be read as the value of 100 indicating developmental equality between genders, values below 100 as lower human development for female and values above 100 higher human development than for men).

The latest GDI report is for 2021 and AMS have all scored relatively high; the lowest score of 92.6 is for Cambodia, the highest is for Thailand at 101.2; and ASEAN averages 97.2. The global average was 95.8, putting ASEAN women ahead with respect to human development (UNDP, n.d.a).

The UNDP GII is a composite measure reflecting inequality in achievement between women and men in three dimensions: reproductive health (maternal mortality ratio and adolescent birth rates), empowerment (share of parliamentary seats and secondary education attainment), and labour market participation.¹² Overall, the GII reflects how women are disadvantaged in these dimensions. The GII ranges between zero and one. Higher GII values (i.e. closer to 1) indicate higher inequalities between women and men and thus higher loss to human development. In Figure 8.1 and Table 8.2 we have multiplied the results by 100 to ease the comparisons with other indices (therefore the results should be read as the value of 0 indicating that women and men fare equally, whilst at 100 one gender fares as poorly as possible in all measured dimensions).

¹¹ It is necessary to comment (whilst outside the scope of this chapter) that there is still a gap between a rhetoric on gender equality and the way results of policies are measured and reported. For example, we regularly speak of the importance of including gender diverse individuals in efforts to achieve gender equality, recognising the need for all individuals, regardless of gender, to have equal rights, opportunities, and access to resources. Yet these are hardly, or not at all, specifically integrated into the metrics. Consequently, in most cases indicators refer to women and men (boys and girls), and to binary sex-disaggregated data.

¹² Technical note with details about how both Gender Development Index and Gender Inequality Index are calculated is available at https://hdr.undp.org/sites/default/files/2021-22_HDR/hdr2021-22_technical_notes.pdf

The latest report of GII is for 2021 and AMS have scored in the range between the worst score of 49.8 (Republic of the Union of Myanmar) and best score of 22.8 (Malaysia); with an average of 34.6 for ASEAN. The global average was 46.5, much worse than the ASEAN average. However, it is important to note that the best scores globally were around 15.5 and no AMS were scoring less than 22. On the other hand, 6 out of 10 AMS scored above 40, leaving much to be done to close the gender inequality gap (UNDP, n.d.b).

The WEF GGG assesses gender gaps across four key areas: economic participation and opportunity, educational attainment, health and survival, and political empowerment, highlighting countries' progress towards gender parity. Within these four dimensions, 15 indicators are used to calculate the overall performance index per country.¹³ The GGG Index measures scores on a 0 to 100 scale and scores can be interpreted as the distance covered towards parity (i.e. the percentage of the gender gap that has been closed). Thus, the higher the score, the closer to gender equality a country is. In addition to the country performance indices, there are more detailed indices that allow tracking of countries per each of the four index components. Globally, countries perform better in areas of health and survival and educational attainment than in economic participation and opportunities. The worst results are in area of political empowerment.

The latest WEF GGG Report was issued in June 2023. Results for AMS are shown in Figure 1 and Table 2. They range from the worst at 65% (Republic of the Union of Myanmar) and the best at 79.1% (Philippines), with the ASEAN average at 71%. The GGG index results are much more uniform for AMS than the other indices, and they are closer to the global average (68.1%), thus signalling that ASEAN is not performing to its aspirations. When it comes to the performance in the four components of the index (not shown in Figure 1 and Table 2), the disparities between the AMS are larger but in some of them ASEAN is doing much better than the global average:

- Health and survival: globally 96% and the range amongst AMS is from 94.6% (Viet Nam) to 97.8% (Cambodia); the ASEAN average is higher than the global average by almost a whole percentage point.
- Educational attainment: globally 95.2% and the range amongst AMS is from 96.4% (the Lao People's Democratic Republic (Lao PDR)) to 100% (Malaysia, Philippines); the ASEAN average is higher than the global average by 3 percentage points.
- Economic participation and opportunity: 60.1% globally and the range amongst AMS is from 60% (Republic of the Union of Myanmar) to a high of 85.1% (Lao PDR); with an ASEAN average of 73.3%, considerably higher than the global average.
- Political empowerment: 22.1% globally and the range amongst AMS is from 4.7% (Republic of the Union of Myanmar) to 40.9% (Philippines); the ASEAN average of 15.3 comes well short of the global average by almost 7 percentage points (WEF, 2023).

The OECD SIGI measures discrimination against women, considering legislation, social norms, and practices that lead to women's discrimination in the family and may restrict their physical integrity, access to productive and social resources, and civil liberties. It uses 27 different indicators to calculate

¹³ More about methodology is available at WEF (2017).

the country level index. SIGI scores range from 0 to 100, with 0 indicating no discrimination and 100 indicating absolute discrimination. Scores in individual dimensions and indicators are also scaled similarly.¹⁴

The 2023 SIGI report included all AMS except Brunei Darussalam. The global average score was 29.2, whilst ASEAN's average was much higher at 39.1. The best result (closer to the score of 0 – no discrimination) was achieved by Cambodia (21.7), and the worst by Malaysia (61.7). Only Cambodia, Lao PDR, and Viet Nam scored better than the global average and the Asian average (which was 37.2) and were classified as low in the context of overall gender discrimination.

OECD released a separate report for Southeast Asia in March 2024. Whilst these results are still for 2023, they also include an interesting decomposition for each index area and this is shown as the summary results from the report in Table 8.1, including the total scores (also reported in our Figure 8.1 and Table 8.2) and its four dimensions (OECD,2024 and n.d.).

Table 8.1. Social Institutions and Gender Index 2023 Results: Southeast Asia

Geographical area	SIGI score	Classification	SIGI score by dimension			
			Discrimination in the family	Restricted physical integrity	Restricted access to productive and financial resources	Restricted civil liberties
Southeast Asian countries						
Cambodia	22	Low	22	18	29	17
Viet Nam	24	Low	38	38	8	10
Lao PDR	25	Low	25	28	25	23
Thailand	33	Medium	39	20	22	47
Indonesia	45	High	80	32	18	36
Singapore	45	High	39	46	41	53
Myanmar	47	High	63	55	34	33
Philippines	50	High	57	49	50	42
Malaysia	61	Very High	86	47	44	61
Brunei Darussalam	NA	NA	92	NA	NA	NA
Timor-Leste	NA	NA	26	37	20	NA

¹⁴ For a methodological note, see Ferrant, Fuirotand, and Zambrano (2020).

Geographical area	SIGI score	Classification	SIGI score by dimension			
			Discrimination in the family	Restricted physical integrity	Restricted access to productive and financial resources	Restricted civil liberties
Regional aggregates						
Southeast Asia	39	Medium	52	37	29	36
Asia	37	Medium	51	33	31	36
OECD	15	Very Low	14	18	13	15
World	29	Low	38	27	27	26

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar, NA = not applicable, OECD = Organisation for Economic Co-operation and Development, SIGI = Social Institutions and Gender Index.

Source: OECD (2024 and n.d.).

The World Bank WBL measures legal differences for men and women in individual economies, identifying barriers to women's economic participation across eight, – and since 2024, 10 – dimensions that affect women's economic opportunities.¹⁵ In addition to introducing two new indicators, WBL2 differs from the WBL1 index as it expands the scope of analysis. In both versions, legal indexes analyse domestic laws and regulations that affect women's economic opportunities. Answers to the questions in these indexes are based only on codified law. The WBL2 introduces an additional two layers of analysis: the supportive frameworks index analyses instruments designed to support the implementation of laws (allowing it to identify the distance between legal reforms and the outcomes); and it captures expert opinions on the extent to which these outcomes are being realised in practice in a particular economy. The values of overall indices are from 0 to 100, where 100 means equal legal rights for men and women, thus the higher the score, more legal equality women enjoy. A score of 77% implies that women enjoy just 77% of the legal protection available to men. A review of the implementation of laws and rules, undertaken by the WBL2, shows that the gaps increase significantly for most countries. So, whilst laws on the books imply that women enjoy roughly two-thirds of the rights of men (WBL1), countries have on average, established less than 40% of the systems needed for full implementation (WBL2). For example, 98 economies have enacted legislation mandating equal pay for women for work of equal value. Yet only 35 economies – fewer than one out of every five – have adopted pay-transparency measures or enforcement mechanisms to address the pay gap.

¹⁵ The 2024 WBL Report introduces a new index which is based on 10 individual indicators, adding two new ones that can be critical in opening up or restricting women's options: safety from violence and access to childcare services. See World Bank Group (2024a; 2024b).

The 2024 WBL Report finds that globally, women enjoy just 64% of the legal protections that men do, and that after the implementation gap is considered, that figure drops to 35%. Figure 8.1 and Table 8.2 present results for AMS. When WBL1 is used, the worst score is 53.1% (Brunei Darussalam) and the best is 88.1% (Viet Nam); and the ASEAN average is 73.7% (compared to the global average of 77%). When WBL2 is used, the worst score is 35% (Brunei Darussalam), the best is 85% (Viet Nam); the ASEAN average is 60% (against a global average of 64%). The results are even more worrying when the implementation gap is accounted for, as then the global average of 39% compares to the best score in ASEAN of 62% (Singapore) and the worst of 11.7% (Republic of the Union of Myanmar); the ASEAN average is 34%. (World Bank Group, n.d.)

Finally, the SDG GI¹⁶ covers 56 key indicators across 14 of the 17 SDGs, with each goal represented by between three and five gender-related indicators. Whilst the index follows the structure of the SDGs, it adds a gender lens across each of the goals, including many that lack such a focus in the official framework, or those where no data are reported at present to monitor progress. The index makes it possible, therefore, to track progress across most of the goals (and not just SDG 5) on gender equality. Given the data gaps in official SDG monitoring, the SDG GI draws on available gender-related SDG indicators and complements them with a wider range of data sources to provide a timelier and more comprehensive picture of progress. This includes tracking legal frameworks that address gender equality (e.g. laws related to equality in the workplace, abortion rights, sexual orientation, etc.), global survey data that capture women's views about different aspects of their lives and societies, and other data collections that are conducted by a range of data producers (including the World Bank, civil society organisations, and think tanks) on a global and regular basis. The index tracks progress over time, allowing benchmarking since 2015 and scenario-building to provide insights into how (and whether) gender indicators are progressing towards the attainment of the SDGs by the 2030 deadline. The overall index score and individual goal scores are based on a scale of 0 to 100.¹⁷ A score of 100 reflects the achievement of gender equality in relation to the targets set for each indicator in the index. A score of 50 signifies that a country is about halfway to meeting that goal.

The SDG Gender Index Report 2022 findings for AMS are summarised in Table 8.2 and Figure 8.2 (data for Brunei Darussalam and the Republic of the Union of Myanmar are not available). The global average is 67.8 out of 100. The worst ASEAN performance is 60 (Cambodia) and the best is 83 (Singapore); the ASEAN average is 68.7, just above the global average (Equal Measures 2030, 2022 and n.d.).

In summary, whilst there is no country with a perfect gender equality or women's empowerment score in any of the metrics used, this should not be seen as an excuse for not performing well, especially in those areas that could be improved by deliberate actions. The opportunity costs of inaction is high and equal to an adverse impact on the country's achievements in all key aspects of human development. Furthermore, disparities amongst AMS underscore the need for targeted efforts on the regional level to bridge these gaps across the region.

¹⁶ Composition of the index is available at Equal Measures 2030 (n.d.).

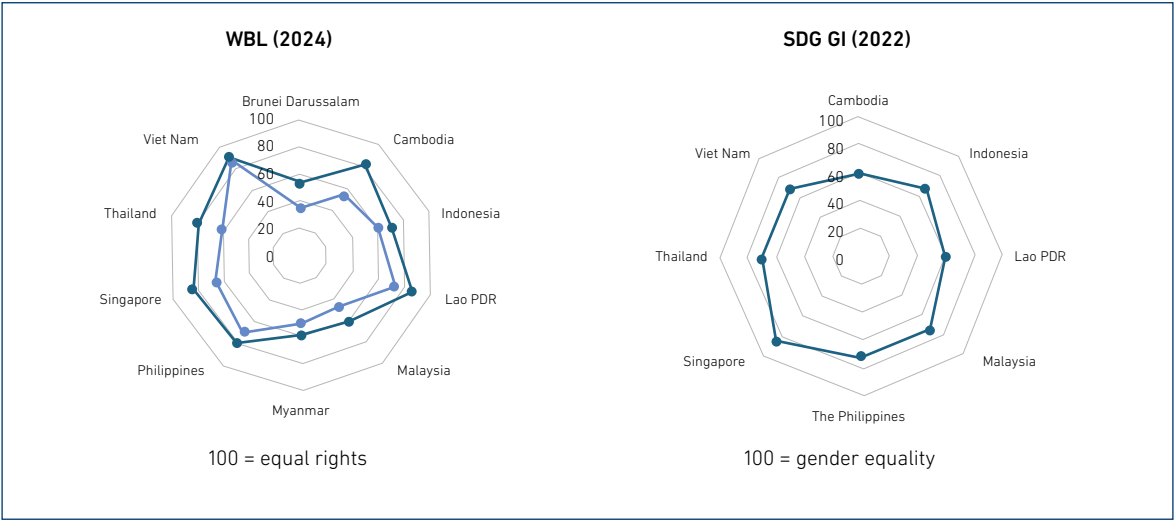
¹⁷ The scoring system (Excellent: 90 and above; Good: 80–89; Fair: 70–79; Poor: 60–69; Very poor: 59 and below) implies that AMS mostly fall in category Poor- see Figure 1 and Table 2.

These six indices further highlight the absence of a dedicated ASEAN entity responsible for gathering and distributing gender-related data and indicators. Whilst ASEANStat tracks progress with SDGs, a few targets used to report on and monitor progress on SDG 5 (gender equality) are largely incomplete regarding AMS coverage and are focused on social aspects and leadership.¹⁸ There are some other statistics in ASEAN Yearbooks related to labour/employment (as well to health and education), however they lack much of the information needed for evidence-based policymaking to promote gender equality. Appendix 2 of this chapter summarises the APEC Women and the Economy Dashboard (APEC, 2023) illustrating an advantage of preparing a dedicated dashboard. Since seven of AMS are also APEC members, building an ASEAN dashboard based on the APEC example could be one option for this.

Figure 8.1. Integrated ASEAN Economic Community Sustainability Framework Based on Public–Private–People Partnership Model



¹⁸ Two indicators focus on the proportion of women in the age group 20–24 who were married (in a union) before age of 16/age of 18, and another two indicators focus on the proportion of seats held by women in national parliaments, and the proportion of women in managerial positions.



GDI = gender development index, GGG = global gender gap, GII = gender inequality index, Lao PDR = the Lao People's Democratic Republic, SDG GI = Development Goals Gender Index, SIGI = social institutions and gender, WBL = women, business and law.

Note: For more explanation, see Section 2 of this chapter.

Source: Table 8.2

Table 8.2. An Illustration of the Status of Gender Equality and Women's Economic Empowerment Based on a Set of Six Composite Indicators (2021–2024)

	Brunei Darus-salam	Cam-bodia	Indo-nesia	Lao PDR	Malay-sia	Myan-mar	Philip-pines	Singa-pore	Thai-land	Viet Nam	ASEAN Aver-age*
Gender Development Index (2021)^a	98.4	92.6	94.1	94.9	98.2	94.4	99	99.2	101.2	100.2	97.2
Gender In-equality Index (2021)^b	25.9	46.1	44.4	47.8	22.8	49.8	41.9	40	33.3	29.6	34.6
rank	61	116	110	120	57	125	101	7	79	71	na
Global Gender Gap Report (2023)^c	69.3	69.5	69.7	73.3	68.2	65	79.1	73.9	71.1	71.1	71.0*
rank	96	92	87	54	102	123	16	49	74	71.172	na
Social Insti-tutions and Gender Index (2023)	na	21.7	44.6	25.1	61.7	47.0	49.7	45.0	32.6	24.5	30.4*
Women, Busi-ness, and Law (2024)-WBL 1	53.1	81.3	70.6	85.6	60.6	58.8	78.8	82.5	78.1	88.1	73.7*

	Brunei Darus-salam	Cam-bodia	Indo-nesia	Lao PDR	Malay-sia	Myan-mar	Philip-pines	Singa-pore	Thai-land	Viet Nam	ASEAN Aver-age*
-WBL-2	35	55	60	72.5	47.5	50	70	65	60	85	60*
SDG Gender Index (2022)^d		60	67	61	70		70	83	70	69	68.7*
rank	na	101	76	97	59	na	61	20	60	64	na

ASEAN = Association of Southeast Asian Nations, Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

Notes: Averages marked * are simply averages of the AMS scores and calculated for the purpose of this table by the author.

^a Originally measured by values from 0 to 1 but here normalised to 0 to 100. Value of 100 indicates developmental equality between genders, whilst values further from 100 indicate less equality between gender.

^b Originally measured by values from 0 to 1. Here normalised to values 0 to 100. Value of 0 indicates that women and men fare equally, and 100

^c Scores range from 0 to 100 and can be interpreted as the distance covered towards parity (=100). Read as the percentage of the gender gap that has been closed.

^d The values range from 0 to 100, where 100 indicates meeting the set goals. Scoring is set as Excellent: 90 and above; Good: 80–89; Fair: 70–79; Poor: 60–69; Very poor: 59 and below.

Source: Equal Measures2030 (2022 and n.d.), OECD SIGI (2024 and n.d), UNDP (n.d.a), UNDP (n.d.b), WEF (2023), World Bank Group (n.d.).

3. Gender Mainstreaming and the ASEAN Commitment

The concept of gender mainstreaming was first suggested by the Beijing Platform for Action in 1995 by saying that policy makers should apply a clear gender lens to all policies and programmes to ensure that decisions are gender-informed before they are made. Consequently, at its 1997 substantive session the United Nations Economic and Social Council (ECOSOC) recognised unanimous states' agreements with the Beijing Platform for Action, 'that it was essential to design, implement and monitor, with the full participation of women, effective, efficient and mutually reinforcing gender-sensitive policies and programmes, including development policies and programmes at all levels, to foster the empowerment and advancement of women' (UN, 1995). To promote a coordinated and coherent policy of gender mainstreaming, ECOSOC (1997) clarified the concept of mainstreaming, its central principles and offered specific recommendations to all actors within the United Nations system.

The strategy of mainstreaming is defined in the ECOSOC agreed conclusions, 1997/2, as: *'... the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal is to achieve gender equality'* (ECOSOC, 1997:3).

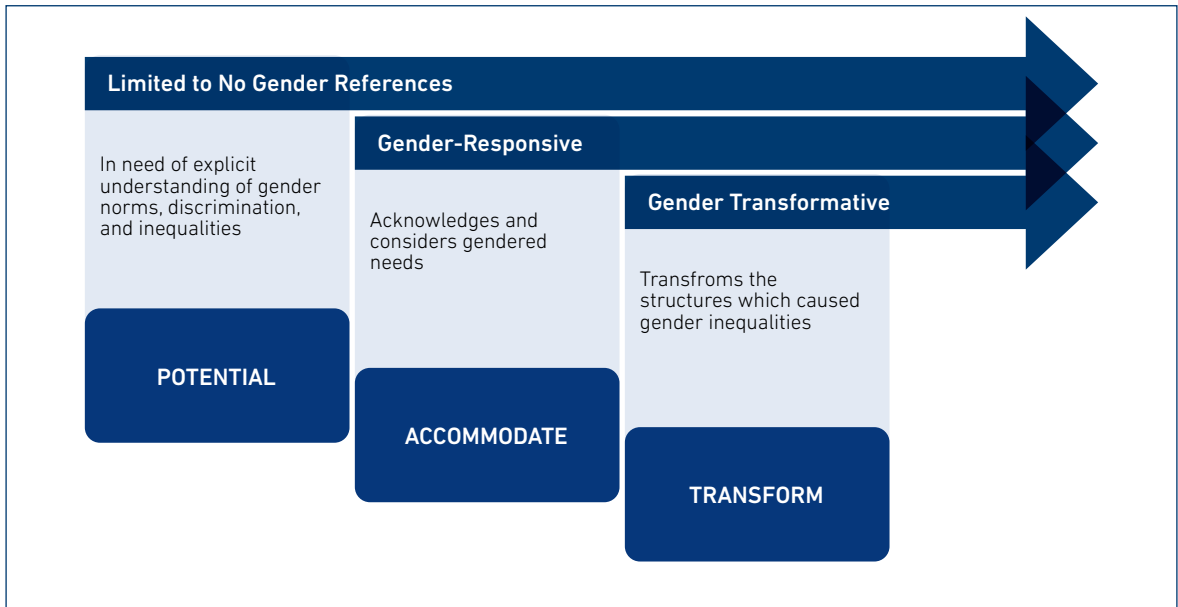
Gender mainstreaming represents an essential strategy within international and regional frameworks for promoting gender equality and empowering all individuals, irrespective of their gender. This approach seeks to integrate gender perspectives and considerations into all stages of policymaking including planning and implementation across various sectors and all levels of policymaking. Gender mainstreaming involves reevaluating, restructuring, and changing institutional processes and policy frameworks to ensure that gender equality considerations are at the centre. This approach goes beyond merely adding gender-related activities or focusing solely on women's issues; it involves integrating gender perspectives into all decision-making processes to address inequalities. Therefore, gender mainstreaming requires policy makers and decision makers to adopt a different perspective, to learn new skills, and to change procedures in existing institutions (Alami, 2018).

Nevertheless, gender mainstreaming may often adopt targeted and specific interventions to address identified gender disparities. These interventions are particularly data-driven and require sex- (or, preferably, gender-) disaggregated data to identify specific gender disparities.¹⁹

Based on this understanding of gender mainstreaming, this section examines ASEAN's commitments towards gender mainstreaming by reviewing some of the more recent key policies and documents with a focus on their relevance to ASEAN's vision and economic activities or sustainable development. It is useful to remember that ASEAN uses a whole-of-ASEAN approach to introduce and institutionalise gender perspectives in its work. Such an approach is guided by the principle that addressing fundamental gender gaps is a moral imperative and a sound economic proposition: one that leads to a reduction in poverty and inequality and the promotion of inclusion and resilience in the long run (ASEAN, 2023b).

To assess different policies, it is useful to apply a standard gender equity continuum 'metric' to categorise and assess actions, policies, or initiatives in terms of their awareness of the current gender inequalities (and their causes, such as norms) and their capacity to drive a transformation or elimination of these causes (Figure 8.2 and Appendix 3).

¹⁹ This is not to say that nontargeted interventions do not require data. Any decision-making should be based on analysis of data. Likewise, data are needed to assess overall progress of gender mainstreaming.

Figure 8.2. Attributes of Policies that Drive Gender Equality

Source: Author (based on literature).

As noted, gender mainstreaming is a critical strategy for achieving gender equality and empowering all individuals. Whilst ASEAN has made significant strides in integrating gender perspectives into its policies and frameworks, there remains a need for a more inclusive approach that addresses the full spectrum of gender issues. As observed in Appendix 3, ASEAN's commitment to gender mainstreaming has been inching in the right direction – towards responsive and transformative actions and policies – although progress has been uneven across the areas the three communities are responsible for. Currently, the pivotal instrument driving ASEAN gender mainstreaming is the 2021 AGMSF (ASEAN, 2021).²⁰ Its four strategic goals (building blocks) are:

- **Goal 1:** ASEAN policies, institutions, and practices better embody its vision for a fairer, more equitable, and inclusive world (@ policy development);
- **Goal 2:** ASEAN builds its knowledge, technical competencies, and capacity on gender and inclusion issues (@ capacity building);
- **Goal 3:** ASEAN policies and action plans better reflect the needs of women and girls in the region, and sectoral bodies across the three communities can progressively undertake more effective initiatives that centre their participation and respond to their needs (@ cooperation & collaboration); and
- **Goal 4:** ASEAN supports intergovernmental processes and Member States' gender mainstreaming and gender-focused initiatives (@ technical assistance, monitoring, and evaluation).

²⁰ Reminder: The AGMSF outlines ASEAN's commitment and approach to integrating gender perspectives across its Member States' policies and programmes. The framework is designed to promote gender equality and the empowerment of women and girls, recognising these as fundamental to achieving sustainable development and socioeconomic progress.

The AGMSF needs its Implementation Plan with specific gender-responsive actions. The framework includes a section on 'Indicative Actions' (Section 8) where there are indications of possible timeframes and approaches to be taken whilst developing the Implementation Plan (emphasising the need for pragmatism and sequencing considering resources and the priorities of the AMS and the dialogue partners). One can argue that AMS and dialogue partners have already confirmed that their priorities are developing and strengthening inclusive, resilient, and sustainable people-centred economies and societies. If so, there is a clear mandate to proceed to build a collective work on gender mainstreaming as an integral and irreplaceable component to achieve sustainable development. Whilst it is reasonable to accept that availability of resources may put the implementation of the framework at risk, it is not acceptable to use the lack of high-level political support as an excuse (given that high-level officials were involved in the adoption of the framework). However, in August 2023, Policy Recommendations to Accelerate AGMSF Implementation (ASSC, 2023) were issued (and they were also endorsed by the ASEAN Ministerial Meeting on Women). They include an Annex titled Alignment of the Policy Recommendations with the AGMSF and its Implementation Plan (2021–2025) indicating the existence of such a plan. The Annex even includes two Implementation Plan outcomes for each of the four broad goals of the AGMSF. However, the author was unable to locate a copy of the plan and must assume that the 2023 Policy Recommendations serve as the plan itself.²¹

The AGMSF also proposes a comprehensive institutional framework for implementing gender mainstreaming across ASEAN. This includes the creation of dedicated units within the ASEAN Secretariat. The ASEAN Gender Mainstreaming Steering Committee which, 'aims to promote gender equality and women's empowerment across the ASEAN region by developing strategies and policies that prioritise gender mainstreaming in all areas of governance, economics, and social development' (ASEAN, 2023d) has met twice in 2023 and its third meeting held in Lao PDR in August 2024. There is no information about the proposed establishment of the gender focal points and an ad hoc gender mainstreaming focal team. Overall, not much information is publicly available about the proposed institutional framework for gender mainstreaming and on involving other ASEAN entities (starting with AEC and APSC, which 'pay relatively less attention to these issues' (ASEAN, 2021:Ch. 4: 1). The scarcity of public information regarding the proposed institutional framework for gender mainstreaming, along with the limited engagement of other ASEAN entities – particularly those associated with AEC and APSC – underscores a concerning lack of transparency and stakeholder consultation. Such an approach is not conducive to effectively enhancing work on gender mainstreaming and WEE, as it may hinder collaborative efforts and diminish the potential for inclusive and informed decision-making.

Section 4 looks more closely to how AEC could step-up and contribute more directly towards ASEAN-wide gender mainstreaming and WEE by applying a gender lens to its instruments and actions.

²¹ In the same Section 8, the framework envisages that, 'The Implementation Plan should be reviewed and revised every year as the resources, capacities, and commitments available to the gender mainstreaming agenda and this Strategic Framework evolve, and as ongoing monitoring and the Mid Term Review generate recommendations for improvements.' (p.23).

4. Engendering the ASEAN Economic Community

The AEC Blueprint 2025 (ASEAN, 2015) builds upon the achievements of AEC Blueprint 2015 (ASEAN, 2008), increasing the key characteristics of the AEC from four to five:

- i). A highly integrated and cohesive economy: This goes beyond the 2015 goals to reduce trade barriers and enhance the free flow of services, investment, and skilled labour even further.
- ii). A competitive, innovative, and dynamic ASEAN: This focuses on digital innovation, e-commerce, and the digital economy, recognising the importance of technological advancements.
- iii). Enhanced connectivity and sectoral cooperation: This highlights the significance of infrastructure development (both physical and digital), energy security, and food, agriculture, and forestry cooperation.
- iv). A resilient, inclusive, people-oriented, and people-centred ASEAN: This emphasises sustainable development, health, and cultural development, ensuring that economic growth benefits all segments of society.
- v). A global ASEAN: This reinforces ASEAN centrality especially in the context of re-globalisation and emerging regional economic architecture and aims to strengthen ASEAN's role and voice in the global economic forums and in the East Asian region.

Compared to the 2015 Blueprint, the 2025 AEC version

- is broader and more ambitious in scope, aiming not just for economic integration but also for a cohesive, people-centred ASEAN economy that leverages digital technology;
- places a stronger emphasis on digital economy, innovation, and technology as key drivers of economic growth and competitiveness;
- puts a greater emphasis on sustainable development and inclusiveness in the 2025 Blueprint, reflecting a more holistic approach to regional economic integration that seeks to ensure benefits are widely shared; and
- has a clearer focus on enhancing ASEAN's role in the global economy, reflecting a shift towards not just internal integration but also external engagement and influence.

Neither blueprint, however, provides space for explicit (rather than implicit) promotion of gender equality and WEE. As noted earlier, the Consolidated Strategic Action Plan (ASEAN, 2018) (prepared for AEC 2025 implementation) does not do justice to the identified gender disparities across the AMS in areas covered by the AEC. If one would apply a gender-responsiveness metric²² that is normally used to assess the degree to which a trade agreement addresses gender equality issues, the AEC Blueprints and the associated Strategic Plan would at best score the limited level of responsiveness. Women's

²² This metric contains five levels of gender awareness maturity: level 1: Limited (awareness); level 2: Evolving (affirmations); level 3: Acceptable (cooperation and advocacy); level 4: Advanced (institutionalisation) and level 5: Optimal (legally binding obligations and enforcement). This metric was developed by Amrita Bahr. (Bahri, 2019).

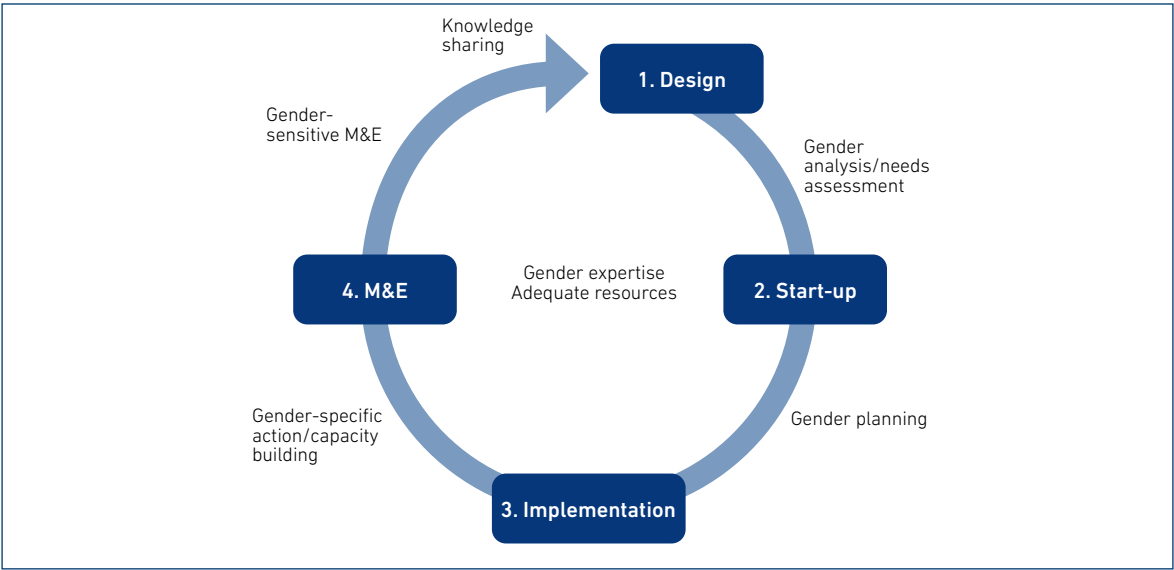
economic rights are not integrated into the AEC. This may be at least partly attributed to the inadequate representation of women in the working committees under the AEC.²³

The gender mainstreaming of the AEC involves recognising the ways in which women (and, if aspiring to aim for an inclusive AEC, then other marginalised groups too) interact with the economy (often in more than one role at the same time) – as, for example, producers, consumers, entrepreneurs, users of public services, taxpayers, and participants in the global economy.

The strategy of gender mainstreaming (as mentioned in Section 3 of this chapter) is a strategy focused on achieving the goal of gender equality. To be effective it must be relevant for, and should be utilised in, all sectors and policy areas relevant to the AEC (which is the meaning of ‘mainstreaming’). The strategy requires explicit attention to both women and men, and diverse gender identities, ensuring that they can participate in, influence, and benefit from development of policies and practices. Finally, and very importantly, gender mainstreaming typically ‘integrates’ attention to gender equality in routine processes and procedures as well as employing ‘targeted interventions’ to address specific constraints and challenges faced by women or men and girls and boys.

Stages of gender mainstreaming are illustrated in Figure 8.3. We are conscious that the reader might be only interested in the result of applying this process, but in the interest of completeness, we provide this illustration without further explanation. In addition, Box 1 provides details on helpful, publicly available toolkits that can assist in one of more of these stages.

Figure 8.3. Gender Mainstreaming Cycle



M&E = monitoring and evaluation.
Source: Adapted from the National Democratic Institute (2024).

²³ These two documents also do not include any mention of the other two ASEAN communities and the potential value of collaborative actions to meet any of the objectives.

Box 1 Selected Gender Mainstreaming Toolkits and Possible Application by the Association of Southeast Asian Nations to Enhance Gender Equality and Women's Economic Empowerment

1. Organisation for Economic Co-operation and Development: Toolkit on Mainstreaming and Implementing Gender Equality 2023

Application for the Association of Southeast Asian Nations (ASEAN): This toolkit can assist ASEAN to embed gender equality perspectives across all levels of policy formulation and implementation to achieve more equitable outcomes in its initiatives and boost public confidence in its institutions. This approach aligns well with ASEAN's aspiration to build cohesive and inclusive policymaking that considers the diverse needs and contributions of women in the region.

2. International Monetary Fund (IMF): Strategy Towards Mainstreaming Gender

Application for ASEAN: Leveraging the IMF's strategy, ASEAN could prioritise the collection of gender-disaggregated data and the development of modelling tools for policy analysis. This data-driven approach can inform ASEAN's policy decisions, ensuring they contribute to reducing gender disparities, which in turn can foster economic growth and stability across the region. Collaboration with external partners could also be enhanced to bring in global best practices and resources.

3. Government of Canada: Gender-Based Analysis Plus

Application for ASEAN: The Gender-Based Analysis Plus framework can guide ASEAN in evaluating the impacts of its policies and programmes on different segments of the population. By considering a range of intersectional factors, ASEAN can ensure that its initiatives are inclusive and equitable, addressing the needs of the most marginalised and contributing to a more cohesive and resilient society.

4. United Nations Trade and Development: UNCTAD Trade and Gender Toolbox

Application for ASEAN: This toolbox provides ASEAN with a structured approach to assess the gendered impacts of trade reforms before they are implemented. By applying this framework, ASEAN can identify and mitigate potential adverse effects on women, ensuring that trade policies are both equitable and supportive of gender equality. This can be particularly beneficial in negotiating deep trade agreements and formulating economic policies that consider the unique challenges and opportunities faced by women in the region.

5. United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Strengthening Women's Entrepreneurship in National Micro, Small and Medium Enterprise Policies and Action Plans : Toolkit for Policymakers

Application for ASEAN: The toolkit assists policymakers responsible for micro, small, and medium enterprise (MSME) development to assess the development of women's entrepreneurship at the national level. A completion of the self-assessment process provides insight on actions

to be taken to strengthen policy support and develop a positive ecosystem for women's entrepreneurship. It establishes a baseline to monitor longitudinal progress of initiatives targeting the advancement of women-owned-led MSMEs. It should help lead to more gender-responsive development of the MSME sector and a greater contribution of women entrepreneurs and women-owned-led enterprises to the economy.

Consulting and using these and other toolkits would enable ASEAN to take a more holistic and informed approach to gender mainstreaming, ensuring that gender equality and women's economic empowerment are central to its development agenda. The strategic integration of gender considerations can help AMS achieve sustainable development, economic growth, and social justice, aligning with both regional goals and global commitments to gender equality.

Source: Government of Canada (n.d.), IMF (2022), OECD (2018), UNESCAP (2022), UNCTAD (2017). The text has been adopted from the official webpages of the institutions.

4.1. A Pragmatic Plan to Mainstream Gender in the ASEAN Economic Community

The transformation from the current, almost gender-blind AEC to one that is gender-transformative cannot be achieved overnight, and there are certain components of the process of gender mainstreaming that need to be addressed first. These include the following: (The list is nonsequential as some actions need to be undertaken in parallel as they support each other):

- **Institutional arrangements:** AEC must be given more explicit responsibility for gender mainstreaming and WEE. Whilst current entities such as ASEAN Commission on the Promotion and Protection of the Rights of Women and Children and ASEAN Committee on Women shall lead across all three communities, it is necessary that AEC forms its own body (for example, the AEC Gender Advisory Committee). That body will be responsible for ensuring that gender equality is treated as an economic objective, given women's role in the economy. It will also be responsible for coordination with the other entities including the ASEAN Women Entrepreneurs Network and the ASEAN Coordinating Committee on Micro, Small, and Medium Enterprises. In fact, the coordination with the latter is crucial given that the focus of WEE in the current AEC is on promoting women as entrepreneurs. The AEC body will also need to build cooperation with the AMS national bodies responsible for WEE and gender equality.

- **Prepare for gender-informed policymaking:** No strategy can be implemented without the availability of relevant gender-related data. Better understanding of how economic activities and policies affect women and men differently (with additional intersectional elements) should translate into a better and more effective policies. Such results should, in turn, provide incentive to improve investment into a better collection of sex- (or gender-) disaggregated data, better assessment, and wider dissemination of results. It is encouraging that there is a drive to collect both qualitative and quantitative data on many aspects of gender equality and WEE. One objective should be to pull these together into one comprehensive source (Appendix 2) to be readily available to consult when designing new measures or negotiating new trade agreements (see also Box 1). Additionally, more reliable data can assist in identifying priorities for both sectoral and subregional targeting of measures, allocation of budgets, as well as gender-responsive monitoring and evaluation.
- **Early harvest:** AEC spans a wide range of economic activities and it would be counterproductive to start introducing gender-accommodating and gender-transformative actions across the current set of 153 strategic measures. Furthermore, it is easier to aim for those areas of the AEC where there are already established experiences and approaches for boosting WEE in some of the ASEAN dialogue partners or even some AMS. These could be grouped into three areas:
 - (i) enhancing market access for women (through, for example, a removal of barriers on trade in goods and services especially relevant for women, including through negotiation of trade agreements; making gender-responsive trade facilitation measures; and promoting WEE in and by small and medium-sized enterprises, etc.) (See Box 2);
 - (ii) enhancing women's capacity to engage in trade and other economic activities (through, for example, improving access to the following areas: instruments of digital trade; digital technology, trade, and other finance; trade-related information; infrastructure; and specialised skills and knowledge); and
 - (iii) reducing risks from participation in economic activities and trade through, for example, designing adjustment programmes that are considerate of women's needs (restricted mobility, multitasking/ being 'time-poor', etc.).
- **Accepting relevant international conventions and joining other international initiatives:** The application of international labour standards in ASEAN remains a work in progress. AMS must commit to quick and complete acceptance of all International Labour Organization Conventions relevant to gender equality and WEE. Most of the AMS have joined more than 125 World Trade Organization (WTO) members in the Trade and Gender Informal Working Group. They also signed the 2017 Buenos Aires Declaration on Trade and Women's Economic Empowerment (WTO, 2017) calling for the WTO to engage on the issues linking trade and gender. Brunei Darussalam, Singapore, and Thailand are not signatories. At the 11th WTO Ministerial Conference in Buenos Aires in 2017, more than 120 member countries, including seven AMS, declared that more must be done to include women in trade. The Buenos Aires Declaration on Trade and Women's Economic Empowerment aims to increase the participation of women in trade and remove barriers faced by women in entering the global marketplace.

- A small group of open and progressive countries, including Argentina, Canada, Chile, Colombia, Costa Rica, Ecuador, Mexico, New Zealand, and Peru, are working together under the Global Trade and Gender Arrangement (WTO, 2021).²⁴ Moreover, there are benefits from strengthening partnerships with regional and international organisations working on gender equality and WEE (e.g. the Asian Development Bank, United Nations Economic and Social Commission for Asia and the Pacific, and UNWomen) to leverage resources and expertise to advance gender equality within the AEC.
- **Advocacy, awareness, and agency:** It is important to foster active engagement and collaboration with diverse stakeholders, including women's organisations, gender experts, and private sector representatives throughout the AEC planning and implementation process. The interaction with AMS should incorporate opportunities for dialogue, knowledge sharing, and joint actions. AEC activities should advocate for WEE as part of human rights and promote intra- and extra-ASEAN cooperation on gender mainstreaming efforts.

By integrating these strategies into the planning and implementation of the future AEC blueprint, ASEAN can create a more gender-inclusive economic community that leverages the full potential of its entire population, contributing to more sustainable and equitable growth across the region.

Box 2 Enhancing Market Access for Women and Promoting Women's Economic Empowerment (Examples of Interventions and Actions)

Trade in Goods, Trade in Services and Trade Facilitation

- Reduce the remaining tariff barriers (especially on inputs) that make female-dominated industries less competitive and productive, or make everyday consumer goods less affordable; eliminate gender-related tariff differentials;
- Address the trade distorting effects of non-tariff measures including by simplifying the certification procedures to tackle women-specific obstacles (e.g. operating hours; access to documents) as the compliance costs of non-tariff measures disproportionately affect women producers/traders;
- Strengthen efforts to increase participation of women in standard-setting bodies (towards parity);
- Promote cross-border services trade with potential for women by joining plurilateral initiatives at the WTO; e-commerce has proven to be more women-friendly than traditional export/trade in goods and services;
- Lift restrictions on consuming services abroad as women tend to benefit from access to education, health, financial, and other services;
- Set up a dedicated trade facilitation support for women traders or micro, small, and medium enterprises led or owned by women;

²⁴ The Global Trade and Gender Arrangement is an innovative non-binding plurilateral trade instrument that is open for other countries to join. It introduces new principles, such as not weakening or reducing protection provided by gender equality laws and regulations to promote trade or investment (WTO, 2021).

- Mandate at least 30% female participation in National Trade Facilitation Committees; promote employment of women customs officers;
- Provide a dedicated ASSIST channel to help with Single Window procedures and use of paperless channels.

Trade agreements

- Include a binding requirement for non-discriminatory treatment of women (and other marginalised groups) in as many individual chapters as relevant or appropriate in the trade agreement^b and gradually (over time), consider greater use of specific, binding, and transparent language in relation to gender commitments in trade agreements;
- Use existing stand-alone arrangements with gender and trade provisions, such as the Global Trade and Gender Arrangement or some digital economy agreements as a model to develop further stand-alone agreements on gender and trade with specific provisions that would promote women's economic empowerment through trade;
- Place gender commitments in sections of chapters or add chapters that signal their importance and set the tone for the entire agreement;
- Assess the impact of gender provisions to inform any changes to the rules or strategies to bridge disparities;
- Periodically update trade agreement provisions as circumstances change;
- Integrate capacity strengthening into trade agreement design, implementation, monitoring, evaluation and financing;
- Include provisions requiring consultation with women representatives (and those of other groups), for carrying out work programmes to implement relevant chapters, especially for the design of any technical assistance and capacity building programmes;
- Setup information portals that support and reinforce the intent and objectives of the provisions in the future agreement for the greater inclusion and benefit of women and marginalised groups;

Notes: Whilst this is mostly written from the perspective of increasing market access for women, it should be stressed that similar treatment ought to be considered for other marginalised groups such as youth, people with disabilities, and Indigenous People.

a. World Bank Group and WTO (2020:161).

b. An example of such a provision is the non-discrimination obligation contained in the Joint Initiative on Services Domestic Regulation outcome at the World Trade Organisation, and which will be incorporated by prior agreement into free trade agreements, including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership.

Source: Author's research based on general literature on women and trade including World Bank Group and WTO (2020).

5. Linkages with the Other Two ASEAN Communities

The other two ASEAN communities (the ASCC and the APSC) also evolved with the deepening of ASEAN integration and now operate under 2025 Blueprints. As has been mentioned in the introduction to this paper, the ASCC carries main responsibility over gender equality and women's empowerment work. It relies on three primary entities: ASEAN Ministerial Meeting on Women, ASEAN Committee on Women, and ASEAN Commission on the Promotion and Protection of the Rights of Women and Children. These bodies collectively contribute to the formulation and implementation of ASEAN's gender policies and programmes, demonstrating the community's commitment to promoting gender equality and the well-being of women and children across the region.²⁵

The APSC's efforts towards gender mainstreaming and equity are primarily channelled through initiatives such as the ASEAN Regional Plan of Action on Women, Peace, and Security (RPA WPS). The RPA WPS is a comprehensive approach dedicated to integrating the women, peace, and security agenda into the fabric of the ASEAN political and security framework, emphasising sustainable peace and security for all citizens. This plan builds on previous political engagements and declarations within ASEAN, including those aimed at eliminating violence against women and promoting their rights. The APSC work underscores ASEAN's recognition of the importance of gender perspectives in peace and security matters and its commitment to enhancing gender equity through regional action plans and strategic frameworks.

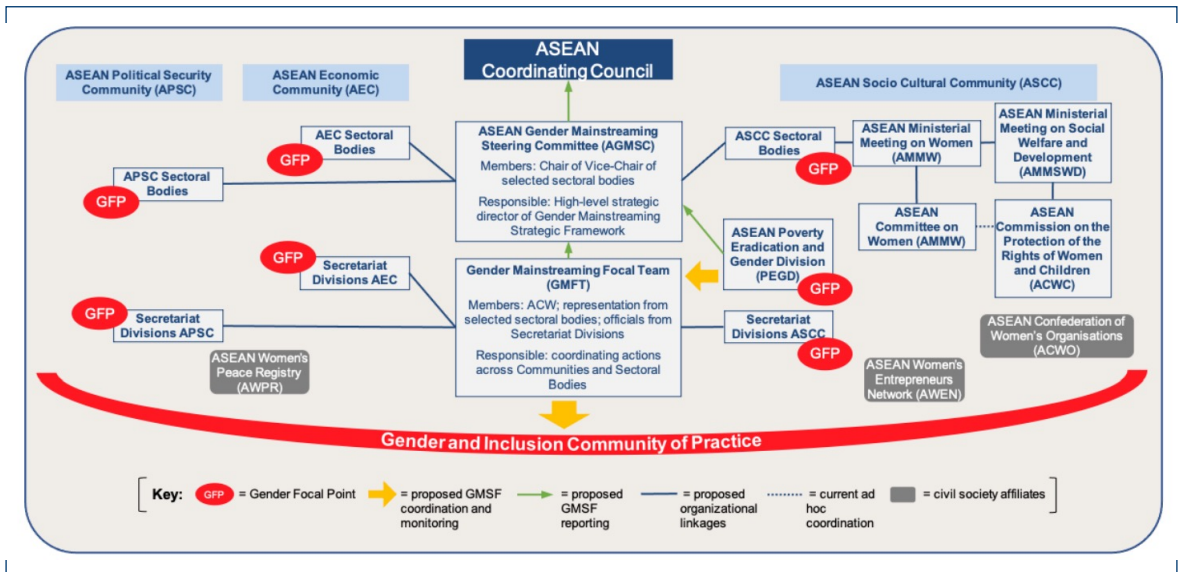
Whilst all three communities share the same basic principles and values related to gender equity and should theoretically use those to weave their agendas and strengthen delivery and impact, at present this integrated work is still in a nascent phase. As already mentioned, one of the key deliverables of the AGMSF was to integrate all three communities and other ASEAN's gender institutions into, 'an effective, authoritative, and sufficiently capacitated system that can undertake a sustained advocacy and influencing effort and drive the implementation of a complex gender mainstreaming agenda over the long-term.' (ASEAN, 2021:7). As further explained, a smooth and strategic coordination of the different institutions (under each of the communities) is essential in this regard. The framework offered a proposal for such a coordinative mechanism to bring communities together (Figure 8.4) but it is not clear which, if any, of these coordinative functions and offices were put in place.

²⁵ The ASEAN Ministerial Meeting on Women consists of ministers responsible for women's and girls' affairs in each ASEAN Member State. Their main role is to provide strategic policy direction for regional cooperation on women's issues within ASEAN.

The ASEAN Committee on Women is tasked with coordinating and monitoring ASEAN's activities relating to women, promoting cooperation, and facilitating the implementation of regional policies and plans. Made up of representatives from AMS women's agencies, the ASEAN Committee on Women develops and implements a five-year regional work plan, manages partnerships, and produces a triennial status report on women's political participation and their inclusion in national plans and programmes.

The ASEAN Commission on the Promotion and Protection of the Rights of Women and Children (ACWC) aims to advocate for and safeguard the human rights and fundamental freedoms of women and children in the ASEAN region. Reporting to the ASEAN Ministerial Meeting on Social Welfare and Development, the ACWC collaborates with UN agencies, including UNWomen, to endorse and apply international and regional treaties and other mechanisms for the protection of women and children's rights. Unlike the ACW, which comprises senior government officials, the ACWC includes experts and NGO representatives.

Figure 8.4. Structure of the ASEAN Gender Mainstreaming Institutional Mechanism



Source: ASEAN (2021).

6. Short Summary and Takeaways for Policymakers

6.1. Summary

Since its inception in 1967, ASEAN has been proactive in promoting gender equality, establishing various policies and mechanisms towards this end. The ASCC plays a pivotal role in this effort, serving as the main entity responsible for developing gender-related policies. From 1988, ASEAN has introduced numerous declarations aimed at bolstering women's rights. Additionally, AMS have shown their commitment to international efforts by becoming signatories to the Convention on the Elimination of All Forms of Discrimination Against Women, adopting the Beijing Declaration and the Platform for Action, and supporting the SDGs. This series of strategic initiatives has led to the adoption of the Action Agenda and the ASEAN Declaration on Gender-Responsive Implementation of the ASEAN Community Vision 2025 and Sustainable Development Goals, marking a significant step forward in the region's commitment to gender equality (ASEAN, 2017b).

Furthermore, the AGMSF 2021–2025 (ASEAN, 2021) tabled a clear demand for the whole-of-ASEAN approach in the work on promoting gender equality and WEE. This framework proposed some indicative agendas but was supposed to be complemented by the Implementation Plan which did not materialise. In the absence of that plan – which would have been instrumental in putting in place a new institutional mechanism to drive this coordinated gender mainstreaming across the communities, – the communities have started to contribute independently. For example, the APSC has developed the RPA WPS and some linked activities. The AEC delivered the Declaration on Building a more Sustainable, Inclusive, and Resilient Future: Unlocking Women’s Entrepreneurship in ASEAN (2022), whilst ASCC worked, inter alia, on the Declaration on Gender Equality and Family Development (ASEAN, 2023a). The author could not find any evidence of efforts to make inter-communities linkages in these declarations or related work.

6.2. Takeaways

As mentioned earlier, it is not clear if the AGMSF is considered for the discussions on the Post-2025 Vision and future communities Blueprints.

Realistically, that work will require consultations not only within ASEAN and its Member States but also with the wider community in and outside ASEAN. Findings of projects such as this should provide valuable insights into new forward-looking strategies for ASEAN.

It is also the best time to address some of the issues and concerns affecting (or perhaps interfering with) the effective and efficient work on gender mainstreaming. Here are some of the concerns identified in this chapter:

- **Women’s leadership within ASEAN**

Between 1967 when ASEAN was established, and 2024, there have been 15 Secretary-Generals (including the current one), none of whom were women. Only three women have held a Deputy Secretary-General role; one from the Philippines from 2012 to 2015 (responsible for ASSC), one from Cambodia from 2006 to 2009 (responsible for ASCC) and currently one from Malaysia (responsible for APSC). The members of the ASEAN Coordinating Council are all men except for one woman from Indonesia.²⁶ As was obvious from various measures of gender equality and WEE, ASEAN clearly lags behind in terms of political empowerment of women. Governments should lead by example in this regard and introduce deliberate policies to recruit more women who meet criteria into leadership positions, both in the administrative sector and at the boards of publicly owned companies. Germany could be a good role model to follow.

²⁶ Amongst the members there is Aung San Sun Kyi from the Republic of the Union of Myanmar but given that she is in prison her role is only nominal. There is no publicly available information on the members of the AEC, APSC, and ASCC councils, so it is not possible to comment on the sex composition of those bodies.

- **Data and analysis are crucial for gender-informed economic governance**

This chapter makes a strong argument for the need to integrate gender perspectives into the economic governance of the ASEAN region. By developing an ASEAN Gender Equality Dashboard, akin to APEC's model (Appendix 2), ASEAN would better monitor and evaluate its progress towards gender equality and WEE. Additionally, significant investment (financial and human resources) is needed to widen the scope and extent of sex/gender-disaggregated data collection, assessments, and dissemination of reports.

- **Proactive stance in negotiating or upgrading trade agreements with gender and economic inclusion provisions**

Whilst this chapter did not analyse current ASEAN+1²⁷ and AMS trade agreements for their inclusion of gender-related provisions, other reports show that ASEAN lags behind some other countries (i.e. Canada, Chile, and New Zealand) when it comes to willingness and readiness to negotiate on these issues. Often ASEAN hides behind arguments of diversity and states that not all its AMS are ready to embark on this 'non-economic' and new area for trade agreement negotiations. This is not a beneficial tactic, as ASEAN trading partners will push for such engagement – their governments must respond to the demands of their electorates. Thus, to foster inclusive economic growth based on trade, ASEAN is strongly advised to consider starting negotiation of trade agreements with forward-thinking partners in gender mainstreaming and other aspects of inclusive trade. Business as usual perpetuates gender disparities, hindering sustainable development. Collaborating with progressive partners ensures integration of robust gender provisions in trade agreements, catalysing women's empowerment and bridging socioeconomic gaps. Embracing innovative approaches promotes a more equitable and resilient AEC, aligning with global efforts for gender equality.

- **Inspire change of mindsets by addressing discriminatory gender and social norms**

The only successful long-term strategy is one that addresses discriminatory social norms, laws, and regulations. This includes looking at employers' policies and practices related to women's equal access to, and control over, assets and resources needed to fully participate in the economy. Prevention, mitigation, and reduction of gender-related violence and sexual harassment in both formal and informal workplaces as well as during travel to and from the workplace is indispensable in the search for gender equality.

The 2023 Declaration on Gender Equality and Family Development (ASEAN, 2023a) could have been used to shine a light on existing discrimination, both that which is open and explicit, as well as that which occurs by omission. However, the declaration focuses almost exclusively on women, men, girls, and boys within the context of family, and fails to address the full spectrum of gender issues. This narrow focus undermines the essence of gender mainstreaming, which aims to consider the varied experiences and needs of all individuals, including those of different sexual orientations and gender identities.

²⁷ ASEAN + 1 stands for the free trade agreements between ASEAN (as a bloc) and one other trading partner, e.g. China, India, Japan, Republic of Korea, and similar.

The omission points to a broader challenge within ASEAN's gender mainstreaming efforts: the need for a more inclusive and comprehensive approach that transcends traditional gender binaries and family structures. To effectively mainstream gender, ASEAN must expand its framework to address the diverse realities of all individuals, ensuring that policies and programmes are truly inclusive and equitable.

Lastly, leveraging existing tools and best practices from international organisations and other regional bodies can provide valuable insights, frameworks, and confidence to ASEAN policymakers and analysts. Ultimately, the successful engendering of the AEC requires commitment, collaboration, and continuous effort from all AMS and stakeholders.

6.3. Final Message

Failure to take swift action on the tasks outlined in the AGMSF and those mentioned above is likely to hinder ASEAN's ability to achieve the vision set out in its 'Beyond 2025' AGMSF framework, which states:

'ASEAN will be an example of change-focused inter-governmental leadership on gender and inclusion issues in the region. With a clearly defined agenda on gender equality that provides strategic, evidence-based support to inter-governmental processes. ASEAN will act as a forum for knowledge, dialogue and ideas; facilitate an effective interface between women's organisations and movements and national governments; deliver gender-transformative programming; act as an authoritative voice championing the issues of the poorest and most vulnerable women and girls in the region; shape donor priorities; and contribute to the international conversation.' (ASEAN, 2021: Section 5. p.3)

References

- Alami, A.N. (2018), 'The Implementation of Gender Mainstreaming in ASEAN', *The Indonesian Journal of Southeast Asian Studies*. <https://doi.org/10.22146/ikat.v1i2.32360>
- Asia-Pacific Economic Cooperation (APEC) (2023), *The APEC Women and the Economy Dashboard 2023*. Singapore: APEC Secretariat, Policy Support Unit. <https://www.apec.org/publications/2023/08/the-apec-women-and-the-economy-dashboard-2023>
- Association for Southeast Asian Nations (ASEAN) (2008), *ASEAN Economic Community Blueprint 2015*. Jakarta: ASEAN Secretariat. 5187-10.pdf
- (2015), *ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. AECBP_2025r_FINAL.pdf

- (2016), *Projected Gender Impact of the ASEAN Economic Community*. Jakarta: ASEAN. <https://asean.org/wp-content/uploads/2021/01/Projected-Gender-Impact-of-the-ASEAN-Economic-Community-2016.pdf>
- (2017a), *Action Agenda on Mainstreaming Women's Economic Empowerment*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2017/11/Action-Agenda-on-Mainstreaming-Women-Economic-Empowerment.pdf>
- (2017b), *ASEAN Declaration on Gender-Responsive Implementation of the ASEAN Community Vision 2025 and Sustainable Development Goals*. Adopted at the 31st ASEAN Summit, Manila, 13 November. <https://asean.org/speechandstatement/asean-declaration-on-the-gender-responsive-implementation-of-the-asean-community-vision-2025-and-sustainable-development-goals-2/>
- (2018), *ASEAN Economic Community 2025 Consolidated Strategic Action Plan, Final, Endorsed by the AEM and AEC Council on 6 February 2017, Updated on 14 August 2018*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2012/05/Updated-AEC-2025-CSAP-14-Aug-2018-final.pdf>
- (2021), *ASEAN Gender Mainstreaming Strategic Framework (AGMSF) for 2021–2025*. Jakarta: ASEAN Secretariat. ASEAN Gender Mainstreaming Strategic Framework (endorsed by AMMW)
- (2022), *ASEAN Committee on Women (ACW) Work Plan 2021–2025*. Jakarta: ASEAN Secretariat. <https://asean.org/book/asean-committee-on-women-acwwork-plan-2021-2025/>
- (2023a), *Declaration on Gender Equality and Family Development*. Jakarta: ASEAN Secretariat. <https://asean.org/wp-content/uploads/2023/09/ASEAN-Declaration-on-Gender-Equality-and-Family-Development.pdf>
- (2023b), 'The Faces of Resilience: How Women Help Build Stronger ASEAN', *The ASEAN Magazine*, 27. <https://theaseanmagazine.asean.org/edition/the-faces-of-resilience/>
- (2023c), *High-Level Task Force on ASEAN Economic Integration, Business Community Discuss 2045 Vision*, Jakarta: ASEAN Secretariat. <https://asean.org/high-level-task-force-on-asean-economic-integration-business-community-discuss-2045-vision/>
- (2023d), *The First Meeting of the ASEAN Gender Mainstreaming Steering Committee 2023*. Jakarta: ASEAN Secretariat, 12 March. <https://acwo.asia/2023/03/12/the-first-meeting-of-the-asean-gender-mainstreaming-steering-committee-2023/>
- (n.d.a), *Economic Community*, Jakarta: ASEAN Secretariat. <https://asean.org/our-communities/economic-community/>
- (n.d.b), *ASEAN Economic Community: Live Platform for Business Communities: ASEAN Economic Community's Post-2025 Agenda*. Jakarta: ASEAN Secretariat. <https://docs.google.com/forms/d/e/1FAIpQLSc2sRIM-goHmNzj7p8AgJlk5yCJd8QNMbTAL7nVW6qrBChnGA/viewform?pli=1>
- ASEAN Socio-Cultural Community (ASCC) (2023), *Policy Recommendations To Accelerate AGMSF Implementation, endorsed by AMMW 22 August 2023*. Jakarta: ASEAN Secretariat. https://acwc.asean.org/wp-content/uploads/2024/03/Policy_Recommendations_AGMSF_3_Pillars_and_Integration.pdf

- ASEANStats (n.d.), *Infographics on Gender Equality and Women's Empowerment*. Jakarta: ASEAN Secretariat. <https://www.aseanstats.org/infographics/sdg-gender-equality-and-womens/>
- Bahri, A. (2019), 'Measuring the Gender-Responsiveness of Free Trade Agreements: Using a Self-Evaluation Maturity Framework', *Global Trade and Customs Journal*, 14. <https://www.semanticscholar.org/paper/Measuring-the-Gender-Responsiveness-of-Free-Trade-a-Bahri/861c07e11665f436857d2a4b4dd35a97d1629131>
- Buvinic, M., E.C. Pryor, and M. O'Donnell (2020), 'Concise, Comparable Measures of Women's Economic Empowerment: An Impossible Dream?' *Center for Global Development*. 12 May <https://www.cgdev.org/blog/concise-comparable-measures-womens-economic-empowerment-impossible-dream>
- Dominguez, M. (2019), 'Women and the ASEAN 2025: Locating the Gender and Human Rights Dimension of the ASEAN Economic Community (AEC)', *Working Paper SHAPE SEA Research Project*. <https://shapesea.com/2019/08/10/women-and-the-asean-2025-myrna/>
- European Institute for Gender Equality (EIGE) (n.d.), *Gender Mainstreaming and Institutional Transformation*. Vilnius: EIGE. https://eige.europa.eu/gender-mainstreaming/toolkits/gender-institutional-transformation/gender-mainstreaming-and-institutional-transformation?language_content_entity=en
- Equal Measures2030 (2022), *SDG Gender Index 2022: Back to Normal is Not Enough*, Woking: Equal Measures 2030. <https://www.femnet.org/2022/03/back-to-normal-is-not-enough-2022-sdg-gender-index/>
- (n.d.), *SDB Gender Index*. Woking: Equal Measures. <https://equalmeasures2030.org/2024-sdg-gender-index/about-the-index/> (Accessed March 2024)
- Ferrant, G., L. Fuirotand, and E. Zambrano (2020), 'The Social Institutions and Gender Index (SIGI) 2019: A Revised framework for Better Advocacy', *OECD Development Centre Working Papers*, 342, Paris: OECD Publishing. <https://doi.org/10.1787/022d5e7b-en>.
- Government of Canada (n.d.), *Gender-Based Analysis Plus (GBA Plus)*. Ottawa: Government of Canada. <https://www.canada.ca/en/women-gender-equality/gender-based-analysis-plus.html>
- Han, J.Y-C., C. Pross, R. Agarwal, and A.R. Torre (2022), *State of Gender Equality and Climate Change in ASEAN*, Jakarta: ASEAN and New York: UN Women. https://asean.org/wp-content/uploads/2022/08/State-of-Gender-Equality-and-Climate-Change-in-ASEAN_FINAL-1.pdf,
- International Monetary Fund (2022), *IMF Strategy towards Mainstreaming Gender*. Washington, D.C.: IMF.
- Malmström, M. (2023), 'The Ambiguity of Gender Equality in the Contemporary ACW Work Plan', *Lund University (LUV) Student Papers*. <https://lup.lub.lu.se/student-papers/search/publication/9116087>
- McKinsey & Company (2015), *How Advancing Women's Equality Can Add \$12 Trillion to Global Growth*. New York: McKinsey & Company. <https://www.mckinsey.com/featured-insights/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth>
- (2018), *The Power of Parity: Advancing Women's Equality in Asia Pacific*. New York: McKinsey & Company. <https://www.mckinsey.com/featured-insights/gender-equality/the-power-of-parity-advancing-womens-equality-in-asia-pacific>

- National Democratic Institute (2024), *Introduction to Monitoring and Evaluation*. Washington, D.C.: National Democratic Institute. <https://www.slideshare.net/slideshow/introduction-to-monitoring-and-evaluationppt/266361389#1>
- Organisation for Economic Co-operation and Development (OECD) (2018), *Toolkit for Mainstreaming and Implementing Gender Equality 2023*. Paris: OECD https://www.oecd.org/en/publications/toolkit-for-mainstreaming-and-implementing-gender-equality-2023_3ddef555-en.html
- (2024), *SIGI 2024 Regional Report for Southeast Asia*. Paris: OECD. https://www.oecd.org/en/publications/sigi-2024-regional-report-for-southeast-asia_7fc15e1c-en.html
- (n.d.), *Social Institutions and Gender Dashboard*. Paris: OECD. <https://www.oecd.org/en/data/dashboards/social-institutions-gender-index.html> (Accessed March 2024)
- The Philippine Women's Economic Network (PHILWEN) and Oxfam (2021), 'ASEAN Through A Gender Lens: Recommendations for the Full Implementation of the Action Agenda on Mainstreaming Women's Economic Empowerment in ASEAN', *PHILWEN-OXFAM Briefing Paper*, February.
- United Nations (UN) (2021), *The Sustainable Development Goals Report 2021*, New York: UN. <https://www.un.org/en/desa/sustainable-development-goals-sdgs>
- United Nations Economic and Social Council (ECOSOC) (1997), *Coordination of the Policies and Activities of the Specialised Agencies and Other Bodies of the United Nations System, Chapter IV, Excerpt from A/52/3*. <https://www.un.org/womenwatch/osagi/pdf/ECOSOCAC1997.2.PDF>
- United Nations Development Programme (UNDP) (2021), *Reports on Gender Development Index and Gender Inequality Index*, Technical Notes (pp .6–10), New York: UNDP. https://hdr.undp.org/sites/default/files/2021-22_HDR/hdr2021-22_technical_notes.pdf
- (n.d.a), *Gender Development Index*. New York: UNDP. <https://hdr.undp.org/gender-development-index#/indicies/GDI> (Accessed March 2024)
- (n.d.b), *Gender Inequality Index*. New York: UNDP. <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII> (Accessed March 2024)
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2022), *Strengthening Women's Entrepreneurship in National Micro, Small and Medium Enterprise Policies and Action Plans: Toolkit for Policymakers*. Bangkok: UNESCAP. <https://repository.unescap.org/handle/20.500.12870/5154>
- United Nations Sustainable Development Group (UNSDG) (2019), *Gender Mainstreaming*. New York: UNDP. <https://unsdg.un.org/resources/gender-mainstreaming>
- United Nations Trade and Development (UNCTAD) (2017), *UNCTAD Trade and Gender Toolbox*. Geneva: UNCTAD. <https://unctad.org/publication/unctad-trade-and-gender-tool-box>
- UNWomen (2022), *Handbook on Gender Mainstreaming*. New York: UN Women. <https://www.unwomen.org/sites/default/files/2022-02/Handbook-on-gender-mainstreaming-for-gender-equality-results-en.pdf>

- World Bank Group (2012), *World Development Report 2012: Gender Equality and Development Report*. New York: World Bank. <https://hdl.handle.net/10986/4391>
- (2023), *Women, Business and the Law's New Pilot Data Reveals Gaps in Enforcing Laws on Equal Pay and Parental Leave*, Blog, 31 October. New York: World Bank. <https://blogs.worldbank.org/en/developmenttalk/women-business-and-laws-new-pilot-data-reveals-gaps-enforcing-laws-equal-pay>
- (2024a), *Women, Business and Law Report 2024*, New York: World Bank. <https://wbl.worldbank.org/en/wbl>
- (2024b), *Press Release: New Data Show Massive, Wider-than-Expected Global Gender Gap*, March 4. <https://www.worldbank.org/en/news/press-release/2024/03/04/new-data-show-massive-wider-than-expected-global-gender-gap>
- (n.d.), *Women, Business and the Law*. New York: World Bank. <https://wbl.worldbank.org/en/wbl-data>
- World Bank Group and World Trade Organization (WTO) (2020) *Women and Trade: The Role of Trade in Promoting Gender Equality*, Washington, DC: World Bank and WTO. https://www.wto.org/english/res_e/booksp_e/women_trade_pub2807_e.pdf
- World Economic Forum (WEF) (2017), *Women's Economic Empowerment is the Smart Thing to Do. What's Stopping Us?* Geneva: WEF. <https://www.weforum.org/agenda/2017/01/womens-economic-empowerment-is-the-smart-and-right-thing-to-do-whats-stopping-us/>
- (2023), *Global Gender Gap Report 2023*. Geneva: WEF. <https://www.weforum.org/publications/global-gender-gap-report-2023/>
- World Trade Organization (WTO) (2017), *Buenos Aires Declaration on Trade and Women's Economic Empowerment*. Adopted at the 11th WTO Ministerial Conference, Buenos Aires, 12 December. https://www.wto.org/english/tratop_e/womenandtrade_e/buenos_aires_declaration_e.htm
- (2021), 'The Evolution of Gender-Related Provisions in Regional Trade Agreements', *Research and Analysis Working Papers*. https://www.wto.org/english/res_e/reser_e/ersd202108_e.htm

Appendix 1: 2023 ASEAN Declaration on Gender Equality and Family Development

What follows is a brief analysis of the text of the ASEAN Declaration on Gender Equality and Family Development from a gender diverse perspective, focusing on five operative points (ASEAN, 2023a).²⁸

1. Strengthening Family Resilience and Well-Being

Traditional definitions of ‘family’ can exclude family units combining gender diverse individuals, which may include chosen families, same-sex partners with or without children, and other nontraditional configurations. Policies must broaden the concept of family to ensure that all types of family units are recognised and supported, facilitating their resilience and well-being. Gender mainstreaming in this context should include sensitivity to the diverse needs and realities of lesbian, gay, bisexual, transgender, intersex, queer, asexual, and more (LGBTIQA+) families, ensuring they too can live independently and harmoniously.

2. Economic Empowerment and Education Opportunities for Women and Girls

Whilst promoting economic empowerment and educational opportunities for women and girls is crucial, it is also essential to recognise and address the specific barriers faced by transgender women and nonbinary individuals. These groups often encounter significant discrimination in education and the workplace. Mainstreaming gender into labour and employment policies should include protections against discrimination based on gender identity and expression, as well as programmes specifically designed to support the inclusion of transgender and nonbinary individuals in education and the workforce.

3. Strengthening Capacities on Family-Inclusive Approaches

The call for sex-disaggregated data and statistics should be expanded to include data on gender diversity beyond the male/female binary. This data is crucial for understanding the unique challenges faced by LGBTIQA+ families and for developing inclusive policies and programmes. Increasing awareness of family-inclusive approaches should also involve educating stakeholders about the diversity of family structures, including those of the LGBTIQA+ community.

4. Investments in Care Systems and Social Services

Building universal, gender-responsive, and sustainable care systems must explicitly consider the needs of LGBTIQA+ individuals, who may face barriers in accessing care due to stigma and discrimination. Policies aimed at reducing the burden of unpaid care work for women and girls should also consider the roles that nonbinary and transgender individuals play in caregiving within families, ensuring that support systems are inclusive and accessible to everyone, regardless of gender identity.

²⁸ Appendix 1 recognises and addresses several key areas where existing instruments or frameworks may unintentionally exclude or marginalise nonbinary, transgender, and other LGBTIQA+ individuals and their families.

5. Cross-Sectoral and Inter-Pillar Cooperation

Engaging a broad range of stakeholders in promoting family development, women's empowerment, and gender equality offers an opportunity to include LGBTIQ+ voices and perspectives. This could involve partnering with LGBTIQ+ organisations, including LGBTIQ+ researchers and practitioners in knowledge exchange and research initiatives, and ensuring that efforts to promote inclusive sustainable growth explicitly address the needs and contributions of the LGBTIQ+ community.

A truly inclusive approach to gender equality and family policies within ASEAN and its Member States requires explicit recognition of, and provisions for, the rights, needs, and contributions of LGBTIQ+ individuals and their families. This means going beyond traditional gender binaries and family structures to embrace and support the full spectrum of gender identities and family configurations, ensuring that all individuals can benefit from these initiatives

Appendix 2: Excerpts from the APEC Women and the Economy Dashboard

The APEC Women and the Economy Dashboard (APEC, 2023) aims to offer an overview of the situation of women within the region by tracking trends over time through various indicators to assess progress, pinpoint areas lacking in data and policy, and to shed light on societal issues affecting women's economic engagement.

These indicators focus on the following areas: i) access to capital and assets; ii) market access; iii) skills, capacity building, and health; iv) leadership, voice, and agency; and v) innovation and technology. The aim is to provide policymakers with reliable and current data that highlight the conditions, opportunities, and challenges faced by women in their participation in economic activities.

The dashboard serves as a tool to facilitate the incorporation of gender perspectives across APEC. It enables technical working groups and subforums within APEC to utilise its comprehensive indicators, which cover a broad spectrum of women's economic participation, to identify and integrate gender considerations into projects and areas within their scope.

Major international organisations such as the International Labour Organisation, the International Telecommunication Union, the Inter-Parliamentary Union, the Organisation for Economic Co-operation and Development, the United Nations, the World Bank, the World Economic Forum, and the World Health Organisation contribute data for these indicators.

The 2023 edition of the dashboard includes 90 indicators for the years 2008–2022. Data used for the construction of the dashboard come from all major international organisation. The dashboard is updated biennially to capture the evolving status of women in APEC countries, including adjustments in the indicators to address data availability and the pertinence of specific measures.

Most of the indicators are updated until the period 2020–2022; however, there are still issues with data availability. Of concern are data on female graduates in science, technology, engineering and mathematics programmes; women researchers; and those in the field of research and development; as well as the percentage of firms with female owners and managers. The persistence of data gaps in those areas prevent the depiction of a more accurate picture of women's participation across different areas and their representation in leadership roles in the private sector.

Table 8A.1. Asia-Pacific Economic Cooperation Women and the Economy Dashboard 2023

Indicator		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1. Access to Capital and Assets																
1.1 Property and Inheritance Rights	1.1.1 Women and men have equal ownership rights to property (Y/N)	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21
	1.1.2 Equality of inheritance rights between sons and daughters (Y/N)	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21
	1.1.3 Equality of inheritance rights between husbands and wives (Y/N)	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21
	1.2.1 Proportion of women population ages 15 and older that is economically active (in %, modelled ILO estimate)	59.8	59.4	59.0	59.0	58.9	58.6	58.5	33.3	29.6	29.6	29.6	29.6	29.6	29.6	34.6
1.2 Labour Market Participation	1.2.2 Ratio of female to male labour force participation (in %, modelled ILO estimate)	78.4	78.4	78.3	78.4	78.5	78.5	78.7	33.3	29.6	29.6	29.6	29.6	29.6	29.6	34.6
	1.2.3 Women and men can retire at the same age with full pension benefits (Y/N)	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21
	1.3.1 Commercial banks (per 100,000 adults)	14.7	14.8	14.8	15.4	15.7	15.6	15.5	15.5	15.3	15.0	14.8	14.6	14.3	14.0	
	1.3.2 SIGI "Access to Credit" measurement of women's right and de facto access to bank loans (Score = 0, 5, or 1)							0.12					0.07			0.05
1.3 Financial Services: Availability, Access, Literacy, Outreach and Learning	1.3.3 Existing law against discrimination in access to credit on the basis of sex (Y/N)	Yes = 8/21	Yes = 8/21	Yes = 8/21	Yes = 8/21	Yes = 8/21	Yes = 8/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21
	1.3.4 Account at a bank or equivalent, female (% age 15+)			59.0				72.4			73.4				81.2	
	1.3.5 Account at a bank or equivalent, male (% age 15+)			64.0				74.1			77.3				82.8	

	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
1.4																
Financial Services: Formal Saving and Borrowing																
1.4.1	Saved at a financial institution, female (% age 15+)				32.1			38.6			34.3				42.2	
1.4.2	Loan from a financial institution, female (% age 15+)				9.9			28.1			29.2				39.1	
1.5																
Building Credit																
1.5.1	Owns a debit or credit card, female (% age 15+)				42.7			53.7			61.7				69.8	
1.5.2	Owns a debit or credit card, male (% age 15+)				47.0			54.9			65.5				71.2	
1.5.3	Made a utility payment, female (% age 15+)							76.5			69.9				63.4	
1.5.4	Made a utility payment, male (% age 15+)							73.4			69.2				64.7	
2. Access to Markets																
2.1																
Infrastructure																
2.1.1	People using safely managed drinking water services (% of population)	80.5	80.5	80.6	80.7	80.8	80.9	81.0	81.0	81.1	81.2	81.3	81.3	81.4		
2.1.2	People using safely managed sanitation services (% of population)	46.0	48.0	50.0	52.1	54.3	56.5	58.7	61.1	63.5	65.9	68.4	70.9	72.1		
2.1.3	Access to electricity (rural %)	94.6	95.3	96.4	96.9	97.1	97.3	97.6	97.5	97.8	98.2	98.3	98.4	98.0	98.7	
2.1.4	Access to electricity (urban %)	99.4	99.6	99.6	99.7	99.7	99.8	99.8	99.5	99.8	99.8	99.9	99.8	99.8	99.9	
2.1.5	Quality of infrastructure (scale of 1-7)	4.6	4.6	4.8	5.0	4.9	4.9	5.0	4.9	4.8	4.8					
2.2																
Competitive Access for Entrepreneurs																
2.2.1	Effectiveness of anti-monopoly policy (scale of 1-7)	4.5	4.5	4.5	4.4	4.5	4.5	4.5	4.5	4.3	4.4					
2.2.2	Extent of market dominance (scale of 1-7)	4.5	4.3	4.2	4.1	4.2	4.2	4.2	4.2	4.1	4.1	4.2	4.2			
2.2.3	Intensity of local competition (scale of 1-7)	5.4	5.3	5.3	5.3	5.3	5.4	5.5	5.5	5.5	5.5					

	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
2.3																
2.3.1	Access of domestic companies to international markets (scale of 0-100)	78.1	80.3	81.3	81.1	80.8	81.5	81.8	82.0	82.8	83.7	84.7	84.1	84.3	82.9	80.5
2.4																
2.4.1	Proportion of contributing family members (% of total employed)	13.0	12.4	12.0	11.6	11.1	10.6	10.3	9.7	9.2	8.8	8.5	8.2	8.2	8.0	
2.4.2	Female unemployment rate (% of female labour force, modelled ILO estimate)	4.4	4.9	4.7	4.6	4.4	4.2	4.1	4.1	3.9	3.8	3.6	3.6	4.7	3.9	3.7
2.5																
2.5.1	SGI "Freedom of movement" (Score 0, 5, or 1)								81.0	81.1	81.2	81.3	81.3	81.4		
2.5.2	Existing law mandating non-discrimination based on sex in employment (Y/N)	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21	Yes = 18/21
2.5.3	Wage equality between women and men for similar work (score of 0 to 1)	0.67	0.68	0.68	0.67	0.67	0.67	0.67	0.66	0.66	0.67	0.68	0.68	0.69	0.71	0.70
2.5.4	Whether women are able to work in the same industries as men (Y/N)	Yes = 10/21	Yes = 10/21	Yes = 11/21	Yes = 11/21	Yes = 12/21	Yes = 12/21	Yes = 13/21	Yes = 13/21	Yes = 13/21	Yes = 13/21	Yes = 13/21	Yes = 13/21	Yes = 13/21	Yes = 14/21	Yes = 14/21
2.5.5	Whether a woman can work in a job deemed dangerous in the same way as a man (Y/N)	Yes = 14/21	Yes = 14/21	Yes = 14/21	Yes = 14/21	Yes = 14/21	Yes = 14/21	Yes = 15/21	Yes = 15/21	Yes = 15/21	Yes = 15/21	Yes = 15/21	Yes = 15/21	Yes = 16/21	Yes = 16/21	Yes = 16/21
2.5.6	Whether women can work the same night hours as men (Y/N)	Yes = 19/21	Yes = 19/21	Yes = 20/21	Yes = 20/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21
3. Skill, Capacity-Building, and Health																
3.1																
3.1.1	How close women are to achieving equality with men in literacy, net enrolment in primary and secondary schools; and gross enrolment in tertiary school (scale of 0-100)	97.7	97.6	98.1	98.1	98.5	98.4	98.5	98.4	98.4	98.3	98.6	98.6	98.6	98.2	98.4

	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
3.4.9	Existence of women's legal protection from domestic violence such as rape, assault, and harassment (score of 0.25, .5, .75, or 1)							0.29				0.62				0.43
4. Leadership, Voice and Agency																
4.1	Civil Registration and Vital Statistics (CRVS)															
4.1.1	Whether economies maintain continuous, permanent, compulsory and universal recording of vital events (notably, live births, deaths and causes of death)	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16	Yes = 16
4.2	Women's agency															
4.2.1	Can a woman apply for a passport in the same way as a man (Y/N)	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21	Yes = 19/21
4.2.2	Can a woman sign a contract in the same way as a man (Y/N)	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21
4.2.3	Can a woman register a business in the same way as a man (Y/N)	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21	Yes = 21/21
4.3	Women's Participation in Courts															
4.3.1	Does a woman's register a business in the same evidentiary weight as a man's (Y/N)	Yes = 19/19	Yes = 19/19	Yes = 19/19	Yes = 19/19	Yes = 19/19	Yes = 19/19	Yes = 20/20	Yes = 20/21	Yes = 20/21	Yes = 20/21	Yes = 20/21	Yes = 20/21	Yes = 20/21	Yes = 20/21	Yes = 20/21
4.4	Care Economy: Time spent on unpaid work															
4.4.1	Average time spent on unpaid work, female (hours per day)															
4.5	Conditions for Career Advancement															
4.5.1	Whether the law mandates equal remuneration for men and women for work of equal value (Y/N)	Yes = 8/21	Yes = 8/21	Yes = 7/21	Yes = 8/21	Yes = 8/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 9/21	Yes = 10/21	Yes = 11/21	Yes = 11/21
4.5.2	Whether there are laws Penalising or preventing the dismissal of pregnant women (Y/N)	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 16/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21	Yes = 17/21
4.5.3	Whether the law mandates paid maternity leave of at least 14 weeks (Y/N)	Yes = 8/21	Yes = 10/21	Yes = 10/21	Yes = 11/21	Yes = 11/21	Yes = 11/21	Yes = 11/21	Yes = 11/21	Yes = 12/21	Yes = 12/21	Yes = 12/21	Yes = 13/21	Yes = 13/21	Yes = 14/21	Yes = 14/21

	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
4.6 Private Sector Leadership	4.5.4 Whether the law mandates paid parental leave (Y/N)	Yes = 3/21	Yes = 4/21	Yes = 5/21	Yes = 6/21	Yes = 7/21	Yes = 7/21	Yes = 8/21	Yes = 8/21	Yes = 9/21	Yes = 9/21	Yes = 10/21	Yes = 10/21	Yes = 10/21	Yes = 10/21	Yes = 11/21
	4.6.1 Percentage of firms that report female participation in ownership (%)															
	4.6.2 Percentage of firms that report female participation in top ownership (%)															
	4.7 Political Leadership															
4.7 Political Leadership	4.7.1 Proportion of women in ministerial level positions (%)	14.4		16.1	0.0	14.3		16.2	15.5		18.3	19.4	20.1	26.6		
	4.7.2 Proportion of seats held by women in parliament (%)	18.4	19.0	18.9	18.8	19.5	20.0	19.5	20.0	20.8	21.4	22.5	23.3	24.4	26.2	26.7
	4.7.3 How close women are to equality with men at the highest levels of political decision-making (scale of 0-100)	14.5	14.8	15.8	15.7	15.0	15.6	17.1	16.9	17.4	19.4	20.4	21.3	23.5	25.6	27.6
	4.8 Positions of influence: Judiciary and Academia															
5. Innovation and Technology	4.8.1 Ratio of Male to Female Judges															
	4.8.2 Ratio of Male to Female University Presidents															
	5.1 Women's agency															
	5.1.1 Mobile phone subscriptions as percentage of the population, total (%)	67.5	75.6	83.7	90.4	97.2	103.0	106.5	107.1	112.0	117.0	121.0	126.6	124.8	127.2	
5.2 Internet Use	5.1.2 Percentage of total population covered by a mobile network signal (%)	94.6		95.9	98.0	97.9	97.6	97.4	97.1	97.2	98.6	98.9	99.4	99.3	99.3	
	5.2.1 Percentage of population who are internet users, (%)	32.6	36.5	40.9	44.0	47.5	49.5	51.6	54.7	58.8	60.5	64.9	69.1	73.4	76.3	
	5.2.2 Female internet users (% of population)										70.6	72.6			75.9	
	5.2.3 Used the internet to buy something online, female (% age 15+)							24.6			40.8				64.3	

[illegible]

	Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
5.5 "Green" Awareness and Activity	5.5.1 Household air quality (scale of 0-100)	55.0	55.8	56.6	57.3	58.0	58.7	59.2	59.9	60.5	61.1	61.7	62.3	62.3	62.3	62.3
	5.5.2 Exposure to air pollution (scale of 0-100)	45.4	45.8	46.4	46.9	47.3	47.5	47.6	48.1	49.0	49.9	50.0	49.7	49.7	49.7	49.7
	5.5.3 Wastewater treatment (scale of 0-100)															
	5.5.4 Waste management (scale of 0-100)										60.4			60.4		67.9
	5.5.5 Fish stocks (scale of 0-100)	32.9	31.6	31.8	31.3	32.1	31.9	30.0	28.1	27.7	29.0	31.9	31.9	31.9	31.9	31.9

APEC = Asia-Pacific Economic Co-operation, ILO = International Labour Organization, R&D = research and development, SIGI = Social Institutions and Gender Index, STEM = science, technology, engineering and mathematics, Y = yes.

Note:

1. See Technical Notes (pp.111–144) for the description, methodology, and data sources of the dashboard indicators.
2. Blank entries for APEC Dashboard indicators mean that data are not available, or no APEC aggregates were calculated.
3. Blank entries for individual economy dashboards correspond to unavailability of data.

Source: APEC (2023).

Appendix 3: Gender Review of the ASEAN Vision and Gender-Specific Policies and Declarations

Table 8A.2. Gender Review of the ASEAN Vision and Gender-Specific Policies and Declarations

Policy Document	Is Gender Mentioned?	Gender Mainstreaming Commitments
General Vision		
ASEAN Community Vision 2025 (issued 2015)	Limited to no gender references (some mention mostly under the ASCC pillar and inclusion in vulnerable groups)	No specific commitments
ASCC Blueprint 2025 (issued 2015)	There is a gender-transformative potential (rights-based approach has specific references to gender)	YES The second ASCC objective aims to enable 'an inclusive community that promotes high quality of life, equitable access to opportunities for all, and promotes and protects the human rights of women, children, youth, the elderly/older persons, persons with disabilities, migrant workers and vulnerable and marginalised groups' and includes some specific strategic measures for gender mainstreaming
AEC Blueprint 2025 (issued 2015)	Limited to no gender references (There is one in connection to MSMEs, and a mention of women linked to enhanced participation in STI and MSMEs)	NO
AEC 2025 Consolidated Strategic Action Plan (issued in 2017, updated 2018)	Limited to no gender references (mostly focused on women's participation in MSMEs and STI)	NO
Complementarities between the ASEAN Community Vision 2025 and the UN 2030 Agenda for Sustainable Development: A Framework for Action (issued in 2017)	Gender-responsive (gender integrated into the framework but does not outline a clear approach. Gender equality is framed as an instrument to broader SDGs)	YES The focus on 'leave no one behind' as a common goal between the two agendas. This principle pays special attention to women and vulnerable groups. Furthermore, WEE is seen as essential for broader economic and social change. Includes measures related to improving nutrition for women and vulnerable groups.
Plan of Action to Implement the Joint Declaration on Comprehensive Partnership between ASEAN and the UN (2021–2025) (Issued in 2020)	Gender-responsive (Has potential to be gender transformative. The plan promotes the active participation of women at various levels and advocates for raising awareness on gender equality)	YES Present in the political security cooperation section of the plan. The plan makes references to support women's participation in economic activities in ASEAN and supporting ASEAN in promoting women-led entrepreneurship and financing gender equality. There is a subsection on gender mainstreaming with a commitment to collecting gender data to monitor SDGs implementation, promotion of best practices, capacity building, elimination of violence and discrimination (including vulnerable groups).

Policy Document	Is Gender Mentioned?	Gender Mainstreaming Commitments
Gender-Specific		
Declaration on the Advancement of Women in ASEAN Region, 1988	Gender-responsive: (The declaration does not directly address the root cause of gender inequality, but it encourages gender mainstreaming across ASEAN's work)	YES Commitments to promote and implement women's participation in all fields. Commitments to gender mainstreaming in national plans, encouraging participation of women's organisations in national and regional resilience, and strengthening solidarity between regional and global women's groups
Ha Noi Declaration on the Enhancement of Welfare and development of the ASEAN Women and Children, 2010	Gender-transformative potential. (It covers all the elements of a rights-based approach. Increased access to information and improved governance)	YES Commitment to gender mainstreaming, building capacities of AMS, encouraging regional cooperation to strengthen gender-responsive policymaking. Increased accountability towards international commitments
ASEAN Declaration on Gender-Responsive Implementation of the ASEAN Community Vision 2025 (issued 2017)	Gender-responsive (The declaration includes general commitments to mainstreaming gender considerations in the ASEAN Community Vision)	YES Mindful that sustainable development and gender equality require multisectoral interventions and approaches at different levels. It includes several commitments including via gender-responsive budgeting, targeted interventions and investments for gender equality, promoting equitable participation in decision-making, and mainstreaming gender concerns across sectoral bodies in the three ASEAN pillars.
ASEAN Gender Mainstreaming Strategic Framework (2021-2015) issued in 2021	Gender-transformative. (The framework addresses social norms and daily practices that lead to gender inequality. It seeks to mainstream gender in ASEAN at multiple levels.)	YES Proposes a framework for ASEAN gender mainstreaming with a rights-based approach to integrate gender at all levels of activities, planning, implementation, and monitoring. States the need to include men and boys. It also refers to the need to provide sex-disaggregated data, capacity building for ASEAN staff, and involving CSOs in consultations.
Declaration on Gender Equality and Family Development 2023	Gender-responsive (It does not address the roots causing inequality and discrimination.)	YES but limited. Commitments to gender mainstreaming but heavily skewed towards the traditional family roles. Important commitments to improve universal, gender-responsive, and sustainable care systems, and social services to recognise and reduce the burden of unpaid care work. Also to strengthen cross-sectoral and inter-pillar cooperation across the ASEAN Community, such as through knowledge exchange and research, and via stakeholders.

Policy Document	Is Gender Mentioned?	Gender Mainstreaming Commitments
ASEAN Guidelines on Gender Mainstreaming into Labour and Employment Policies Towards Decent Work for All (issued in 2021)	Gender-transformative (Targets four specific areas i.) employment promotion; ii.) decent working conditions; iii.) social and maternity protection; and iv) international labour migration.	YES It aims to mainstream gender equality into labour and employment policies and practices in line with international standards in AMS. It addresses the discrimination and their causes.
Declaration on Building a more Sustainable, Inclusive and Resilient Future: Unlocking Women's Entrepreneurship in ASEAN		

AMS = ASEAN Member State, ASEAN = Association for Southeast Asian Nations, AEC = ASEAN Economic Community., ASCC = ASEAN Socio-Cultural Community, CSO = civil society organisation, MSME = micro, small, and medium enterprise, SDG = Sustainable Development Goals, STI = Science, Technology and Innovation, WEE = women's economic empowerment.

Source: Adapted and expanded by author from the Han, et al., (2022: Annex 1).

Appendix 4: The List of the Association of Southeast Asian Nations Commitments on Gender Equality and Women's Empowerment²⁹

1975	Convening of the ASEAN Women Leaders Conference
1976	Establishment of ASEAN Sub-Committee on Women
1981	ASW Renamed ASEAN Women's Programme
1988	Declaration on the Advancement of Women in the ASEAN Region
2004	Declaration on the Elimination of Violence against Women in the ASEAN Region
2010	Ha Noi Declaration on the Enhancement of the Welfare and Development of ASEAN Women and Children
2012	Human Rights Declaration
2013	Declaration on the Elimination of Violence Against Women and Children
2013	ASEAN Declaration on Strengthening Social Protection
2015	ASEAN Declaration and Convention Against Trafficking in Persons, Especially Women and Children
2017	Manila Declaration to Counter the Rise of Radicalisation and Violent Extremism
2017	ASEAN Declaration on Culture of Prevention for a Peaceful, Inclusive, Resilient, Healthy and Harmonious Society
2017	Manila Statement on Mainstreaming Women's Economic Empowerment (WEE) in ASEAN
2017	Action Agenda on Mainstreaming Women's Economic Empowerment (WEE) in ASEAN
2017	Joint Statement on Women, Peace and Security
2017	ASEAN Declaration on the Role of the Civil Service as a Catalyst for Achieving the ASEAN Community Vision 2025
2017	ASEAN Declaration on Gender-Responsive Implementation of the ASEAN Community Vision 2025
2018	ASEAN Enabling Masterplan 2025: Mainstreaming the Rights of Persons with Disabilities
2019	ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers
2020	ASEAN Guidelines on Gender Mainstreaming into labour and Employment Policies Towards Decent Works For All
2021	ASEAN Gender Mainstreaming Strategic Framework (2021–2025)
2021	ASEAN Guidelines on Gender Mainstreaming into Labour and Employment Policies Towards Decent Work for All

²⁹ Excluding ASEAN Charter, Visions and national commitments to Convention on the Elimination of All Forms of Discrimination Against Women and SDGs.

2022	Guidelines for Operationalising the ASEAN Regional Framework on Protection, Gender, and Inclusion in Disaster Management
2022	ASEAN Regional Plan of Action on Women, Peace and Security
2022	Declaration on Building a more Sustainable, Inclusive and Resilient Future: Unlocking Women's Entrepreneurship in ASEAN
2023	Declaration on Gender Equality and Family Development
2023	ASEAN Regional Guidance on Empowering Women and Children: Delivering Quality Social Work Services for Those at Risk of or Affected by Violence
2023	Gender Mainstreaming in the Science, Technology and Innovation: Sensitisation and Socialisation of Gender Equality and Women Empowerment
2023	Policy Recommendations To Accelerate AGMSF Implementation, endorsed by AMMW
n.d.	AMAF's Approach to Gender Mainstreaming in the Food, Agriculture, and Forestry Sectors
n.d.	Roadmap on Accelerating ASEAN Renewable Energy Deployment through Gender-Responsive Energy Policy

9.

Narrowing the Development Gap Amongst ASEAN Member States: Measurement Progress and the Way Forward

Simon Feeny

1. Introduction

The Association of Southeast Asian Nations (ASEAN) was founded in 1967 by five countries: Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Today's five other ASEAN Member States (AMS) joined later: Brunei Darussalam in 1984, Viet Nam in 1995, the Lao People's Democratic Republic (Lao PDR) and the Republic of the Union of Myanmar (Myanmar) in 1997, and Cambodia in 1999. The inclusion of the last four of these countries (often referred to collectively as CLMV) raised concerns of a 'two-tier' ASEAN. There were large differences between CLMV and the older six AMS across numerous development dimensions, not just in income per capita but also in terms of human resources, institutional quality, infrastructure, and competitiveness (ASEAN, 2020a). These differences are commonly referred to as development gaps.

In attempts to narrow these development gaps, ASEAN Heads of State, adopted the Initiative for ASEAN Integration (IAI) in November 2000. Following this initiative, ASEAN Foreign Ministers adopted the Hanoi Declaration on Narrowing the Development Gap for Closer ASEAN Integration in July 2001. The ASEAN Community Vision 2025 also reiterated the commitment of ASEAN Member States (AMS) to narrowing the development gap. The objective of the IAI was to create a framework for economic integration that would enable the ASEAN-6 (Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand), to assist CLMV to narrow the development gap and improve the competitiveness of the entire ASEAN region. Specific actions to be taken by the ASEAN-6 to increase the capacity of CLMV and narrow the development gap were outlined in subsequent IAI workplans: the first from 2002–2008, the second spanning 2009–2015, the third from 2016–2020, and the fourth from 2021–2025. IAI workplans have a broad scope. The current workplan (IAI IV) (ASEAN, 2020b) includes interventions in food and agriculture trade facilitation; micro, small, and medium-sized enterprises; education; health and well-being; and enabling action.

This paper evaluates the progress ASEAN has made to narrow the development gap and explores how the agenda should be pursued in the post-2025 era. Section 2 summarises the different approaches to measuring development gaps. Section 3 employs a range of data to measure gaps in different development indicators for AMS and assesses whether these gaps have narrowed through time. Section 4 examines which of the major ASEAN initiatives appear most successful in contributing to narrowing development gaps. Finally, Section 5 concludes with some policy recommendations on how the development gap should be addressed in the post-2025 era.

2. Measuring Development Gaps

Development gaps refer to disparities in economic, social, and human development between different countries. Since development is a multidimensional concept, measuring development gaps is a complex task that must involve the use of multiple indicators. Moreover, several different methodologies can be adopted to measure development gaps and assess how they have changed through time.

Given the original concerns over a two-tier ASEAN, a common approach to examine the development gap has been to compare the average level of a development outcome for the ASEAN-6 with the average level for CLMV and examine how the differences in these two averages have changed through time.

A second, more conventional approach to measuring the development gap is to assess whether countries have experienced beta convergence. Beta convergence occurs if AMS with lower development outcomes are *improving them faster* than richer ones. If this is the case, we would expect to observe a narrowing of the development gap over time.¹ In other words, if beta convergence is occurring, we would expect to observe a negative correlation between a development outcome in a base year (t) and the growth rate of the development outcome in a subsequent period. A formal exposition of the model that is used to estimate beta convergence is provided in the Appendix of this chapter.

A third approach to assessing development gaps is to examine whether the level or dispersion of a development outcome amongst members is narrowing through time. If this is confirmed, the countries under consideration are said to be experiencing sigma convergence. Ram (2018) notes that the two most commonly used measures of sigma convergence are: (i) the standard deviation of the logarithm of the development outcome under consideration; and (ii) the coefficient of variation of the development outcome (CV) (calculated as the ratio between the standard deviation and the mean of the values for the development outcome for all countries under consideration).² These two dispersion measures are also adopted in the analysis conducted in this paper. A decline in either of these measures implies sigma convergence and a narrowing of the ASEAN development gap.³

¹ An important distinction can be made between absolute convergence and conditional convergence. Absolute convergence arises when all countries converge to the same steady state (or level of a development outcome). Conditional convergence occurs when only countries with similar structural characteristics converge. Different development outcome levels (steady states) will persist through time if different structural characteristics persist.

² There is an ongoing debate over which of these two measures is the better one to use (Dalgaard and Vastrup, 2001; Ram, 2018). Moreover, another approach to measuring sigma convergence is to use a population weighted measure which considers the population size of a country. Larger countries will have a bigger impact on the findings from this approach. This chapter focuses on unweighted data since ASEAN is concerned with differences in development outcomes across its AMS regardless of their population size. Population weighted measures of sigma convergence are more appropriate if examining changes in inequality at the global level.

³ Young, Higgins, and Levy (2008) demonstrate that β convergence is a necessary condition for σ convergence.

3. Progress Towards Narrowing the Development Gap Amongst ASEAN

Since development is multidimensional, it is necessary to use different development outcomes to effectively measure the ASEAN development gap and to ascertain whether the gap is narrowing. At the same time, given the large number of development indicators available, a high degree of pragmatism is warranted and a limited number of development indicators must be selected with justification.

The first development indicator that this paper focuses on is income, measured using constant gross domestic product (GDP) per capita measured in purchasing power parity (PPP) terms. Income is highly correlated with many other development outcomes. Moreover, improving productivity in the agricultural sector (on which a large proportion of CLMV populations rely), facilitating trade, and promoting micro, small, and medium-sized enterprises are three of the five strategies of IAI IV. The three strategies seek to raise incomes in CLMV countries to narrow the development gap. Improving incomes is also central to the 2025 ASEAN Blueprint (ASEAN, 2015) and is therefore selected as one of the development outcomes used in the analysis of this paper.

The second development outcome relates to health, examined using two development indicators: (i) the rate of infant mortality (number of deaths of infants under one year of age per 1,000 live births); and (ii) life expectancy at birth (measured in years). These indicators effectively reflect the strength of a country's overall health system. Improving health outcomes is critical for promoting higher labour productivity and overall living standards which are major goals of the ASEAN Socio-Cultural Community Blueprint 2025 (ASEAN, 2016a). Health and well-being also comprise one of the five strategies of the IAI IV workplan.

The third development outcome is education, examined using the expected years of schooling (the number of years of schooling a child of school entrance age can expect to receive, if prevailing patterns of age-specific enrolment rates persist throughout the child's schooling life). This is consistent with the ASEAN Socio-Cultural Community Blueprint 2025 that seeks to improve access and quality in basic education. Education is also another of the five strategies of the IAI IV workplan.

These are indicators that are widely used to measure progress in three important dimensions of development. There are also sufficient data with which to examine the gaps in these indicators through time. The analysis of the gaps in this core set of development indicators is complemented by an analysis of other less traditional ones: governance; gender equality; and the ease of doing business. These indicators are also highly relevant to narrowing the development gap agenda as well as the 2025 ASEAN Blueprint.

Strengthening governance is an important cross-cutting issue to achieve all of ASEAN's objectives and is also an important component of the second characteristic of the 2025 ASEAN Blueprint: A Competitive, Innovative, and Dynamic ASEAN. It is also In line with the ASEAN Leaders' Statement on Strengthening ASEAN's Capacity and Institutional Effectiveness made in 2023 (ASEAN, 2023). The level of governance is measured using the mean of six indicators of governance from the World Bank: (i) voice and accountability; (ii) political stability and absence of violence/terrorism; (iii) government effectiveness; (iv) regulatory quality; (v) rule of law and (vi) control of corruption.⁴

Consistent with the objective of ASCC Blueprint 2025, gaps in gender equality are also examined using the United Nations Development Programme's Gender Development Index (GDI) (ASEAN, 2016a).⁵ This indicator is consistent with the IAI IV objective of raising the share of girls in secondary and tertiary education to increase the social mobility of women and reduce gender disparities. The workplan recognises that gender and social inclusion are crucial to CLMV's socioeconomic development in the next 5 to 10 years.

Finally, the World Bank's Ease of Doing Business Rankings are also examined amongst AMS (World Bank, 2020).⁶ The World Bank discontinued the Ease of Doing Business Rankings in 2021 because of an external investigation finding that World Bank staff had manipulated data in 2018 and 2020. Whilst ASEAN country data were not implicated, the investigation found that scores were raised in the cases of China and Saudi Arabia and reduced in the case of Azerbaijan (Machen et al., 2021). Because of the paucity of other longitudinal data related to the business environment, the Ease of Doing Business rankings are analysed in this paper. The 2025 ASEAN Blueprint recognises the importance of improving the investment environment and strengthening the role of the private sector whilst the IAI IV outlines the need to improve the business environment for micro, small, and medium-sized enterprises. A high ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm.

Findings relating to the development gaps in these indicators and how they have changed through time are summarised according to the three methods outlined in Section 2.

⁴ AEach indicator is based on the views of firms, citizens, and expert survey respondents in industrial and developing countries.

⁵ GDI measures gender inequalities in achievement in three basic dimensions of human development: health, measured by female and male life expectancy at birth; education, measured by female and male expected years of schooling for children and female and male mean years of schooling for adults ages 25 years and older; and command over economic resources, measured by female and male estimated earned income (UNDP, 2023).

⁶ YThe ease of doing business rankings combine survey responses on the following ten topics: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. All topics are weighted equally. Data were collected by the World Bank with a standardised survey administered through more than 9,000 local experts, including lawyers, business consultants, accountants, freight forwarders, government officials, and other professionals who routinely administer or advise on legal and regulatory requirements. Data before 2013 are not comparable with data from 2013 onward because of methodological changes (World Bank, 2020).

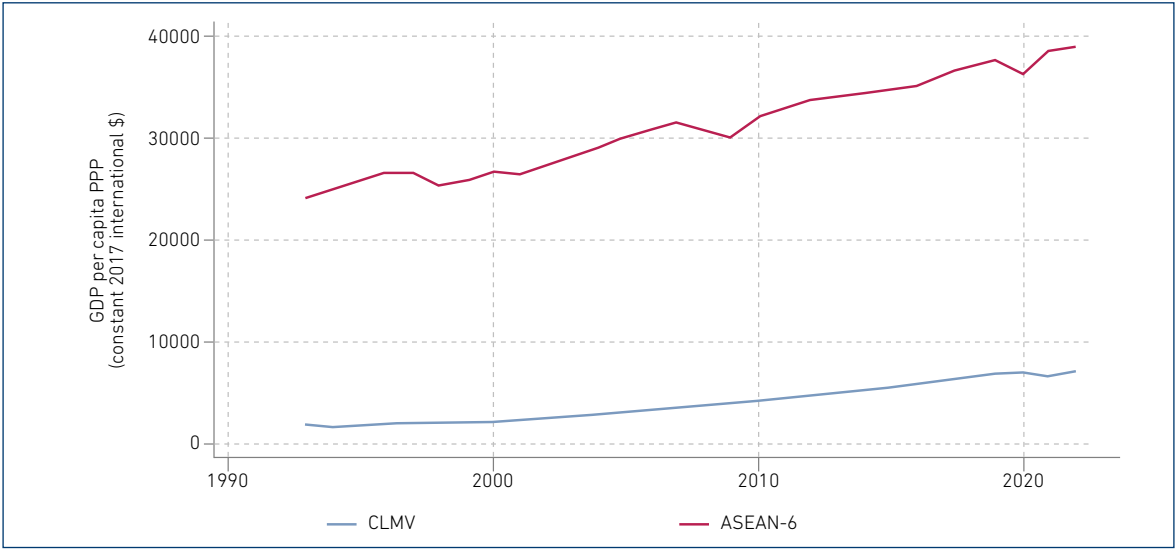
3.1. ASEAN-6 versus Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam

Figure 9.1 to Figure 9.7 examine the development gap amongst AMS by comparing the average levels of the development indicators between the ASEAN-6 and CLMV country groups through time. Figure 9.1 indicates that the absolute gap in average levels of GDP per capita (PPP) has increased slightly between these two groups of countries during 1993 to 2021. Thus, whilst CLMV countries have experienced higher economic growth rates during this period, absolute income gaps have failed to converge.⁷ Findings from the other figures reveal that the gap has fallen with respect to infant mortality and life expectancy and remained about the same for expected years of schooling, the GDI, governance, and the ease of doing business. Figures for the gaps in development outcomes across individual countries are included in Figure 9A.1 to Figure 9A.7 of the Appendix. In summary, findings from this approach provide very little evidence of a narrowing of the development gap amongst the two ASEAN country groups outside of the health sector.⁸

⁷ Note that even when poor countries grow faster than richer ones, absolute income gaps can continue to increase because of the lower initial income levels of the poorer countries.

⁸ Figure 3 demonstrates that life expectancy fell in 2021 for both groups of countries because of coronavirus disease (COVID-19). There was also a sharp fall in life expectancy for the CLMV group in 2008 because of the global economic crisis.

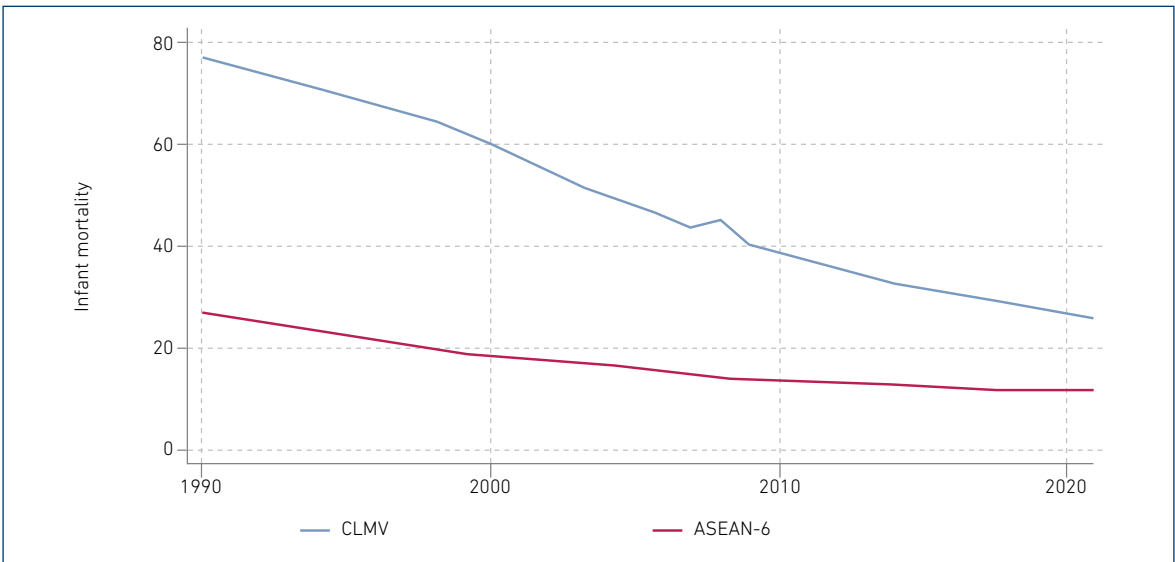
Figure 9.1. Average Gross Domestic Product Per Capita Purchasing Power Parity – ASEAN-6 versus CLMV, 1993–2022



ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam; GDP = gross domestic product; PPP = purchasing power parity.

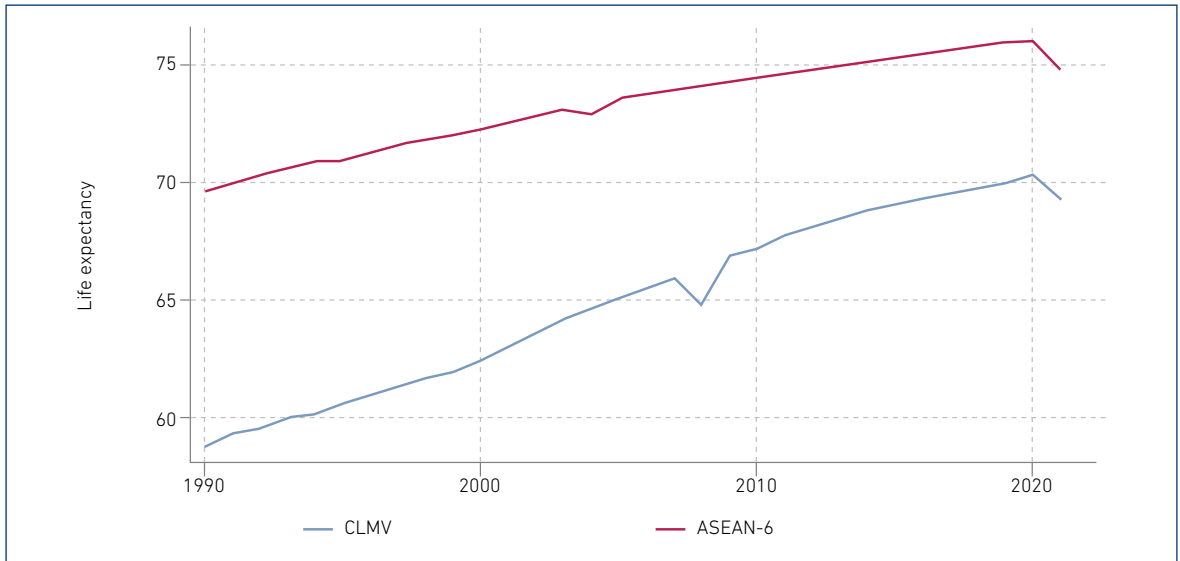
Source: The author using data from World Bank (2023a).

Figure 9.2. Average Infant Mortality – ASEAN-6 versus CLMV, 1990–2021



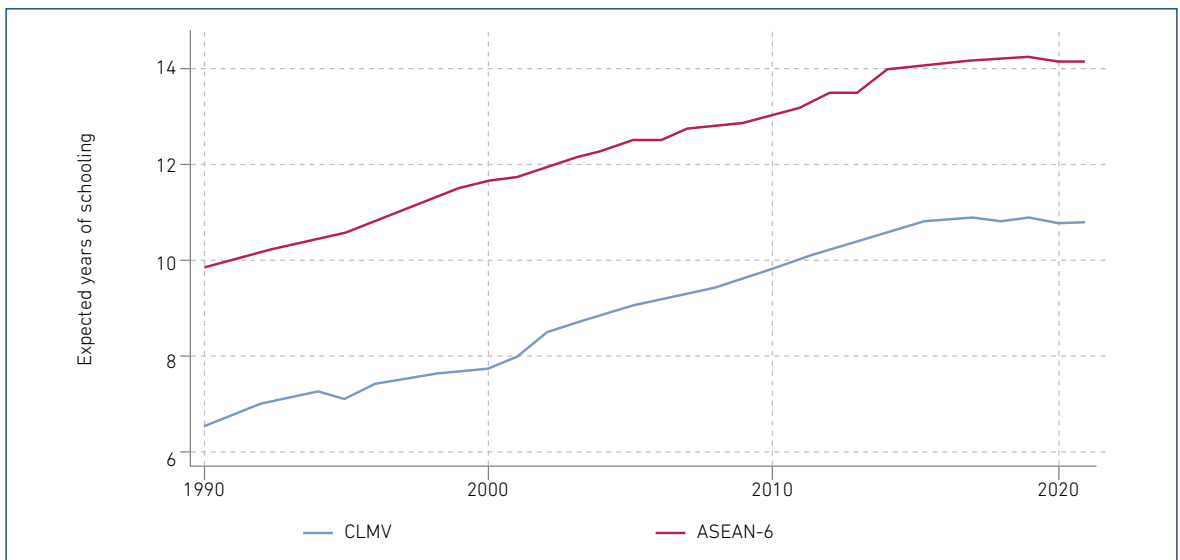
ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam.

Source: The author using data from World Bank (2023a).

Figure 9.3. Average Life Expectancy –ASEAN-6 versus CLMV, 1990–2021

ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam.

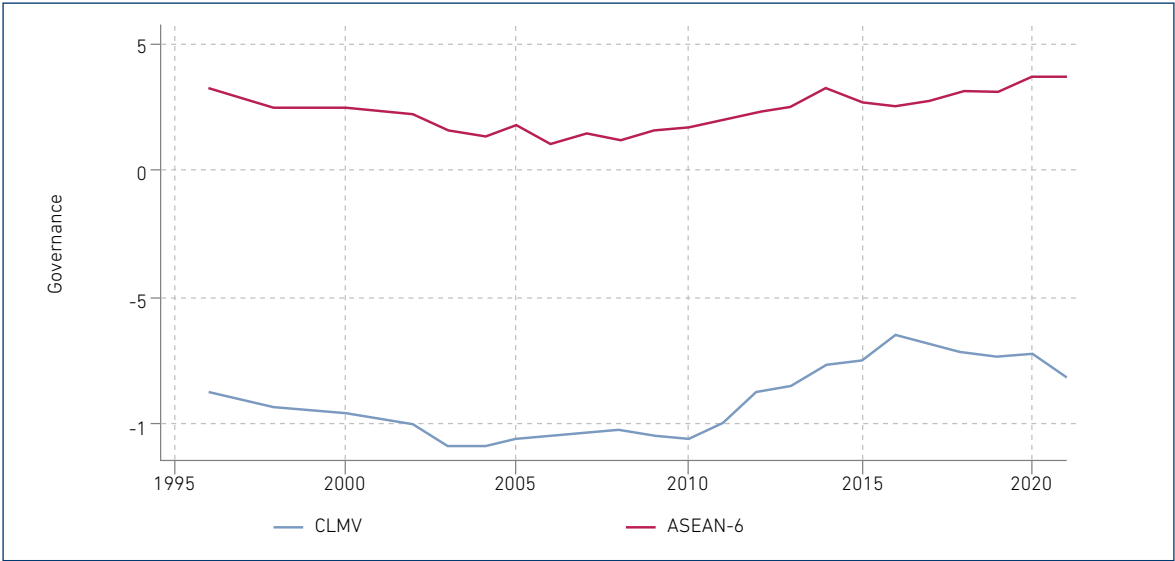
Source: The author using data from World Bank (2023a).

Figure 9.4. Average Expected Years of Schooling – ASEAN-6 versus CLMV, 1990–2021

ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam.

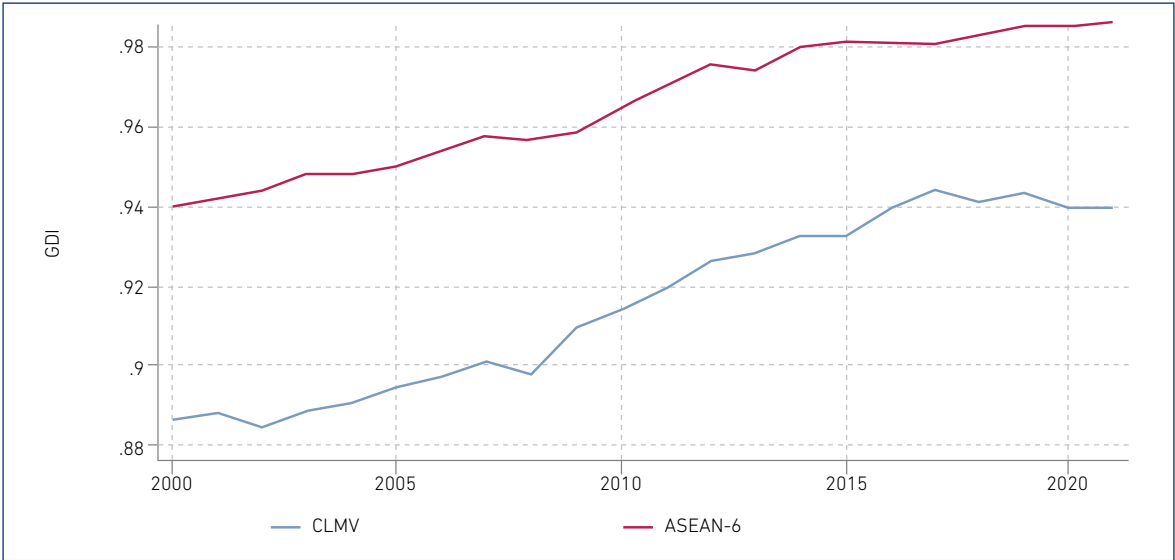
Source: The author using data from UNDP (2023).

Figure 9.5. Average Level of Governance – ASEAN-6 versus CLMV, 1996–2021

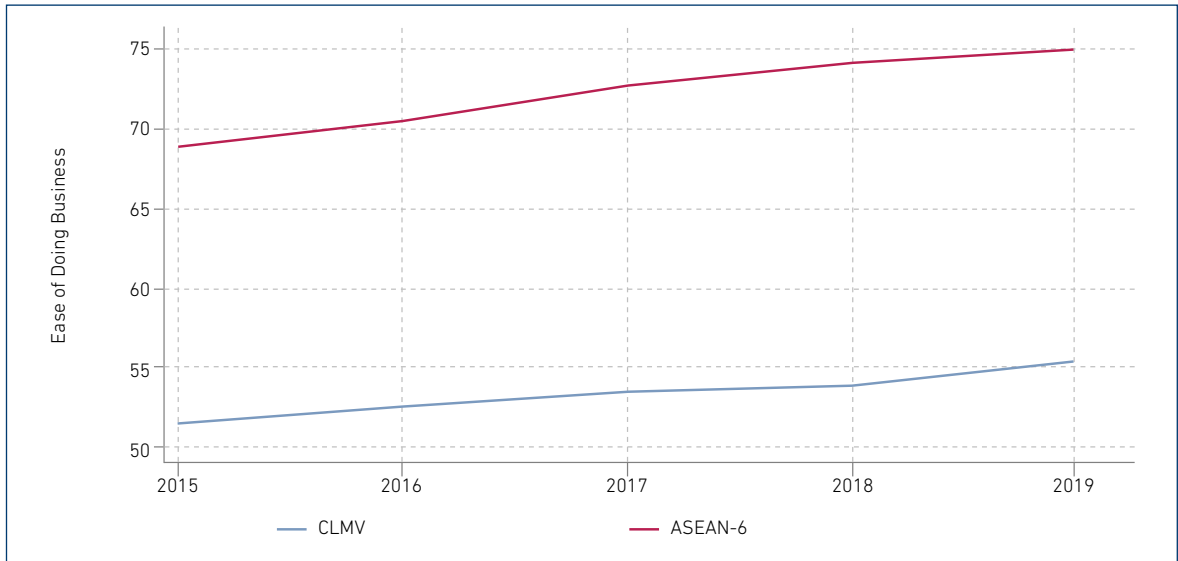


ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam.
Source: The author using data from World Bank (2023b).

Figure 9.6. Average Gender Development Index – ASEAN-6 versus CLMV, 2000–2021



ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam; GDI = gender development index.
Source: The author using data from UNDP (2023).

Figure 9.7. Average Ease of Doing Business – ASEAN-6 versus CLMV, 2015–2019

ASEAN-6 = Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand; CLMV = Cambodia, the Lao People's Democratic Republic, the Republic of the Union of Myanmar, and Viet Nam.

Source: The author using data from World Bank (2020).

3.2. Beta Convergence

Figure 9.8 to Figure 9.14 provide scatter plots for the seven development indicators whereby the level of the development indicator in the base year is provided on the horizontal axes and the subsequent average annual growth rate in the development outcome (up to the latest year of available data) is provided on the vertical axes. If countries with the lowest levels of development outcome in the base year have experienced faster growth in the change of the outcome a strong negative association should be observed, representing a narrowing of the development gap. In other words, the line of best fit in the scatter graph should be left to right downward sloping.

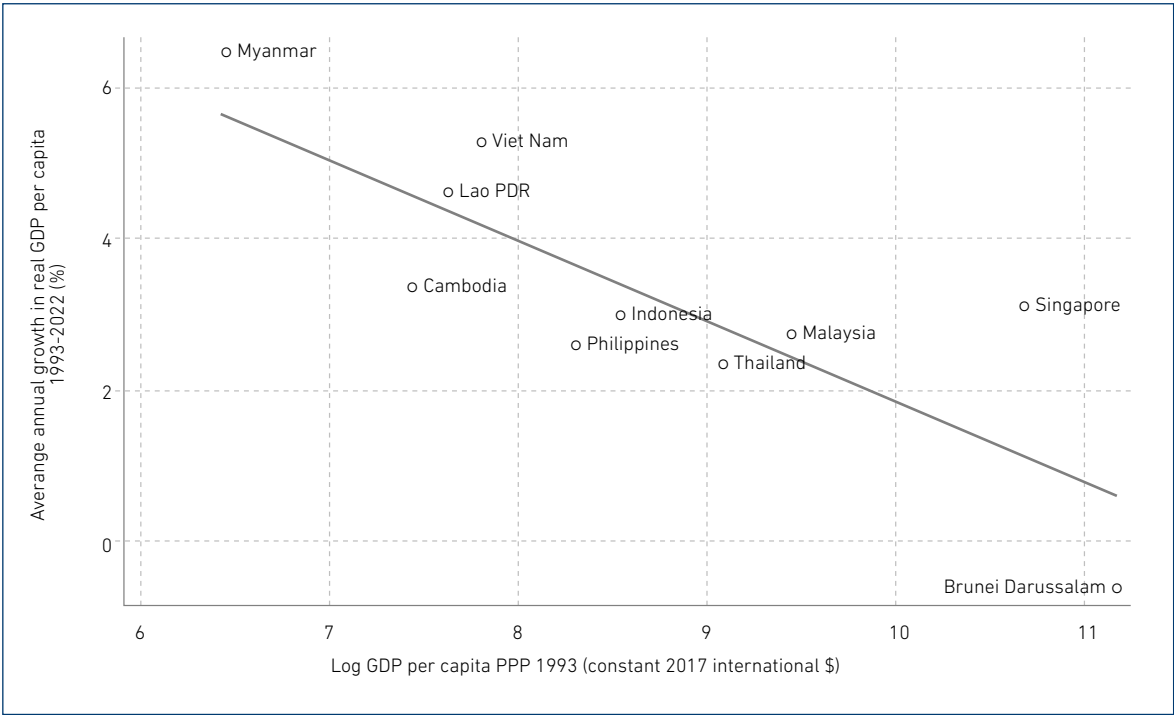
Figure 9.8 provides strong evidence of beta convergence amongst AMS for GDP per capita PPP during the period 1993 to 2021. Brunei Darussalam had the highest level of GDP per capita PPP in 1993 (\$70,154)⁹ and experienced the lowest level of average annual growth (-0.6% from 1993 to 2021) across all AMS. Myanmar had the lowest real GDP per capita PPP in 1993 (\$635) but experienced the

⁹ In this chapter, \$ refers to US dollar.

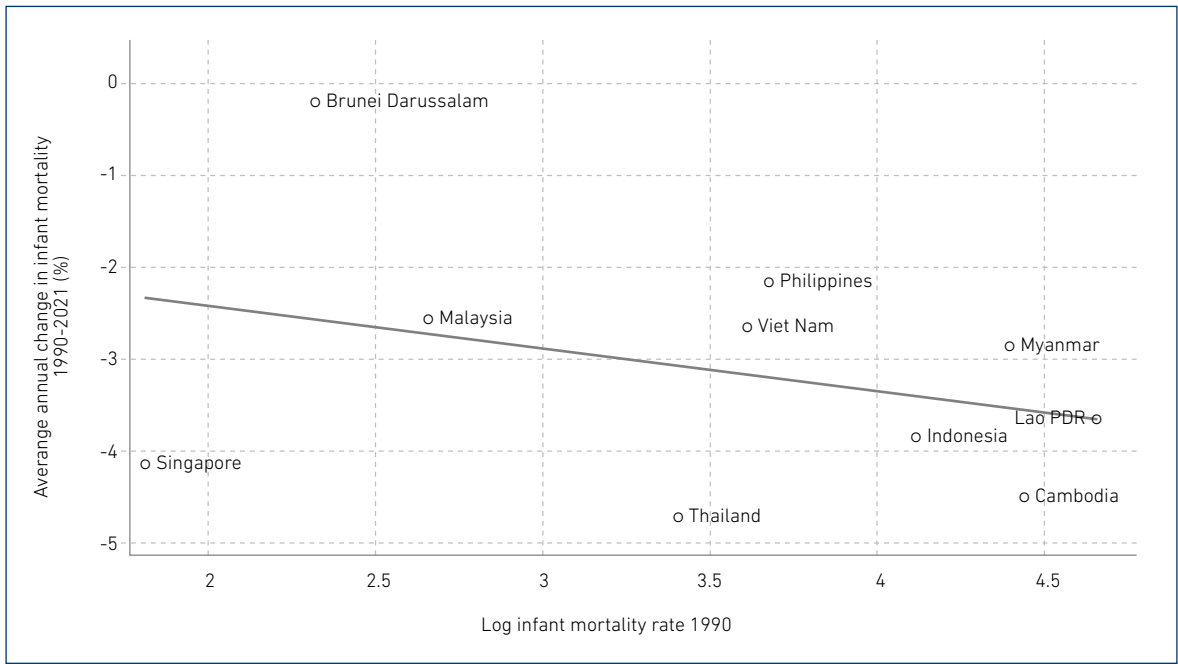
highest average annual growth rate (6.5% from 1993 to 2021). The line of best fit is clearly left to right downward sloping reflecting the negative correlation between the two variables and demonstrating beta convergence.

There is less evidence of beta convergence amongst AMS with respect to rates of infant mortality (1990 to 2021). The line of best fit in Figure 9.9 is only weakly downward sloping and there is a large variation in the data across AMS. Singapore and Thailand appear as outliers. They are countries that had relatively low rates of infant mortality in 1990 but still managed to achieve large reductions in the rate up to 2021. However, as depicted in Figure 9.10 for life expectancy (another indicator of health), there has been clear beta convergence amongst AMS over the same period. Moreover, Figures 9.11 to Figure 9.14 provide strong indications of beta convergence with respect to expected years of schooling and gender equality (proxied by the GDI) but less evidence of convergence for governance and the ease of doing business. These findings are largely substantiated using the formal test of beta convergence outlined in Appendix A1. Findings using fixed effect panel regressions are more likely to infer convergence than the ordinary least squares regressions. Results are provided in Table 9A1 to Table 9A.7 in the Appendix.

Figure 9.8. Beta Convergence – Average Gross Domestic Product Per Capita Purchasing Power Parity, 1993–2022

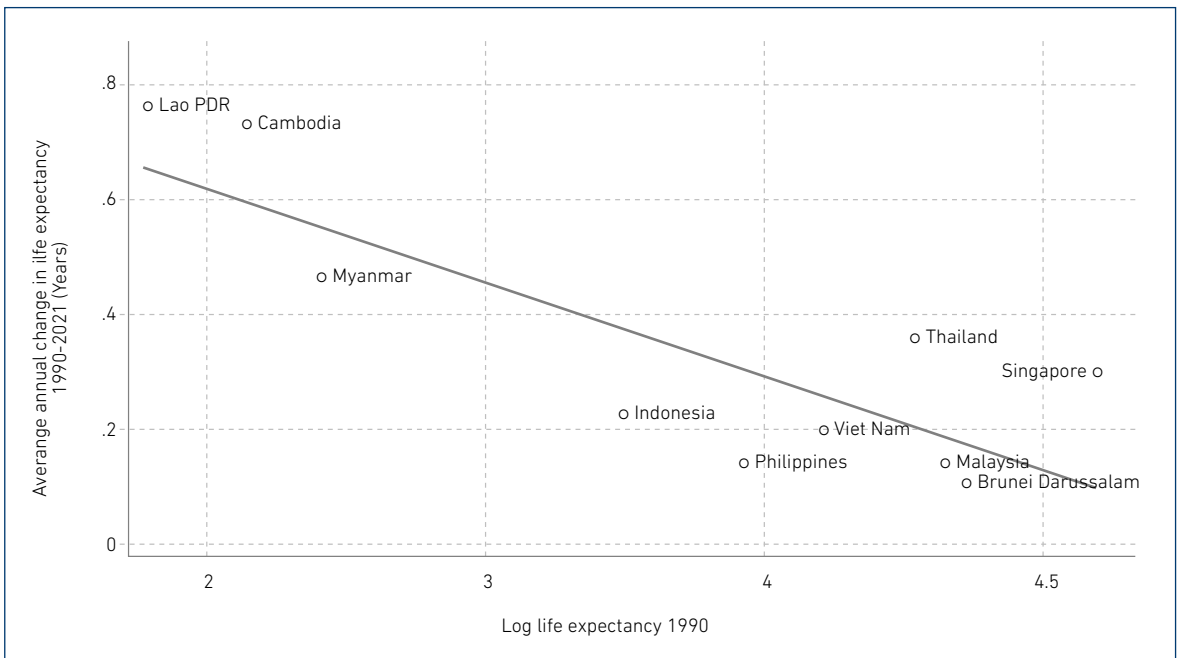


\$ = US dollar, GDP = gross domestic product, Lao PDR = the Lao People’s Democratic Republic, Myanmar = the Republic of the Union of Myanmar, PPP = purchasing power parity.
Source: The author using data from World Bank (2023a).

Figure 9.9. Beta Convergence – Infant Mortality, 1990–2021

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

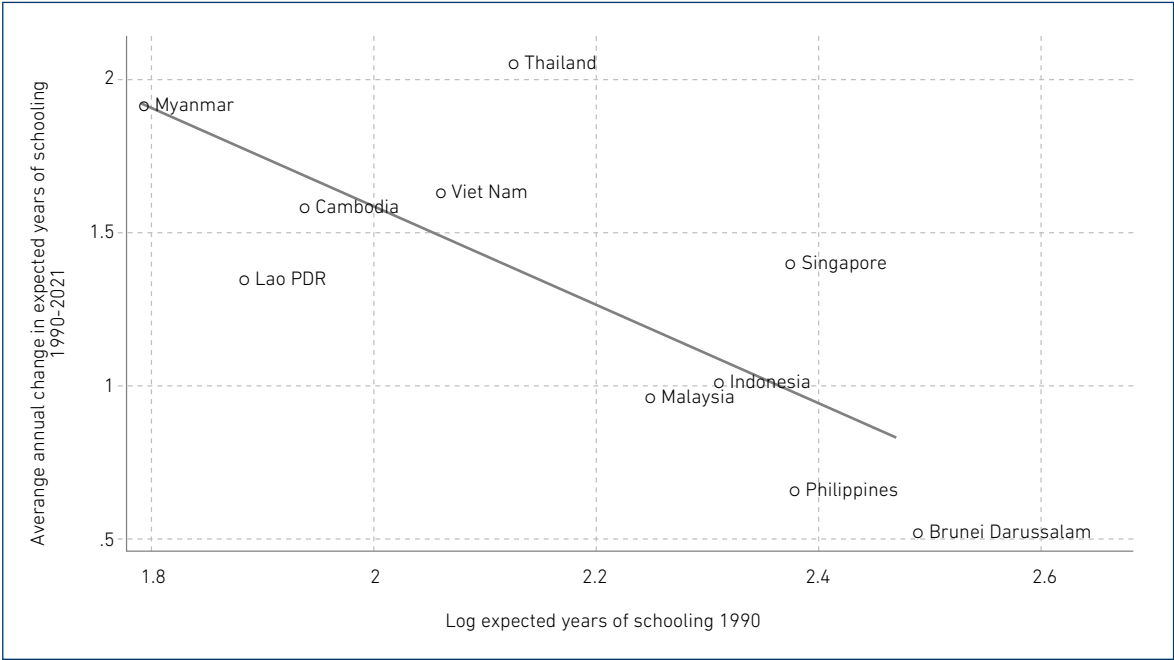
Source: The author using data from World Bank (2023a).

Figure 9.10. Beta Convergence – Life Expectancy, 1990–2021

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

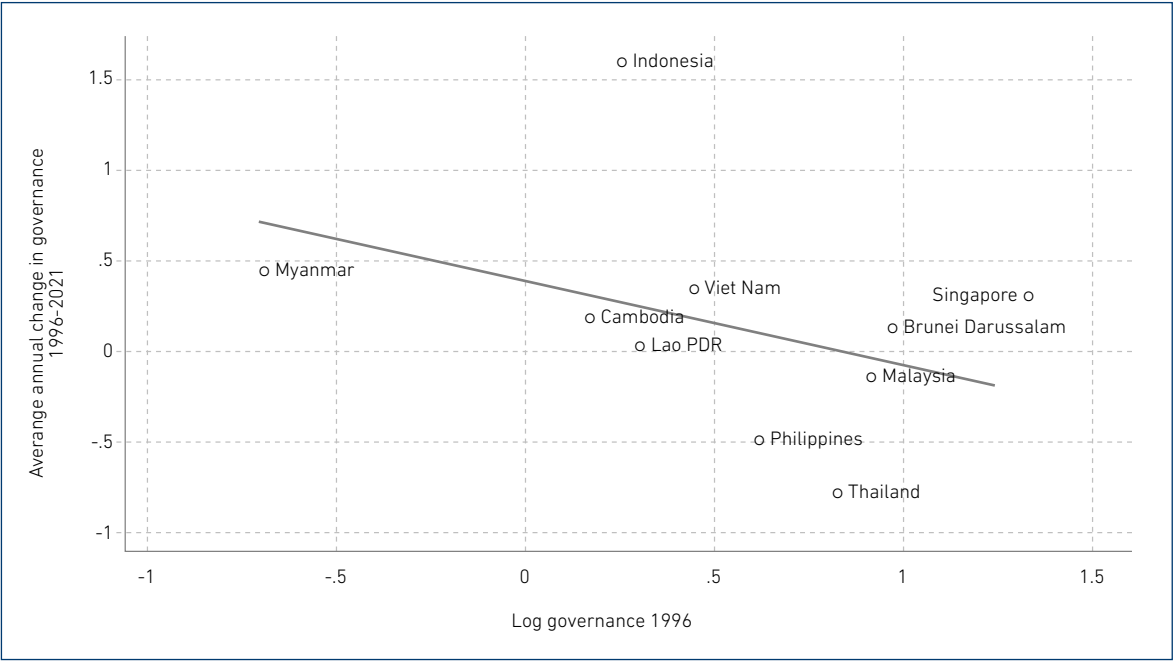
Source: The author using data from World Bank (2023a).

Figure 9.11. Beta Convergence – Expected Years of Schooling, 1990–2021

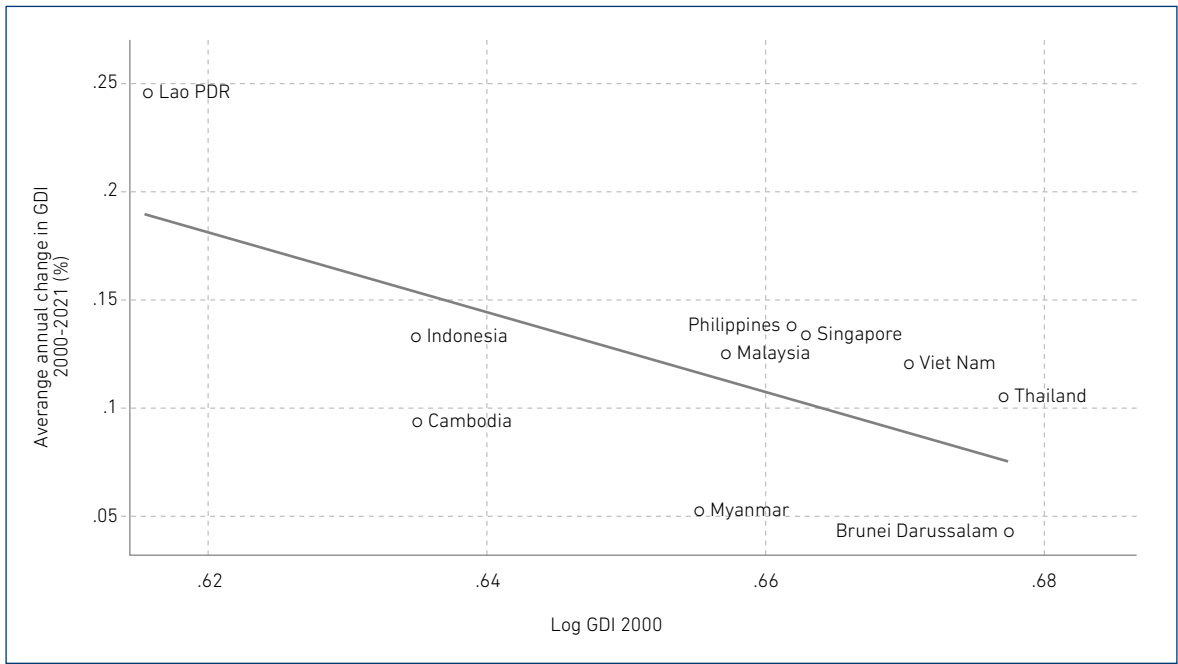


Lao PDR = the Lao People’s Democratic Republic, Myanmar = the Republic of the Union of Myanmar.
Source: The author using data from UNDP (2023).

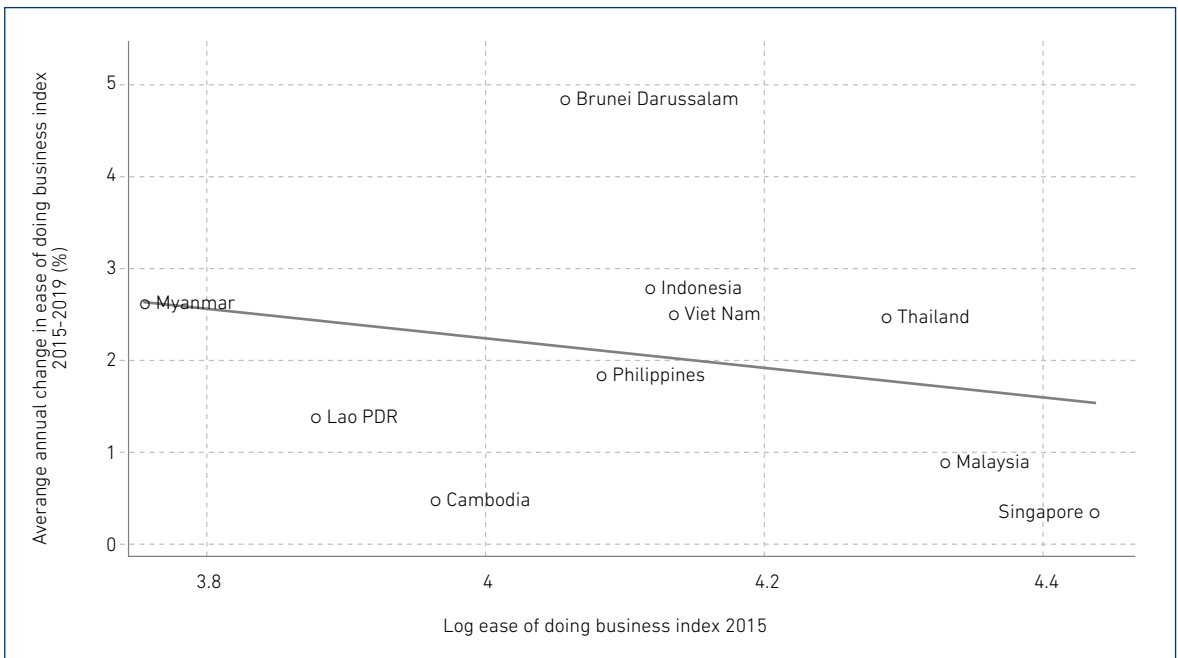
Figure 9. 12. Beta Convergence – Governance, 1996–2021



Lao PDR = the Lao People’s Democratic Republic, Myanmar = the Republic of the Union of Myanmar.
Source: The author using data from World Bank (2023b).

Figure 9.13. Beta Convergence – Gender Development Index, 2000–2021

GDI = gender development index; Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.
 Source: The author using data from UNDP (2023).

Figure 9.14. Beta Convergence – Ease of Doing Business, 2015–2019

Lao PDR= the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

Source: The author using data from World Bank (2020).

3.3. Sigma Convergence

Figure 9.15 to Figure 9.21 examine whether there has been sigma convergence amongst AMS for the seven development outcomes under consideration. The two measures of sigma convergence discussed above are plotted on each of the figures and provide very similar findings. A left to right downward sloping line for these measures would provide evidence of sigma convergence for each indicator.

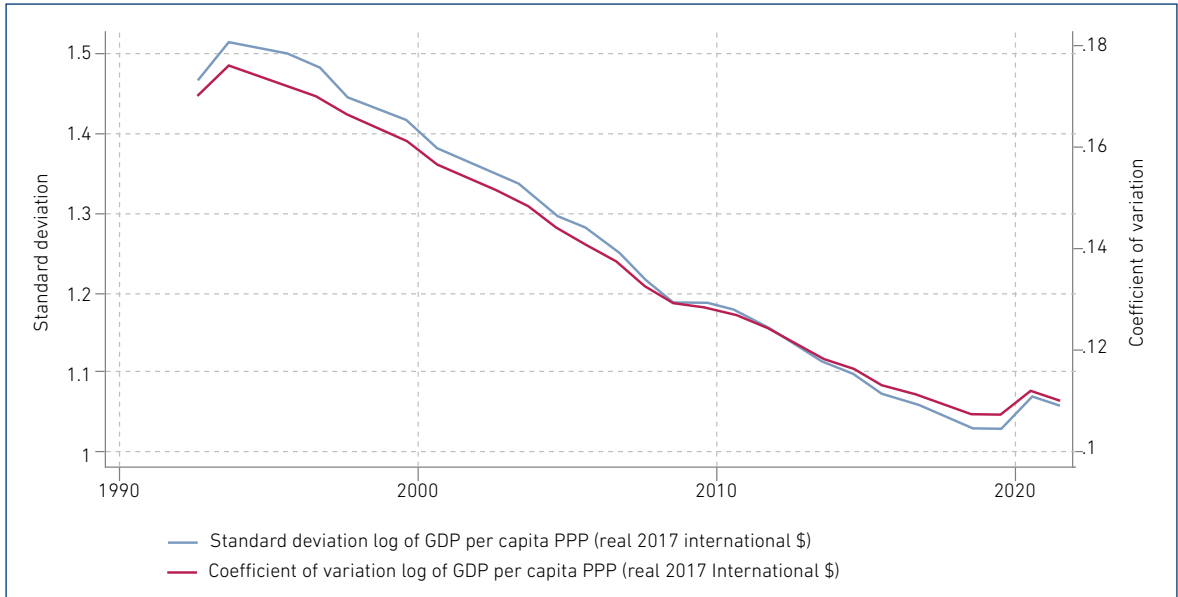
The figures suggest that there is often annual volatility in sigma convergence for the different development indicator. The most important feature of all the figures for which data are recently available is that both measures of sigma convergence increase in 2020 and 2021 indicating a divergence in development across AMS following the coronavirus disease (COVID-19) pandemic. This implies that the global pandemic had a greater impact on the less developed AMS and has increased inequality with respect to the different development outcomes. The divergence is particularly marked for infant mortality and the level of governance.

Overall, there is evidence of sigma convergence for GDP per capita (PPP). There is also evidence of sigma convergence for life expectancy, expected years of schooling, and the GDI.¹⁰ Both measures of sigma convergence for these outcomes trend downwards despite annual fluctuations. Figure 16 suggests that the period from 1990 to the mid-2000s was one of sigma divergence for infant mortality. Convergence for this development outcome occurred from 2005 before diverging again following COVID-19. Sigma convergence for the level of governance follows a very similar pattern. Data for the ease of doing business is limited but suggest divergence during 2016 to 2018 but then strong convergence in 2019 (the latest year for which data are available).

In summary, across the different approaches to assessing the development gap, there is some evidence of a narrowing with respect to income, life expectancy, expected years of schooling, and gender equality but less evidence of convergence with respect to infant mortality, governance, and the ease of doing business. What is clear is that the choice of development outcome, as well the methodological approach, matters greatly when drawing conclusions on the development gap amongst AMS. The implications of this are discussed in Section 5.

¹⁰ The large spike in the series for life expectancy represents sigma divergence in 2008, with the Global Financial Crisis having a greater impact on health in the less developed AMS.

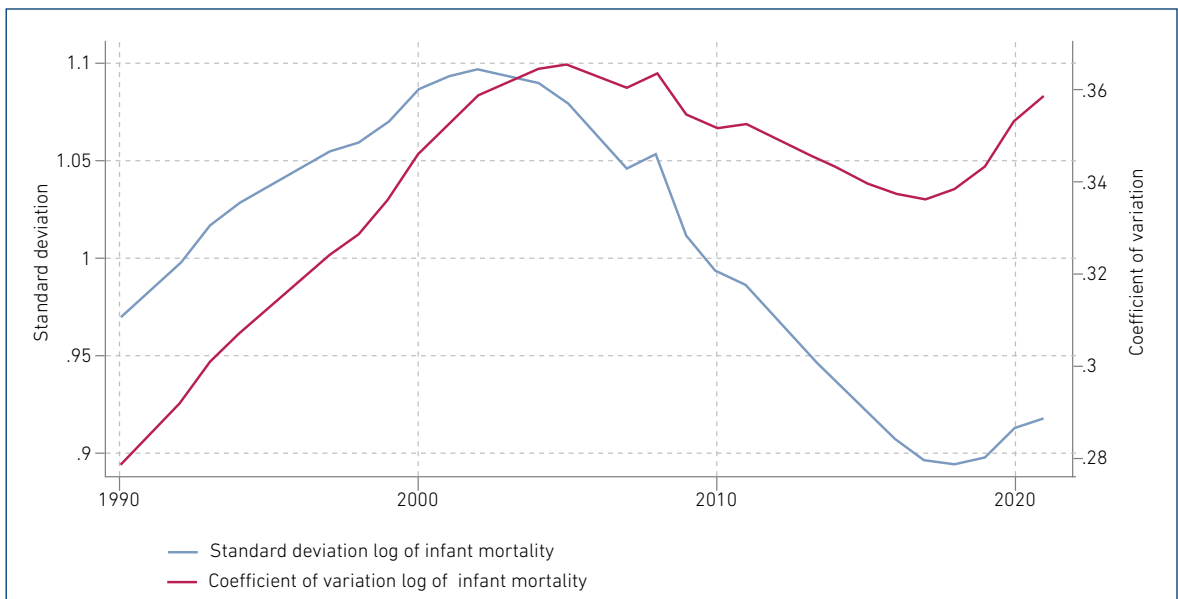
Figure 9.15. Sigma Convergence – Gross Domestic Product Per Capita Purchasing Power Parity, 1993–2022



\$ = US dollar, GDP = gross domestic product, PPP = purchasing power parity.

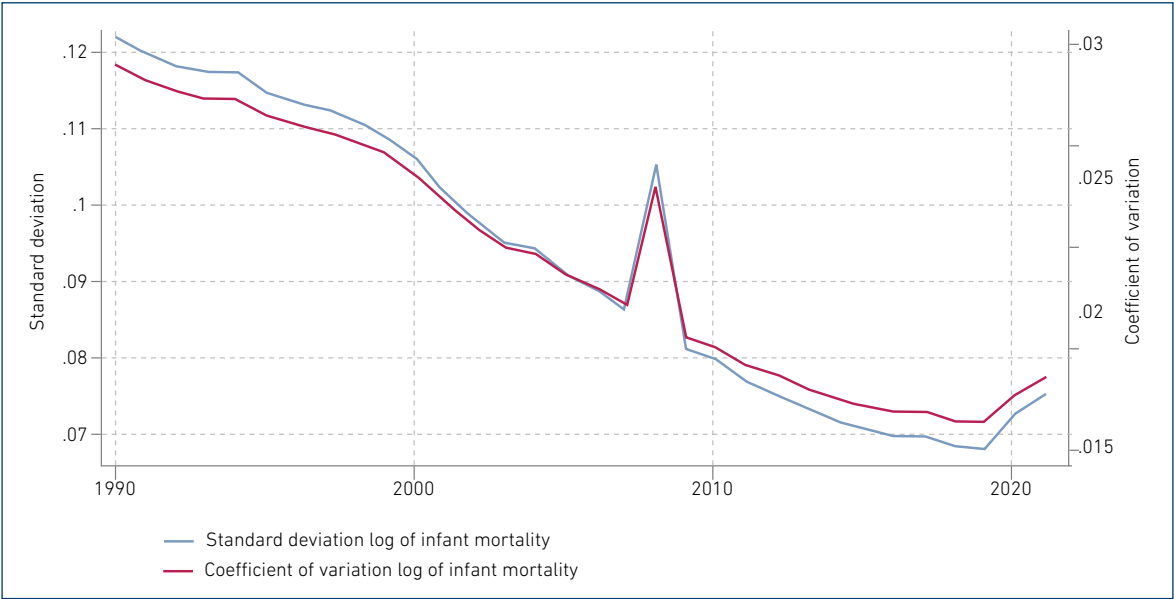
Source: The author using data from World Bank (2023a).

Figure 9.16. Sigma Convergence – Infant Mortality, 1990–2021



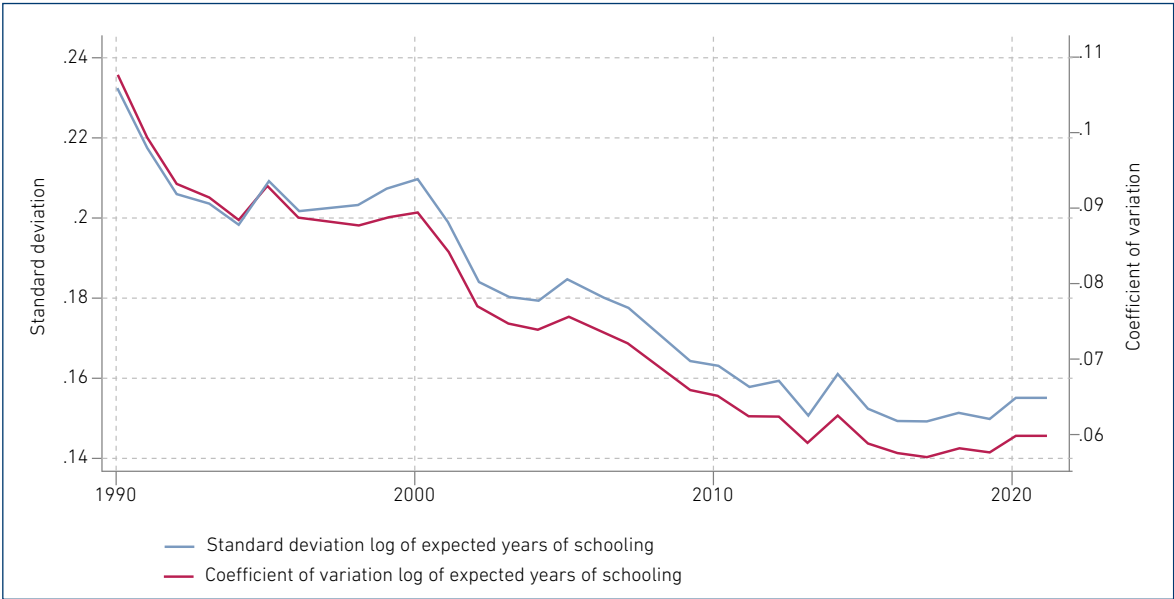
Source: The author using data from World Bank (2023a).

Figure 9.17. Sigma Convergence – Life Expectancy, 1990–2021

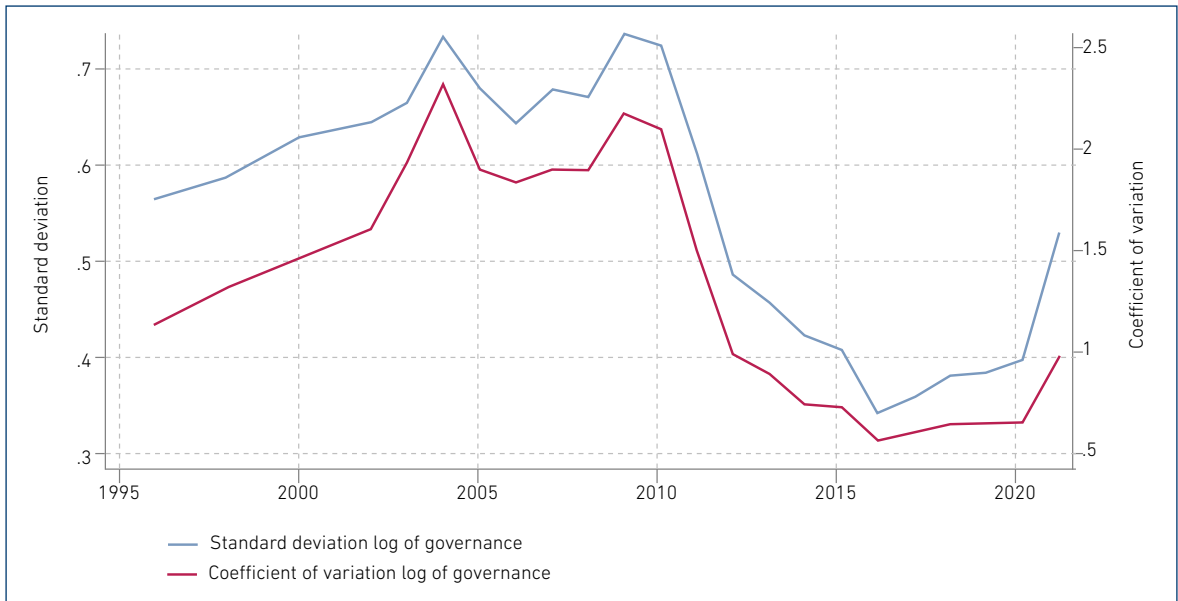


Source: The author using data from World Bank (2023a).

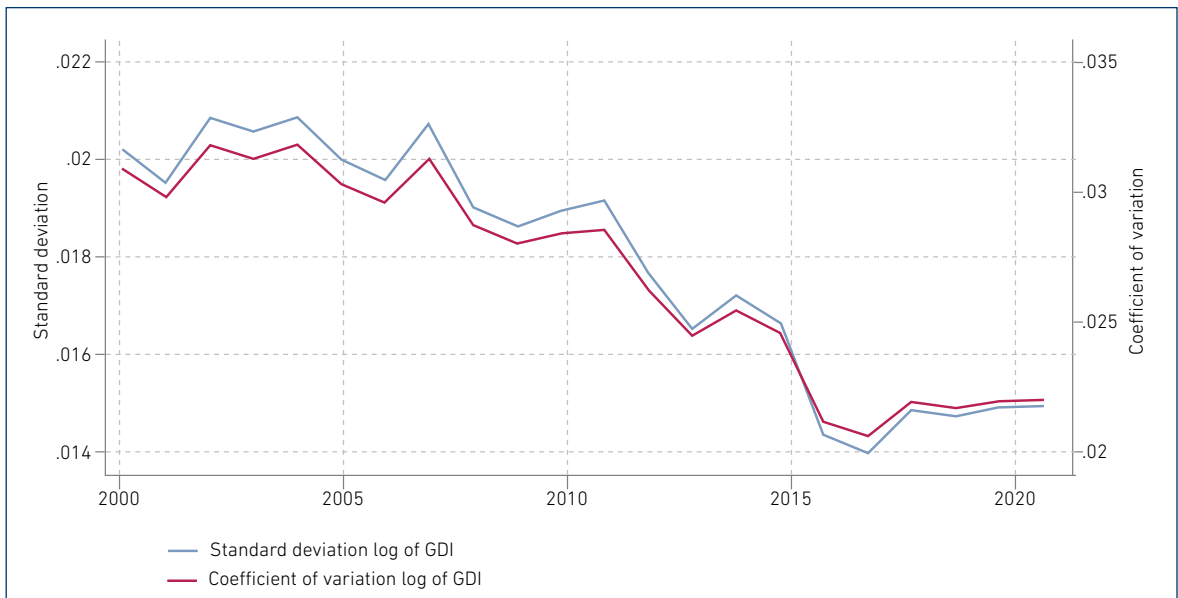
Figure 9.18. Sigma Convergence – Expected Years of Schooling, 1990–2021



Source: The author using data from UNDP (2023).

Figure 9.19. Sigma Convergence – Governance, 1996–2021

Source: The author using data from World Bank (2023b).

Figure 9.20. Sigma Convergence – Gender Development Index, 1990–2021

GDI = gender development index.

Source: The author using data from UNDP (2023).

Figure 9.21. Sigma Convergence – Ease of Doing Business, 2015–2019



Source: The author using data from World Bank (2020).

4. Evaluating the ASEAN Initiatives to Narrow the Development Gap

As discussed in the introduction to this paper, the IAI has been the key ASEAN initiative to narrow the development gap amongst its AMS, with specific projects and interventions up to 2025 highlighted in four IAI workplans. Given the very mixed evidence presented above, the indication is that the IAI has been unsuccessful in its objective of narrowing development gaps. This is not to say that there haven't been successes. Moreover, the current development gap may have been even larger in the absence of the IAI. Yet, it is probably fair to say that the initiative has fallen short of its ambitious expectations.

This section of the paper seeks to provide a more nuanced evaluation of the success of the IAI and other initiatives adopted by ASEAN with respect to narrowing the development gap. Four areas are examined which are expected to be central to narrowing the development gap agenda: (i) deepening economic integration; (ii) improving physical connectivity; (iii) improving institutional connectivity; and (iv) improving people-to-people connectivity. The paper acknowledges that this is by no means an exhaustive list of important ASEAN strategies. An evaluation of specific activities associated with these strategies also lies outside the scope of the analysis. Moreover, whilst establishing a counterfactual of the ASEAN development gap in the absence of these strategies is not possible, the section seeks to draw some broad conclusions using country level data and the findings from Section 3.

4.1. Economic Integration and the ASEAN Development Gap

Following the establishment of an ASEAN Free Trade Area in 1992, economic integration was further deepened with the founding of the ASEAN Economic Community (AEC) in 2015. The AEC carries the vision of a single ASEAN market and production base, being highly competitive, with equitable economic development, and being fully integrated into the global economy.¹¹ This Post 2025 Blueprint sets out a 10-year implementation plan (2016–2025), to achieve five key objectives by 2025: (i) a highly integrated and cohesive economy; (ii) a competitive, innovative, and dynamic ASEAN; (iii) enhanced connectivity and sectoral cooperation; (iv) a resilient, inclusive people-oriented, and people-centred ASEAN; and (v) a global ASEAN. The AEC 2025 Consolidated Strategic Action Plan provides the key actions that will be implemented to try to achieve the ASEAN economic integration agenda during the 2016 to 2025 period (ASEAN, 2017).

Whether ASEAN's economic integration has been a success is often contested (Menon, 2018; Koichi, 2021). On the one hand, intraregional trade within ASEAN has remained low at around 25% for almost 2 decades and approximately just one fifth of foreign direct investment (FDI) to ASEAN countries comes from other AMS. On the other hand, ASEAN has become the fourth largest exporting region in the world and whilst it accounts for just 3.3% of the world's GDP, it produces more than 7% of exports (Menon, 2018). Menon (2018) goes on to argue that ASEAN's success lies in its global integration, and it has clearly been successful when examining levels of trade and investment irrespective of their origin or destination.

Trade and investment can spur development in several ways including improved efficiency, technological absorption, economies of scale, and greater employment. Trade as a percentage of GDP is high for most AMS and has clearly increased in the lower-income AMS. Data from the World Bank (2023a) indicate that, in 2021, trade (the sum of exports and imports of goods and services) as a percentage of GDP was over 132% in Cambodia and more than 186% in Viet Nam. For Myanmar, trade was almost 66% of GDP in 2021 (higher than in Indonesia and the Philippines) whilst trade data are not available in the case of Lao PDR. As a point of comparison, the world trade to GDP ratio for 2021 was 56.5%. FDI to CLMV countries has also increased. Except for Singapore and Malaysia, net FDI inflows to the CLMV countries as a percentage of GDP were higher than in all other AMS during the period 2018–2022 (World Bank, 2023a).

¹¹ Note that the AEC still differs from other unions, such as the European Union, by not pursuing political or monetary union.

It appears very likely that economic integration has been successful in narrowing the ASEAN development gap. Whilst there is still a large income gap between the ASEAN-6 and CLMV countries, there has been both beta and sigma convergence amongst individual AMS. Should the low-income AMS continue to experience higher growth rates, income levels will continue to converge in the future. There is also a body of empirical evidence that demonstrates that exports and FDI have had positive impacts on the CLMV countries from an economic growth perspective (Menon, 2021 for CLMV countries; Mah, 2017 and Sokang, 2018 for Cambodia; Nantharath and Kang 2019 for Lao PDR; Thunt and Sung-Hoon, 2018 for Myanmar; and Nguyen, 2016 and Nguyen, 2020 for Viet Nam). Of course, if contributing to a narrowing of the development gap, the positive impacts of trade and investment in CLMV must be higher than the impacts in the ASEAN-6.

4.2. Physical Connectivity and the ASEAN Development Gap

The next three strategies that are discussed in this section are embedded within the 2025 Master Plan on ASEAN Connectivity (ASEAN 2016b). The vision of the 2025 Master Plan on ASEAN Connectivity is to achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of community. The 2025 Master Plan on ASEAN Connectivity is therefore a vital component of ASEANs objective of narrowing the development gap.

Physical connectivity refers to the development of national and regional infrastructure development, specifically in the transport, information and communications technology and energy sectors. Physical connectivity is commonly referred to as 'hard infrastructure'. If such infrastructure is established in the lower-income AMS and in lagging regions within these countries, it can narrow the development gap by increasing employment opportunities for the poor, spurring economic growth, improving access to resources and markets, reducing the costs of production, increasing productivity and competitiveness, as well as linking the poor to basic services.

Table 9.1 provides some common measures of physical infrastructure for AMS. The data reveal that access to electricity is virtually universal in eight of the 10 members with the potential for some improvement to access in Cambodia and Myanmar. However, there are still large variations in access to safely managed water and sanitation. Whilst access to both water and sanitation is universal in Singapore, just 18% of the population use safely managed drinking water in Lao PDR and just 26% of the population of Thailand use safely managed sanitation services. The proportion of the population using the internet varies from 44% for Myanmar and 97% for Singapore. Mobile cellular subscriptions (per 100 people) exceed 100 for all member countries except for Lao PDR with a value of 65 in 2021. Thus, there are large variations in physical infrastructure amongst AMS.

Table 9.1. Measures of Physical Infrastructure for the ASEAN Member States

Country	Access to electricity (% of population)	People using safely managed drinking water services (% of population) ^a	People using safely managed sanitation services (% of population) ^b	Individuals using the internet (% of population)	Mobile cellular subscriptions (per 100 people)
Brunei Darussalam	100	Na	na	98	136
Cambodia	83	28	35	60	120
Indonesia	99	30	na	62	134
Lao PDR	100	18	61	62	65
Malaysia	100	94	85	97	141
Myanmar	72	57	61	44	126
Philippines	97	48	62	53	143
Singapore	100	100	100	97	147
Thailand	100	Na	26	85	169
Viet Nam	100	57	43	74	139

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

Notes:

^a Population drinking water from an improved source that is accessible on premises, available when needed, and free from faecal and priority chemical contamination. Improved water sources include piped water, boreholes or tube-wells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

^b The percentage of people using improved sanitation facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite. Improved sanitation facilities include flush/pour flush to piped sewer systems, septic tanks or pit latrines: ventilated improved pit latrines, composting toilets or pit latrines with slabs.

Source: World Bank (2023a). Based on Feeny and McGillivray (2013).

The IAI is primarily directed towards the newer members of ASEAN, namely Cambodia, Lao PDR, Myanmar, and Viet Nam. However, it also encompasses subregional groupings, such as the Greater Mekong, Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area and the Indonesia–Malaysia–Thailand Growth Triangle.

Subregional programmes can be particularly important to narrow the development gap agenda if they connect remote and less developed areas of participating countries. However, whilst the focus of the IAI is on the CLMV countries, subregional cooperation within ASEAN has tended to focus on the higher-income countries and include the Indonesia–Malaysia–Thailand Growth Triangle and the Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area. However, there is also the CLMV Summit and Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy involving Cambodia, Lao PDR, Myanmar, Thailand, and Viet Nam.

In summary, whilst it is likely that physical infrastructure has played a role in the development of CLMV countries, better geographic and sectoral targeting of physical infrastructure should be undertaken to make the benefits of narrowing the development gap more tangible. Some empirical literature has also demonstrated that infrastructure can play an important role in reducing poverty, improving household welfare, and raising gender equity in CLMV countries (see for example, Nguyen et al., 2017; Liang et al., 2022; and Anti and Zhang, 2023) However, Abeysinghe, Tan, and Nguyen (2019) demonstrate that individual ASEAN country-based trend analysis shows very little growth effect of the 2025 Master Plan on ASEAN Connectivity. Further, a structural vector autoregression analysis that accounts for both direct and indirect effects demonstrates that impacts have been low.

4.3. Institutional Connectivity and the ASEAN Development Gap

Institutional connectivity relates to the policy environment of member countries and includes effective governance and institutions. It is often referred to as ‘soft infrastructure’. As demonstrated in Section 3, this is potentially an area that has seen limited convergence amongst AMS, at least with respect to governance and the ease of doing business. This is explored further using additional data for which a lack of time-series data prevented an analysis of beta and sigma convergence.

Logistics is fundamental for competitiveness, impacting directly on efficiency, production costs, and trade and economic growth. Improving ASEAN logistics is a focus of the 2025 ASEAN Blueprint. The latest data from 2023 on the logistics performance of AMS countries (World Bank, 2023c) are provided in Table 2 below. Whilst there is not a great deal of variation in the logistics components (as each is ranked from 1 to 5), the rankings provided in the final column for the aggregated logistics index indicate considerable variation amongst AMS. Singapore ranks first in the world out of 139 ranked countries whilst Cambodia ranks 117th and Lao PDR ranks 120th. Requisite data are not available for Brunei Darussalam and Myanmar although these countries ranked 79th (Brunei Darussalam) and 136th (Myanmar) out of 159 countries in 2018 (the last time the logistics data were compiled). There are, therefore, considerable differences in the competitiveness of AMS.

Table 9.2. The Logistics Index for ASEAN Member States, 2018

Country	Ability to track and trace consignments (1=low to 5=high)	Competence and quality of logistics services (1=low to 5=high)	Ease of arranging competitively priced international shipments (1=low to 5=high)	Efficiency of customs and border management clearance (1=low to 5=high)	Frequency with which shipments reach consignees within the scheduled or expected delivery time (1=low to 5=high)	Quality of trade- and transport-related infrastructure (1=low to 5=high)	Overall logistics performance index (1=low to 5=high) (Rank)
Brunei Darussalam	2.75	2.71	2.51	2.62	3.17	2.46	2.71 (79)
Cambodia	2.8	2.4	2.3	2.2	2.7	2.1	2.4 (117)
Indonesia	3.0	2.9	3.0	2.8	3.3	2.9	3.0 (63)
Lao PDR	2.4	2.4	2.3	2.3	2.8	2.3	2.4 (120)
Malaysia	3.7	3.7	3.7	3.3	3.7	3.6	3.6 (31)
Myanmar	2.2	2.28	2.2	2.17	2.91	1.99	2.3 (136)
Philippines	3.3	3.3	3.1	2.8	3.9	3.2	3.3 (47)
Singapore	4.4	4.4	4.0	4.2	4.3	4.6	4.3 (1)
Thailand	3.6	3.5	3.5	3.3	3.5	3.7	3.5 (37)
Viet Nam	3.4	3.2	3.3	3.1	3.3	3.2	3.3 (50)

Lao PDR = the Lao People's Democratic Republic; Myanmar = the Republic of the Union of Myanmar.

Note: A total of 139 countries have data for the logistics index and are ranked.

Source: World Bank (2023c).

Data for overall competitiveness provide a similar story to that for logistics. The World Economic Forum's Global Competitiveness Report (WEF, 2019) seeks to provide stakeholders with a detailed map of the factors and attributes that drive productivity, growth, and human development.¹² The index is available for 141 countries. Table 9.3 provides the country rankings for AMS in 2019. Clearly there is still a huge disparity across AMS, with Singapore ranking first in 2019; Cambodia, 106th; and Lao PDR, 113th. Data for Myanmar are not available.

¹² The overall score is the average of the scores of the 12 pillars. The first four pillars relate to an enabling environment: (i) institutions; (ii) infrastructure; (iii) information and communication technology adoption; and (iv) macroeconomic stability. The next two pillars relate to human capital: (v) health; and (vi) skills. The next four pillars relate to markets: (vii) product market; (viii) labour market; (ix) financial system; and (x) market size. Finally, the last two pillars relate to the innovation ecosystem: (xi) business dynamism; and (xii) innovation capability. In total, there are 103 indicators distributed across the 12 pillars (WEF, 2019).

Table 9.3. Global Competitiveness Index Rankings for ASEAN Member States

Country	2019 global competitiveness rank
Brunei Darussalam	56
Cambodia	106
Indonesia	50
Lao PDR	113
Malaysia	27
Myanmar	na
Philippines	64
Singapore	1
Thailand	40
Viet Nam	67

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar, na = not applicable.

Source: WEF (2019)

The 2016 World Bank's Digital Adoption Index (DAI) provides another example of the disparities across AMS (World Bank, n.d.). The DAI measures countries' digital adoption across three dimensions of the economy: people, government, and business. The index covers 180 countries. The overall DAI is the simple average of three sub-indexes. In 2016, Singapore was ranked first whilst Lao PDR was ranked 159th and Myanmar ranked 160th. ASEAN will need to work hard to ensure that digital literacy is universal amongst its members and that the benefits of artificial intelligence are also shared with lower-income members to ensure development gaps do not widen rather than narrow.

4.4. People-to-People Connectivity and the ASEAN Development Gap

People-to-people connectivity refers to empowering people and includes greater linkages amongst AMS in the areas of education, culture, and tourism. It also includes labour mobility which can potentially play a very important role in narrowing the development gap. Workers from lower-income AMS can earn far more in higher-income AMS for doing the same job and migration provides them with the ability to remit earnings back home which could be used for multiple development purposes (payment of school fees, improvements to the home, savings, starting a new business, health costs, etc.).

Despite ongoing restrictive labour migration policies, there is increasingly freer movement of labour within the AEC, which should assist with ASEAN's goals of narrowing the development gap as well as better integrating its AMS. However, ASEAN is seeking a freer flow of labour policy rather than one which allows for an unrestricted (free) flow of labour. AMS have signed Mutual Recognition Arrangements (MRAs) to facilitate the flow of skilled labour in the region. These MRAs enable the qualifications of migrants that are recognised by the authorities in their home country, to be mutually recognised by other AMS. However, the MRAs only cover eight professions and a tiny proportion of the migrant population. The International Labour Organization estimates that more than 87% of migrants in AMS are low-skilled and concentrated in just a few corridors. The top five corridors – Myanmar to Thailand, Indonesia to Malaysia, Malaysia to Singapore, Lao PDR to Thailand, and Cambodia to Thailand – represent 88% of the total intra-ASEAN migrant stock (Sugiyarto and Agunias, 2014).

Since most intra-ASEAN migration is undertaken by unskilled workers, they will not be employed under formal contracts which makes them vulnerable to exploitation, being paid below minimum wages, and not being eligible for social protection (Vineles, 2018). Whilst CLMV countries currently benefit from worker migration, they could benefit much more through a truly free movement of labour despite this being politically contentious. Higher-income AMS could also benefit through migrants filling labour shortages.

5. Conclusion: New Challenges and the Way Forward

The year 2025 is an important milestone for the ASEAN community. By 2025, the AEC aspires to be: (i) a highly integrated and cohesive economy; (ii) a competitive, innovative, and dynamic ASEAN with; (iii) enhanced connectivity and sectoral cooperation, by remaining; (iv) resilient, inclusive, people-oriented and people-centred and becoming; (v) a global ASEAN (ASEAN, 2015).

According to the mid-term review of the 2025 ASEAN Blueprint (ASEAN 2021), members were making considerable progress towards achieving their milestones. It found that 54.1% of action lines had already been completed whilst a further 34.2% were currently in progress. However, the review was completed prior to the impacts of the COVID-19 global pandemic being felt. The subsequent COVID-19 restrictions, as well as the disruption to global supply chains, would have taken a large toll on progress towards the Blueprint. Moreover, members will soon be turning their attention to the ASEAN Community Vision 2045, with the focus on building a self-reliant, dynamic, creative and people-centred ASEAN.

This final section of the paper looks at how recent and ongoing global events are having an impact on the development of ASEAN's members and how emerging agendas will influence future policy frameworks. It begins with suggestions on how the development gap should be measured and monitored before summarising the new and ongoing challenges that are having an impact on the narrowing the development gap agenda. Suggestions for how ASEAN should move forward in the post-2025 era are provided.

- **Policy recommendation 1: AMS should develop and adopt a common framework that moves beyond individual projects to assess the development gap amongst its members.**

The IAI seeks to narrow the development gap amongst AMS through the implementation of development projects and action outlined in the IAI workplans. Projects are implemented through financial and technical support from other AMS, development agencies, and technical experts. Arguably, the ASEAN approach to narrowing the development gap has been too project centric. A common framework which integrates and evaluates interventions at, and across, the sectoral level should be developed. Large development projects will have multiple spill-over effects and positive/negative externalities. A more comprehensive framework that evaluates multiple interventions and assesses progress within and across sectors can provide policymakers with stronger insights into the strategies that can accelerate reductions in development gaps.

As this paper has shown the choice of development indicator as well as the approach to examining whether gaps are increasing or decreasing, can lead to vastly different conclusions.

- **Policy recommendation 2: ASEAN should commit to a common standard/definition of the development gap amongst AMS and how it should be measured and assessed. It should be reported on annually.**

A common set of core development indicators should be specified and a common approach to assessing whether the gap across these development indicators is narrowing or widening agreed upon. As this chapter has demonstrated, approaches might include beta convergence, sigma convergence, or examining differences in the average value of development indicators for ASEAN-6 countries versus the CLMV group. Once these decisions have been made, a part of the ASEAN Secretariat should be responsible for monitoring development gaps on an annual basis with the publication of an annual report. Country case-studies should be undertaken when countries are either making exceptional progress or lagging others so that important factors can be identified and lessons learned that can be applied to other AMS.

- **Policy recommendation 3: ASEAN should establish a formal monitoring and evaluation framework that can better identify the types of activities that best contribute to narrowing the development gap. Annual reporting on what has worked and what has not worked should be undertaken.**

Currently it is difficult to determine which ASEAN initiatives and action plans have contributed most to narrowing the development gap agenda. Whilst this is no easy task, closer monitoring and evaluation of all activities in the IAI workplans should be undertaken to provide better insights into which strategies and activities have contributed most to narrowing the development gap agenda.

- **Policy recommendation 4: ASEAN must place a great emphasis on building resilience to shocks in its lower-income AMS as well as the resilience of the most vulnerable within these countries. Climate change adaptation policies should be scaled-up. The coverage and extent of social protection should be improved.**

External shocks, whether in the form of a global pandemic, an economic shock, or a climate-related disaster, tend to have the greatest negative impacts on lower-income countries as well as the poorest people in these countries. Thus, shocks directly undermine progress towards narrowing development gaps both across and within countries. This was demonstrated in Section 3 of the paper with divergence occurring across nearly all development indicators from 2020 because of the impact of COVID-19. This implies that policymakers must make narrowing the development gap a greater priority than it has been previously.

Other external shocks are also hampering progress. The Russian invasion of Ukraine and the Israel – Gaza conflict pose threats to regional and global stability as well as to investment. The disruption of gas supplies following the onset of the Russian invasion of Ukraine was a major contributor to higher rates of inflation being experienced across the world, particular with respect to the price of food and fuel. It is the poor who are most affected by rising prices as they spend a larger proportion of their income on meeting basic needs. Higher interest rates set to combat the higher rates of inflation will deter investment in new development projects.

Climate change poses another threat, both directly through climatic shocks and indirectly through reducing food production and raising prices. The 2021 ASEAN State of Climate Change Report noted that ASEAN's high vulnerability to climate change is because of 'growing intensity and magnitude of extreme weather events, and increasing economic, environmental, and social damage' (NTS-Asia, 2023). According to the Global Climate Risk Index devised by Eckstein, Künzel, and Schäfer (2018), Viet Nam, Myanmar, the Philippines, and Thailand are amongst 10 countries in the world most affected by climate change in the past 20 years. Moreover, the World Bank finds Viet Nam to be amongst five countries most likely to be affected by global warming in the future (World Bank 2021). In addition, 2023–2024 is another El Nino year with the higher temperatures likely to have a significant effect on rice and corn yields. The lowest ranked AMS according to the Global Food Security Index that provides data for 113 countries are Lao PDR (81), Cambodia (78) and Myanmar (72) (Economist, 2022).

Strengthening resilience to external shocks is required for the ASEAN Community Vision 2045 of being self-reliant and people-centred.

- **Policy recommendation 5: ASEAN should adopt a greater focus on improving the soft infrastructure of the CLMV countries, examining specific aspects of governance that need attention and deciding where improving them is of mutual interest. Successful capacity building programmes in the past should be closely scrutinised to identify the factors that contributed to success. Given that gaps in this area continue to prevail, ASEAN should adopt new and innovative ways to achieve this objective.**

This paper has demonstrated that there is little evidence of narrowing the development gap with respect to soft infrastructure using measures of governance, the ease of doing business and measures of competitiveness. Poor levels of this type of connectivity in CLMV countries can act as an impediment to development, threatening progress towards a reduction in the development gap. Whilst ASEAN has a policy of non-interference, it is in the interest of all AMS to ensure levels of governance are improved. A (universally) digitally literate ASEAN is also crucial to narrow the development gap agenda and to ensure a dynamic and creative population that is consistent with the ASEAN Community Vision 2045.

- **Policy recommendation 6: Labour shortages should be carefully identified in AMS and unskilled workers from CLMV countries migrating to fill these shortages should be covered by social protection schemes. Working conditions and wages of unskilled migrant workers should be monitored closely.**

Finally, labour mobility has great potential to narrowing the development gap amongst AMS. The focus of increasing labour mobility is still on that for skilled migrants. Greater attention needs to be devoted to the migration of semi-skilled and unskilled workers from CLMV countries. This is crucial for the people-centred approach embodied in the ASEAN Community Vision 2045.

References

- Abeyasinghe, T., K.G. Tan, and L.P.P. Nguyen (2019), 'Master Plan on ASEAN Connectivity: Assessing Growth Impacts and Interdependencies', *International Journal of Logistics Economics and Globalisation*, 8(1), pp.67–89. <https://api.semanticscholar.org/CorpusID:197886762>
- Anti, S. and Z. Zhang (2023), 'Roads, Women's Employment, and Gender Equity: Evidence from Cambodia', *World Development*, 171. <https://www.sciencedirect.com/science/article/abs/pii/S0305750X23001791?via%3Dihub>
- Association of Southeast Asian Nations (2015), *ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/asean-economic-community-blueprint-2025/>
- (2016a), *ASEAN Socio-Cultural Community Blueprint 2025*, Jakarta: ASEAN Secretariat. <https://asean.org/book/asean-socio-cultural-community-blueprint-2/>
- (2016b), *Masterplan on ASEAN Connectivity 2025*, Jakarta: ASEAN Secretariat. <https://asean.org/book/master-plan-on-asean-connectivity-2025/>
- (2017), *AEC 2025 Consolidated Strategic Action Plan*, Jakarta: ASEAN Secretariat. <https://asean.org/aec-2025-consolidated-strategic-action-plan/>
- (2020a), *Initiative for ASEAN Integration & Narrowing Development Gap (IAI & NDG)*, Jakarta: ASEAN Secretariat. <https://asean.org/our-communities/initiative-for-asean-integration-narrowing-development-gap-iai-ndg/>

- (2020b), *Initiative for ASEAN Integration (IAI) Work Plan IV (2021–2025)*. Jakarta: ASEAN Secretariat. <https://asean.org/book/initiative-for-asean-integration-iai-work-plan-iv-2021-2025/>
- (2021), *Mid-Term Review - ASEAN Economic Community Blueprint 2025*. Jakarta: ASEAN Secretariat. <https://asean.org/book/mid-term-review-report-of-the-aec-blueprint-2025/>
- (2023a), *ASEAN Leaders' Statement on Strengthening ASEAN's Capacity and Institutional Effectiveness*, Jakarta: ASEAN Secretariat. <https://asean.org/asean-leaders-statement-on-strengthening-aseans-capacity-and-institutional-effectiveness/>
- Dalgaard, C-J. and J. Vastrup (2001), 'On the Measurement of σ -convergence', *Economics Letters*, 70(2), pp.283–87, [https://doi.org/10.1016/S0165-1765\(00\)00368-2](https://doi.org/10.1016/S0165-1765(00)00368-2).
- Eckstein, D, V. Künzel, and L. Schäfer (2017), 'Global Climate Risk Index 2018: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2016 and 1997 to 2016', *Germanwatch Briefing Paper*. Bonn: Germanwatch. <https://www.germanwatch.org/en/node/14987>
- Economist (2022), *Global Food Security Index 2022*, London: The Economist, 18 November. <https://impact.economist.com/sustainability/project/food-security-index/>
- Feeny, S. and M. McGillivray (2013), 'The Role of ASEAN Connectivity in Reducing the Development Gap', in McGillivray, M. and D. Carpenter (eds.) *Narrowing the Development Gap in ASEAN: Drivers and Policy Options*. London: Routledge. https://www.researchgate.net/publication/286152544_The_role_of_ASEAN_connectivity_in_reducing_the_development_gap
- Koichi I. (2021), 'The ASEAN Economic Community and ASEAN Economic Integration', *Journal of Contemporary East Asia Studies*, 10(1), pp.24–41. https://www.researchgate.net/publication/349746329_The_ASEAN_economic_community_and_ASEAN_economic_integration
- Liang, Y., S. Li, J. Zeng, and T. Wu (2022), 'Examining the Impact of Multidimensional Accessibility on Regional Poverty in Laos', *Applied Geography*, 148. <https://doi.org/10.1016/j.apgeog.2022.102789>.
- Machen, R., M. Jones, G. Varghese, and E. Stark (2021), *Investigation of Data Irregularities in Doing Business 2018 and Doing Business in 2020*, Washington: WilmerHale. <https://thedocs.worldbank.org/en/doc/84a922cc9273b7b120d49ad3b9e9d3f9-0090012021/original/DB-Investigation-Findings-and-Report-to-the-Board-of-Executive-Directors-September-15-2021.pdf>
- Mah, J.S. (2017), 'Globalization and Economic Growth in Cambodia', *The Singapore Economic Review*, 62(2), pp.363–75. <https://doi.org/10.1142/S0217590815500708>
- Menon, J. (2018), 'Regional Means, Global Objectives', *East Asia Forum Quarterly: Why ASEAN Matters*, 10(1), pp.7–8. <https://search.informit.org/doi/10.3316/informit.300084020739763>
- (2021), 'Trade, FDI, and Growth in CLMV: Pre- and Post-Pandemic Evolution', in B. Chellaney and F. Kliem (2021), *The Displaced: Disrupted Trade, Labour, and Politics in the Mekong River Basin*. Tokyo: Konrad-Adenauer-Stiftung's Regional Economic Programme Asia (SOPAS). <https://www.kas.de/en/web/japan/single-title/-/content/the-displaced>

- Nantharath, P. and E. Kang (2019), 'The Effects of Foreign Direct Investment and Economic Absorptive Capabilities on the Economic Growth of the Lao People's Democratic Republic', *Journal of Asian Finance, Economics, and Business*, 6(3), pp.151–62. https://www.researchgate.net/publication/335743613_The_Effects_of_Foreign_Direct_Investment_and_Economic_Absorptive_Capabilities_on_the_Economic_Growth_of_the_Lao_People's_Democratic_Republic
- Nguyen, C.V., T.C. Phung, V.K. Ta, and D.T. Tran (2017), 'The Impact of Rural Roads and Irrigation on Household Welfare: Evidence from Vietnam', *International Review of Applied Economics*, 31(6), pp.734–53. https://www.researchgate.net/publication/317153075_The_impact_of_rural_roads_and_irrigation_on_household_welfare_evidence_from_Vietnam
- Nguyen, H.H. (2020), 'Impact of Foreign Direct Investment and International Trade on Economic Growth: Empirical Study in Vietnam', *The Journal of Asian Finance, Economics, and Business*, 7(3), pp.323–31. https://www.researchgate.net/publication/340311154_Impact_of_Foreign_Direct_Investment_and_International_Trade_on_Economic_Growth_Empirical_Study_in_Vietnam
- Nguyen, T.H. (2016), Impact of Export on Economic Growth in Vietnam: Empirical Research and Recommendations. *International Business and Management*, 13(3), pp.45–52. <http://cscanada.net/index.php/ibm/article/view/9040/0>
- NTS-Asia (2023), *Climate Change and Security*. Singapore: NTS Asia: Consortium of Non-Traditional Security Studies of Asia. <https://rsis-ntsasia.org/climate-change-and-security/> [accessed August 14th 2023]
- Ram, R. (2018), 'Comparison of Cross-Country Measures of Sigma Convergence in Per Capita Income, 1960–2010', *Applied Economics Letters*, 25(14), 1010–14. DOI: 10.1080/13504851.2017.1391992
- Sokang, K. (2018), 'The Impact of Foreign Direct Investment on the Economic Growth in Cambodia: Empirical Evidence', *International Journal of Innovation and Economic Development*, 4(5), pp.31–38. https://www.researchgate.net/publication/330506086_The_Impact_of_Foreign_Direct_Investment_on_the_Economic_Growth_in_Cambodia_Empirical_Evidence
- Sugiyarto, G. and D.R. Agunias (2014), 'A 'Freer' Flow of Skilled Labour within ASEAN: Aspirations, Opportunities, and Challenges in 2015 and Beyond'. *Issues in Brief a Joint Series of the IOM Regional Office for Asia and the Migration Policy Institute*, (11). <https://publications.iom.int/books/iom-mpi-issue-brief-no-11-freer-flow-skilled-labour-within-asean-aspirations-opportunities>
- Thunt, H-O and J. Sung-Hoon (2018), 'A Study on the Interrelationships Amongst Trade, Foreign Direct Investment, Human Capital, Financial Development, and Economic Growth in Myanmar', *Journal of International Trade & Commerce*, 14(4), pp.63–84. <https://www.semanticscholar.org/paper/A-Study-on-the-Interrelationships-Among-Trade%2C-and-Thunt-Jung/6c0630b66084fa0d7c70e7f3af3b12eb51a3d544>
- United Nations Development Programme (UNDP) (2023), *Human Development Report: Documentation and Downloads*, New York: UNDP Report. <https://hdr.undp.org/data-center/documentation-and-downloads> [accessed 19 June 2023]

- Vineles, P. (2018), Managing Labour Mobility: Stronger ASEAN Integration? RSIS Commentary. S. Rajaratnam School of International Studies, Nanyang Technological University. <https://www.semanticscholar.org/paper/Managing-Labour-Mobility-%3A-Stronger-ASEAN-Gonzales/5fb2c23acc5ca7995377fe34627072e149dd95c8>
- World Bank (2020) Doing Business 2020. Washington, D.C.: World Bank. <https://doi.org/10.1596/978-1-4648-1440-2>
- (2021). *Climate Change Knowledge Portal: Vietnam*. Washington, D.C.: World Bank. <https://climateknowledgeportal.worldbank.org/country/vietnam>
- (2023a), *World Development Indicators Online Database*, Washington D.C.: World Bank, Washington. <https://databank.worldbank.org/source/world-development-indicators> [accessed 8 July 2023]
- (2023b), *Worldwide Governance Indicators Online Database*, Washington D.C.: World Bank, Washington. <https://databank.worldbank.org/source/worldwide-governance-indicators> [accessed July 16th 2023]
- (2023b), *Connecting to Compete 2003 – Trade Logistics in the Global Economy: The Logistics Performance Index and Its Indicators*. Washington D.C.: World Bank. https://www.researchgate.net/publication/381699307_Connecting_to_Compete_2014_Trade_Logistics_in_the_Global_Economy--The_Logistics_Performance_Index_and_Its_Indicators?_share=1
- (n.d.) *Digital Adoption Index*. Washington D.C.: World Bank. <https://www.worldbank.org/en/publication/wdr2016/Digital-Adoption-Index> [accessed 2 June 2023]
- World Economic Forum (WEF) (2019), *The Global Competitiveness Report 2019*, Geneva: WEF. <https://www.weforum.org/publications/global-competitiveness-report-2019/>
- Young A.T., M.J. Higgins, and D. Levy, (2008), Sigma Convergence versus Beta Convergence: Evidence from U.S. County-Level Data. *Journal of Money, Credit and Banking*, 40, pp.1083–93. <https://doi.org/10.1111/j.1538-4616.2008.00148.x>

Appendix: Estimating Beta Convergence

To assess development gaps amongst countries using beta convergence, the following model is typically specified and estimated:

$$\Delta \log y_{i,t} = \alpha + \beta \log y_{i,t-1} + \mu_{i,t} \quad (1)$$

where, the average growth rate of development outcome for country i over time period t is approximated by $\Delta \log y_{i,t}$ ($\log y_{i,t} - \log y_{i,t-1}$), α is an intercept term and $\mu_{i,t}$ is the error term. The coefficient β is the key parameter of interest. If β is negative and statistically significant, it suggests that there is beta convergence with development outcomes growing faster in countries in which they are lowest, indicating a tendency for development outcomes to converge over time. Two approaches are used to estimate Equation 1: (i) regressing the average annual growth rate of the development outcome (over the period for which data are available) on the value of the outcome in the base year and (ii) regressing annual growth of the development outcome on its value in the previous year. The first approach uses cross-sectional data and estimates the equation using ordinary least squares. The second approach uses annual panel data and allows for the inclusion of year and country fixed effects.

Table 9A.1. Test of Beta Convergence – Gross Domestic Product per Capita Purchasing Power Parity (constant 2017 international \$), 1993–2021

	(1) OLS	(2) FE
Log GDP per capita (PPP) 1993	–0.31*** [–4.09]	
Lag of log GDP per capita (PPP)		–0.037*** [–2.86]
Constant	3.64*** [5.48]	0.39*** [3.10]
Observations	10	290
R-squared	0.68	0.27

GDP = gross domestic product, PPP = purchasing power parity.

Note: t-statistics in brackets

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: The author using data from the World Bank (2023a).

Table 9A.2. Test of Beta Convergence – Infant Mortality (number of deaths of children under one year of age per 1,000 live births in a given year), 1990–2021

	(1) OLS	(2) FE
Log of Infant Mortality (1990)	–0.14 [–1.01]	
Lag of log of Infant Mortality		0.015 [1.42]
Constant	–0.46 [–0.88]	–0.066** [–2.38]
Observations	10	310
R-squared	0.11	0.13

FE = fixed effects, OLS = ordinary least squares.

Note: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the World Bank (2023a).

Table 9A.3. Test of Beta Convergence – Life Expectancy (in years), 1993–2021

	(1) OLS	(2) FE
Log of Life Expectancy (1990)	–0.49*** [–3.90]	
Lag log of Life Expectancy		–0.056*** [–2.65]
Constant	2.14*** [4.10]	0.22** [2.48]
Observations	10	310
R-squared	0.65	0.23

FE = fixed effects, OLS = ordinary least squares.

Notes: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the World Bank (2023a).

Table 9A.4. Test of Beta Convergence – Expected Years of Schooling (in years), 1990–2021

	(1) OLS	(2) FE
Log Expected Years of School (1990)	–0.51** [–3.22]	
Lag log Expected Years of School		–0.079*** [–4.01]
Constant	1.52*** [4.38]	0.20*** [3.98]
Observations	10	310
R-squared	0.56	0.22

FE = fixed effects, OLS = ordinary least squares.

Notes: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the UNDP (2023).

Table 9A.5. Test of Beta Convergence – Governance index, 1996–2021

	(1) OLS	(2) FE
Log Governance (1996)	–0.099 [–1.04]	
Lag log Governance		–0.14*** [–3.82]
Constant	0.089 [1.29]	0.027 [0.77]
Observations	10	190
R-squared	0.12	0.21

FE = fixed effects, OLS = ordinary least squares.

Notes: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the World Bank (2023b).

Table 9A.6. Test of Beta Convergence – Gender Development Index, 2000–2021

	(1) OLS	(2) FE
Log Gender Development Index (2000)	–0.40** [–2.57]	
Lag log Gender Development Index		–0.21*** [–4.88]
Constant	0.28** [2.81]	0.15*** [4.89]
Observations	10	210
R-squared	0.45	0.25

FE = fixed effects, OLS = ordinary least squares.

Notes: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the UNDP (2023).

Table 9A.7. Test of Beta Convergence – Ease of Doing Business, 2015–2019

	(1) OLS	(2) FE
Log ease of doing business (2015)	–0.066 [–0.75]	
Lag log ease of doing business		–0.58*** [–5.11]
Constant	0.36 [0.98]	2.42*** [5.15]
Observations	10	40
R-squared	0.07	0.52

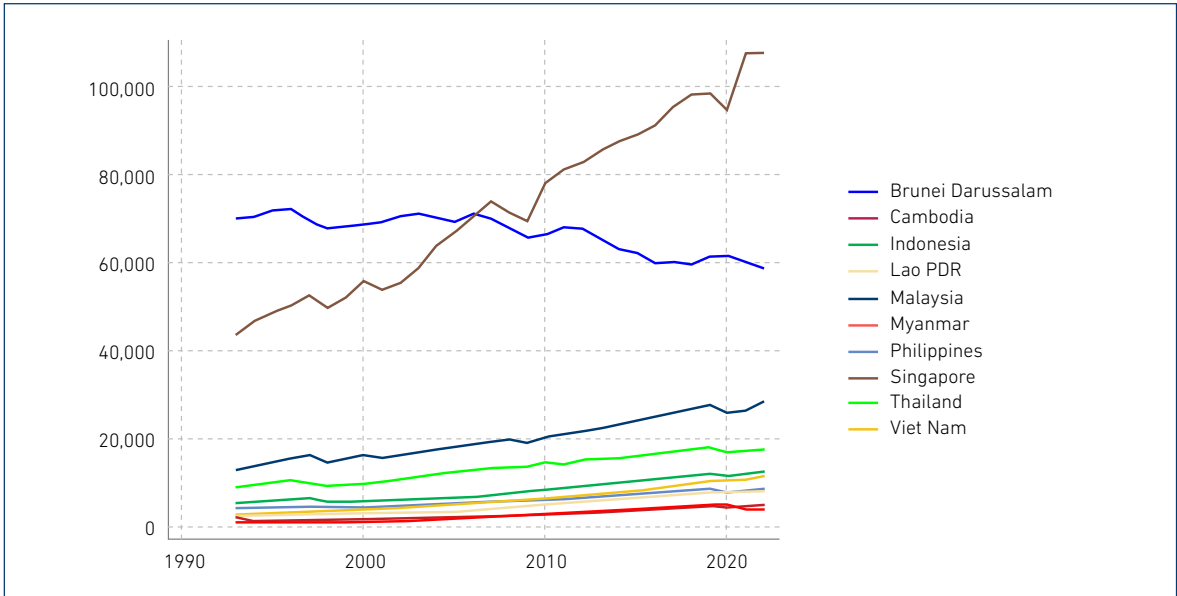
FE = fixed effects, OLS = ordinary least squares.

Notes: t-statistics in brackets

*** p<0.01, ** p<0.05, * p<0.1

Source: The author using data from the World Bank (2020).

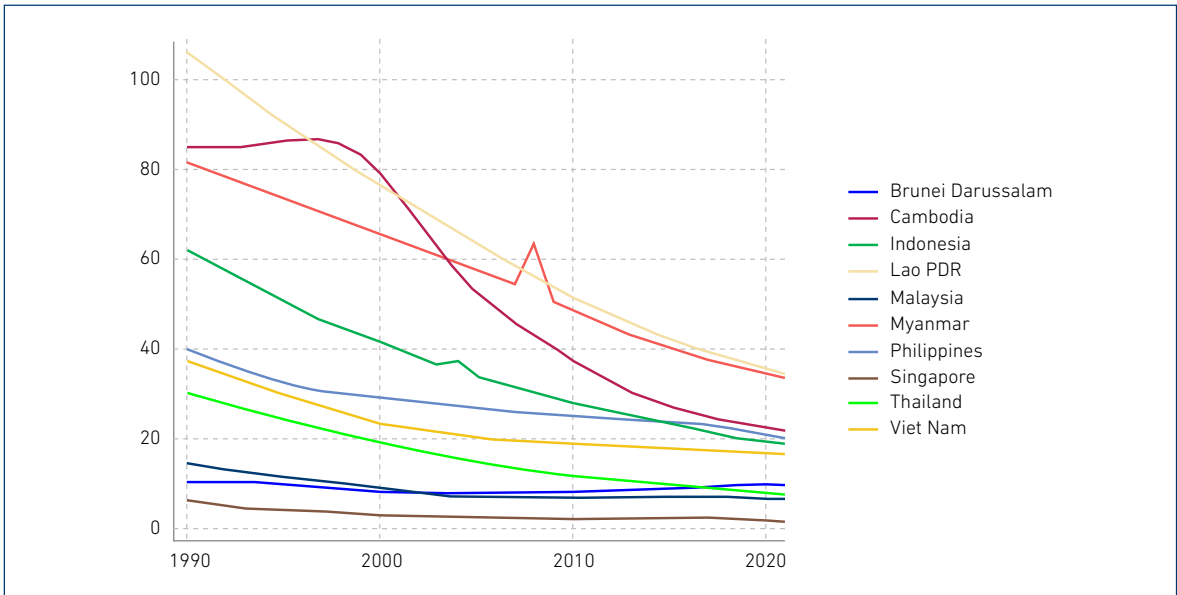
Figure 9A.1. Gross Domestic Product per Capita Purchasing Power Parity (constant 2017 international \$) all ASEAN Members, 1993–2022



Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

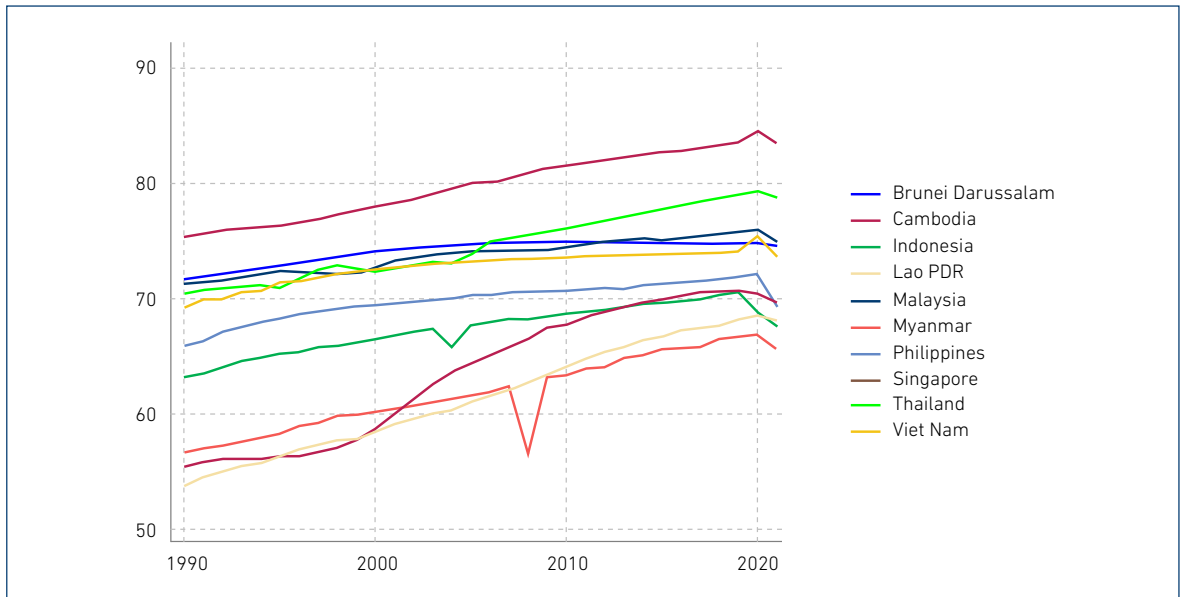
Source: The author using data from the World Bank (2023a).

Figure 9A.2. Infant Mortality (number of deaths of children under one year of age per 1,000 live births each year) all ASEAN Member States, 1990–2021



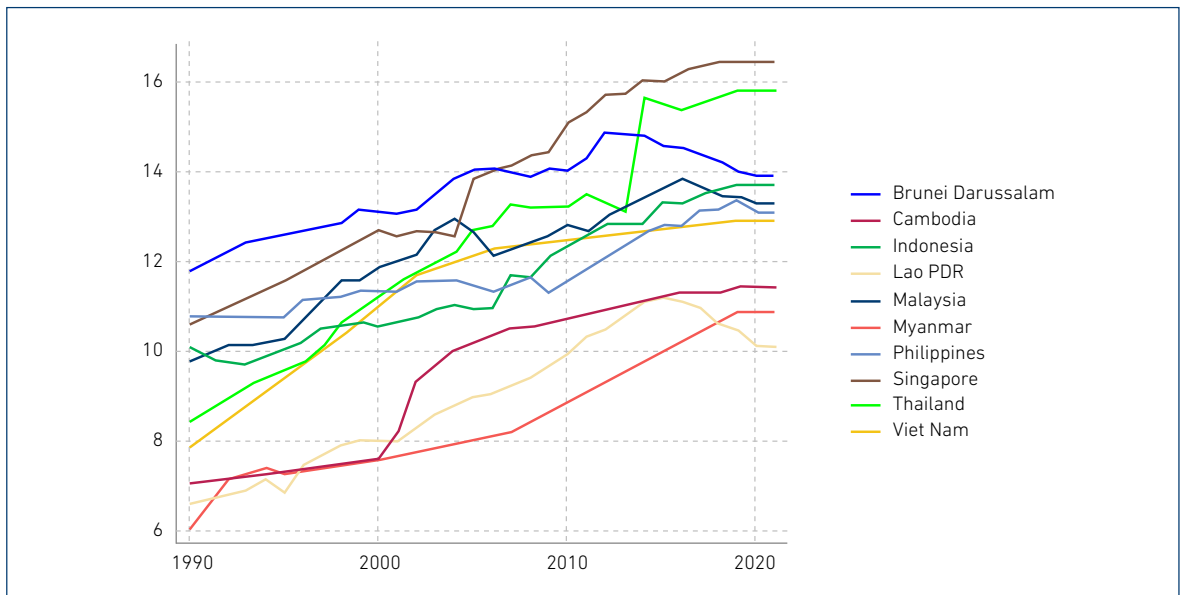
Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

Source: The author using data from the World Bank (2023a).

Figure 9A.3. Life Expectancy (in years) all ASEAN Member States, 1990–2021

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

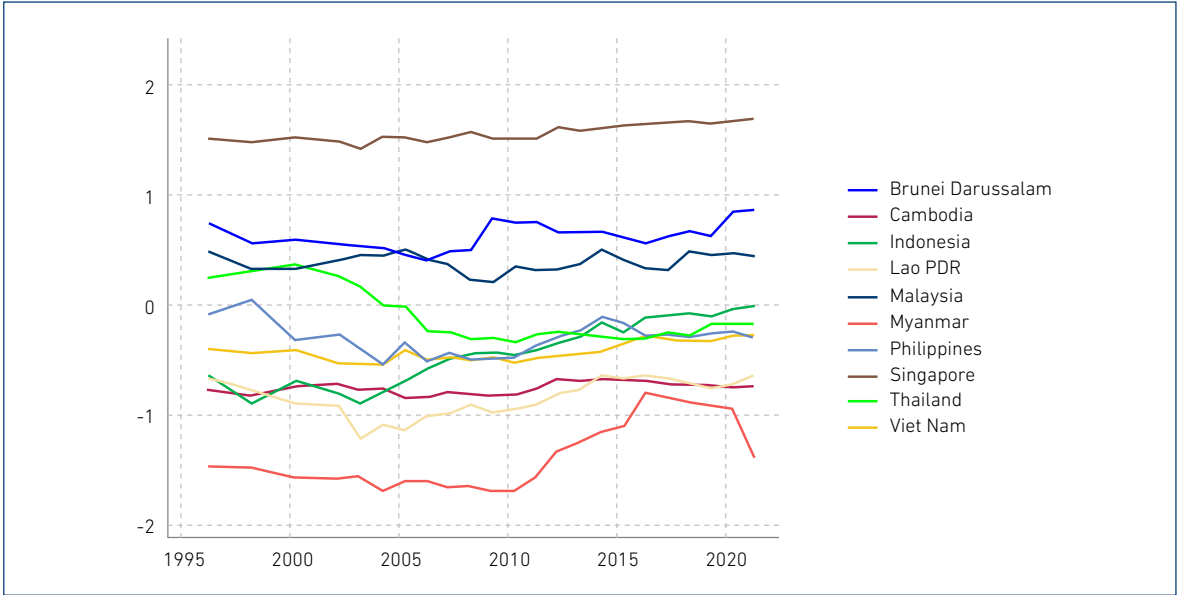
Source: The author using data from the World Bank (2023a).

Figure 9A.4. Expected Years of Schooling (in years) all ASEAN Member States, 1990–2021

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

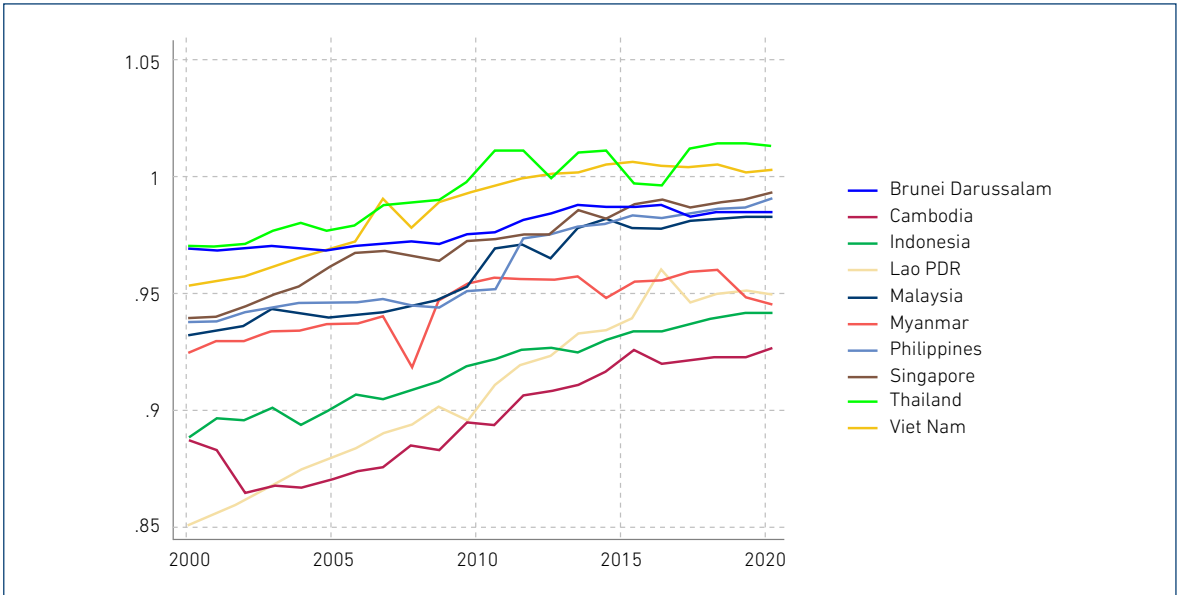
Source: The author using data from the UNDP (2023).

Figure 9A.5. Governance Index all ASEAN Member States, 1996–2021

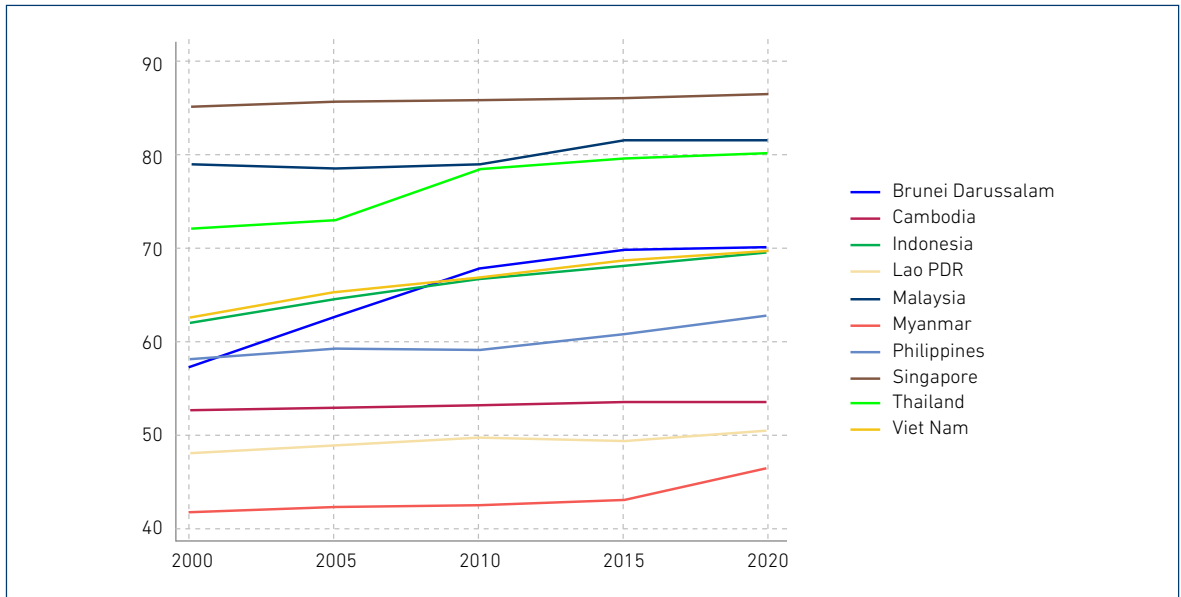


Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.
Source: The author using data from the World Bank (2023b).

Figure 9A.6. Gender Development Index all ASEAN Member States, 2000–2021



Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.
Source: The author using data from the UNDP (2023).

Figure 9A.7. Ease of Doing Business all ASEAN Member States, 1996–2021

Lao PDR = the Lao People's Democratic Republic, Myanmar = the Republic of the Union of Myanmar.

Source: The author using data from the World Bank (2020).



Part III

Deepening Economic Integration – New Perspectives and Strategies

10.

Regional Production Networks and Cross-Border Trade

Fukunari Kimura and Dionisius Narjoko

1. Introduction

The evolution of international production networks (IPNs) over the past two centuries represents one of the most significant transformations of the global economic landscape. This paper examines the complex dynamics of these networks through the theoretical lens of 'unbundling' developed by Baldwin (2016), whilst analysing their implications for economic integration and development strategies of the Association of Southeast Asian Nations (ASEAN). The analysis focuses on how technological advances have progressively reshaped global production patterns and economic relationships between developed and developing nations, with special attention to the emerging challenges of digital transformation and geo-economic fragmentation.

The conceptual framework of unbundling provides a sophisticated analytical tool for understanding the sequential transformation of international trade and production patterns. Three distinct phases of globalisation are identified, each characterised by the progressive reduction of specific constraints: trade costs (first unbundling), communication costs (second unbundling), and face-to-face costs (third unbundling). This framework allows us to examine how technological breakthroughs have systematically overcome geographical constraints, leading to increasingly complex forms of the international division of labour.

The analysis builds upon several theoretical foundations, including the fragmentation theory developed by Jones and Kierzkowski (1990) and the two-dimensional fragmentation framework of Ando and Kimura (2005). These complementary theoretical perspectives help to explain the mechanics of IPNs, particularly in the East Asian context, where the transformation from simple cross-border production sharing to sophisticated production networks has been most pronounced.

The analytical scope of this study encompasses both theoretical developments and empirical evidence, with particular attention to the challenges facing ASEAN economies beyond 2025. The interplay between digital transformation imperatives and emerging geo-economic challenges is discussed. This discussion is particularly relevant given the demonstrated resilience of East Asian production networks to various economic shocks, from the 1997 economic crisis to the coronavirus disease (COVID-19) crisis in 2020–2021.

This paper is structured as follows. Section 2 presents the analytical framework for understanding IPNs, including the unbundling concept and spatial economics considerations. Section 3 examines empirical evidence from East Asian production networks, focusing on network widening, deepening, and resilience. Section 4 analyses the implications of digital technology and the third unbundling for global value chains (GVCs). Finally, section 5 discusses policy implications for the ASEAN Economic Community (AEC) post 2025, with particular attention to institutional adaptation and strategic responses to emerging challenges.

2. Analytical Framework for IPNs

2.1. Unbundling Concept

The international division of labour has undergone significant transformations over the past two centuries, driven by technological breakthroughs that have progressively overcome geographical constraints. This evolution can be effectively analysed through Baldwin's framework of 'unbundling' (Baldwin, 2016), which provides a comprehensive understanding of how technological advances have reshaped global production patterns and economic relationships between developed and developing nations.

As illustrated in Figure 10.1, the concept of unbundling is fundamentally tied to three types of costs: trade costs, communication costs, and face-to-face costs. Each reduction in these costs has triggered a new phase of globalisation, leading to distinct forms of the international division of labour. The first major transformation occurred in the early 19th century with the transport revolution, characterised by the introduction of steam ships and railroads. This development substantially reduced trade costs and enabled the 'first unbundling', where production and consumption could be separated across national borders. During this period, international trade primarily consisted of raw materials and finished products, with the international division of labour organised along industry lines based on comparative advantage.

Figure 10.1. Overcoming Distance and Unbundling à la Baldwin (2016)

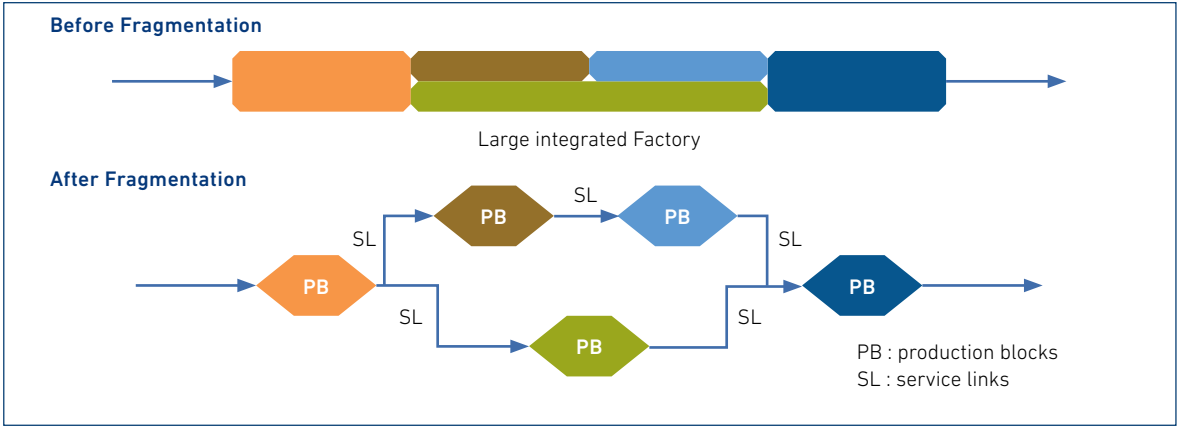
	Before globalisation (0)	The first unbundling (1)	The second unbundling (2)	The third unbundling (3)
Trade costs	High	Lower	Lower	Lower
Communication costs	High	High	Lower	Lower
Face-to-face costs	High	High	High	Lower
What moves?	None	Goods	Ideas	Persons
The international division of labour	Self-subsistence	By industries (fragment production and consumption)	By tasks (fragment industries)	By persons (fragment tasks)
International trade	No trade	Raw materials and final products	Part & components	Cross-border service outsourcing
Dominant era	-1820	1820-1990	1990-2015	2015-

Source: Authors.

A more profound transformation began around 1990 with the information and communication technology (ICT) revolution. This technological breakthrough significantly reduced communication costs, making ideas mobile across countries and enabling what Baldwin termed the 'second unbundling'. This phase is characterised by the fragmentation of production activities into distinct processes or tasks, leading to a task-wise international division of labour. The most visible manifestation of this transformation has been the dramatic increase in trade of parts and intermediate inputs, which now constitute a substantial portion of international trade.

The concept of unbundling builds upon several important theoretical frameworks that help explain the mechanics of IPNs, particularly in the East Asian context. One crucial theoretical foundation is the fragmentation theory developed by Jones and Kierzkowski (1990), which directly preceded the concept of the second unbundling. As depicted in Figure 10.2, the fragmentation theory explains how an integrated production facility, typically located in a developed country, can be decomposed into separate production blocks positioned in different locations to optimise overall production costs. For this fragmentation to be economically viable, the differences in location advantages must be substantial enough to justify the relocation of production blocks, whilst the service link costs required to connect these dispersed production blocks must remain manageable.

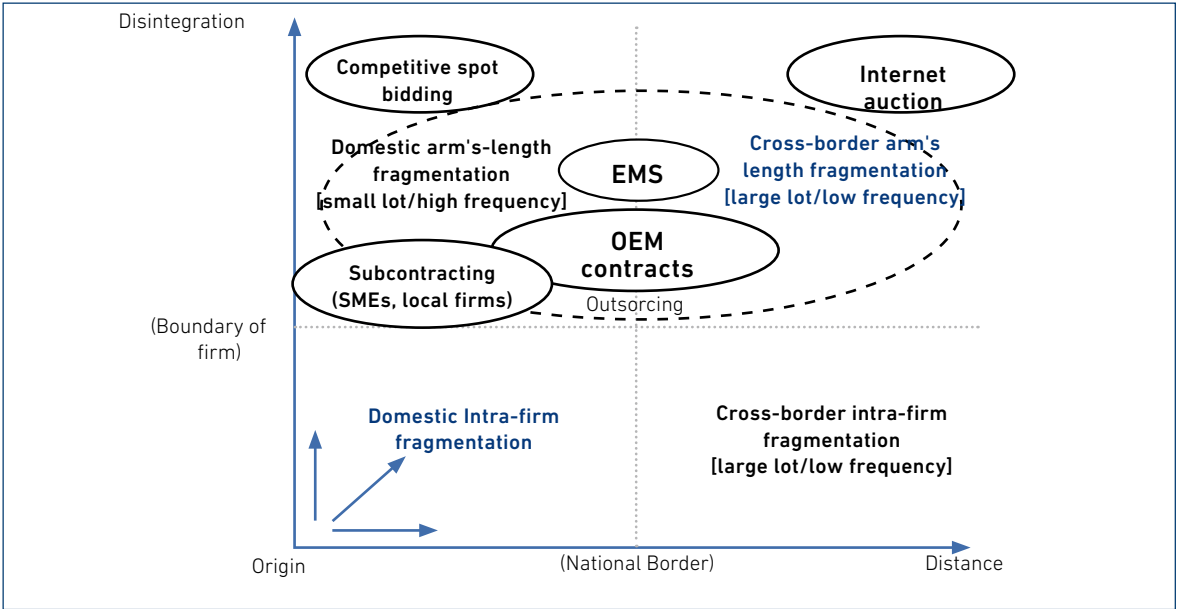
Figure 10.2. Fragmentation Theory



Source: Authors.

The theory of two-dimensional fragmentation (Ando and Kimura, 2005) extends this framework by considering both geographical distance and organisational boundaries. As shown in Figure 10.3, fragmentation occurs along two axes: geographical distance and the degree of firm disintegration. This theoretical framework reveals that transactions over short distances tend to be arm's-length, whilst long-distance transactions are predominantly intra-firm. This pattern has important implications for industrial agglomeration in developing countries, particularly for small and medium-sized enterprises (SMEs) engaging in IPNs.

Figure 10.3. Two-Dimensional Fragmentation and Industrial Agglomeration



EMS = electronics manufacturing services, OEM = original equipment manufacturer, SMEs = small and medium-sized enterprises.

Source: Ando and Kimura (2005), modified by authors.

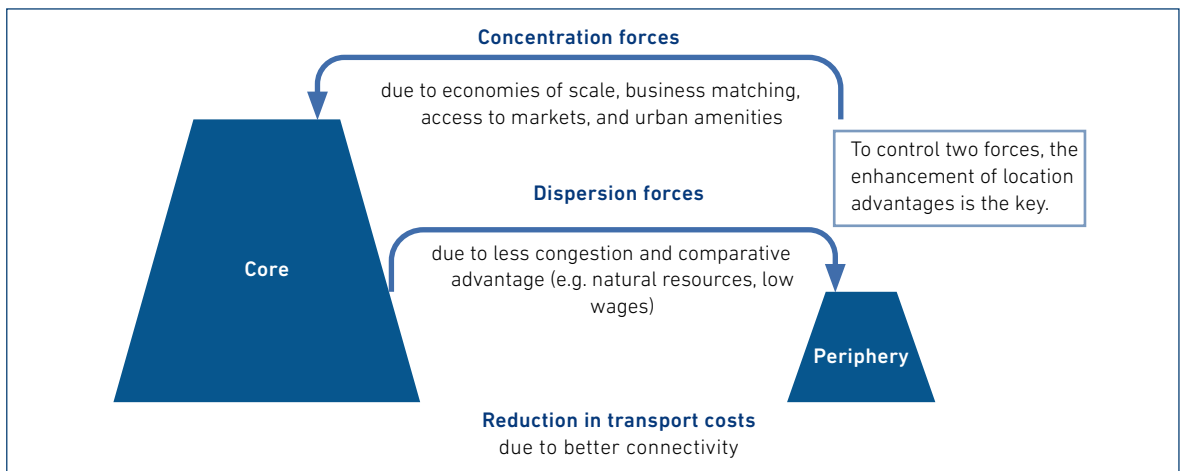
The two-dimensional nature of this framework provides crucial insights into the complexity of production network formation. In the geographical dimension, firms must balance the potential benefits of accessing different location advantages against increased transaction costs when production blocks cross national borders. These location advantages might include lower wages, access to specific skills or resources, or proximity to markets. However, the associated costs encompass not only physical transportation but also coordination challenges, regulatory compliance, and risks related to international operations. The disintegration dimension, meanwhile, involves decisions about maintaining activities within firm boundaries versus outsourcing to external parties. This choice often depends on factors such as transaction frequency, asset specificity, and the strategic importance of particular production processes.

The interaction between these two dimensions creates distinct patterns in production networks. For instance, when both geographical and organisational distances are short, transactions often involve local suppliers and customers in industrial agglomerations, characterised by frequent, small-lot deliveries and intense information exchange. These relationships are particularly important for SMEs and local firms in developing countries, as they provide entry points into broader production networks. Conversely, long-distance, cross-border transactions tend to be internalised within multinational corporations, especially when they involve core technologies or critical components. This reflects the higher coordination costs and risks associated with arm's-length transactions over greater distances.

2.2. Spatial Economics and Development Strategy

The new economic geography framework (Fujita, Krugman, and Venables, 1999; Baldwin et al., 2003) provides additional insights into the spatial dynamics of economic development. As illustrated in Figure 10.4, when transport costs between core and periphery regions decrease, both concentration and dispersion forces come into play. Whilst traditional theory suggests that reduced transport costs lead to the concentration of economic activities in the core, the presence of wage differentials and resource endowments in developing countries can strengthen dispersion forces, potentially attracting production blocks from developed nations.

Figure 10.4. The Core–Periphery Structure and Reduction in Transport Costs



Source: Authors.

The interplay between concentration and dispersion forces creates complex dynamics in regional development, particularly in the context of emerging economies. Concentration forces emerge from economies of scale, enhanced business matching opportunities, better market access, and urban amenities. These forces tend to reinforce the advantages of established economic centres, making it challenging for peripheral regions to compete. However, dispersion forces, driven by factors such as lower wages, reduced congestion, and access to natural resources, can create opportunities for peripheral regions to attract certain production activities.

The framework's application to development strategy is particularly relevant in the context of regional economic corridors and special economic zones. For instance, in the Mekong Subregion, the relationship between the Bangkok Metropolitan Area as a core and Cambodia's rural areas as a periphery presents specific policy challenges. The development of Phnom Penh as an intermediate city raises questions about optimal strategies for attracting both production blocks and labour. This involves careful consideration of infrastructure development, institutional quality, and human capital development to enhance location advantages whilst managing the potentially disruptive effects of rapid urbanisation.

The management of spatial economic development also requires consideration of different development models. One approach focuses on creating strong urban centres that can serve as growth poles, leveraging concentration forces to build competitive advantages in specific industries or services. This model recognises that some degree of geographic concentration may be necessary to achieve the scale economies and agglomeration benefits that make a location attractive for IPNs. Alternative approaches emphasise distributed development, attempting to spread economic activities more evenly across regions through targeted infrastructure investment and policy incentives.

These theoretical insights have practical implications for regional development policies. Policymakers must consider the optimal balance between promoting urban agglomeration and supporting rural development. This involves decisions about infrastructure investment, education and training programmes, and industrial policy. For example, the development of transport corridors can either reinforce concentration in existing centres or create opportunities for new economic nodes, depending on complementary policies and institutions. The success of such initiatives often depends on the ability to create self-reinforcing cycles of investment and development whilst managing negative externalities such as congestion and environmental degradation.

Furthermore, the framework helps inform strategies for achieving inclusive growth across different geographical scales. At the national level, it raises questions about the optimal distribution of economic activities between primary and secondary cities. At the regional level, it informs policies for cross-border economic cooperation and the development of regional production networks. And at the local level, it guides decisions about urban planning and the provision of public services to support industrial development.

The new economic geography framework also highlights the importance of sequential development strategies. Initial investments in infrastructure and institutions may need to focus on creating a few strong economic centres capable of competing in international markets. Once these centres are established, policy attention can shift to developing connections between core and peripheral regions, allowing benefits to spread more widely. This approach recognises that attempting to develop all regions simultaneously may dilute resources and prevent any location from achieving the critical mass necessary for sustained growth.

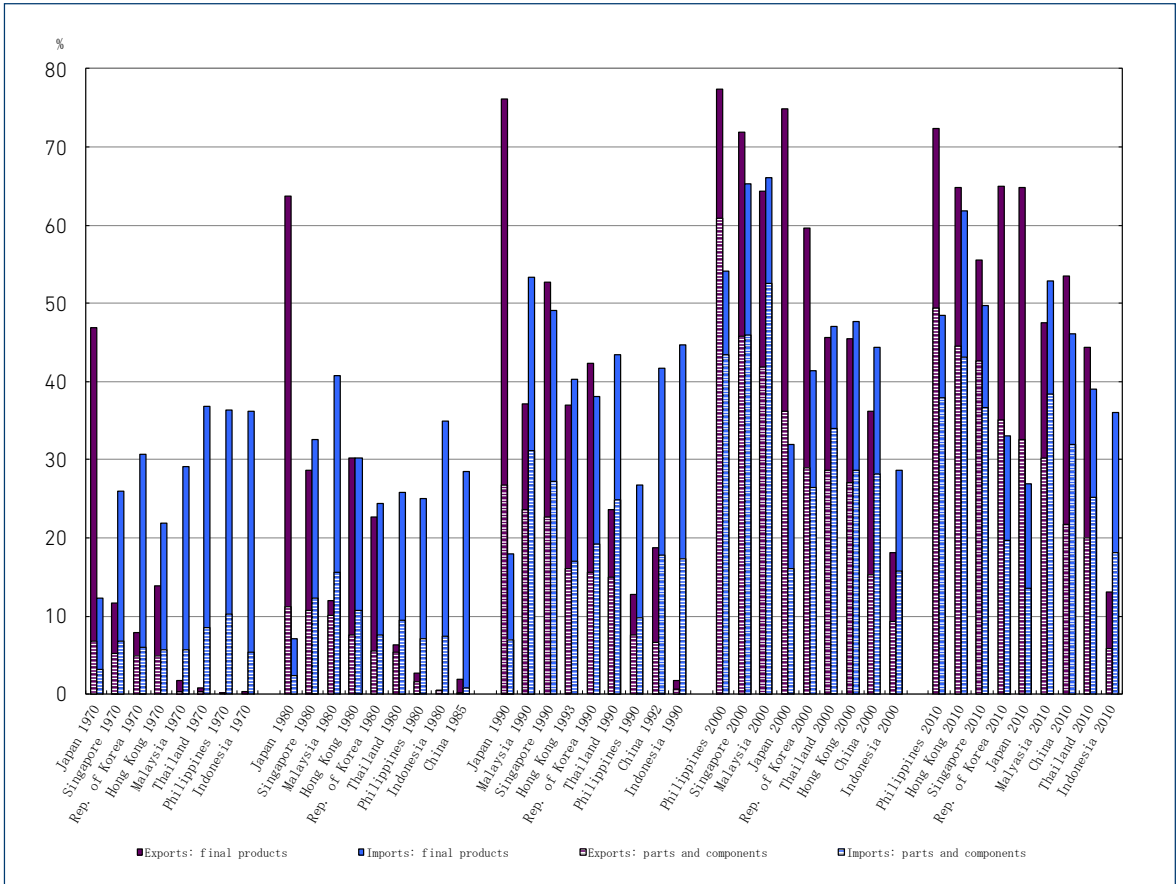
3. IPNs in East Asia: Empirical Evidence and Development Implications

The emergence and evolution of IPNs in East Asia, particularly since the 1990s, represents a significant transformation in global economic organisation. Whilst the first unbundling was relatively straightforward to observe through traditional statistical measures, the second unbundling's complex task-wise division of labour poses unique challenges for empirical assessment. This complexity, combined with East Asia's pioneering role in evolving from simple cross-border production sharing to sophisticated production networks, initially resulted in limited recognition of its importance in global economic literature.

3.1. Widening and Deepening of Production Networks

The machinery industry has emerged as the quantitative cornerstone of second unbundling operations. As shown in Figure 10.5, the transformation of trade patterns in East Asian economies from 1970 to 2010 reveals a striking shift in the composition of machinery trade. Whilst machinery trade in 1980 was dominated by final products, consistent with first unbundling patterns, by 1990, numerous countries had begun engaging in both exports and imports of machinery parts and components, signalling the emergence of the second unbundling.

Figure 10.5. Shares of Machinery Final Products and Parts in the Total Exports/Imports of East Asian Economics, 1970–2010



Notes: Data for 1970 and 1980 are based on the Standard International Trade Classification (SITC), whilst those for 1990, 2000, and 2010 use the Harmonised System (HS) classification. The detailed commodity codes are available upon request.

Sources: Authors based on UN Comtrade and World Atlas.

The geographic scope of second unbundling operations, particularly in machinery industries, remains limited to specific regions and countries. Notable participants include East Asian nations, Eastern European countries, and selected Latin American countries such as Mexico and Costa Rica. Research by Kimura, Takahashi, and Hayakawa (2007) highlighted distinctions between East Asian and European production networks through gravity equation analysis, examining differences in location advantages and service link costs. Further studies by Ando and Kimura (2012, 2014) revealed important interregional linkages, with East Asia becoming a crucial source for electrical parts and components for both Eastern Europe and Mexico.

3.2. Local Firm Capability Development and Network Integration

The success of countries in leveraging IPNs for development depends on multiple policy factors, as outlined in Table 10.1. These include measures to reduce network set-up costs, service link costs, and production costs. The policy framework must address both geographical distance considerations and organisational disintegration challenges, particularly for developing countries aiming to establish industrial agglomerations and integrate local firms into production networks.

Table 10.1. Required Policies for International Production Networks

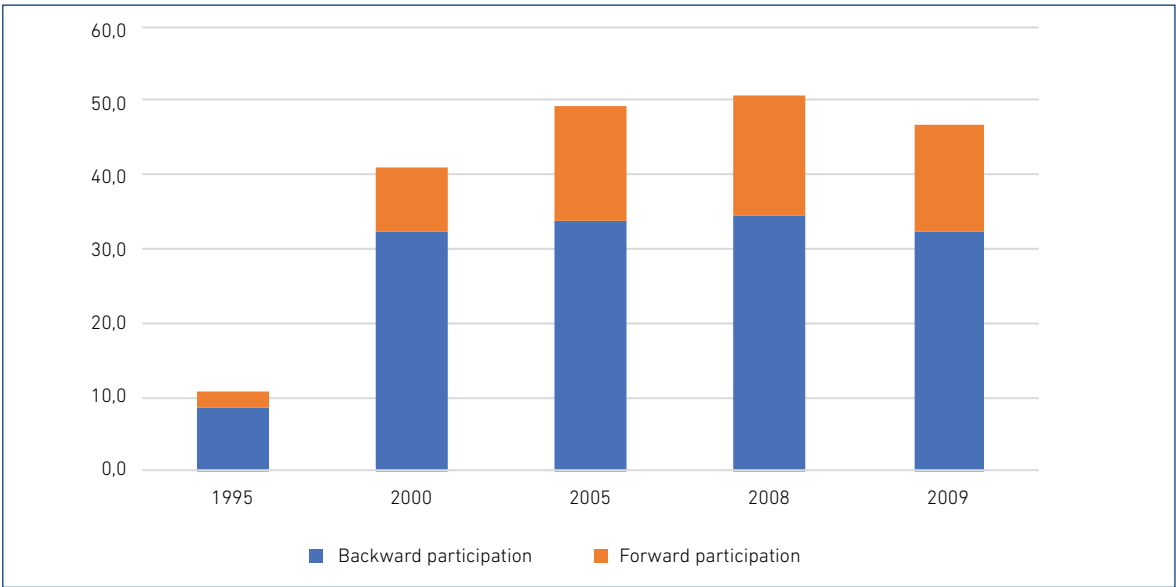
Item	Reduction in network set-up costs	Reduction in service link costs	Reduction in production costs <i>per se</i>
Fragmentation in the dimension of geographical distance	Investment facilitation/promotion	Uninstitutional connectivity (trade liberalisation/facilitation and others)	Liberalisation and competitiveness enhancement in production support services
		Physical connectivity (hard infrastructure, logistics, and others)	Investment liberalisation
Fragmentation in the dimension of disintegration	Business matching between multinationals and local firms	Reduction in transaction costs in economic activities	Provision of infrastructure service such as electricity, industrial estates, and others
			Generation of positive agglomeration effects by promoting SMEs and providing infrastructure in metropolitan areas
			Enhancement of innovation capability

SMEs = small and medium-sized enterprises.

Source: Authors.

The experience of specific countries provides valuable insights into network integration strategies. For instance, the Philippines' electronics sector, as analysed by Aldaba (2017), demonstrates increasing participation in GVCs. As illustrated in Figure 10.6, the country's backward GVC participation grew substantially, with the foreign input share in electronic exports rising from 8.5% in 1995 to 34.4% in 2008. Similarly, forward GVC participation showed significant growth, with domestically produced inputs used in exports increasing from 2.2% to 16.2% over the same period.

Figure 10.6. GVC Participation Index (Share of Foreign and Domestic Input in Gross Exports) of the Philippines' Electronics Industry, 1995–2009 (%)



GVC = global value chain.

Source: Organisation for Economic Co-operation and Development (2013), OECD Global Value Indicators, May 2013, adopted from Aldaba (2017: 120).

http://stats.oecd.org/Index.aspx?DataSetCode=GVC_INDICATORS (accessed 9 November 2020).

The enhancement of local firm capabilities through interaction with multinational enterprises represents a crucial aspect of successful network participation. Technology spillovers occur through multiple channels, including demonstration effects, worker mobility, export activities, competitive pressures, and inter-firm linkages. Evidence from various East Asian countries demonstrates that whilst such spillovers are not automatic, they can be significant under appropriate conditions.

Research on Indonesian manufacturing by Blomström and Sjöholm (1999) and subsequent studies have revealed important insights about the nature of these spillovers. The effectiveness of technology transfer appears to be influenced by factors such as foreign ownership structure, foreign direct investment (FDI) characteristics, and export orientation. Studies by Banga (2003) and others have highlighted how the source country of FDI can affect spillover patterns, with Japanese FDI, for instance, generating different spillover effects compared with investment from the United States (US) due to variations in technology standardisation.

The role of vertical linkages in facilitating technology transfer has been particularly significant. Blalock and Gertler (2008) documented productivity gains amongst Indonesian firms supplying intermediate inputs to multinational enterprises, whilst studies by Xu and Sheng (2012) and Takii and Narjoko (2012) found positive spillovers through forward linkages in Chinese and Indonesian manufacturing, respectively. Recent research projects by the Economic Research Institute for ASEAN and East Asia (ERIA) have provided detailed insights into the mechanisms of knowledge transfer, highlighting the importance of direct engineer-level engagement and frequent face-to-face communication in facilitating innovation and capability development amongst local firms.

These findings underscore the complex interplay between foreign investment, local capability development, and successful participation in IPNs. The experience of East Asian countries demonstrates that whilst the opportunities presented by production networks are significant, realising their potential requires careful attention to policy frameworks, institutional development, and the nurturing of local firm capabilities.

3.3. Robustness and Resilience of Production Networks

A notable characteristic of East Asian production networks is their demonstrated robustness and resilience in the face of economic shocks. Whilst these networks can serve as transmission channels for negative shocks, such as the 2007/2008 global financial crisis or the 2011 Great East Japan Earthquake, research indicates that machinery parts and components trade in East Asia exhibits remarkable stability and recovery capacity. Studies by Obashi (2011) on the 1997 Asian financial crisis; Ando and Kimura (2012) on the global financial crisis and Great East Japan Earthquake; and Okubo, Kimura, and Teshima (2014) on the global financial crisis consistently demonstrated this resilience. The stability is attributed to the relation-specific nature of transactions within production networks, which involve substantial investment and encourage firms to maintain relationships during temporary disruptions.

4. Digital Technology Wave and the Third Unbundling: Implications for GVCs

The mid-2010s marked a significant technological breakthrough with the emergence of digital technology and what has become known as the 'third unbundling'. Whilst previous waves of globalisation benefited from ICT, the third unbundling represents a qualitative leap forward, primarily through its ability to reduce face-to-face transaction costs and create viable alternatives to in-person meetings.

4.1. Virtual Presence Revolution and New Business Models

The cornerstone of the third unbundling is the 'virtual presence revolution', enabled by advanced video and audio systems that facilitate remote operations across national boundaries. This technological advancement has created unprecedented possibilities, such as enabling engineers in one country to repair equipment in another through sophisticated robotics systems. The implications of this development are far-reaching, as it allows workers to provide services internationally, including those that traditionally required physical presence.

The reduction in face-to-face costs has catalysed the emergence of novel business models, particularly in the form of e-commerce. Defined as the process of purchasing, selling, transferring, or exchanging goods, services, or information via the internet, e-commerce has transformed traditional market concepts into virtual marketplaces. These digital platforms operate through various interaction types, with business-to-business (B2B) platforms like Alibaba facilitating transactions between businesses, whilst business-to-consumer (B2C) platforms such as AliExpress enable retail trade. Consumer-to-consumer (C2C) marketplaces, exemplified by Amazon, eBay, and Tokopedia, have created spaces where individuals can seamlessly transition between roles as buyers and sellers.

The evolution of e-commerce has given rise to diverse platform architectures, with businesses choosing between website-based and application-based interfaces, or often utilising both to maximise accessibility. Service providers like Gojek and Grab typically opt for app-based platforms to ensure easy customer access, particularly when the mobile nature of their business demands immediate connectivity and responsiveness.

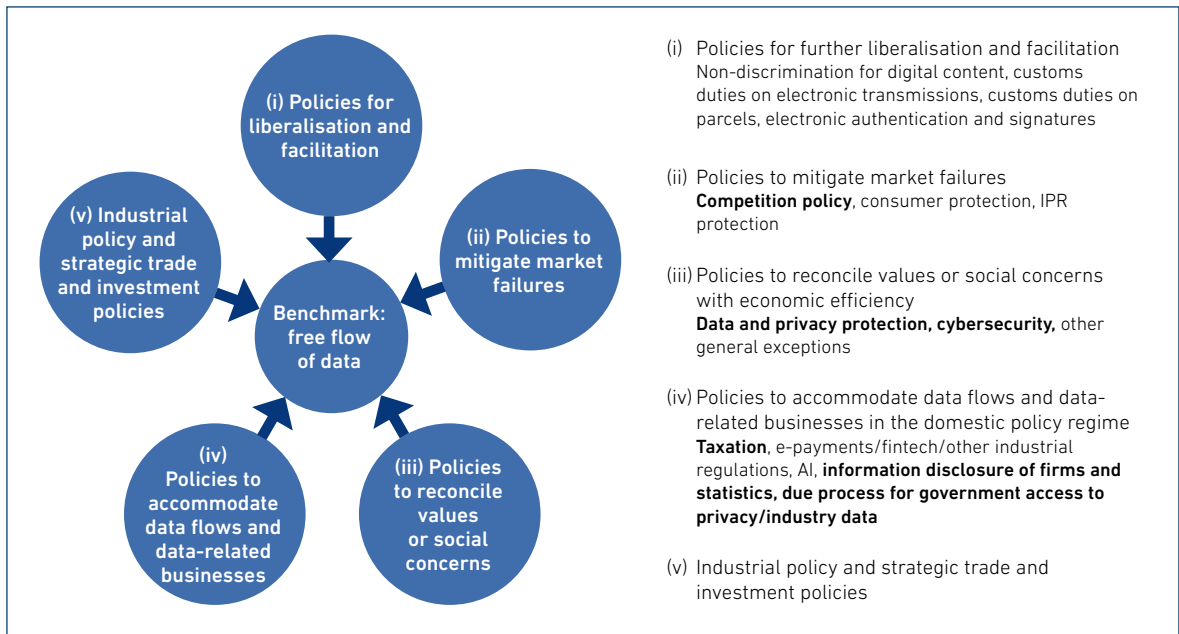
The e-commerce landscape has evolved into distinct market structures that serve different purposes within the digital economy. Portals such as Google and Yahoo focus on building consumer information communities, serving as gateways that funnel customer attention to targeted websites. Market makers, exemplified by eBay, take this concept further by actively facilitating business transactions between buyers and suppliers. Product or service providers like Amazon engage directly with customers, offering customised solutions whilst often incorporating their own financial technology solutions, such as proprietary payment systems and credit services.

The third unbundling has transformed the services sector, particularly in business services, creating new opportunities for global participation. The sector encompasses information technology (IT) outsourcing, which includes infrastructure, software, IT consulting, and software research and development (R&D); business process outsourcing, covering enterprise resource management, human resources management, and customer relationship management; and knowledge process outsourcing, which extends to business consulting and analytics, market intelligence, and legal services.

This framework has enabled developing countries to participate in GVCs through services for the first time. The success of this model is particularly evident in countries like India and the Philippines, which have emerged as leading destinations for offshore services. As of 2023, these industries contributed significantly to their respective economies, accounting for 8.1% of India's gross domestic product (GDP) and 5.4% of the Philippines' GDP, demonstrating the transformative potential of digital service integration in developing economies.

The implementation of digital technology and the third unbundling requires a comprehensive policy framework to support its development and manage its impacts. As illustrated in Figure 10.7, successful integration of digital technologies demands a multifaceted approach to policy development. This includes policies for liberalisation and facilitation, measures to mitigate market failures, frameworks to reconcile values and social concerns, mechanisms to accommodate data flows and data-related businesses, and strategic considerations for industrial and trade policy. These policy elements work together to create an environment that promotes innovation whilst addressing potential challenges and concerns.

Figure 10.7. Policies for the Flow of Data and Data-Related Business



AI = artificial intelligence, IPR = intellectual property rights.

Source: Authors.

The rapid evolution of digital technology and the emergence of the third unbundling present a compelling case for ASEAN and East Asia to pivot from their traditional focus on incremental innovation to more disruptive approaches, at least in the short term. Whilst the region has excelled at incremental improvements within IPNs and GVCs, particularly in manufacturing, the current technological revolution demands bolder innovation strategies. As discussed in Kimura and Narjoko (2021), really good ICT enables the third unbundling, and the emergence of new business models suggests that the traditional step-by-step advancement may not be sufficient to capitalise on emerging opportunities. This is particularly evident in the services sector, where the reduction in face-to-face costs and the proliferation of digital platforms are creating entirely new markets and business possibilities.

The COVID-19 pandemic accelerated this need for disruptive innovation by forcing rapid digital transformation across the region. The pandemic accelerated the application of communications technology, and the reduction in face-to-face costs may soon make the third unbundling one of the major forms of the international division of labour in ASEAN and East Asia (Kimura and Narjoko, 2021).

4.2. Urban Implications and The Role of Amenities

The COVID-19 pandemic has accelerated the adoption of digital technologies, particularly in terms of teleworking and service digitisation. However, this shift towards remote work and virtual interaction has not eliminated the importance of physical location. Instead, the third unbundling is creating a nuanced pattern of both concentration and dispersion, similar to the dynamics observed during the second unbundling.

In this evolving landscape, cities face new competitive pressures in attracting skilled workers through urban amenities. Drawing from seminal research by Glaeser, Kolko, and Saiz (2001), the attractiveness of urban centres increasingly depends on their ability to provide a rich variety of services and consumer goods, appealing aesthetics and physical settings, high-quality public services, and efficient transportation systems. These elements become particularly crucial as technological progress enhances workforce mobility, especially for educated and innovative individuals who face fewer border restrictions than unskilled labour.

The quality of urban amenities plays a decisive role in determining a city's ability to attract and retain human capital in the era of digital transformation. Cities must now focus on creating environments that support both professional success and personal fulfilment, recognising that the mobile, skilled workforce of the digital age bases location decisions not solely on employment opportunities, but on the overall quality of life a city can offer.

5. Challenges for the AEC Post 2025

Building upon the evolution of IPNs through successive waves of unbundling, ASEAN economies now face unprecedented challenges as they look beyond 2025. Whilst the second unbundling enabled the fragmentation of production processes and the third unbundling facilitated virtual presence and service trade, the emerging economic landscape presents complex new dimensions of transformation. These challenges manifest primarily through two interconnected vectors: the accelerating impact of digital technologies on production networks and trade patterns, and the emergence of geo-economic fragmentation that threatens established models of regional economic integration. Understanding these dual challenges requires careful analysis of both technological transformation dynamics and evolving patterns of international economic relations.

5.1. Implications of Digitalisation for International Trade, Investment, and Connectivity

Modified international division of labour

The digital transformation of IPNs presents a fundamental restructuring challenge for ASEAN economies. Drawing from the analytical framework of Obashi and Kimura (2021), this transformation manifests through a dual impact mechanism: IT generates concentration forces through automation and robotics, whilst communications technology creates dispersion forces by enabling remote coordination and virtual presence capabilities. This duality is particularly significant for East Asian production networks, which have historically demonstrated remarkable adaptability to technological change.

The empirical evidence suggests a nuanced restructuring pattern in production networks. The East Asian experience provides compelling evidence of how production networks can be successfully maintained and expanded in the digital era, with newly developed economies retaining and expanding production blocks through strategic approaches (Obashi and Kimura, 2021). The relationship between automation and human resources has proven particularly crucial in sectors where human-machine complementarity is high, such as electronics and precision machinery.

Regional production dynamics have evolved significantly under these influences. The integration of digital services with manufacturing processes has proven crucial to regional success, supported by balanced technology adoption approaches and strong service link connectivity (Obashi and Kimura, 2021). These developments align with the framework of unbundling of Baldwin (2016), where technological advances progressively overcome geographical constraints in international production.

Critical role of services and services liberalisation

The analysis reveals an increasingly critical role for services in digital-era production networks. For example, according to Meltzer (2014), about two-thirds of imported digital services now support export production in the case of European Union countries, indicating their crucial role in modern manufacturing processes. This transformation represents a fundamental shift in international production organisation, with modern production networks increasingly relying on sophisticated digital service capabilities.

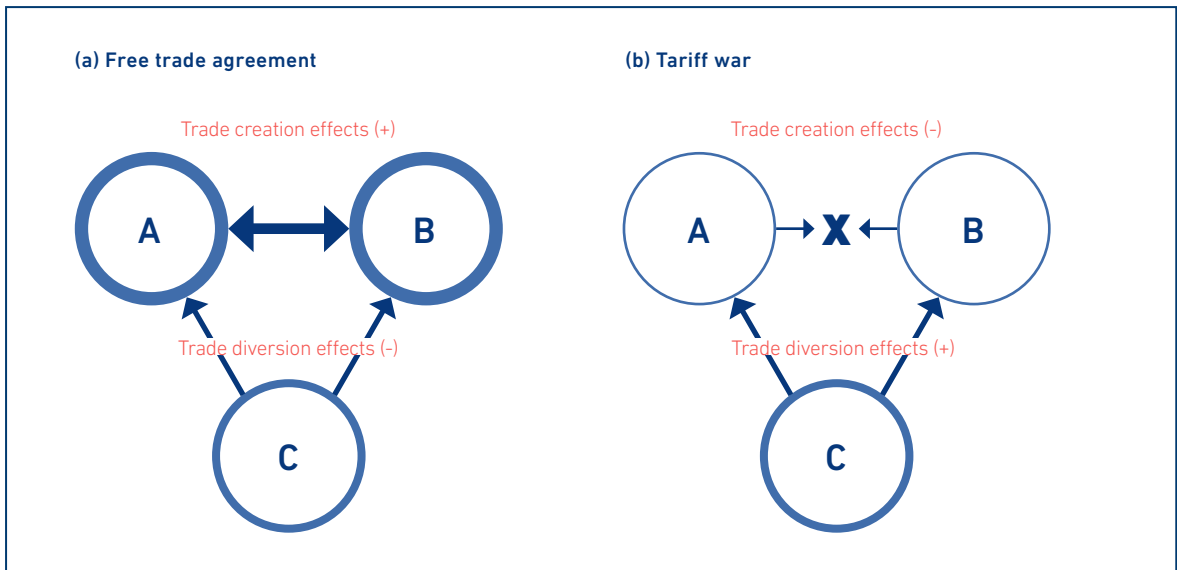
The requirements for services liberalisation have become more complex and multifaceted. As highlighted in recent analysis by Aiyar et al. (2023), the growing regulatory divergence in digital governance and data flows threatens to complicate regional digital integration ambitions. A study by Cerdeiro et al. (2021) indicated that technological decoupling could amplify economic losses significantly, with some estimates suggesting output reductions of 8%–12% in severely affected economies.

5.2. More Challenging Global Environment

Global trade fragmentation

The emergence of geoeconomic fragmentation presents significant challenges to ASEAN's economic integration objectives. A recent empirical analysis by Bolhuis, Chen, and Kett (2023) suggested that the impact of trade fragmentation could result in GDP losses ranging from 0.2% in limited scenarios to potentially 7% under more severe fragmentation conditions. San Andres, Vasquez, and Chen (2024) noted that Southeast Asian economies face amplified risks due to their high trade intensity and relatively thin economic buffers to absorb external shocks.

It is important to point out, however, that there could be some positive effects as a result of global trade fragmentation. This is shown in Figure 10.8, which presents the framework that demonstrates how free trade agreements and tariff wars affect third countries in international trade. In a free trade agreement scenario, countries A and B experience positive trade creation effects through their bilateral connection, whilst country C faces negative trade diversion effects (Figure 8a). Conversely, in a tariff war scenario (Figure 8b), whilst trade creation effects between countries A and B become negative, country C benefits from positive trade diversion effects. This framework shows that tariff wars, whilst functioning as a 'negative' free trade agreement, can generate positive trade diversion effects for third countries that extend beyond trade to include FDI flows.

Figure 10.8. Free Trade Agreement and Tariff Wars – Economic Effects on Third Countries

Source: Kimura (2024).

Emerging empirical evidence from recent studies has illuminated the significant redistributive effects of US–China trade tensions on global trade patterns, particularly highlighting substantial trade diversion benefits accruing to third countries. In a pioneering analysis, Nicita (2019) utilised United Nations Trade and Development (UNCTAD) data to demonstrate that about \$21 billion of the affected \$130 billion US–China bilateral trade was redirected to third countries during 2018–2019. This trade diversion notably benefited Taiwan, Mexico, and the European Union, establishing an initial understanding of the spatial redistribution of global trade flows. Building on these findings, Fajgelbaum et al. (2024) provided further empirical evidence of the lasting structural changes in global supply chains, emphasising Viet Nam’s emergence as a primary beneficiary of manufacturing activity previously concentrated in China. Supporting these empirical observations, Kumagai et al. (2023) employed sophisticated Geographical Simulation Model analysis to demonstrate that even sharp East–West decoupling scenarios could generate positive trade diversion effects for neutral countries, particularly ASEAN Member States.

The sectoral analysis across these studies reveals nuanced patterns of trade redistribution contingent upon countries’ existing industrial capabilities and institutional frameworks. Taiwan demonstrated particular strength in electronics and machinery sectors, whilst Mexico capitalised on its geographical proximity and North American Free Trade Agreement (NAFTA)/US–Mexico–Canada Agreement (USMCA) advantages in automotive and agricultural trade. Notably, both Nicita (2019) and Fajgelbaum et al. (2024) identified Viet Nam’s significant gains in labour-intensive manufacturing, particularly in textiles and furniture, suggesting a broader pattern of industrial transformation in Southeast Asia. Fajgelbaum et al. (2024) further documented substantial spillover effects benefiting Malaysia and Thailand, especially in the electronics and consumer goods sectors.

Findings from these studies suggest both opportunities and challenges for ASEAN Member States in the context of US–China trade tensions. That is, whilst there are significant potential benefits through trade diversion effects, as demonstrated by Viet Nam’s success in capturing relocated manufacturing activities, countries’ ability to capitalise on these opportunities depends heavily on their existing industrial capabilities, infrastructure, and institutional frameworks. This presents a key challenge for ASEAN as a whole to enhance its members’ readiness to absorb relocated production whilst ensuring that the benefits of trade diversion are distributed in a way that supports broader regional economic integration rather than exacerbating development gaps between Member States.

The weakening rules-based trading regime and ASEAN’s strategic response

The global trading system is experiencing significant challenges, particularly in maintaining its rules-based structure. This situation presents both challenges and opportunities, especially for ASEAN and other middle powers. Pressures on rule-based integration have intensified substantially. Clayton, Maggiori, and Schreger (2023) documented how growing tensions between major trading partners increasingly challenge ASEAN centrality in the regional economic architecture. The International Monetary Fund (2023) highlighted how the proliferation of national security justifications for trade measures, combined with the rising complexity of managing multiple trade agreement frameworks, creates new obstacles for regional policy coordination.

The institutional adaptation required extends beyond traditional trade and investment frameworks. The World Trade Organization (WTO, 2023) indicated that ASEAN needs to strengthen its capacity for coordinated policy responses to strategic economic measures whilst enhancing regional mechanisms for dispute resolution. This aligns with the emphasis of Jakubik and Ruta (2023) on the importance of enhancing intra-ASEAN trade and investment linkages and developing coordinated approaches to supply chain resilience.

At the heart of these challenges lies a concerning trend where recent trade and industrial policies introduced by Group of Seven (G7) nations often appear to conflict with their WTO commitments and conventional trade norms. This pattern has not remained confined to developed economies but has spread to Global South countries, which are increasingly implementing policies that may violate established trade norms. The situation has been exacerbated by the ongoing crisis with the WTO Appellate Body, where the US blockage of member appointments has effectively halted its operations. By the end of 2023, 24 cases had become appeals ‘into the void’, including significant disputes like India’s tariffs on ICT products and Indonesia’s nickel export ban.

Despite these systemic challenges, ASEAN maintains a strong commitment to IPNs. Research, particularly through gravity equation analysis, demonstrates the crucial importance of machinery IPNs in ASEAN (e.g. Ando, Kimura, and Yamanouchi, 2022). These networks maintain robust connections between East Asia and Europe/the Americas, especially in general and electric machinery exports (see Ando, Hayakawa, and Kimura, 2024; and Ando, Kimura, and Yamanouchi, 2024). Whilst ASEAN and East Asia have historically benefited from the rules-based trading regime without taking a leading role in its maintenance, there is now a growing recognition that they must become more proactive in defending it.

The diminishing support for the WTO in the US has created a vacuum that middle powers, including ASEAN, must fill by taking more initiative in reaffirming the organisation's value. This involves addressing critical areas such as the dispute settlement mechanism and strengthening the WTO's role as a rule maker. The Multi-Party Interim Appeal Arbitration Arrangement (MPIA) has emerged as a crucial initiative, with several East Asian members including Japan, China, Hong Kong, Macao, the Philippines, Singapore, Australia, and New Zealand already participating. Additionally, cooperation in Joint Statement Initiatives, particularly in e-commerce, has gained momentum with 91 WTO members participating.

ASEAN can strengthen its position through various regional initiatives, with the Regional Comprehensive Economic Partnership (RCEP) playing a central role in supporting the rules-based trading regime and reducing policy uncertainties for the private sector. The organisation's engagement with other international bodies, such as Indonesia's interest in the Organisation for Economic Co-operation and Development (OECD) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), demonstrates a commitment to broader international cooperation and development.

6. Policy Implications

The evolution of IPNs through successive waves of unbundling, combined with emerging challenges in the digital era and geo-economic landscape, necessitates a carefully calibrated policy response from AEC stakeholders. The analysis presented in this paper yields several critical policy implications that warrant careful consideration.

A fundamental priority for AEC policymakers must be the continued nurturing and enhancement of regional production networks. This requires sustained attention to service link enhancement through strategic infrastructure investment and regulatory harmonisation. The empirical evidence suggests that successful IPN participation increasingly depends on sophisticated digital infrastructure and seamless cross-border data flows. Furthermore, the integration of local firms, particularly SMEs, into these networks demands targeted support mechanisms and structured programmes for technology transfer between multinational enterprises and domestic firms.

The complex interplay between digital transformation imperatives and emerging geo-economic challenges requires a nuanced policy approach. Regional digital architecture development must progress in parallel with measures to enhance geo-economic resilience. This includes establishing coordinated regulatory frameworks for digital trade whilst simultaneously developing mechanisms to mitigate concentration risks in regional value chains. The evidence from East Asian economies demonstrates that successful adaptation to digital transformation requires both technological capability development and strategic approaches to maintaining production block advantages.

Institutional adaptation emerges as a critical success factor in navigating the evolving economic landscape. The research findings highlight the need for enhanced regional policy coordination mechanisms, particularly in areas of digital economy governance and strategic economic measures.

This institutional strengthening must extend beyond traditional trade and investment frameworks to encompass new areas of digital regulation and data governance. The experience of advanced regional economies suggests that early investment in regulatory expertise and technical capabilities yields significant long-term benefits in managing complex trade relationships and technological change.

With respect to strengthening the rule-based trading regime, several complex issues require careful consideration and resolution. China's integration into the rules-based trading system remains a critical challenge, encompassing issues such as state-owned enterprises, digital governance, and the interpretation of national security exceptions in trade rules. The balance between subsidies and production issues also requires new approaches and potentially new trade rules.

ASEAN's strategic role in this evolving landscape is becoming increasingly important. By maintaining a neutral stance, the organisation can benefit both regional and global interests. This position allows ASEAN to capitalise on positive trade diversion whilst simultaneously deepening its involvement in high-tech value chains. Collaboration with other pro-trade middle powers has become essential in reducing policy risks and maintaining the rules-based trading regime.

The path forward requires ASEAN to take a more proactive stance in international trade governance whilst maintaining its strategic neutrality. This balanced approach can serve both regional interests and the broader global trading system, helping to stabilise and strengthen international trade relations during a period of significant change and challenge. Through these efforts, ASEAN can help ensure the continuation of a rules-based trading system that benefits all participants whilst adapting to the evolving needs of the global economy.

Urban development policy requires particular attention in the context of digital transformation. The analysis reveals that cities' ability to attract and retain skilled labour increasingly depends on the quality of urban amenities and smart infrastructure. Policy frameworks must balance the concentration forces generated by digital agglomeration with the dispersion opportunities created by remote work capabilities. This balance is crucial for maintaining dynamic and inclusive urban economies that can support innovation whilst managing congestion and environmental impacts.

Innovation ecosystem development represents another crucial policy priority. The research indicates that successful adaptation to digital transformation requires robust regional innovation networks and effective knowledge transfer mechanisms. Policy frameworks should support the development of regional innovation hubs whilst facilitating cross-border research collaboration and academic-industrial partnerships. This approach aligns with the observed patterns of successful technology adoption and capability development in leading East Asian economies.

In the meantime, the accelerated digitalisation – especially as a by-product of the COVID-19 pandemic, which is entangled with the third unbundling – suggests that rather than focusing on gradual improvements to existing processes and products, companies and policymakers should prioritise breakthrough innovations that can fundamentally reshape how business is conducted. This is particularly true in areas such as digital services, e-commerce, and cross-border service provision. This shift would position the region to better compete in the emerging digital economy whilst maintaining its strengths in traditional manufacturing networks.

Finally, building economic resilience must become a core policy focus. The analysis of production network responses to various shocks demonstrates the importance of developing robust early warning systems and regional coordination mechanisms for crisis response. Policy frameworks should encourage the development of redundant supply chain capabilities whilst maintaining the efficiency benefits of specialisation and scale. This balanced approach to resilience building appears particularly crucial given the increasing frequency of both technological and geo-economic disruptions.

These policy implications suggest that successful navigation of the emerging economic landscape will require sustained commitment from AEC member states and careful attention to the sequencing of reforms. The evidence indicates that prioritising fundamental enabling conditions whilst building capacity for more complex interventions over time offers the most promising path forward. This measured yet comprehensive approach will help ensure that ASEAN can maintain its competitive position in GVCs whilst adapting to emerging technological and geoeconomic challenges.

References

- Aiyar, S. et al. (2023), 'Geeconomic Fragmentation and the Future of Multilateralism', *IMF Staff Discussion Note*, SDN/2023/001, Washington, DC: International Monetary Fund.
- Aldaba, R. (2017), 'The Philippines in the Electronics Global Value Chain: Upgrading Opportunities and Challenges', in L.Y. Ing and F. Kimura (eds.), *Production Networks in Southeast Asia*, Routledge–ERIA Studies in Development Economics, London: Routledge, pp.161–84.
- Ando, M. (2013), 'Development and Restructuring of Production/Distribution Networks in East Asia', *ERIA Discussion Paper Series*, No. 2013–33, Jakarta: Economic Research Institute for ASEAN and East Asia.
- Ando, M., K. Hayakawa, and F. Kimura (2024), "'Near-shoring" Has Not Necessarily Been the Case Yet: Machinery Production Links between East Asia and Europe', *mimeo*.
- Ando, M. and F. Kimura (2005), 'The Formation of International Production and Distribution Networks in East Asia', in T. Ito and A.K. Rose (eds.), *International Trade in East Asia, NBER–East Asia Seminar on Economics*, Volume 14, Chicago: University of Chicago Press, pp.177–216.
- (2012), 'How Did the Japanese Exports Respond to Two Crises in the International Production Networks? The Global Financial Crisis and the Great East Japan Earthquake', *Asian Economic Journal*, 26(3), pp.261–87.
- (2014), 'Evolution of Machinery Production Networks: Linkage of North America with East Asia', *Asian Economic Papers*, 13(3), pp.121–60.
- Ando, M., F. Kimura, and K. Yamanouchi (2022), 'East Asian Production Networks Go Beyond the Gravity Prediction', *Asian Economic Papers*, 21(2), pp.78–101.
- (2024), 'Factory Asia Meets Factory North America: How Far Does Latin America Get Involved in Machinery Production Networks?', *The Chinese Economy*, 57(4), pp.246–75.

- Baldwin, R. (2016), *The Great Convergence: Information Technology and the New Globalization*, Cambridge, MA: The Belknap Press of Harvard University Press.
- Baldwin, R., R. Forslid, P. Martin, G. Ottaviano, and F. Robert-Nicoud (2003), *Economic Geography and Public Policy*, Princeton, NJ: Princeton University Press.
- Blalock, G. and P.J. Gertler (2008), 'Welfare Gains from Foreign Direct Investment Through Technology Transfer to Local Suppliers', *Journal of International Economics*, 74(2), pp.402–21.
- Blomström, M. and F. Sjöholm (1999), 'Technology Transfer and Spillovers: Does Local Participation with Multinationals Matter?', *European Economic Review*, 43(4–6), pp.915–23.
- Banga, R. (2003), 'Do Productivity Spillovers from Japanese and US FDI Differ?', *mimeo*, Delhi School of Economics.
- Bolhuis, M.A., J. Chen, and B.R. Kett (2023), 'Fragmentation in Global Trade: Accounting for Commodities', *IMF Working Paper*, WP/23/73, Washington, DC: International Monetary Fund.
- Cerdeiro, D., J. Eugster, R.C. Mano, D. Muir, and S.J. Peiris (2021), 'Sizing Up the Effects of Technological Decoupling', *IMF Working Paper*, WP/21/69, Washington, DC: International Monetary Fund.
- Clayton, C., M. Maggiori, and J. Schreger (2023), 'A Framework for Geoeconomics', *NBER Working Paper Series*, No. 31852, Cambridge, MA: National Bureau of Economic Research.
- ERIA (2015), *The Comprehensive Asia Development Plan 2.0 (CADP 2.0): Infrastructure for Connectivity and Innovation*, Jakarta: Economic Research Institute for ASEAN and East Asia.
- Fajgelbaum, P., P. Goldberg, P. Kennedy, A. Khandelwal, and D. Taglioni (2024), 'The US–China Trade War and Global Reallocations', *American Economic Review: Insights*, 6(2), pp.295–312.
- Fujita, M., P. Krugman, and A.J. Venables (1999), *The Spatial Economy: Cities, Regions, and International Trade*, Cambridge, MA: MIT Press.
- Glaeser, E.L., J. Kolko, and A. Saiz (2001), 'Consumer City', *Journal of Economic Geography*, 1(1), pp.27–50.
- International Monetary Fund. (2023), *World Economic Outlook: Navigating Global Divergences*, Washington, DC: IMF.
- Jakubik, A. and M. Ruta (2023), 'Trading with Friends in Uncertain Times', *IMF Working Paper*, WP/23/124, Washington, DC: International Monetary Fund.
- Jones, R.W. and H. Kierzkowski (1990), 'The Role of Services in Production and International Trade: A Theoretical Framework', in R.W. Jones and A.O. Krueger (eds.), *The Political Economy of International Trade: Essays in Honor of Robert E. Baldwin*, Oxford: Basil Blackwell, pp.31–48.
- Kimura, F. and D. Narjoko (2021), 'Reorganisation of Production', in F. Kimura, M. Pangestu, S.M. Thangavelu, and C. Findlay (eds.), *Handbook on East Asian Economic Integration*, London: Edward Elgar, pp.366–89.
- Kimura, F. (2024), 'Effects of the US–China Confrontation on ASEAN:

- How to Retain the Rules-based Trading Regime', paper presented for the 19th East Asian Economic Association International Conference Globalisation and Resilience in Asia: Path to Innovation, Inclusiveness, and Sustainable Development Panel Session: Asia Amid an Uncertain Global Environment. Bangkok, November 1st.
- Kimura, F. and A. Obashi (2016), 'Production Networks in East Asia: What We Know So Far', in G. Wignaraja (ed.), *Production Networks and Enterprises in East Asia: Industry and Firm-Level Analysis*, Tokyo: Asian Development Bank Institute and Springer, pp.33–64.
- Kumagai, S., K. Hayakawa, T. Gokan, I. Isono, S. Keola, K. Tsubota, and H. Kubo (2023), 「デカップリング」が世界経済に与える影響' ('The Impact of "Decoupling" on the Global Economy: An Analysis by IDE-GSM'), IDE Square, IDE-JETRO (in Japanese).
- Kimura, F., Y. Takahashi, and K. Hayakawa (2007), 'Fragmentation and Parts and Components Trade: Comparison between East Asia and Europe', *North American Journal of Economics and Finance*, 18(1), pp.23–40.
- Meltzer, J.P. (2014), 'The Importance of the Internet and Transatlantic Data Flows for US and EU Trade and Investment', *Global Economy & Development Working Paper*, No. 79, Washington, DC: Brookings Institution.
- Nicita, A. (2019), 'Trade and Trade Diversion Effects of United States Tariffs on China', UNCTAD Research Paper, No. 37, Geneva: UN Trade and Development.
- Obashi, A. (2011), 'Resiliency of Production Networks in Asia: Evidence from the Asian Crisis', in S.J. Evenett, M. Mikic, and R. Ratnayake (eds.), *Trade-Led Growth: A Sound Strategy for Asia*, Bangkok: United Nations Economic and Social Commission for Asia and the Pacific, pp.29–52.
- Obashi, A. and F. Kimura (2017), 'Deepening and Widening of Production Networks in ASEAN', *Asian Economic Papers*, 16(1), pp.1–27.
- (2021), 'New Developments in International Production Networks: Impact of Digital Technologies', *Asian Economic Journal*, 35(2), pp.115–41.
- Okubo, T., F. Kimura, and N. Teshima (2014), 'Asian Fragmentation in the Global Financial Crisis', *International Review of Economics and Finance*, 31, pp.114–27.
- San Andres, E.A., G.N.A. Vasquez, and T. Chen (2024), 'Win, Lose or Draw: Estimating the Impact of Trade Disengagement on APEC Trade', *APEC Policy Support Unit Brief*, No. 60, Singapore: APEC Policy Support Unit.
- Takii, S. and D. Narjoko (2012), 'FDI Forward Linkage Effect and Local Input Procurement – Evidence from Indonesian Manufacturing', in C.H. Hahn and D. Narjoko (eds.), *Dynamics of Firm Selection Process in Globalized Economies*, ERIA Research Project Report 2011, No. 3, Jakarta: Economic Research Institute for ASEAN and East Asia, pp.111–46.
- WTO (2023), 'WTO End-Year Trade Monitoring Report', 23 November, Geneva: World Trade Organization.
- Xu, X. and Y. Sheng (2012), 'Are FDI Spillovers Regional? Firm-Level Evidence from China', *Journal of Asian Economics*, 23(3), pp.244–58.

11.

Trade Facilitation in ASEAN: Achievements and Challenges

Ben Shepherd

1. Introduction

Integration into the global trading economy is a key determinant of country growth and development prospects over the medium term. Feyrer (2019) used sophisticated techniques and data to show that a 1% increase in the value of a country's trade leads causally to an increase of around 0.5% in per capita income. Differences in predicted trade growth can explain around 17% of the variation in cross-country income growth between 1960 and 1995. At the same time, successive rounds of multilateral and preferential tariff reductions in the post-1945 period have seen tariffs fall to relatively low levels in historical terms in most parts of the world. So the main barriers to market access, both globally and regionally, are now non-tariff measures (NTMs) (Baldwin, 1970). With the rise of global and regional value chains (GVCs and RVCs) (Ando and Kimura, 2003; Baldwin, 2011), the desire of countries to successfully join geographically dispersed production platforms has become all the stronger, which means that dealing with NTMs is now at the top of the trade agenda for many countries.

ASEAN Member States (AMS) are no strangers to these developments. Participation in GVCs and RVCs is well developed in the region, and the ASEAN Economic Community (AEC) is committed to the vision of a single market for goods and services in the region. In addition to trade and market integration, the AEC specifically references trade facilitation – one set of policies that can reduce at least some NTMs. This feature of the AEC is in common with other integration initiatives in the broader region. For instance, Asia-Pacific Economic Cooperation (APEC) has long been committed to trade facilitation and has enjoyed notable though not uniform successes in that area, including where its membership overlaps with that of ASEAN (Shepherd, 2016). Empirical evidence suggests that trade facilitation is particularly important for GVC trade because movements of intermediate goods tend to be more sensitive to changes in trade costs than movements of final goods (Saslavsky and Shepherd, 2013).

The AEC Blueprint 2025 (ASEAN, 2015) highlighted trade facilitation as one way of promoting the objective of a single regional market.¹ It noted that AMS played a leading role in the conclusion of the World Trade Organization (WTO) Trade Facilitation Agreement (TFA), and its implementation remains a regional priority. In addition, AMS have committed to the aim of convergence in trade facilitation regimes amongst AMS, along with improvement to move closer to the global best practice frontier. In institutional terms, the ASEAN Trade Facilitation Joint Consultative Committee brings together public and private sector representatives to move forward on trade facilitation in the region.

Going into more detail, the AEC Blueprint 2025 identifies the following priorities for 2015–2025 in the area of trade facilitation:

1. Completing measures initiated under the AEC Blueprint 2015.
2. Fully rolling out National Single Windows in all AMS, and widening the scope of the ASEAN Single Window project to include more documents and stakeholders in all AMS.
3. Cooperating on the effective operationalisation of the national and ASEAN trade repositories.
4. Streamlining and simplifying administrative regulatory regimes, documentary requirements, and import/export procedures.
5. Deepening the implementation of ASEAN-wide initiatives, such as Authorised Economic Operators and Self-Certification.
6. Strengthening public–private sector cooperation, collaboration, and partnership in improving the foundations for efficient and effective trade facilitation in the region.
7. Minimising trade protection and compliance costs in dealing with NTMs.
8. Working towards facilitative standards and conformance.

As with many aspects of ASEAN integration, a key challenge for AMS in moving forward on trade facilitation lies in the heterogeneity of practices in the region. The twin aims of convergence and progress towards the global best practice frontier are important, but AMS are starting from radically different baselines – an important challenge to be addressed in the future. But at the same time, heterogeneity in baselines can also be a positive force, in the sense that it means there are significant opportunities for learning and diffusion of best practices within the region. Managing this process will be a key aspect of the future trade facilitation agenda for ASEAN.

Against this background, the objective of this chapter is to provide a consolidated overview of ASEAN's progress on trade facilitation to date, as well as identify areas that could benefit from increased attention in the future. The key date is 2025, when the existing AEC Blueprint comes to an end. Whilst not a formal evaluation of the last decade's trade facilitation work in ASEAN, an important objective for this chapter is to look at what has worked, where remaining implementation challenges lie, and to discuss emerging issues that will need to be incorporated in AEC work post-2025.

¹ In this chapter, 'trade facilitation' is taken to refer to goods trade. Whilst there is scope to apply trade facilitation concepts to trade in services, a detailed analysis of policies – one key element of this chapter – is currently impossible due to lack of data.

The chapter proceeds as follows. Section 2 provides background information on different conceptualisations of trade facilitation, with the aim of showing how they interact in ASEAN's approach. It then provides an overview of key data sources that can be used to track progress in terms of inputs (policy measures) and outputs (economic outcomes). The following section then uses those measures to track progress in ASEAN to date, highlighting areas of success as well as those where challenges remain. Section 4 then moves to a forward-looking perspective to discuss emerging issues on the trade facilitation agenda and how they are of relevance to AMS. Together, sections 3 and 4 provide a snapshot of ASEAN's trade facilitation baseline and challenges, with a view to deepening and broadening engagement post-2025. The final section concludes, and discusses policy implications for the region, again with the point of view of identifying areas for coordinated action in the context of deepening the AEC in the post-2025 time frame.

2. Conceptualising Trade Facilitation: Input and Output Measures

Historically, the term 'trade facilitation' has been used in two complementary but conceptually distinct ways. A modern approach to trade facilitation incorporates both approaches, which is advantageous because it allows for a dual focus on inputs (policy measures) and outputs (economic outcomes).²

On the one hand, broad sense trade facilitation envisages the concept as applying to the full set of policies that reduce trade costs, other than reductions in standard tariffs. Economists conceptualise trade costs as encompassing the full range of factors that drive a wedge between producer prices in an exporting country and consumer prices in an importing country (Anderson and Van Wincoop, 2004). Leaving tariffs to one side, this idea includes, for example, (i) a wide variety of NTMs as well as (ii) geographical and historical factors that make it harder for countries to trade, (iii) the cost and reliability of transport linkages between countries (including transport facilitation), and (iv) the possibility of engaging in digital transactions.

In its early work on trade facilitation, APEC explicitly adopted broad sense trade facilitation as its policy objective: it committed to reducing trade costs by agreed percentages over 5-year periods, leaving economies free to choose their implementation mechanisms from amongst the wide variety of NTMs and related policies that can reduce trade costs but which do not include reductions in standard tariffs. This approach to trade facilitation is a very broad one, encompassing a wide range of policy areas ranging from border procedures to the administration of NTMs to 'behind the border' barriers such as the business environment and investment climate. It lends itself to natural evaluation using economists' standard measures of trade costs (e.g. Shepherd, 2016; see further below).

An alternative approach to trade facilitation ('narrow sense') is typified by the WTO TFA. It focuses on reducing trade costs exclusively through the rationalisation of customs and border procedures, including through reductions in paperwork, facilitation of information flows, institutional upgrading, and streamlining of processes. This approach to trade facilitation is narrower than the APEC approach, but has the advantage

² This section is adapted from Shepherd (Forthcoming).

of being backed by an important international legal instrument in the form of the TFA, which is now part of the corpus of WTO law.

Implementation of the TFA takes place at different paces for different groups of countries. Developed countries implement the whole agreement immediately, whereas developing and least developed countries can decide which parts to implement immediately ('Category A'), which parts to implement with a delay ('Category B'), and which parts to only implement upon receiving external support ('Category C').

The above discussion makes clear that narrow sense trade facilitation is a subset of broad sense trade facilitation. So there is no incompatibility between the two approaches, but their focus is different. Narrow sense trade facilitation naturally leads to a focus on inputs, i.e. a particular set of policy measures that are known to reduce trade costs. There is strong empirical evidence that improving border procedures can facilitate trade (e.g. Volpe Martincus, Carballo, and Graziano, 2015), so identifying particular policies that can be part of an overall reform effort is one way of moving towards that objective.

Three main global data sources directly measure narrow sense trade facilitation measures. The WTO's TFA Implementation Tracker (TFAIT) measures the percentage of the agreement's actionable provisions implemented by each country. The WTO Secretariat maintains the database using country notifications. The Organisation for Economic Co-operation and Development (OECD) Trade Facilitation Indicators (TFIs) and the United Nations (UN) Global Survey on Digital and Sustainable Trade Facilitation (UNGS) take similar and complementary approaches to measuring particular trade facilitation policies. They both start from a list of trade facilitation measures, based for the most part on the TFA, but also extending coverage beyond its scope in some cases, particularly in the UNGS. They then collect data directly from countries around the world based on consultations with governments, publicly available information, and opinions from local trade facilitation specialists. The balance between these methodologies is different for the two sources: the TFIs rely more heavily on the first two sources, whilst the UNGS relies more heavily on the third. In terms of data availability, the TFAIT is available as a current date cross-section. The TFIs, by contrast, are available as cross-section time series data, for 2012, 2015, 2017, 2019, and 2022. The UNGS is also available as cross-section time series data, covering the years 2015, 2017, 2019, 2021, and 2023. The TFIs and the UNGS both have broad coverage across countries (160 or more), whilst the TFAIT covers all WTO members. The common thread linking these three data sources is, as mentioned above, that they focus on inputs, i.e. trade facilitation policy measures.

On the output side, there are two main global databases. In this context, outputs means economic outcomes, such as changes in the time or cost associated with moving goods across borders. One source – the UN Economic and Social Commission for Asia and the Pacific (UNESCAP)–World Bank Trade Cost Database – uses standard trade theory to develop a relative measure of trade costs in the all-inclusive sense developed above.³ It uses the observed pattern of trade and production across countries to make inferences about international relative to intra-national trade costs. It covers 150+ countries for the years 2010 through 2020 inclusive. A second complementary source is the World Bank's Logistics Performance Index (LPI), which surveys trade facilitation professionals on the environment in countries they do business with. They assess performance across six general dimensions of trade facilitation, but focus on the reality on the ground rather than particular policy measures in place. The World Bank aggregates responses and provides consistent data for 2007, 2010, 2012, 2014, 2016, 2018, and 2023, covering 150+ countries.

³ The WTO Trade Cost Index uses a conceptually similar approach, but geographical coverage is limited and does not provide sufficient detail on AMS to be a feasible source for this chapter.

No single data source provides comprehensive coverage of all aspects of trade facilitation, covering outputs as well as inputs. Best practice in assessing performance is therefore to use a range of indicators, such as the five outlined above. They will not always provide a consistent picture, but a dashboard approach has the advantage of providing a variety of different perspectives, and aggregating as much information as possible.

In ASEAN-specific terms, it is important to have an analytical scope that extends beyond the confines of the TFA. The AEC Blueprint 2025 identifies a range of priorities under the general heading of trade facilitation. Whilst all are aligned with the TFA, only a subset is reflected in its provisions: other ASEAN priorities fit better within the concept of broad sense trade facilitation. So using a dashboard approach and a range of indicators sits well with ASEAN's view of trade facilitation.

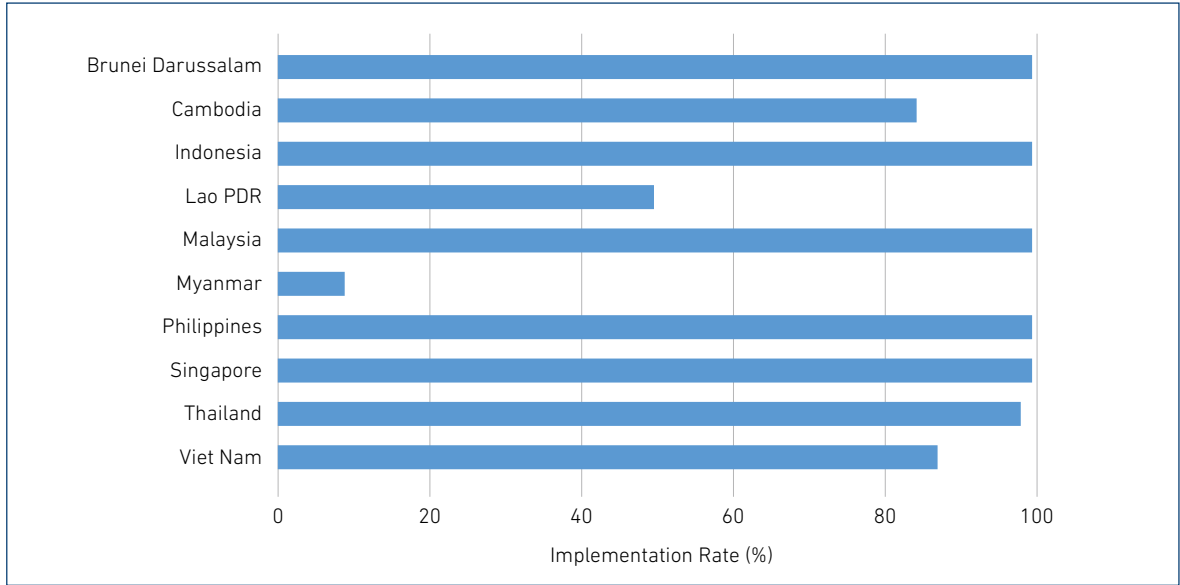
3. Tracking Recent Progress in ASEAN

This section uses the concepts and indicators discussed above to track ASEAN's recent performance. The period of main interest is 2015 to date, which is the period covered by the existing AEC Blueprint 2025. However, for contextual purposes, it is sometimes useful to look at a longer period when it is available, in particular since not all indicators are available annually. The first part of the section deals with input measures, whilst the second deals with output measures. The focus is on identifying performance trends for the ASEAN region as a whole. Whilst the data sources examined can also be used to highlight issues for individual AMS, the scope of this chapter is on the region, so the translation of regional performance trends into individual priorities is explicitly left for follow-up work.

3.1. Input Measures

Figure 11.1 shows baseline data for the first input indicator, the WTO TFAIT. It measures the extent to which each AMS has implemented the disciplines of the WTO TFA. As such, it represents a performance baseline, not international best practice. But it is useful to give a first sense of how AMS sit relative to global benchmarks. As the figure shows, the impression is generally a very positive one: half of AMS have already fully implemented the TFA, with one more (Thailand) having only minor additional measures to implement. Viet Nam and Cambodia are in an intermediate position, with implementation rates over 80%. The Lao People's Democratic Republic (Lao PDR) and Myanmar lag more substantially, with implementation rates of around 50% and 10%, respectively. This first diagnostic therefore suggests that whilst ASEAN is overall a region with a strong rate of implementation of the TFA, there is substantial heterogeneity in performance, in particular with Myanmar and the Lao PDR standing out as countries where implementation is lagging relative to the rest of the group.

Figure 11.1. TFA Implementation Rate for Individual AMS (%)



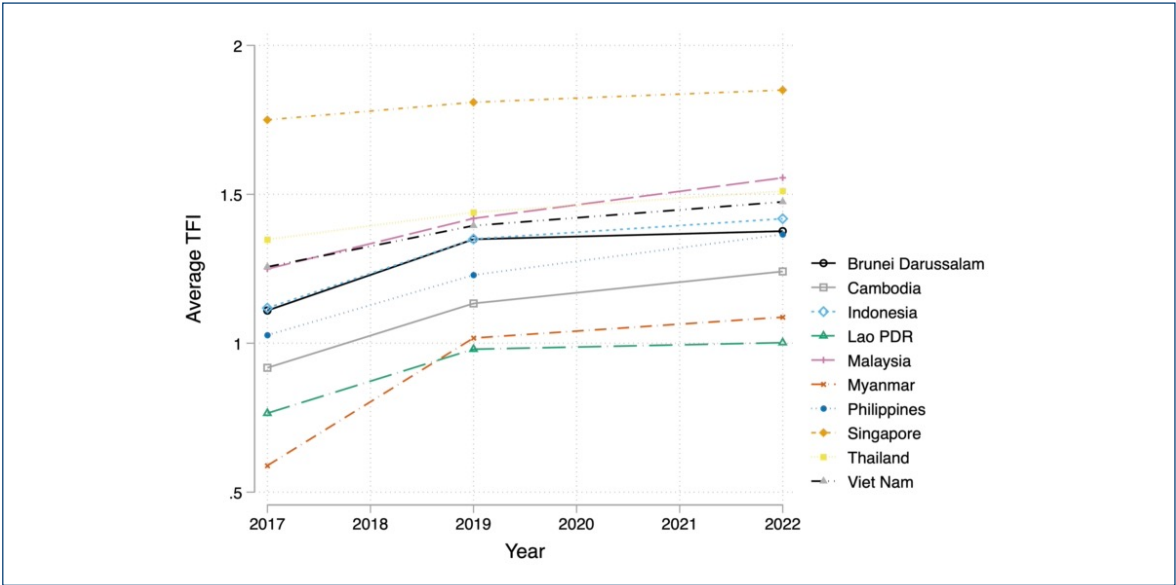
AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations, TFA = Trade Facilitation Agreement, TFAIT = TFA Implementation Tracker, WTO = World Trade Organization.

Note: Data correct as of May 2023.

Source: WTO (n.d.), TFAIT. <https://www.tfadatabase.org/en/implementation> (accessed 1 April 2024).

The OECD TFIs provide a more nuanced picture. Whilst closely linked to the provisions of the TFA, they record implementation in greater detail and include some measures that are not part of the TFA. So the maximum score (two) represents a more ambitious benchmark than 100% on the TFAIT. Figure 11.2 shows the average across all TFI pillars for AMS from 2017 through 2022, which is the period for which comparable data are available. There is a general upwards trend in performance, which suggests that ASEAN is generally improving its trade facilitation performance over time, in line with the objectives of the AEC Blueprint 2025. However, the heterogeneity apparent in Figure 11.1 is again in evidence in Figure 2: Singapore is a clear regional leader, with performance very close to the global best practice frontier. Next comes a group of high performers that nonetheless are still some distance from Singapore's level: Malaysia, Thailand, Viet Nam, Indonesia, Brunei Darussalam, and the Philippines. These countries have a strong but intermediate level of performance. By contrast, Cambodia, Myanmar, and the Lao PDR have noticeably lower levels of performance. Overall, the figure indicates that ASEAN has enjoyed some success in terms of upgrading performance in line with the AEC Blueprint 2025, but that performance convergence amongst all AMS remains a work in progress.

Figure 11.2. Average TFI Score for Individual AMS, 2017–2022
(index (0–2))



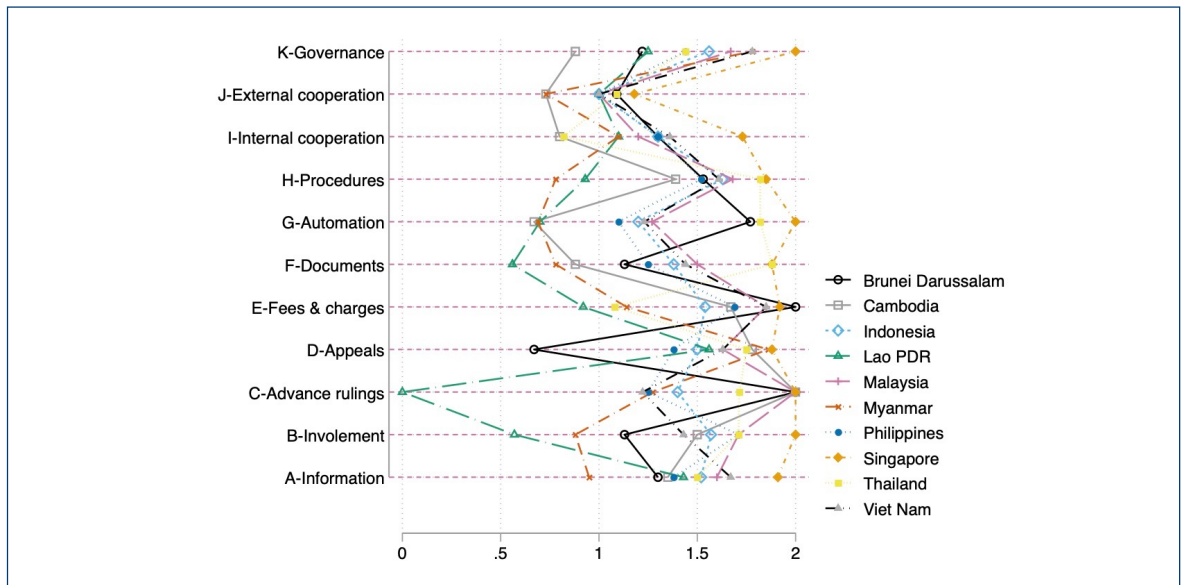
AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations, OECD = Organisation for Economic Co-operation and Development, TFI = Trade Facilitation Indicator.

Note: Data prior to 2017 are not comparable.

Source: Author's calculations based on OECD (n.d.), TFIs. <https://www.oecd.org/en/topics/sub-issues/trade-facilitation.html> (accessed 1 April 2024).

In terms of identifying regional and national priorities, Figure 11.3 delves into more detail by providing scores for individual TFI pillars. At first glance, country performance is much more heterogeneous across areas than Figure 11.2 would tend to suggest. So priorities for individual AMS vary based on where they stand on particular indicators. But for ASEAN as a whole, the figure suggests that there are areas of strong performance – governance, procedures, documents, fees and charges, appeals, and advance rulings – but also areas where performance could be improved, notably cooperation amongst agencies, automation in some AMS, involvement of the trading community in some AMS, and information availability. Relating these findings to the core trade facilitation tenets of the AEC Blueprint 2025 suggests that the region has enjoyed some successes in key domains such as Single Windows, which reduce documentation and streamline procedures. Surprisingly, information availability is an area that requires further work, despite the Blueprint's commitment to trade repositories. In other areas, some AMS, particularly Singapore, perform at or close to the global best practice frontier, so there is scope to export knowledge on procedures like advance rulings and appeals, as well as the use of automation, within the region.

Figure 11.3. TFI Pillar Scores for Individual AMS, 2022
(index (0–2))



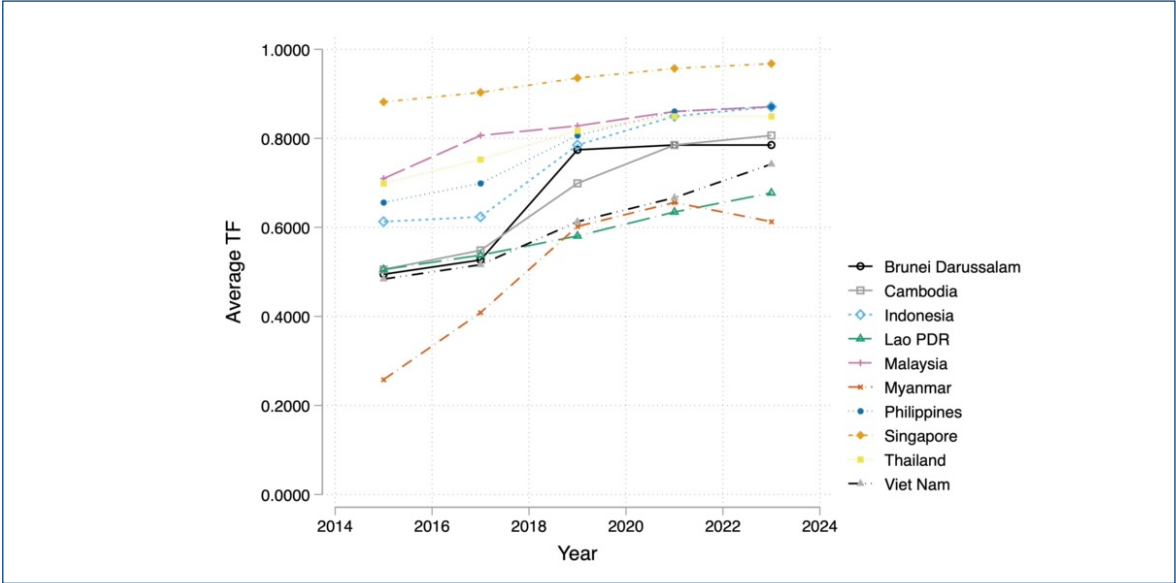
AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, OECD = Organisation for Economic Co-operation and Development, TFI = Trade Facilitation Indicator.

Note: Data not available on advance rulings for the Lao PDR.

Source: OECD (n.d.), TFIs. <https://www.oecd.org/en/topics/sub-issues/trade-facilitation.html> (accessed 1 April 2024).

A similar picture emerges from the UNGS data in Figure 11. 4. For the region as a whole, there is clear evidence of performance improvements over the sample period, which corresponds to the ongoing life of the AEC Blueprint 2025. But as with the TFIs, the data suggest that bringing about convergence in performance remains a priority. Again, there is a clear difference in performance between Myanmar and the Lao PDR on the one hand, and the other AMS on the other; however, Myanmar has seen strong improvement since 2015 in the UNGS data.

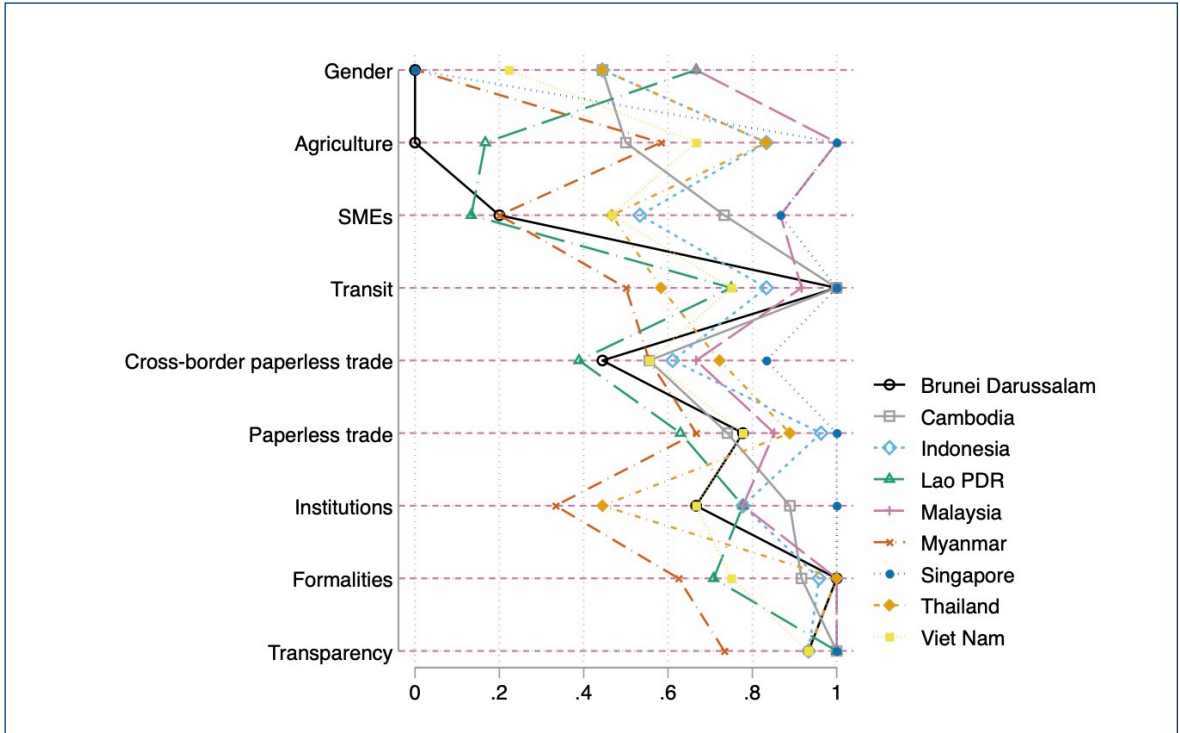
Figure 11.4. Average UNGS Trade Facilitation Score for Individual AMS, 2015–2023 (index (0-1))



AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, TF = Trade Facilitation, UNGS = United Nations Global Survey on Digital and Sustainable Trade Facilitation.
Source: United Nations (n.d.) UNGS., <https://www.untfsurvey.org/> (accessed 1 April 2024).

Figure 11. 5 shows that the UNGS, like the TFIs, incorporates a range of areas that are not part of the TFA, and so represents a more demanding performance benchmark than the WTO TFAIT. Looking at individual pillars, there is both heterogeneity across individual AMS in terms of their successes and challenges, but also a strong dispersion of performance for the region across pillars. Gender and agriculture stand out as areas where regional performance is weaker than elsewhere, with similar concerns for small and medium-sized enterprises (SMEs) in some AMS. Areas of strong performance include transit, paperless trade, institutions, formalities, and transparency. This analysis sits well with the conclusions expressed above on the basis of the TFIs – that measures like Single Windows have borne fruit, and that efforts to streamline documentary requirements have similarly enjoyed some success. This finding is very much in line with the priorities expressed in the AEC Blueprint 2025. Nonetheless, Figure 11. 5 indicates that there are emerging issues, to be discussed further below, where performance is at a significantly lower level. Whilst there are some subjects of concern to the region, the fact of heterogeneity in performance across AMS and across pillars means that identifying individual country priorities is a more detailed exercise, but one that data sources like the TFIs and the UNGS can facilitate.

Figure 11.5. UNGS Pillar Scores for Individual AMS, 2023
(index (0-1))



AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, SMEs = small and medium-sized enterprises, UNGS = United Nations Global Survey on Digital and Sustainable Trade. Facilitation.

Source: United Nations (n.d.), UNGS. <https://www.untfsurvey.org/> (accessed 1 April 2024).

3.2. Output Measures

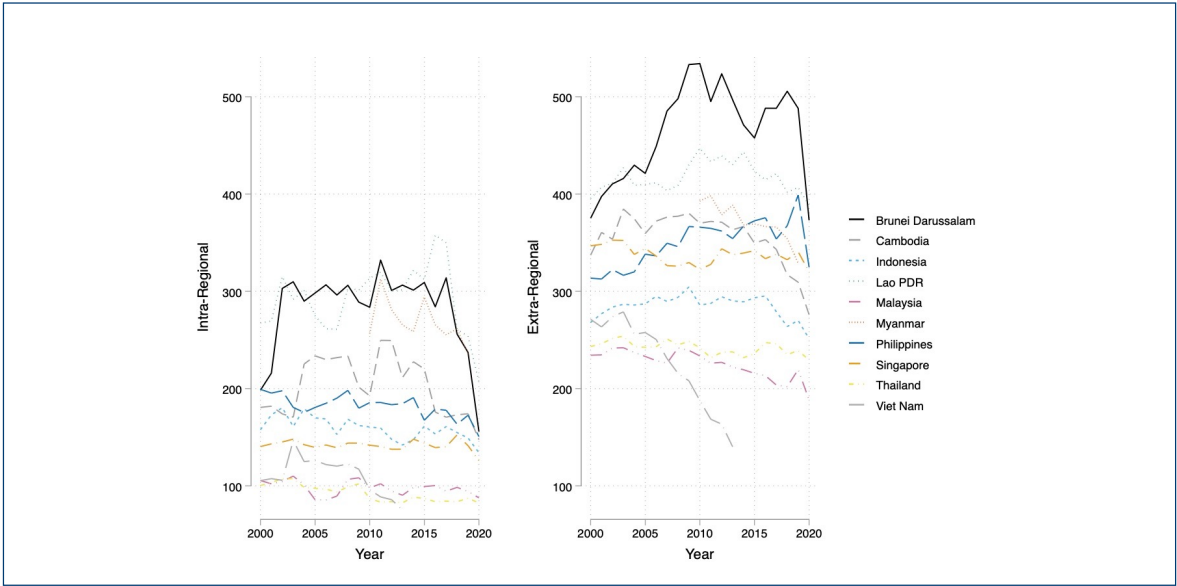
Figure 11.6 presents data on the first output measure – trade costs – as measured by the UNESCAP–World Bank Trade Costs Database. It needs to be interpreted carefully, as total trade costs are much higher than applied rates of tariff protection, even though both are expressed in ad valorem terms. The reason is that trade costs include the effects of NTMs, as well as geographical and historical features, whereas tariff rates of protection do not. A second caveat is that data are not available for all countries and years, so the effective sample used to calculate averages is not constant over time. This feature introduces some choppiness into the series.

Nonetheless, three clear findings are evident from Figure 11.6. First, intra-regional trade costs are much lower than extra-regional trade costs. In other words, ASEAN has been successful in lowering trade costs for goods movements within the zone. Part of that effect is due to the elimination of tariffs, but it is likely that trade facilitation – as well as other measures in the AEC Blueprint 2025 – have played a substantial role in this outcome.

Second, there is a downwards trend over time in trade costs, in particular intra-regionally. For some AMS, that trend intensifies post-2015, which could indicate some successes of the AEC Blueprint 2025 in reducing trade costs, at least in terms of the implementation in some AMS.

Third, just as in the case of the input measures, there is substantial heterogeneity across AMS that is relatively stable over time. There are low trade cost countries, such as Thailand, Viet Nam, and Malaysia, then an intermediate group, then countries like Brunei, the Lao PDR, and Myanmar that stand out as having much higher levels of trade costs. There is thus a clear relationship between this first output measure of trade facilitation and the three input measures discussed above: there is considerable overlap between the group of countries identified above as having lower performance on policy indicators and those that have higher trade costs. A key policy message is therefore that moving forward on input measures likely translates into major differences on the ground in terms of regional trade integration.

Figure 11.6. Average Ad Valorem Equivalent Trade Costs for Individual AMS, Intra- and Extra-Regional, 2000–2020 (%)



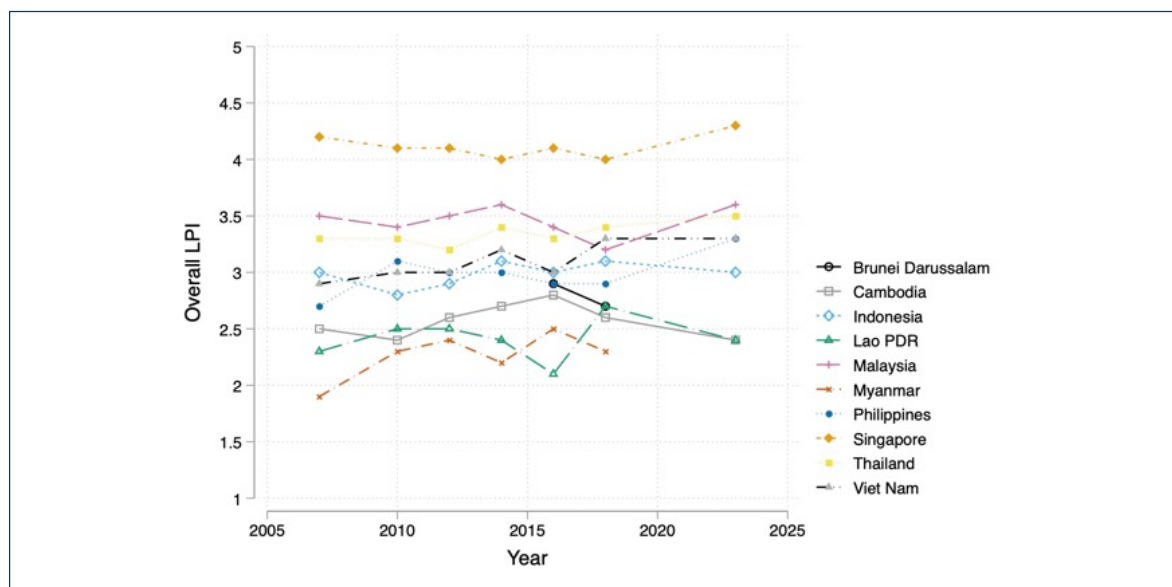
AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, UNESCAP = United Nations Economic and Social Commission for Asia and the Pacific.

Notes: Aggregation is by simple average. Sample changes occur over years.

Source: Author’s calculations based on United Nations and World Bank (n.d.), UNESCAP–World Bank Trade Costs Database. <https://www.unescap.org/resources/escap-world-bank-trade-cost-database> (accessed 1 April 2024).

This close relationship between input and output measures is mirrored in Figure 11.7, which summarises data from the World Bank's LPI. There is again a clear regional trend towards improved performance in on-the-ground trade facilitation. Singapore stands out as the leader, and successive World Bank LPI reports show that it is amongst the leading performers globally. The next group of countries also comprises strong performers, though with a considerable gap with respect to Singapore, namely Malaysia, Thailand, Viet Nam, the Philippines, and Indonesia. Cambodia, Myanmar, and the Lao PDR again lag with respect to other AMS. As in the case of trade costs, a key policy takeaway is therefore that moving forward on input measures has clear potential to boost performance on the ground, as measured by trade facilitation professionals, the people who move goods across borders in the region on a daily basis.

Figure 11.7. Overall LPI Scores for Individual AMS, 2007–2023
(index (1–5))



AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, LPI = Logistics Performance Index.

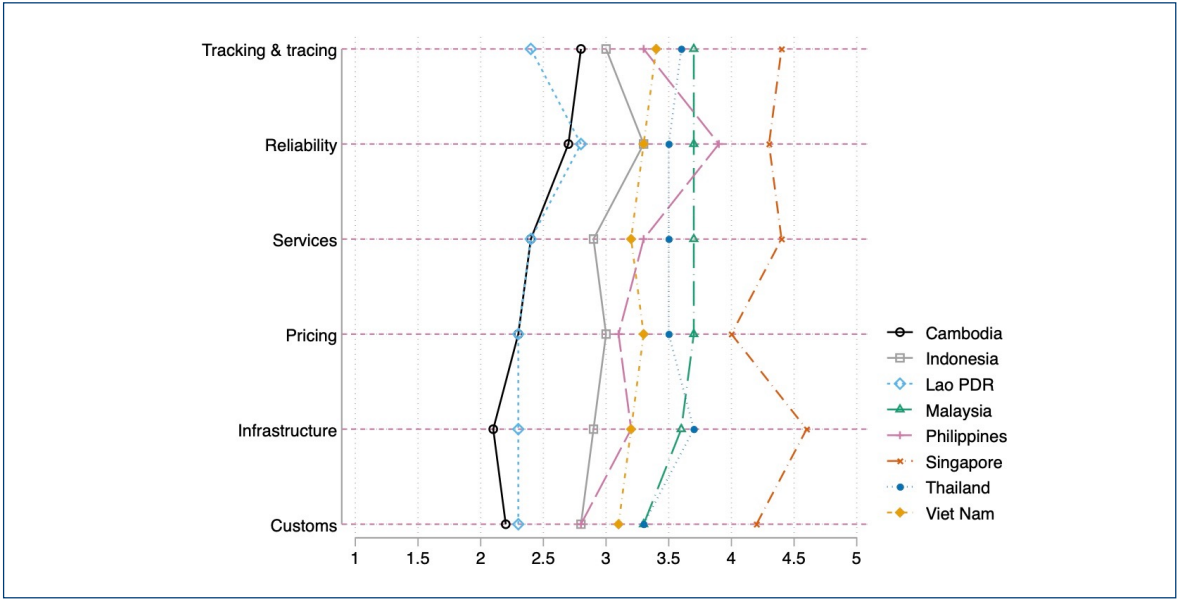
Note: Data not available for all countries for all years.

Source: World Bank (n.d.), LPI. <https://lpi.worldbank.org/> (accessed 1 April 2024).

Figure 11.8 presents data on the six individual dimensions of performance captured by the LPI. Whilst they identify distinct areas of trade facilitation, World Bank analysis indicates that they are usually strongly correlated. They therefore likely do not identify conceptually separate measures of performance, but rather represent a number of noisy measures of performance of a single underlying dimension – logistics performance. With that in mind, one finding is that the dimensions of the LPI are more stable in terms of patterns across individual AMS than are the input measures examined above. However, it would be going too far to conclude that differences in inputs do not translate into differences in output; rather, the strong correlation amongst indicators means that this stability should

not be over-interpreted. A second finding is that regional performance is relatively consistent across pillars, again more so than reference to the input measures above would suggest. But it would again be going too far to sever the link completely, given the strong correlations across individual dimensions. From a regional standpoint, however, Figure 11.8 is suggestive of some successes and challenges. In terms of the former, activities related primarily to private sector competence – tracking and tracing, reliability, and quality of service – tend to perform strongly. By contrast, customs and infrastructure – both of which depend more heavily on public sector involvement – lag the other indicators. However, the differences are relatively small and should not be given too much weight.

Figure 11.8. LPI Component Scores for Individual AMS, 2023
(index (1–5))



AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations, LPI = Logistics Performance Index.
Note: Data not available for all countries.
Source: World Bank (n.d.), LPI. <https://lpi.worldbank.org/> (accessed 1 April 2024).

4. Emerging Challenges

The previous section showed that ASEAN is generally on an upwards trajectory in terms of trade facilitation performance. Improvements in the provision of inputs (policies) appear to have been translating into on-the-ground increases in metrics of inputs (economic outcomes, such as the time, cost, and reliability of international trade transactions). But the discussion above already identified areas in which the region faces challenges. These challenges are independent of the issues facing individual AMS, given the gaps in performance relative to best practice frontiers that exist in some cases. This section of the paper therefore examines emerging challenges for the region as a whole, cognisant of the fact that individual AMS will respond to them in different ways. The analysis is not exhaustive, but instead aims to highlight a small number of general issue areas that can inform ASEAN integration from a trade facilitation perspective in the post-2025 time frame.

4.1. Learning from the Private Sector

Involvement of the trade community in the design of trade facilitation reforms is a key aspect of policy design that is captured by the input indicators examined above. Whilst ASEAN's performance is relatively strong on a regional level, there are ways in which it can be improved. Doing so is a key priority for the region, as once the most obvious trade facilitation roadblocks have been removed – as evidenced by a high rate of implementation of the WTO TFA – governments are at a major information disadvantage relative to the private sector. Trade facilitation professionals deal with the realities of moving goods across borders on a day-to-day basis, and so are keenly aware of areas where improvement is most urgent. This recognition lies at the base of the drive to create National Trade Facilitation Committees (NTFCs) that bring together the public and private sectors. But looking forward, it will be important to leverage this information source in new and creative ways to take trade facilitation performance closer to a global best practice frontier that is constantly moving outwards.

An important lens through which trade facilitation improvements can be seen is as a type of (trade-specific) regulatory reform. Continuing the analogy, improving trade facilitation is not a one-off event, but rather a continuous process of upgrading: dealing effectively with outstanding implementation issues, at the same time as learning from best practice elsewhere and implementing new and innovative solutions. Whilst NTFCs have important convening power in terms of bringing stakeholders together and facilitating the passage of information, there is more they can do to evaluate, and learn from, the results of past reforms. Indeed, there is a strong case for ASEAN to engage in a process of formal, quantitative impact evaluation of its trade facilitation programmes within the AEC Blueprint 2025 context. A transparent, objective evaluation can help identify successes as well as areas where further work is required. It could be combined with an expanded, region-wide consultative process to facilitate the flow of information on reform necessities and priorities from the private sector to governments.

Indeed, an important set of stakeholders not included in NTFCs is international: traders in other AMS, who deal with countries in the region. As part of creating an economic community, it is important that the interests of traders in regional partners be taken into account in designing policy reforms locally. Moreover, foreign-based traders may have specific informational details as to aspects of a country's trade facilitation regime that they find difficult to navigate, or areas where they notice that performance deviates from common practice within the region. This type of information is potentially valuable for governments, so building out the NTFC structure to include a regional trade facilitation committee would be an important lever for building out future trade facilitation reforms. This proposal is an intensification and expansion of the existing ASEAN Trade Facilitation Joint Consultative Committee structure, with a focus on enhancing information flow and giving a voice to businesses that move goods across borders in the region.

More broadly, a useful paradigm for building out region-wide trade facilitation reforms in the context of a deepening and broadening AEC post-2025 would be to develop a framework drawn from the Good Regulatory Practice (GRP) paradigm of APEC and its partners.⁴ Of course, GRP is applicable much more broadly than just to trade facilitation, but it is one area in which the combined emphasis on process and substance, along with the importance of learning, could bear particular fruit. It is important for ASEAN to keep in mind that the global trade facilitation environment is competitive and rapidly changing. It is not enough to score well on the implementation of a basic performance benchmark, like the WTO TFA – which most of the region does. First, it is important that all AMS fully implement the agreement as soon as possible. But it is equally important that all AMS commit to moving well beyond it in the post-2025 time frame. Greater involvement of the private sector in dialogue and priority setting can help facilitate this process, and ensure that governmental resources are directed towards the issues that really matter from a business perspective.

Just as convening a regional trade facilitation committee is a way of broadening and deepening consultation on trade facilitation in the region, so too is it important to make NTFCs more inclusive. The data above suggest that ASEAN generally performs relatively weakly on issues like gender, sector-specific concerns, and to some extent SMEs. It will therefore be important to ensure that NTFCs are truly representative of the full range of traders, including women and SMEs. Whilst most SMEs do not trade directly, some do – and that number is increasing with the advent of digital platforms, where movements of small, express shipments across borders is typical – and whilst there is evidence that at least some aspects of trade facilitation can benefit small firms (Hoekman and Shepherd, 2015; Fontagné, Orefice, and Piermartini, 2020), there is more work to do to get the information into the SME community. Similarly, women can experience particular challenges in dealing with border formalities, including the possibility of harassment in some cases. So ensuring that their voice is heard in the context of NTFCs is important not just from a general social inclusion perspective, but also to

⁴ For an overview and resources, see OECD (n.d.).

ensure that trade facilitation reforms benefit women-owned and/or -operated businesses. Finally, some sectors have specific concerns about trade facilitation. Agriculture is an example: perishability of output makes timeliness and reliability particularly important, whilst the application of sanitary and phytosanitary measures at the border has the potential to disrupt agricultural supply chains. Incorporating these kinds of perspectives into the trade facilitation agenda can help extend its benefits to sectors other than manufacturing, including in lower-income AMS where sectors like agriculture can employ many people.

4.2. Setting Appropriate Targets in a Diverse Region

As discussed above, the WTO TFA is an important international benchmark for trade facilitation, but it does not represent global best practice. It should be seen as a starting point for serious work on trade facilitation, not an ambitious objective. ASEAN should therefore be clear that the objective of 100% implementation of the TFA in all AMS is a short-term priority, in the sense of one that needs to be completed before more far-reaching reforms can be undertaken in the post-2025 period. The data presented above suggest that most AMS are already well advanced in terms of TFA implementation, but it will be important for the region to address challenges in those lower-income AMS where uptake lags.

Trade facilitation is not unique for ASEAN in terms of posing the challenge of reconciling dual objectives: ambition and convergence. The former requires forward-looking targets based on global best practice, with Singapore exemplifying a regional economy that is at or near that frontier in many areas of trade facilitation. But the latter necessitates catch-up by other AMS, particularly those at lower-income levels, which in turn suggests the use of intermediate, less ambitious targets that represent reasonable short-term goals. In many respects, this dual challenge permeates the AEC generally, and reflects differences in per capita income level and the degree of trade integration amongst AMS. But the question is: how can the challenge be overcome in the context of trade facilitation?

One part of the answer is that progress on trade facilitation often requires significant real resources. Upgrading infrastructure, training border officials, and improving technology are much more resource intensive than processes like regulatory reform, which require an investment of political capital but relatively little in terms of real resources. Lower-income AMS have many competing concerns when it comes to the use of government finance. Trade facilitation, whilst important, cannot legitimately take priority over objectives like poverty reduction or development of the infrastructure and institutions needed more generally for economic growth. Whilst trade is an important ingredient in any outward-oriented economic growth strategy, it is insufficient on its own to ensure sustainable increases in per capita income that in turn support poverty reduction and broader development objectives.

Similarly, countries all around the world, including in ASEAN, are facing challenges of inclusion and environmental sustainability where trade plays at most a secondary role as part of a solution. Recognising these points does not mean that lower-income AMS should not invest in trade facilitation, but it stresses the reality that it is one development priority amongst many.

A key objective for the region should therefore be to loosen the real resource constraints facing lower-income AMS when it comes to investing in trade facilitation. In other words, financial resources need to move from higher-income AMS to lower-income AMS, in part with the objective of financing trade facilitation upgrades. The European Union has a similar mechanism through its Structural and Investment Funds, designed to address related issues from a subregional perspective, albeit without an explicit focus on trade facilitation. An existing mechanism like the ASEAN Infrastructure Fund, administered by the Asian Development Bank, could be expanded, provided with an explicit mandate to work on trade facilitation projects, and receive a resource injection from higher-income AMS and development partners.

These kinds of actions can help loosen the real resource constraints that confront lower-income AMS, and thereby facilitate convergence with regional norms. But the pace of progress will inevitably differ across countries. With the global best practice frontier moving outwards, and regional leaders moving with it, it will be important for support to lower-income AMS to be substantial. Ideally, the lowest performing countries should see the fastest improvements in trade facilitation performance, so that the region can move forward, but the heterogeneity in performance noted above can be reduced. It will not be eliminated in the short or medium term, but it is feasible to reduce it somewhat.

A 'catch-up' dynamic implies differentiated targets for groups of AMS, or even individual AMS. It is important for the region to have general targets, such as improved interaction with the private sector (see above) and making full use of technology (see below). But when it comes to detailed policy changes and other market interventions required to meet those objectives, they will differ markedly across AMS due to the significant differences in baseline performance noted above. A post-2025 AEC Blueprint would necessarily remain high level and focus on regional priorities. But there is a need for an additional mechanism to reconcile regional aims and work programmes in individual AMS, taking account of the need to both move forward as a region, and to promote convergence.

Whilst many models are available, one that could be considered is for AMS to develop individual action plans (IAPs) based on high-level regional goals, on the model of APEC's Trade Facilitation Action Plan, which many ASEAN economies have experience with. IAPs are a bottom-up model, in the sense that whilst overall objectives are developed in collaboration with regional partners, the articulation of priorities in each AMS is a matter for consultation between the government and the full range of actors involved in its trading environment. Each IAP will include different actions, but setting them out in matrix form, with target dates, makes it possible to track actions and outcomes comprehensively across the region. In addition, the IAPs of lower-income AMS could identify requirements for external financing and capacity building – doing so would be in line with international aid for trade principles, which emphasise that transfers should be demand driven.

In addition to facilitating catch-up by lower-income AMS, it will be important for the region to broaden its conception of trade facilitation beyond a focus on traditional border procedures. The appropriate scope likely lies somewhere between the narrow sense trade facilitation of the WTO TFA and the broad sense trade facilitation of APEC, using the terms developed above. The data reveal that as a region, ASEAN performs reasonably well in terms of the basic benchmark of TFA implementation, and has strengths in some areas of border management. However, emerging areas of trade facilitation remain much less developed. Examples include cross-border paperless trade; inclusion, specifically through a gender lens; SMEs; and sector-specific measures in areas like agriculture. This diagnostic is true of even high-performance AMS, so including explicit regional goals in these areas, which would represent an expansion of ASEAN's previous trade facilitation agendas, would be necessary both to ensure a more effective and efficient trading environment, and to ensure the region keeps pace with global leaders.

4.3. Making Full Use of Technology

Digitalisation is a major trend in international trade, with profound implications for trade facilitation in several respects. To some extent, this focus is not new. The use of electronic Single Window systems is a key example of digitalisation in the trade facilitation space, i.e. the use of electronic processes rather than paper documents to submit and process trade-related information. Similarly, trade repositories are generally online, and often contain collections of laws, forms, and other documents and information relevant to import and export procedures. So ASEAN already has experience with the use of technology to facilitate trade. But in a post-2025 perspective, it will be important to double down in this area, as the role of technology in facilitating trade is only likely to become more important over the medium term. Innovative use of technology is increasingly a characteristic of global best practice trade facilitation regimes. It therefore requires attention in the context of a vision of the AEC post-2025.

One aspect of using technology to facilitate trade relates to cross-border paperless trade. Data from the UNGS indicate different levels of implementation amongst AMS. But from a regional perspective, it is an area that could benefit from further commitment and work. The baseline for progress in this area is already relatively good, given existing work on National Single Windows and the ASEAN Single Window. Indeed, the regional scope of this programme within ASEAN is important, as it emphasises the interoperability of digital systems amongst AMS. In addition, the ASEAN Single Window programme has provided a base from which to engage in discussions with trade agreement partners over extending system interoperability. These kinds of steps are very positive, and should be extended and intensified as part of the AEC's programme on trade facilitation post-2025.

But there is more to the use of digital technologies to facilitate trade than a pure focus on trade-related documents and procedures. An important development, and one which is vital from the perspective of SMEs, is the rise of digital marketplaces in the region. Connecting individual buyers and sellers across borders is a significant innovation, and there is evidence that digital marketplaces significantly reduce information-related trade costs, in particular for SMEs (Lendle et al., 2016).

Whilst potentially positive both for trade and inclusion, the rise of digital marketplaces poses particular challenges for cross-border trade. First, shipments are typically small, both in terms of physical size, and, more importantly, in terms of value. But above the *de minimis* threshold for payment of tariffs, they are subject to border taxation in the same way as much larger shipments. There is therefore a strong case for raising the *de minimis* threshold, and thereby exempting a larger number of relatively small value shipments from the application of tariffs. Doing so would significantly facilitate trade, whilst not significantly undermining government revenue in lower-income AMS where trade duties are more important as a source of financing. The reason for this dynamic is that trade is heavily concentrated amongst large firms in value terms (e.g. Bernard, Jensen, and Lawrence, 1995). Raising the *de minimis* threshold for the application of customs duties is a goal that could be held in common by all AMS, with the aim of facilitating the particular type of cross-border trade that is mediated by digital platforms.

Digital platform trade also tends to rely heavily on small shipment modalities. Examples include shipment by express carrier, or use of the postal service for small parcel shipments. Traditionally, trade facilitation discussions have implicitly focused on large-scale trade, which typically takes place through shipping containers. But a shift in the discourse is clear: unlike previous editions, the 2023 World Bank LPI report contains detailed information on parcel shipments through postal services, in addition to traditional metrics based largely on container shipments. As such, there is a case for broadening the AEC's trade facilitation programme to include both upgrading of postal services, as well as liberalisation of the logistics services sector, in particular express shipments. Available data from the OECD's Services Trade Restrictiveness Index indicate that ASEAN economies are relatively restrictive on a most-favoured nation basis when it comes to the logistics services environment, in particular compared with major trading partners like Japan and the Republic of Korea. The OECD's analysis includes subsectors such as freight forwarding, customs brokerage, cargo handling, and storage and warehousing. Moving forward on services trade liberalisation in sectors that directly relate to trade facilitation is outside the scope of the WTO TFA, but is very much part of APEC-style broad sense trade facilitation. This part of the agenda could usefully be picked up by ASEAN as it dovetails with initiatives to integrate services markets in the context of the AEC.

Whilst a detailed discussion of facilitating services trade is outside the scope of this chapter, it is important to highlight the important role that technological progress plays in framing the division between goods and services trade. Increasingly, some types of trade that have historically involved physical goods are shifting to disembodied flows of information that are accounted for as services trade, due to developments like 3D printing. The implications of these developments for trade in goods are unclear: Freund, Mulabdic, and Ruta (2022) found that in the case of hearing aids, where a substantial shift towards 3D printing has taken place, there is little evidence that the technological shift has shortened supply chains and reoriented physical goods production towards local sources. However, given the increasing salience of digital trade – which is conceptually different from digitally mediated trade in physical goods using online platforms – there will be calls to liberalise this kind of trade further, which has the potential to induce reallocation effects that have small, negative implications for trade in some goods sectors (Shepherd, 2022).

Considering these kinds of changes in the marketplace, it is important to ensure that goods trade operates with as little friction as possible, including through the maximum possible use of digital technologies. In line with the discussion above, it will be important to leverage private sector expertise and experience in designing both regional and national programmes to move forward on the use of technology to facilitate trade. In addition, there is scope to use external mechanisms, such as the UN Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, to support regional progress. In doing so, however, baseline heterogeneity amongst AMS, as discussed above, will be a significant issue. So a combination of overall regional objectives, IAPs, and financial assistance will be necessary to reconcile the twin goals of ambition and convergence.

5. Conclusion and Policy Implications

This chapter has reviewed the available evidence on ASEAN's trade facilitation performance. It has adopted two complementary perspectives (narrow and broad sense), and has covered both input and output measures from a variety of sources. Whilst detailed implications for individual AMS are complex and need further, more detailed analysis, it is possible to distil some general findings on a regional level.

First, there is clear evidence that ASEAN has made important progress on trade facilitation in the context of the AEC Blueprint 2025. This conclusion means that there have been noticeable changes in policy, and they have translated into altered conditions on the ground for operators involved in the day-to-day movement of goods across borders. Whilst this finding is encouraging, it needs to be contextualised: the global best practice frontier for trade facilitation is constantly moving outwards, so from a competitive perspective, it is important to move as quickly as possible to implement new measures.

Second, ASEAN has been successful in ensuring widespread and rapid implementation of the WTO TFA. However, this finding is not uniform across all AMS: some lower-income countries are experiencing difficulties with TFA implementation and are still at a relatively early stage. The TFA is not the global best practice frontier for trade facilitation, but instead is a global benchmark of basic performance. Completing TFA implementation in the region should be a short-term priority, not one for a post-2025 environment.

Third, and related to the second finding, ASEAN's performance is highly heterogeneous at the level of particular measures and individual AMS. Some AMS are amongst the leading trade facilitation performers in the world; others are at an intermediate level of performance; a few lag the rest of the group substantially. However, the picture is more complex at a detailed level: there is scope for improvement in all AMS, within a broad, regional commitment to facilitating the free movement of goods across borders.

Finally, emerging areas of trade facilitation policy and practice are typically those where ASEAN's overall performance is weakest. Examples include the gender implications of trade facilitation, sector-specific measures (e.g. for agriculture), cross-border paperless trade, and SMEs. Whilst ASEAN has structures in place that can support work in these areas, they stand out as examples of cases where regional practice needs a more substantial impetus if it is to approach the global frontier.

Moving forward, ASEAN faces three key challenges in designing and implementing a trade facilitation programme within the context of the AEC for the post-2025 time frame: it needs to facilitate information flow between the public and private sectors, both regionally and nationally; it needs to set appropriate targets that reconcile the need for regional ambition and the reality of necessary convergence amongst AMS; and it needs to make full use of technology to facilitate trade, in line with changing technology and market conditions.

These findings and challenges suggest steps that AMS could take in designing a trade facilitation programme within the context of the AEC for the post-2025 period, including:

Public–Private Cooperation:

1. Conceptualise trade facilitation as a type of regulatory reform, and apply insights from GRP, including by conducting a rigorous, quantitative evaluation of changes between 2015 and 2025 to facilitate learning.
2. Reinforce NTFCs and make them more inclusive, e.g. by ensuring the representation of women and small traders/SMEs.
3. Introduce an inclusive regional trade facilitation committee based on existing regional structures, as an ASEAN-wide analogue of the NTFCs in individual AMS.

Targets for Ambition and Convergence:

4. Set broad regional targets that help push the needle of AMS as a group closer to global best practice, taking the lead from regional economies like Singapore that are already close to the frontier in many areas of trade facilitation.
5. Supplement broad regional targets with IAPs where each AMS identifies detailed implementation plans, with timelines, and highlights needs for financial assistance and/or capacity building as appropriate.
6. Facilitate the flow of real economic resources from higher-income AMS to lower-income AMS by giving the ASEAN Infrastructure Fund an explicit mandate to work on trade facilitation and increasing the resources available to it.

Leveraging Technology to Facilitate Trade:

7. Continue to improve existing regional structures that support the digitalisation of trade transactions, such as National Single Windows, the ASEAN Single Window, and online trade repositories. Expand digital interoperability to key trading partners.
8. Raise the de minimis threshold for application of customs duties on a regional level to facilitate small transactions that take place through digital platforms.
9. Leverage private sector expertise to develop technology solutions that reduce goods trade frictions to the minimum possible level.

ASEAN is well placed to build on previous work on trade facilitation within the broader AEC context. However, the global environment is competitive and rapidly changing. Reconciling ambition and convergence is not just a challenge in trade facilitation, but more broadly in terms of ASEAN's regional development strategy. Nonetheless, there is scope to learn from solutions adopted elsewhere – both in trade facilitation specifically, and in other areas – to support the development of more integrated ASEAN goods markets in the post-2025 time frame.

References

- Anderson, J.E. and E. van Wincoop (2004), 'Trade Costs', *Journal of Economic Literature*, 42(3), pp.691–751.
- Ando, M. and F. Kimura (2003), 'The Formation of International Production and Distribution Networks in East Asia', *NBER Working Paper Series*, No. 10167, Cambridge, MA: National Bureau of Economic Research.
- ASEAN (2015), *ASEAN Economic Community Blueprint 2025*, Jakarta: ASEAN Secretariat.
- Baldwin, R. (1970), *Nontariff Distortions of International Trade*, Washington, DC: Brookings Institution.
- (2011), 'Trade and Industrialisation after Globalisation's 2nd Unbundling: How Building and Joining a Supply Chain Are Different and Why It Matters', *NBER Working Paper Series*, No. 17716, Cambridge, MA: National Bureau of Economic Research.
- Bernard, A.B., J. Jensen, and R.Z. Lawrence (1995), 'Exporters, Jobs, and Wages in U.S. Manufacturing: 1976–1987', *Brookings Papers on Economic Activity. Microeconomics*, 1995, pp.67–119.
- Feyrer, J. (2019), 'Trade and Income – Exploiting Time Series in Geography', *American Economic Journal: Applied Economics*, 11(4), pp.1–35.
- Freund, C., A. Mulabdic, and M. Ruta (2022), 'Is 3D Printing a Threat to Global Trade? The Trade Effects You Didn't Hear About', *Journal of International Economics*, 138(C), 103646.
- Fontagné, L., G. Orefice, and R. Piermartini (2020), 'Making Small Firms Happy? The Heterogeneous Effect of Trade Facilitation Measures', *Review of International Economics*, 28(3), pp.565–98.
- Hoekman, B. and B. Shepherd (2015), 'Who Profits from Trade Facilitation Initiatives? Implications for African Countries', *Journal of African Trade*, 2(1–2), pp.51–70.
- Lendle, A., M. Olarreaga, S. Schropp, and P.-L. Vézina (2016), 'There Goes Gravity: eBay and the Death of Distance', *Economic Journal*, 126(591), pp.406–41.
- OECD (n.d.), ASEAN–OECD Good Regulatory Practice Network. <https://web-archive.oecd.org/temp/2022-02-18/383621-asean-oecd-good-regulatory-practice-network.htm>
- Saslavsky, D. and B. Shepherd (2013), 'Facilitating International Production Networks: The Role of Trade Logistics', *Journal of International Trade and Economic Development*, 23(7), pp.979–99.
- Shepherd, B. (Forthcoming), Trade Facilitation and Global Value Chains in the Asia-Pacific, Background Paper prepared for the Asia-Pacific Trade Facilitation Forum.
- (2016), 'Did APEC's Trade Facilitation Action Plans Deliver the Goods?', *Journal of Asian Economics*, 43, pp.1–11.
- (2022), 'Services, Digitally Delivered Trade, and Global Value Chains in Asia', in J.W. Kang, M. Helble, R. Avendano, P. Crivelli, and M.C. Tayag (eds.) *Unlocking the Potential of Digital Services Trade in Asia and the Pacific*, Manila: Asian Development Bank, pp.64–97.
- Volpe Martincus, C., J. Carballo, and A. Graziano (2015), 'Customs', *Journal of International Economics*, 96(1), pp.119–37.

12.

More (or Less) than Meets the Eye? An Assessment of ASEAN's Trade Performance in Services

Martin Roy and Pierre Sauvé

1. Introduction

The Association of Southeast Asian Nations (ASEAN) regional integration efforts in services have arguably been more extensive and substantive than those of any other regional integration efforts involving developing countries. Beyond binding the regional grouping's 10 economies to a core set of General Agreement on Trade in Services (GATS)-like obligations on trade in services, the ASEAN Framework Agreement on Services (AFAS) has involved the negotiation of incremental liberalisation commitments. These efforts have been carried out through almost continuous negotiating rounds, which produced 10 packages of scheduled commitments over the past 3 decades. This incremental opening of markets in services has been underpinned by a regional institutional architecture and innovative negotiating formulas, which balance collective advances with the flexibility required to address far-reaching development gaps. In terms of process and negotiating effort, ASEAN represents one of the most extensive regional integration endeavours, alongside the European Union (EU), the North American Free Trade Agreement (NAFTA), and its successor, the United States–Mexico–Canada Agreement.

However, extensive negotiations do not necessarily equate to effective integration. Have ASEAN's efforts in trade integration successfully deepened regional integration in services? Or does ASEAN's regional integration remain primarily driven by – and responding to – merchandise trade, with services playing a more peripheral role? This chapter assesses ASEAN's progress in regional integration in services to address these questions. Section 2 explores ASEAN's trade performance in services within the context of global trends. Section 3 reviews key achievements under the AFAS and its successor, the ASEAN Trade in Services Agreement (ATISA), which has been in effect since 2015. This includes an analysis of ASEAN's institutional architecture, negotiating modalities, rule-making advances, and market-opening progress. Section 4 assesses the applied services trade policies of ASEAN economies, situating them alongside those of other developing economies and regional groupings. Section 5 chronicles the performance of ASEAN Member States (AMS) against various regulatory and institutional metrics relevant to services trade and governance. Section 6 discusses key lessons and policy implications for future efforts to deepen services integration in the region.

2. Situating ASEAN in the Global Shift Towards Services

The services sector is more important in the economies of AMS than all other sectors combined, contributing more than half – 54.2% – of the region's aggregate output in 2022. However, the productive structure of national economies varies significantly, with the share of services value added in gross domestic product (GDP) ranging from a low of 41.0% in Lao People's Democratic Republic (Lao PDR) to a high of 72% in Singapore at the end of 2022. Except for Lao PDR, which registered a 6% contraction in the share of services in aggregate output in 2010–2022, all other ASEAN economies have shifted towards more service-centric structures over the past decade. The most pronounced changes occurred in Brunei Darussalam, Thailand, and the Philippines (Table 12.1).

Table 12.1. Services Value Added as a Percentage of GDP, 2010 and 2022

Country	2010	2022	%Δ
Brunei Darussalam	32.5	41.5	+27.6
Cambodia	50.6	51.8	+2.0
Indonesia	40.7	44.4	+9.1
Lao PDR	43.6	41.0	-6.0
Malaysia	48.5	54.8	+13.0
Myanmar	54.0	58.8	+8.9
Philippines	53.9	61.4	+13.9
Singapore	67.8	72.0	+6.2
Thailand	49.6	58.0	+16.9
Viet Nam	40.6	41.8	+3.0

GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Source: World Bank, World Development Indicators.

Services also represent a centrally important source of employment in ASEAN, providing 51.3% of jobs across all AMS in 2021, a 21.3% gain compared to 2010. Employment trends in services, like output trends, exhibit stark variance, ranging from a low of 31% in Lao PDR to a high of 85% in Singapore (Annex Table A.1). Over the past decade, all member states, except Brunei Darussalam, have witnessed a more service-centric employment landscape, with the largest gains observed in Lao PDR, Viet Nam, and Cambodia. Despite this, services employment in ASEAN remains somewhat biased towards domestic markets, particularly in public services and wholesale and retail trade. However, the retail sector exhibits increasing trade intensity due to higher intra- and extra-regional foreign direct investment (FDI) in recent years.

The services sector reinforces its exclusive character by offering a growing share of female employment throughout ASEAN. In 2010–2021, all AMS other than Brunei Darussalam reported increases in female employment within the services sector. This inclusivity is particularly most pronounced in the region's three poorest members – Lao PDR, Cambodia, and Myanmar – though significant gains were also noticeable in Indonesia and Viet Nam (Table 12.2).

Table 12.2. Share of Female Employment in Services in ASEAN, 2010, 2015, 2021

Country	2010	2015	2021
Brunei Darussalam	90.0	90.0	89.0
Cambodia	29.0	31.0	37.0
Indonesia	47.0	49.0	58.0
Lao PDR	20.0	26.0	32.0
Malaysia	71.0	73.0	74.0
Myanmar	34.0	36.0	43.0
Philippines	68.0	71.0	76.0
Singapore	83.0	88.0	89.0
Thailand	46.0	49.0	53.0
Viet Nam	32.0	35.0	42.0

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: World Bank, World Development Indicators.

2.1. Trade Flows Measured by Balance-of-Payment Statistics

ASEAN's trade performance in services is highly differentiated, with Singapore emerging as the region's leading exporter. It ranks amongst the world's top 10 exporters of commercial services,¹ with exports valued at US\$290 billion in 2022. This accounted for a significant 65.6% of ASEAN's total commercial services exports, a notable increase from 49.4% in 2019 before the coronavirus disease (COVID-19) pandemic. This growth reflects Singapore's ability to leverage digital trade during pandemic-induced restrictions on travel and in-person interactions. The other leading ASEAN service exporters, in absolute terms, include Thailand (US\$40.2 billion, 9.1% of ASEAN's total services exports), the Philippines (US\$41 billion, 9.3%), Malaysia (US\$31.6 billion, 7.1%), Indonesia (US\$22.7 billion, 5.1%), and Viet Nam (US\$12.6 billion, 2.8%). The remaining member states – Brunei Darussalam, Cambodia, Lao PDR, and Myanmar – collectively contributed less than 1% to the region's commercial services exports.

¹ Expressed on a balance-of-payments basis and counting the EU as a single entity.

For many ASEAN economies, however, services do not represent a significant source of total exports. Whilst some countries, particularly those reliant on tourism (e.g. Thailand), have yet to fully recover to pre-pandemic levels in their services exports, most ASEAN economies recorded services exports comprising less than 10% of their total exports in 2022. Notable exceptions include Singapore (36.1%), the Philippines (34.3%) and, to a lesser degree, Thailand (12.3%). Such trends reflect regional specialisation patterns, where agricultural and manufactured goods dominate ASEAN's export baskets.

As Table 12.3 shows, the share of services exports in total exports (goods and services) rose significantly for the Philippines and Singapore, doubling over the past 2 decades. In contrast, other AMS saw declines or only marginal increases in the relative importance of services exports, with Myanmar exhibiting minimal change.

Table 12.3. Commercial Services Exports as a Percentage of Total Exports in ASEAN (goods + services)

Country	2005	2022
Brunei Darussalam	9.0	1.8
Cambodia	25.6	9.1
Indonesia	12.7	7.2
Lao PDR	25.0	4.9
Malaysia	12.2	8.2
Myanmar	6.4	7.1
Philippines	17.3	34.3
Singapore	16.5	36.1
Thailand	15.1%	12.3%
Viet Nam	11.5%	3.3%

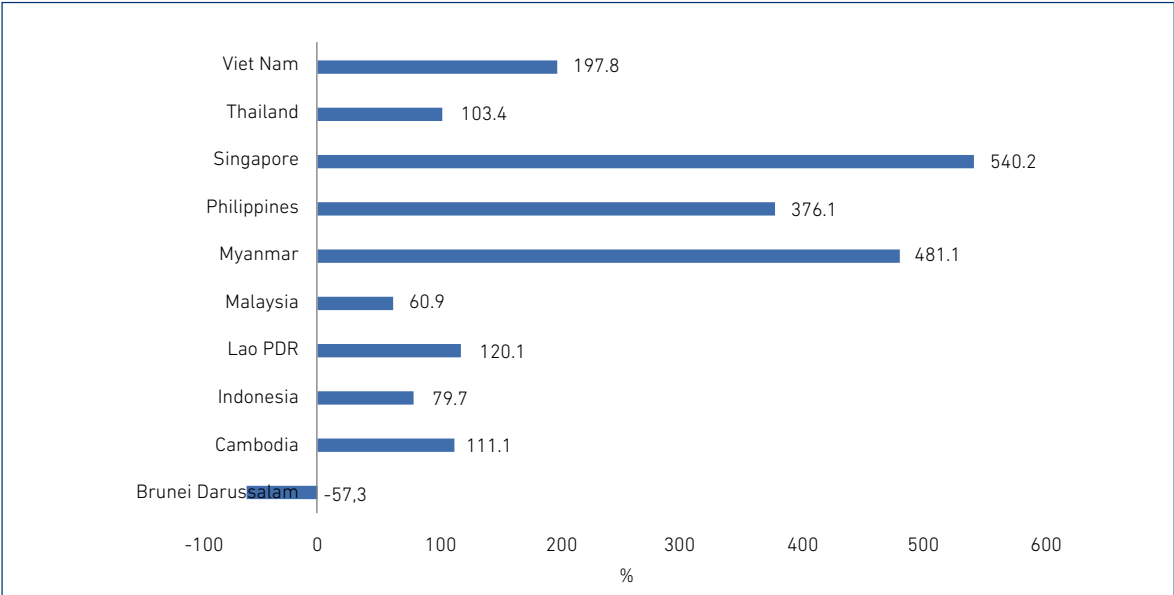
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: Computed from World Trade Organization's statistics, <https://stats.wto.org/>.

In 2005–2022, global exports of commercial services increased by almost 170%, with least developed countries (LDCs) registering the largest growth at +348%, significantly above that registered by other developing economies (+282%). Within ASEAN, only a handful of economies matched or exceeded the global average growth rates (Figure 12.1). Singapore (+541%) and the Philippines (+376%) exceeded the average growth rates for developing economies, as did Myanmar (+481%), albeit from a very low base in 2005. In contrast, other ASEAN economies experienced slower growth, often lagging behind non-LDC developing economies. For instance, Viet Nam recorded a +198% increase, whilst Cambodia (+111%), Brunei Darussalam (–57%), Indonesia (+80%), Lao PDR (+120%), Malaysia (+61%), and Thailand (+103%) all reported growth rates well below the global average.

ASEAN's performance in services exports over the past 2 decades needs to be set against that of China and India, two regional economic powers with close economic and commercial ties to ASEAN but whose firms compete directly with ASEAN services providers in several important market segments. In 2000, ASEAN's exports of commercial services were 48% higher than the combined value of Chinese and Indian exports. However, by 2021, ASEAN's share had declined to just over half (52%) of the aggregate total of these two powerful neighbours' exports.²

Figure 12.1. Growth of Services Exports in 2005–2022 in ASEAN (% increase; BOP basis)



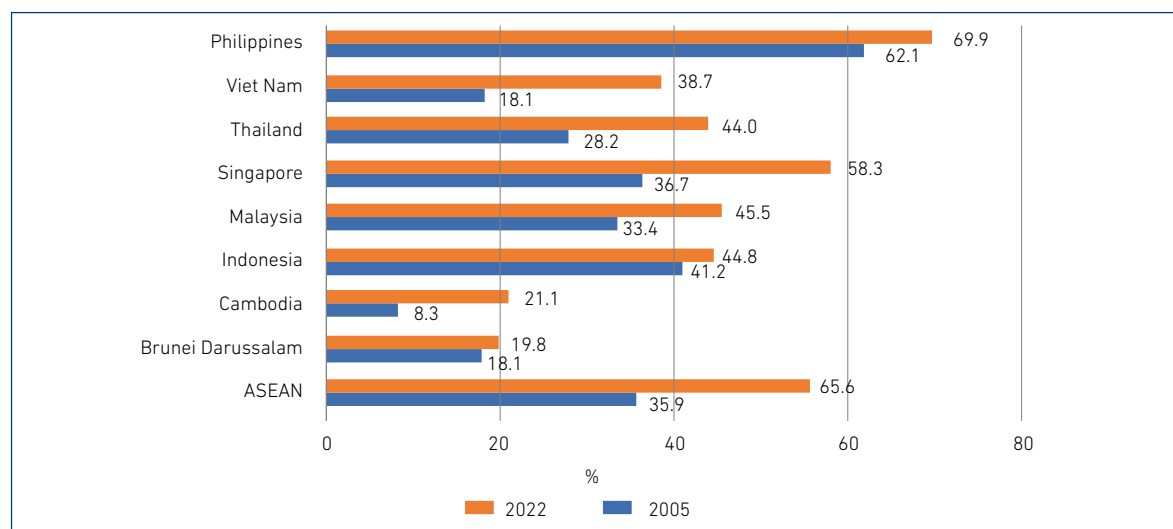
ASEAN = Association of Southeast Asian Nations, BOP = balance of payments.
Source: Computed from WTO (2024b). <https://stats.wto.org/>.

Relative to traditional sectors such as transportation and tourism, the expansion of developing countries' commercial services exports is increasingly tied to modern sectors that can be supplied digitally (WTO–World Bank, 2023).³ Such structural change is proxied by the growth of 'other commercial services', where the share of developing countries in global exports increased from 17% to 28% in 2005–2022. Within ASEAN, however, the growth of 'other commercial services' has been uneven. Whilst this sector registered strong growth in Singapore, the Philippines, Thailand, and Viet Nam, growth was more subdued in Indonesia and Malaysia (Annex Figure A.1).

² See WTO (2023).
³ Globally, the category of 'other commercial services', which includes many digitally delivered services, grew at a faster pace in 2005–2022 than traditional sectors such as transport and travel services. Within this category, telecommunications, computer, and information services recorded the fastest growth rate at 10%, followed by personal, cultural, and recreational services as well as business services, both growing at 7%.

For ASEAN as a whole, the share of 'other commercial services' in total services exports increased from 35.9% in 2005 to 55.6% in 2022. This trend is chiefly attributable to Singapore's dominance within the region and the high share of modern services in its export basket, as well as that of the Philippines (Figure 12.2).

Figure 12.2. 'Other Commercial Services' as a Proportion of Total Exports of Commercial Services in ASEAN (%), 2005 and 2022



ASEAN = Association of Southeast Asian Nations.

Note: No data available for Lao People's Democratic Republic and Myanmar in 2022.

Source: Computed from WTO (2024b), <https://stats.wto.org/>.

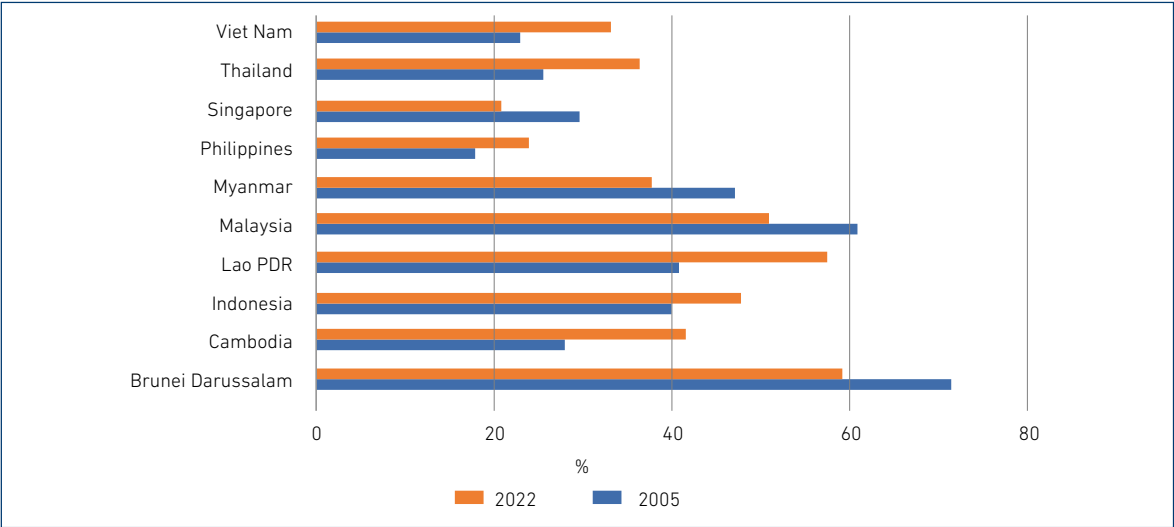
2.2. Insights From Bilateral Trade Data

The WTO's Balanced Trade in Services (BaTiS) analytical dataset provides estimations of bilateral trade in services, allowing an assessment of the extent and recent trends in intra-ASEAN trade in services. In 2021, only 13.5% of the region's services exports were intra-regional, down from 16.8% in 2005. Such a trend reveals a disquietingly low level of regional integration in services despite 10 packages of progressive market opening conducted under the region's services trade frameworks (AFAS and ATISA). ASEAN's intra-regional trade in services lags behind both its intra-regional merchandise trade and the levels observed in other regions.

The BaTiS dataset further shows that ASEAN's leading services exporters largely export outside the region. In 2021, exports within ASEAN accounted for 10.7% of Singapore's total commercial services exports, compared with 18.3% for Thailand, 12% for the Philippines, 24.1% for Indonesia, and 25.6% for Malaysia (Figure 12.3). Overall, these shares were not markedly higher than those prevailing before the COVID-19 pandemic, when travel services accounted for a greater share of the region's exports.

Since 2005, the relative importance of intra-regional services exports has declined for several ASEAN countries, including large exporters like Singapore and Malaysia. Notably, the two AMS with the strongest overall growth in services exports – Singapore and Myanmar – have both witnessed a drop in the share of services exports destined for the region. This decline suggests a diminishing role for the regional market and the integration processes under AFAS and ATISA.

Figure 12.3. Exports of Commercial Services as a Share of Total Commercial Services Exports in ASEAN (%), 2005 and 2021



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People’s Democratic Republic.
Source: World Trade Organization, Balanced Trade in Services dataset.

2.3. ASEAN's Trade by Mode of Supply

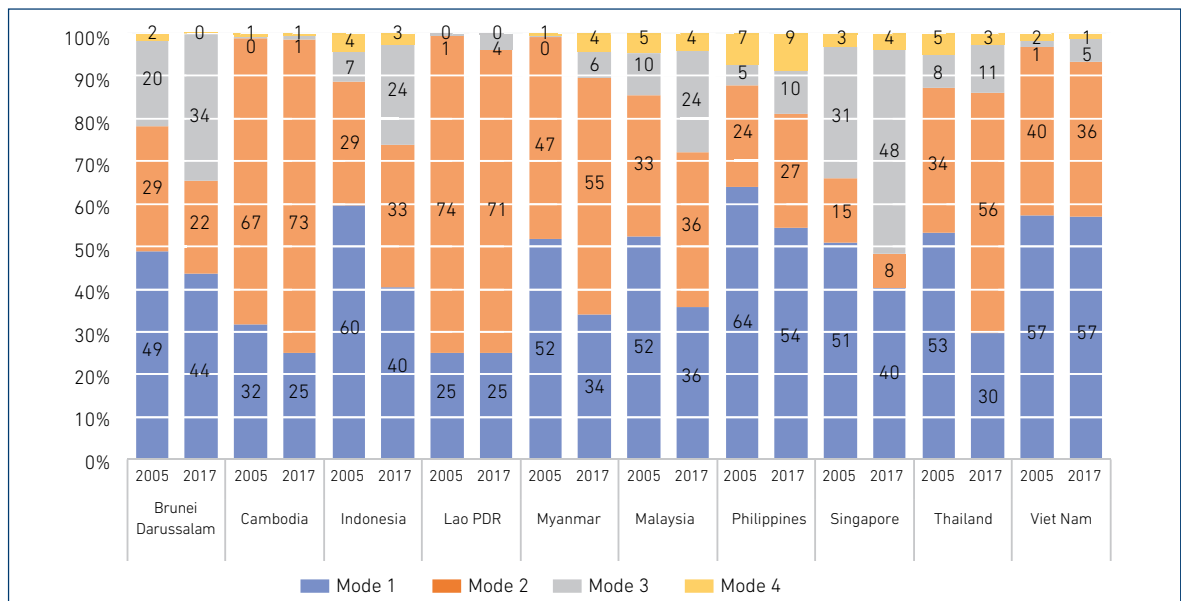
The WTO’s Trade in Services by Mode of Supply (TiSMoS) dataset chronicles trends in services trade across the four international modes of supply.⁴ Whilst the dataset is available only up to 2017 and does not include bilateral trade flows, it provides insights into global exports and imports.

⁴ Trade agreements in services categorise trade in the sector into four modes of supply: services supplied across borders, akin to the trade in goods (Mode 1); services provided to consumers abroad (Mode 2); services sold through a commercial presence in a foreign market (Mode 3); and services supplied through the temporary movement of natural persons (Mode 4).

TiSMoS data shows that ASEAN's total services exports across all modes of supply rose sharply from US\$158 billion in 2005 to US\$581 billion in 2017. This increase owes chiefly to a significant jump in services supplied through a commercial presence abroad (Mode 3), which accounted for 39.4% of ASEAN's total services exports in 2017, more than double its 2005 share of 18.9%. The rising contribution of Mode 3 to ASEAN's total services exports was most pronounced in Singapore (from 31% of its total services exports in 2005 to 47.7% in 2017), Malaysia (from 9.9% to 23.7%), Indonesia (7.1% to 23.6%), and Brunei Darussalam (20% to 34.4%) (Figure 12.4). Despite this growth, ASEAN's reliance on Mode 3 services exports remains significantly lower than the global average of 59%. Such a gap may be due to the maintenance of significant intra-ASEAN barriers to investment in services that continue to weigh on regional integration prospects. Still, ASEAN's share of global Mode 3 exports rose markedly, from 0.7% in 2005 to 2.5% in 2017.

TiSMoS data also draws attention to marked differences in the contributions of various modes of supply across ASEAN economies. For half of the AMS – Cambodia, Lao PDR, Myanmar, Thailand, and Viet Nam – Mode 2 trade (consumption abroad) accounted for over 50% of total services exports in 2017, reflecting the dominant role of travel and tourism in these economies. In contrast, Mode 1 (cross-border supply) dominates services exports in Brunei Darussalam, Indonesia, and the Philippines, pointing to their reliance on digitally delivered services. Singapore's exports are predominantly driven by Mode 3 transactions (47.7%), whilst Malaysia shows a more evenly spread-out distribution between Modes 2 (36.4%) and 3 (35.7%).

Figure 12.4. Share of Services Exports by Mode of Supply in ASEAN, 2005, 2017



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: World Trade Organization, Trade in Services by Mode of Supply dataset.

2.4. Services Value Added in Exports of ASEAN Member States

The Trade in Value Added (TiVA) dataset of the Organisation for Economic Co-operation and Development (OECD) offers a measure of input linkages across sectors by measuring the share of services embodied in traded goods and services. Amongst its key contributions, TiVA data documents the degree to which both foreign and domestic services value-added contribute to exports in other sectors, as well as the role of imported services value-added from certain partners or regions in supporting a country's or a region's exports. Given ASEAN's strong growth as a hub for manufacturing within regional and global value chains, one might expect the services trade to constitute a significant share in ASEAN countries' manufacturing exports.

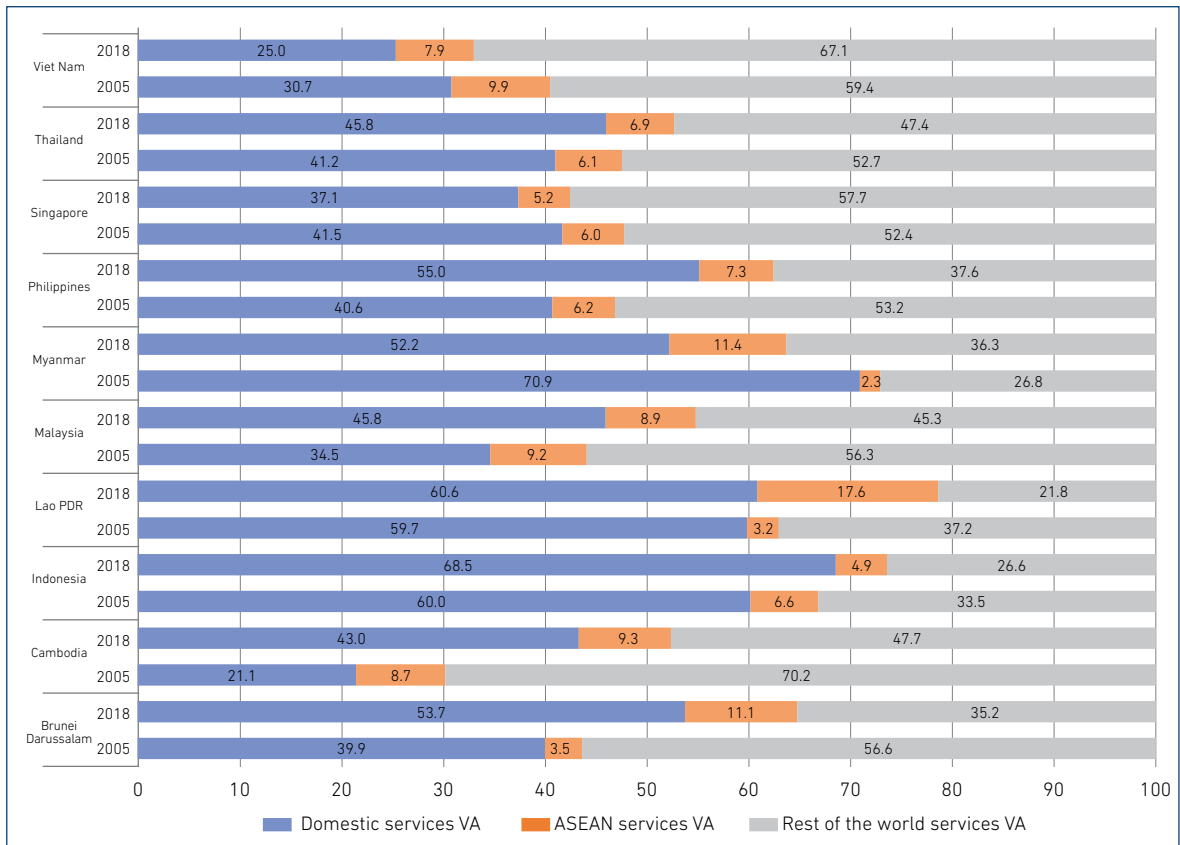
However, at 25.9%, the share of services value-added content in ASEAN's manufacturing exports is lower than the non-OECD average of 29% in 2020. Evidence of the so-called 'servicification' of manufacturing varies markedly across ASEAN economies. At the upper end, Singapore (39.8%) and Malaysia (31.8%) show a higher integration of services value-added into their manufacturing exports, whilst Myanmar (14.3%) and Brunei Darussalam (11%) stand at the lower end. Notably, contrary to global trends, ASEAN's average share of services value added in manufacturing exports decreased slightly from 27.3% in 2005 to 25.9% in 2018.

ASEAN's services value-added in manufacturing exports is split between foreign (14.1%) and domestic (11.8%) components. Reliance on imported services inputs varies markedly across ASEAN economies: Singapore (23.7% foreign and 16.1% domestic) and Viet Nam (20.8% foreign and 6.8% domestic) rely mostly on foreign services value added. Indonesia exhibits a greater reliance on domestic services value added (17.5%) compared to foreign inputs (6%).

The share of services value added in ASEAN's manufacturing exports has seen a slight decline, falling from 31.9% in 2005 to 30.4% in 2020. Surprisingly, the share of domestic services value added in ASEAN's manufacturing exports – comprising services inputs produced domestically or imported from within the region – remained stagnant at 15% over the same period. This lack of growth underscores the limited traction that successive AFAS and ATISA negotiating packages have had on enhancing intra-regional integration. In contrast, services value added imported from outside ASEAN was marginally higher, at 15.4%. By comparison, the EU demonstrates far stronger regional integration: In 2020, intra-EU services value added accounted for 29% of the services embodied in manufacturing exports, almost double ASEAN's intra-regional share.

Figure 12.5 details the origin of services value added in the manufacturing exports of individual ASEAN countries, distinguishing between national, intra-ASEAN, and non-ASEAN services inputs. The data underscores that services value added from other ASEAN countries represent only a small share of total services value added embodied in manufacturing exports, especially when compared to domestic or non-ASEAN contributions. For ASEAN's largest economies and main exporters, services value added from other ASEAN countries represented less than 10% of the total in 2018: Indonesia, 4.9%; Malaysia, 8.9%; the Philippines, 7.3%; Singapore, 5.2%; Thailand, 6.9%; and Viet Nam, 7.9%. Compared to 2005, the proportion of services value added from other ASEAN countries declined for Indonesia, Malaysia, Singapore, and Viet Nam.

Figure 12.5. Origin of Services Value Added in the Manufacturing Exports in ASEAN (%) (2005, 2018)



ASEAN = Association of Southeast Asian Nations.

Source: Organisation for Economic Co-operation and Development, Trade in Value Added dataset.

3. Assessing ASEAN's Achievements in AFAS and ATISA

This section chronicles the evolution of ASEAN's negotiating modalities, rules, and commitments governing trade and investment in services, documenting how the region has addressed deep development and regulatory disparities amongst its member economies. It pays particular attention to the shift from AFAS, agreed in 1995, to ATISA, adopted in October 2020. The latter forms part of an architectural overhaul of the legal instruments guiding the region's integration process. The section assesses the above shift along three broad lines: architecture and liberalisation modalities, rule-making, and market-opening commitments.

3.1. Architecture and Negotiating Modalities

Since 1995, AMS have progressively opened the region's services markets, building on the entry into force of the WTO's GATS, which governs services trade multilaterally. This process was initially anchored in AFAS, a preferential trade agreement (PTA) that largely replicated the substantive provisions and negotiating modalities of GATS. AFAS also called for the incorporation by reference of disciplines that were left outstanding during the original GATS negotiations, such as emergency safeguard provisions and services-related subsidy practices. AFAS set out a gradual liberalisation process, enacted through 10 successive 'packages' over 2 decades, to complete the process by 2018, when the 10th package was slated for completion.

ASEAN's legal and institutional ecosystem for services trade is amongst the most comprehensive of any major regional grouping. AFAS (now replaced by ATISA) features three GATS-like sector annexes addressing the regulatory specifics of trade in financial services, telecommunications, and air transport ancillary services. This legal construct in services is further complemented by (i) the ASEAN Comprehensive Investment Agreement (ACIA) of 2009, which extends treaty provisions, such as investment protection, payments and transfers, and investor–state dispute settlement, to services supplied through a commercial presence (Mode 3); (ii) the 2012 ASEAN Agreement on the Movement of Natural Persons, which governs Mode 4 services trade; (iii) a set of eight MRAs aimed at facilitating cross-border trade in professional services, including tourism professionals; and (iv) the mostly hortatory ASEAN Agreement on Electronic Commerce of 2019, which commits AMS to eschew intra-regional data localisation requirements, subject to domestic laws and regulations.

Whilst ASEAN's integration process has shown signs of reduced buoyancy in recent years, its approach to services liberalisation reveals a dynamic and innovative framework. This framework employs a set of regional strategies explicitly designed to account for – and respond to – the political and economic challenges posed by ASEAN-wide income disparities and implementation gaps, leveraging the principle of variable geometry in market opening.

The AMS have adopted three notable departures from the WTO's GATS framework to advance intra-regional integration in services. Building on earlier approaches that allowed liberalisation to proceed with fewer than all AMS (the ASEAN Minus Two/Three model) the ASEAN Minus X mechanism has become a formalised feature of the liberalisation process. First practised under various AFAS packages and subsequently formalised in Article 7.6 (Most-Favoured-Nation Treatment) of ATISA, this approach allows any two or more AMS to negotiate and liberalise trade in services in specific sectors or sub-sectors without requiring region-wide participation. It also allows participating AMS to extend or withhold preferential treatment from non-participating AMS. Under this framework, AMS initiating ASEAN Minus X negotiations must notify the ASEAN Secretariat of their aims or outcomes. Other AMS are free to join these agreements by offering commitments at comparable or acceptable levels to the original participants.

ASEAN's liberalisation journey has also featured GATS+ sector- and mode-specific formulas, employed under AFAS to progressively secure the market opening aims outlined in the AEC Blueprint.⁵ These efforts culminated in 10 successive negotiating packages, with the goal of completing liberalisation by 2018. However, the incomplete nature of this journey is acknowledged in Article 1 of ATISA (Objectives), which explicitly lists the reduction of barriers to trade and investment as one of the new treaty's core aims.

Another ASEAN-specific liberalisation innovation under AFAS, though not carried forward into ATISA, allowed AMS a 15% margin of flexibility in scheduling commitments across all modes of service supply. This flexibility, introduced during the final two AFAS packages, reflected the region's recognition of the need for adaptability in managing divergent levels of readiness amongst member states.

Upon ATISA's entry into force, AMS undertook a significant overhaul of the region's services liberalisation framework by adopting a more transparent negative-list approach. This shift requires AMS to disclose all measures inconsistent with ATISA's core provisions, including national treatment, market access (non-discriminatory quantitative restrictions), local presence requirements, and nationality requirements for boards of directors. By locking in the prevailing regulatory status quo through reservation lists annexed to the treaty, ATISA provides an important signalling function, particularly for resource-constrained AMS where business and investment regimes often carry higher risk premiums.

⁵ See Chapter 4 in Neo, Sauv  , and Strehlo (2019) for a detailed review and critical assessment of the negotiating history of AFAS.

This transformation in ASEAN's negotiating modalities aligns with the approach now prevalent in most PTAs and represents an important commitment to improved regulatory governance. The preparation and periodic review of lists of non-conforming measures serve as important anchors for strengthening inter-agency coordination, which is essential for sound policy formulation in services given their economy-wide ubiquity and intermediation function. This process provides an opportunity for AMS at all income levels to review their domestic regulatory landscapes and assess their alignment with sector and economy-wide policy objectives.⁶

Despite these advantages, it remains uncertain whether the lengthy transition periods granted to some member states – up to 13 years for Cambodia, Lao PDR, and Myanmar – will yield the governance improvements typically associated with a negative-list approach. This uncertainty arises even though several AMS, including Brunei Darussalam, Malaysia, Singapore, and Viet Nam, have already adopted the negative-list modality in PTAs with external partners, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP). The availability of substantial technical assistance to support the transition from the GATS-like positive-list approach should, in theory, mitigate implementation challenges.

3.2. Rule-making

ATISA, signed in 2020, marks a significant advancement in rule-making relative to the rather vague and embryonic provisions of the 1995 AFAS. Unlike AFAS, which lacked core disciplines to guide the liberalisation process and omitted many provisions already present in the 1994 GATS, ATISA establishes a more comprehensive framework. AFAS mainly focused on securing GATS+ liberalisation commitments through successive negotiating packages rather than developing or completing the incipient body of rules governing trade and investment in services introduced by GATS.

By contrast, ATISA largely mirrors the more complete set of provisions found in GATS and in many PTAs covering trade in services. It improves upon GATS and similar PTAs in two important ways. First, it marks a major shift in negotiating modalities by adopting a negative-list approach to market opening. Second, heeding recommendations from several observers,⁷ ATISA incorporates a more-favoured-nation clause. This ensures that benefits from future agreements entered by individual AMS with external partners are automatically extended to all AMS. The inclusion of this clause corrects the anomalous situation in which some AMS granted non-AMS better market access than that offered to their ASEAN partners.

⁶ For a fuller discussion on the use to which negative listing can be put, see Sauv  and Lacey (2013).

⁷ See USAID (2019); Neo, Sauv , and Streho (2019); and Mercurio (2019).

Equally of note is ATISA's national treatment obligation, which departs from GATS by adopting language pioneered in the 1994 NAFTA. Under this approach, national treatment is extended to services and service providers deemed to be 'in like circumstances', rather than simply ensuring no less favourable treatment to 'like' services and service providers. This formulation reflects a preference for greater policy flexibility and addresses the concerns of domestic regulatory authorities regarding the potential for legal challenges.

AMS have not used the regional integration process as a laboratory to advance rules in areas not yet subject to multilateral consensus. This restraint is evident in ATISA's provisions on emergency safeguard measures and subsidy disciplines for services, which closely parallel GATS language. The emphasis remains on progressively eliminating intra-regional barriers to trade and investment in services. However, two exceptions may be noted. The first is the ASEAN Framework Agreement on Mutual Recognition Agreements of 1998, which codified key elements for completing MRAs and paved the way for the conclusion of eight MRAs facilitating trade in professional services amongst ASEAN economies. The second is Article 25 of ATISA, which focuses on boosting the participation of micro, small, and medium-sized service enterprises (MSMEs) within the AEC. These provisions drew inspiration from the recommendations of the Joint Statement Initiative talks on MSMEs, held amongst like-minded WTO members interested in enhancing the integration of smaller firms into global trade and investment currents.⁸

3.3. Market Opening

A notable feature of ASEAN's extensive formal regional integration process has been the 10 incremental packages of market-opening commitments on services trade, conducted in 1997–2023. This negotiating activity stands in contrast to the limited regional integration on services described in Section 2 and the relatively restrictive policy environment for services trade in the region outlined in the section that follows, which partly explains the limited de facto integration achieved.

Looking at the liberalisation commitments undertaken in services within ASEAN, one might expect that these prolonged and frequent regional efforts would have resulted in lower barriers than those applied to other trading partners. Assessing de jure integration is important, as such commitments not only encourage greater openness but also carry added value through the predictability and transparency they provide (Ciuriak et al., 2020; Lamprecht and Miroudot, 2018).

⁸ See the set of measures agreed in December 2020 by the 98 WTO members taking part in the Joint Statement Initiative (JSI) on MSMEs at WTO (2021).

Although an in-depth assessment of the commitments made by the 10 ASEAN economies across all negotiating packages lies beyond the scope of this chapter, the following discussion explores regional integration trajectories in services for a sample of AMS at different points in time, comparing these against other preferential endeavours. Focusing solely on the 10th package of commitments, finalised in 2023, would not provide comprehensive guidance, as it would have had no bearing on the levels of de facto integration achieved over the preceding 10–15 years. To correct such bias, the analysis first considers the liberalisation levels achieved through the seventh package, concluded in 2009.⁹

Using the index developed by Marchetti and Roy (2008), Table 12.4 compares the commitments undertaken under the seventh AFAS package with those in GATS and other PTAs signed by AMS during the same period.¹⁰ The table shows that, for various ASEAN countries, the seventh AFAS package comprised a higher level of commitments than those found in other PTAs to which they were parties. This was most notably the case of Indonesia, Thailand, and Brunei Darussalam. However, for Singapore – the region's most important services economy – commitments in several other PTAs were more significant than those in the seventh AFAS package.

The intra-regional differences observed in the seventh package outcome can be attributed to the varying levels of experience AMS had in negotiating services PTAs at that point, particularly their exposure to liberalisation modalities that differed from the GATS framework. Singapore had engaged in services PTAs outside the region much earlier than other ASEAN countries, and many such agreements adopted negative-list modalities. Singapore's three PTAs with the highest levels of commitment – those with the United States, the Republic of Korea, and Australia – were all based on negative-list modalities.¹¹ The difference between such agreements and Singapore's commitments under the seventh AFAS package was, not surprisingly, significant. In contrast, most other ASEAN countries largely continued to rely on GATS-type and AFAS-type positive-list approaches.

⁹ We rely on the dataset and methodology first developed by Roy et al. (2007), and subsequently expanded in Marchetti and Roy (2008) and Roy (2014).

¹⁰ This dataset covers Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

¹¹ In their simplest forms, positive-list agreements, such as GATS or AFAS, are characterised by the fact that liberalisation obligations apply only to sectors expressly listed in each party's schedule of commitments and are subject to the limitations listed therein. In contrast, negative-list agreements impose liberalisation obligations across all sectors by default, unless exceptions are explicitly stated through scheduled reservations. Unlike GATS, negative-list agreements require reservations for non-conforming measures to reflect existing restrictions, unless otherwise specified in a second annex. Another key difference is the inclusion of a ratchet mechanism for reservations on existing non-conforming measures. This mechanism ensures that any future liberalisation becomes automatically bound under the agreement.

Table 12.4. Index of GATS+ Commitments in AFAS Seventh Package and Other PTAs Concluded by Seven ASEAN Member States

ASEAN Member State	Other PTA partner								
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS Seventh Package		
Brunei Darussalam	Mode 1	9	12	11	11	11	35		
	Mode 3	7	11	10	8	8	27		
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS Seventh Package		
Indonesia	Mode 1	18	26	25	19	25	49		
	Mode 3	16	23	20	17	20	34		
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS Seventh Package	PAK	
Malaysia	Mode 1	26	28	31	28	33	41	28	
	Mode 3	29	31	34	29	35	46	35	
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS Seventh Package		
Philippines	Mode 1	12	22	15	14	12	28		
	Mode 3	21	33	27	23	24	41		
		GATS	JPN	IND	CHN	KOR	AFAS Seventh Package	US	AUS
Singapore	Mode 1	34	54	50	38	68	39	72	65
	Mode 3	41	65	62	47	74	45	79	72
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS 7 th Package	AUS	
Thailand	Mode 1	12	12	12	13	12	35	15	
	Mode 3	26	28	27	27	27	41	31	
		GATS	JPN	AUS-NZE	CHN	KOR	AFAS Seventh Package		
Viet Nam	Mode 1	32	32	32	32	32	38		
	Mode 3	36	36	37	36	36	39		

AFAS = ASEAN Framework Agreement on Services, ASEAN = Association of Southeast Asian Nations, AUS–NZE = Australia–New Zealand, CHN = China, GATS = General Agreement on Trade in Services, JPA = Japan, KOR = Republic of Korea, PAK = Pakistan, PTA = preferential trade agreement, US = United States of America.

Note: The index scores are scaled from 0 to 100 for each sector, with 100 representing full commitments (i.e. without limitations) across all relevant sub-sectors. 'GATS' reflects the index value for both GATS commitments and services offers in the Doha Development Agenda.

Another key finding is the limited scope of the PTA commitments in the seventh AFAS package and, consequently, in many ASEAN countries, when compared with commitments pursued by other countries within their preferential agreements during a similar timeframe. Despite the extensive involvement of ASEAN countries in PTA negotiations, both within and outside the region, their best PTA commitments are,¹² on average, almost 50% lower than Singapore's index score for best PTA commitments. Leaving Singapore aside, the best average index score for ASEAN countries' best PTA commitments is 33% lower than the corresponding average for 47 other developing and developed economies engaged in services PTAs over the same period.¹³

Such results underscore how the extensive negotiation of liberalisation commitments within ASEAN has not yielded the depth of commitments necessary to facilitate and sustain the intra-ASEAN services trade integration called for by the AEC Blueprint. Whilst successive AFAS packages demonstrate an improvement over the limited commitments undertaken multilaterally by AMS, the bindings under the seventh package (2009) remain modest compared to what other regional groupings secured and, in some cases, to the commitments of the ASEAN economies made with external partners.

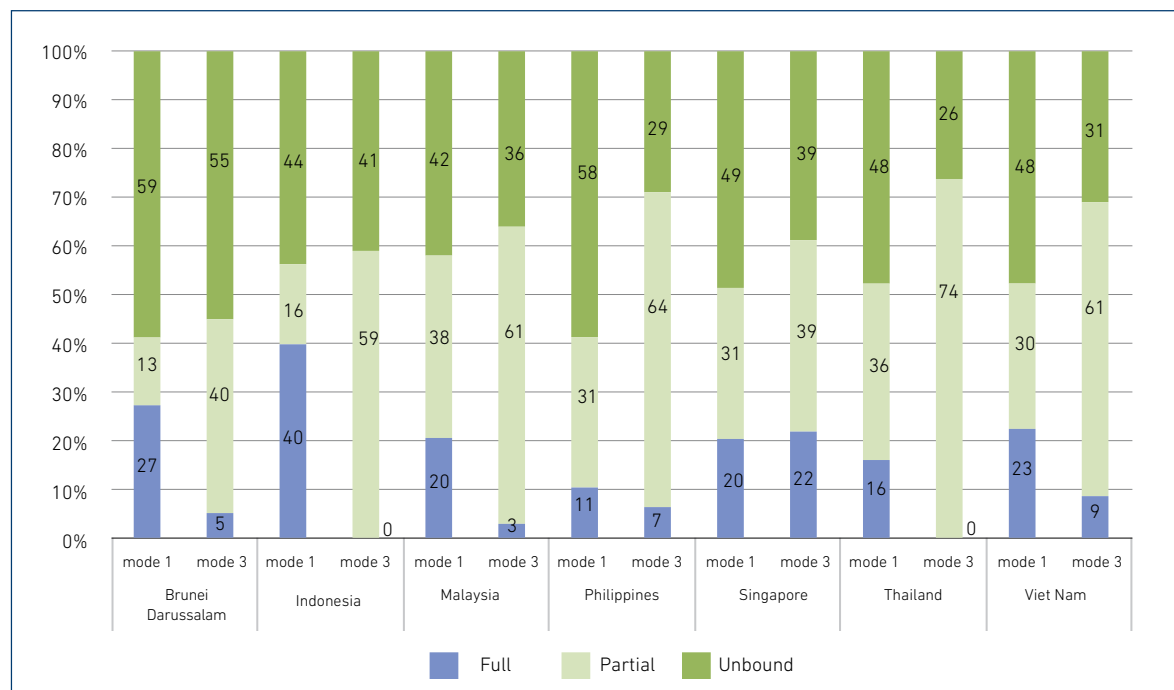
Figure 12.6 illustrates some shortcomings in intra-ASEAN liberalisation commitments. Rather than comparing AFAS commitments to those undertaken in other PTAs, the figure shows the share of *full* (i.e. unrestricted at the sector-specific level), *partial* (with sector-specific restrictions), and *unbound* commitments across all subsectors for Modes 1 and 3 in seven ASEAN economies under the seventh package. Most striking, a large share of services subsectors remain unbound for Modes 1 and 3. For example, up to 59% of subsectors are unbound for Brunei Darussalam and 58% for the Philippines under Mode 1, whilst 42% of subsectors are unbound under Mode 3 in Indonesia. Unbound commitments imply the absence of guarantees of access and non-discrimination, affording parties within the region full autonomy to introduce new quantitative (e.g. market access) or discriminatory (e.g. national treatment) restrictions at any time.

The share of full commitments at the sector-specific level is also surprisingly low, especially for Mode 3. With the exception of Singapore, the share of unrestricted sub-sector bindings never surpasses 10% for the most important mode of supplying services. The limitations inscribed in the commitments are not inconsequential, typically consisting of foreign equity limits.

¹² 'Best PTA' commitments refer to the highest level of commitment undertaken in any PTA across each sub-sector and mode of supply.

¹³ Roy (2014).

Figure 12.6. Share of Full, Partial, and Unbound Commitments in the Seventh AFAS Package of Specific Commitments in ASEAN



AFAS = ASEAN Framework Agreement on Services, ASEAN = Association of Southeast Asian Nations.

Source: Computed from the dataset and methodology used in Roy (2014).

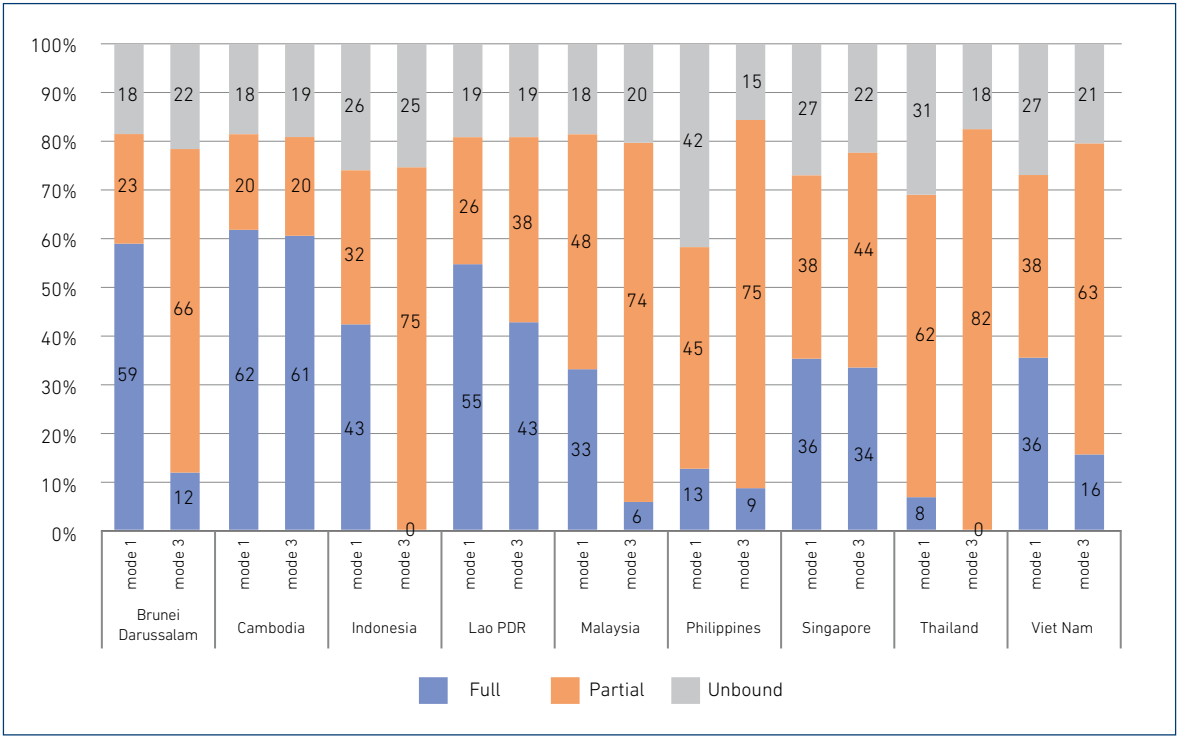
The 10th package of commitments, completed in 2023, represents a notable improvement over the seventh package, improving commitments in sectors already committed in 2009 and, in some cases, adding commitments in previously unbound sectors.¹⁴ Nonetheless, the 10th package still features fewer commitments than those undertaken by some ASEAN members, such as Singapore, which have long adopted negative-listing modalities. More importantly, as illustrated in Figure 12.7, whilst the 10th package builds upon the seventh, it remains restrictive, especially for many of the region's larger economies, excluding Singapore. The most significant improvements under the 10th package are observed in Mode 1, where the share of unbound subsectors has declined considerably. This arguably reflects the growing feasibility of delivering services across borders in digital form. Still, more than a fifth of subsectors remain uncommitted in Mode 1 for several economies, including Indonesia (26%), the Philippines (42%), Singapore (27%), Thailand (31%), and Viet Nam (27%).

¹⁴ This set of commitments still uses a positive-list approach, with all AMS gradually transitioning to a negative-listing framework.

In Mode 3, despite improvements, the level of full commitments at the sector-specific level remains low in most of the nine countries examined, except Cambodia, Lao PDR, and Singapore. Less than 10% of subsectors are unrestricted for Indonesia (0%), Malaysia (6%), the Philippines (9%), and Thailand (0%). In Thailand, for example, all committed subsectors are subject to foreign equity limits, ranging from 25% to 70%. Similarly, Indonesia, Malaysia, and the Philippines include foreign equity limits in many of their committed sectors under the 10th package. In these economies, most of the improvements in Mode 3 from the seventh to the 10th package involve sector restrictions, with improvements often limited to increasing the permitted levels of foreign capital ownership.

For countries using the positive list modality under RCEP, such as Cambodia, Lao PDR, the Philippines, and Thailand, the 10th package commitments go further. However, the improvements remain modest, particularly for Thailand and the Philippines.

Figure 12.7. Share of Full, Partial, and Unbound Commitments in ASEAN's 10th Package of Specific Commitments



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: Authors.

4. A Closer Look at *Applied Services Trade Regimes* in ASEAN

One might reasonably expect ASEAN's extensive integration process in services to place the region's *applied* services trade policies at the global frontier. However, the limited scale of intra-regional trade and investment in services begs the question of the restrictiveness of the services trade policies of AMS.

To assess these policies, we first rely on the WTO–World Bank services trade restrictiveness index (STRI).¹⁵ A preliminary look (Figure 12.8) reveals that ASEAN is, overall, more trade restrictive than the world average across all nine major sectors surveyed by the STRI. This includes key infrastructure services – distribution, finance, and transport – which significantly inflate trade costs. Such findings do not align with ASEAN's quest to create a single regional production space anchored in deeply integrated services markets.

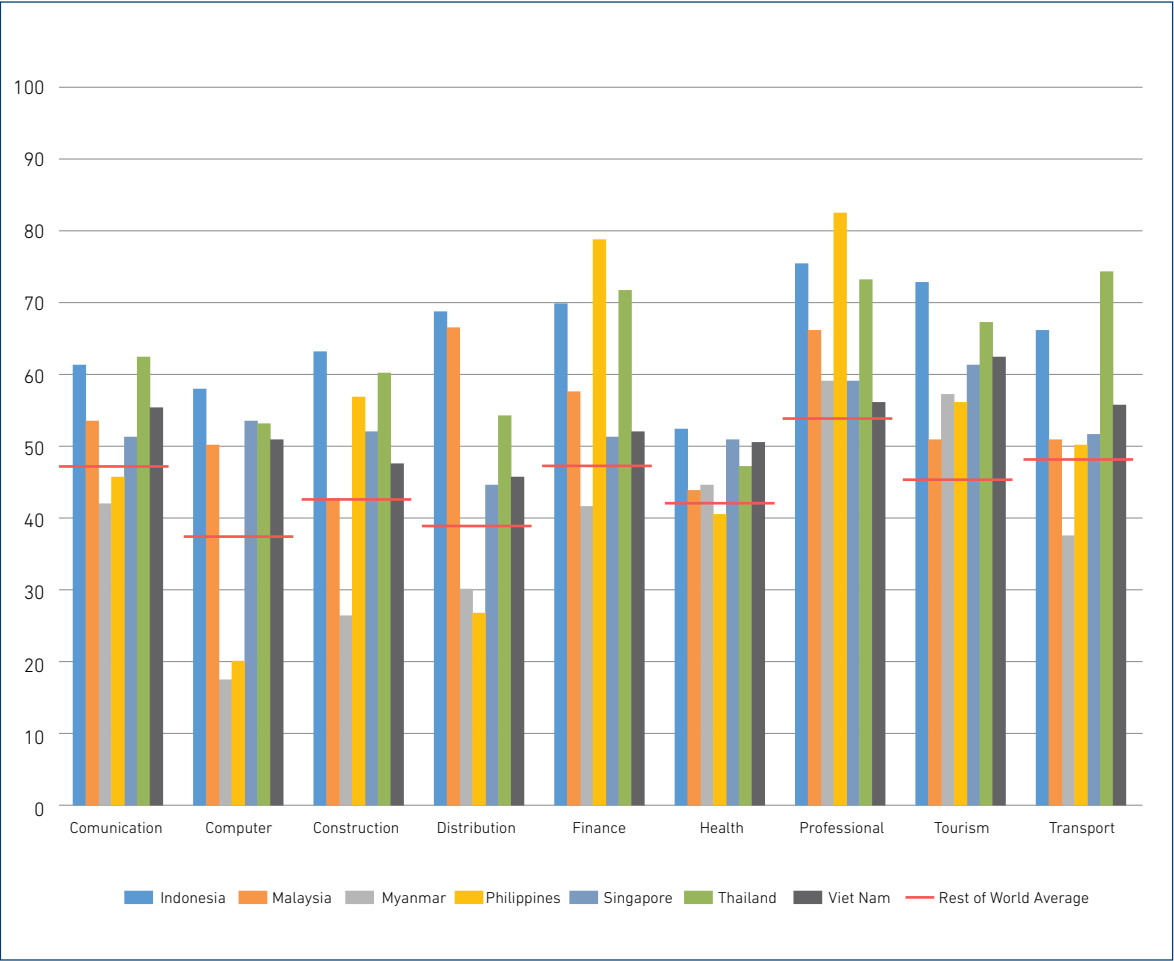
Amongst the nine major sectors, professional, tourism, and financial services are the most restricted in ASEAN. Tourism services exhibit the biggest difference with the world average, with ASEAN countries being 31.8% more restrictive, followed by finance (28.1%) and professional services (24.4%). Whilst restrictions in professional services partly reflect the nature of policies governing the mobility of service providers under Mode 4, they appear incongruous with ASEAN's eight MRAs designed to facilitate the seamless intra-regional movement of highly skilled ASEAN professionals.

Considerable intra-regional variance can be observed, with Indonesia and Thailand topping the restrictiveness chart.¹⁶ Myanmar, having made notable strides towards liberalisation in recent years, is the only AMS with a services trade restrictiveness level below the world average. Peaks in restrictiveness are sector specific: professional services in Indonesia, distribution services in Malaysia, finance in the Philippines, and transport services in Thailand.

¹⁵ The WTO–World Bank STRI measures the level of policy restrictiveness in the services markets of 133 economies. This index assigns a score ranging from 0 (fully open) to 100 (fully restricted), reflecting the level of access afforded by a range of regulatory measures across five leading services sectors: communications, distribution, finance, professional services, and transport. These services are further broken down into 34 sub-sectors. The data supporting the index is collected through surveys conducted by the World Bank and the WTO.

¹⁶ Brunei Darussalam, Cambodia, and Lao PDR are not yet covered by the WTO–World Bank STRI.

Figure 12.8. Services Trade Restrictiveness in Selected ASEAN Economies, 2022



ASEAN = Association of Southeast Asian Nations.
 Source: World Bank and World Trade Organization Services Trade Restrictiveness Index.

When examined by mode of service supply, AMS regimes show particularly high levels of restrictiveness in cross-border supply (Mode 1) and trade in services via commercial presence (Mode 3). ASEAN’s average STRI scores for these modes well exceed the world averages (Table 12.5). Malaysia, Indonesia, and Viet Nam are the most restrictive under Mode 1, whilst Indonesia, Thailand, and the Philippines are the most restrictive under Mode 3. Singapore, in contrast, is the most restrictive under Mode 4.

**Table 12.5. Services Trade Restrictiveness by Mode of Supply in ASEAN
(WTO–World Bank STRI)**

	Mode 1	Mode 3	Mode 4
World average	58.5	44.5	44.8
ASEAN average	70.1	54.4	51.2
Indonesia	83.1	64.3	64.5
Malaysia	86.7	51.8	42.5
Myanmar	48.1	53.4	26.4
Philippines	46.3	60.4	42.5
Singapore	74.8	40.5	70.7
Thailand	75.1	61.6	64.3
Viet Nam	76.6	49	47.7

ASEAN = Association of Southeast Asian Nations, STRI = services trade restrictiveness index, WTO = World Trade Organization.

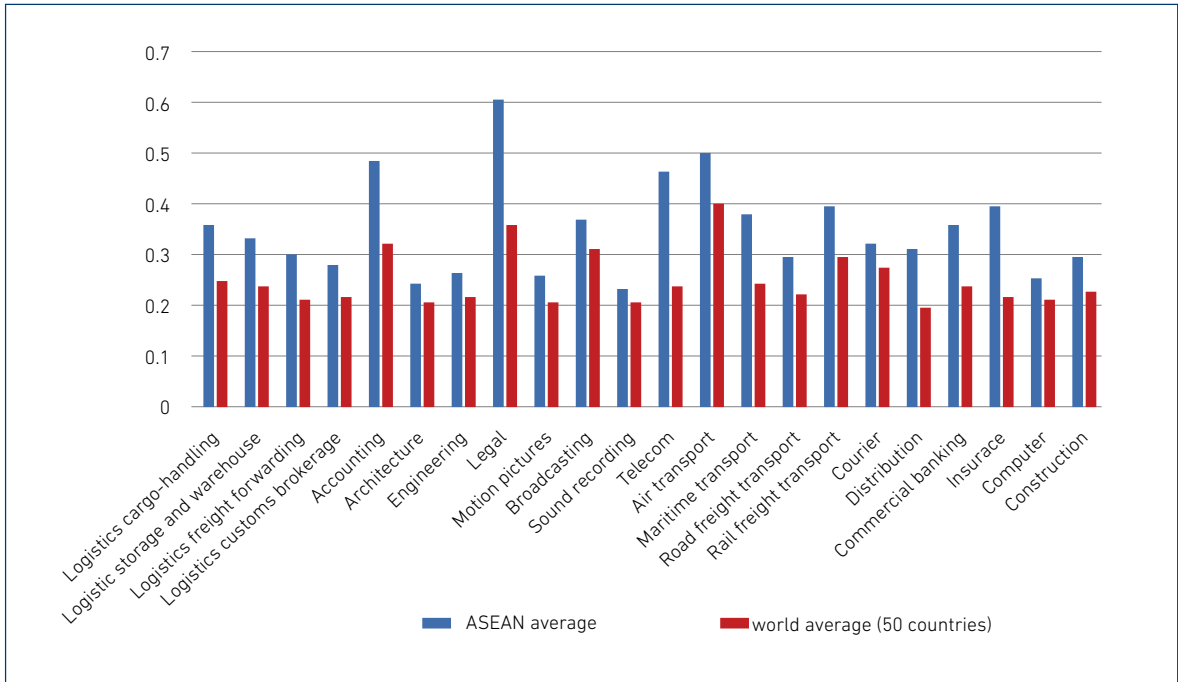
Note: Simple unweighted average.

Source: World Bank and World Trade Organization Services Trade Restrictiveness Index.

The OECD's STRI, introduced in 2014, complements this analysis. Covering five AMS – Indonesia, Malaysia, Singapore, Thailand, and Viet Nam – alongside a sample of 50 economies and across 22 sectors, it paints a broadly similar picture to the WTO–World Bank index.¹⁷ ASEAN countries are, on average, more restrictive than other economies in all 22 sectors examined (Figure 12.9).

¹⁷ See OECD (2024).

Figure 12.9. OECD Services Trade Restrictiveness Index for Five ASEAN Countries and the World Average, by Sub-sector



ASEAN = Association of Southeast Asian Nations, OECD = Organisation for Economic Co-operation and Development.
Source: Organisation for Economic Co-operation and Development Services Trade Restrictiveness Index.

5. Not Quite There Yet: ASEAN's Regulatory and Institutional Performance in Services

Despite 3 decades of successive regional liberalisation efforts, ASEAN's integration process in services continues to display considerable intra-regional policy variance. Such variance is rooted for the most part in the region's far-reaching, if slightly reduced, development gaps and the marked differences in implementation capacity and supply-side readiness. This section explores how these development gaps weigh on region-wide policy convergence and the role played by AFAS and ATISA in promoting improved services sector governance.

Table 12.6 documents the marked heterogeneity amongst ASEAN economies across a range of regulatory, governance, and innovation-related metrics relevant to services market integration. Beyond geographical proximity, which facilitates production sharing and supports connectivity and trade facilitation agendas centred on regional infrastructure public goods, ASEAN lacks many attributes of an optimal regulatory convergence area.^{18 19}

Of significant concern, particularly considering the deep integration aims outlined in the AEC Blueprint, are continued weaknesses and wide intra-regional discrepancies in institutional, regulatory, and innovation performance. Neo, Sauvé, and Streho (2019) reported such shortcomings for the period up to 2017, and Table 5.1 indicates that these issues remain prevalent. Notable weaknesses persist in institutional performance metrics, such as government effectiveness and regulatory quality – centrally important determinants of services sector advances – where six of the 10 AMS rank below the sample median. Similar results are evident in rule of law and regulatory quality metrics, where only a minority of AMS rank above the sample median. Worth recalling is that only three AMS – the Philippines, Singapore, and Thailand – have committed to the disciplines on services domestic regulation agreed upon in December 2021 by 70 WTO members. These disciplines aim to improve regulatory transparency and governance and reduce compliance costs linked to licensing requirements, qualification requirements and procedures, and technical standards.²⁰

¹⁸ Optimal regulatory convergence areas can be understood as groups of countries or regional groupings where the adoption of harmonised regulatory norms and practices would maximise collective welfare. Such areas aim to balance the benefits and costs of participation in a preferential agreement. The potential gains from eliminating policy differences through regulatory approximation or harmonisation largely depend on the feasibility of creating truly integrated markets. This feasibility is often conditioned by ‘natural’ ties between countries, such as geographic and linguistic proximity and other contextual factors. The costs of pursuing regulatory convergence are shaped by the ex-ante similarities or divergences in regulatory or collective preferences and the compatibility of the regulatory regimes and institutions designed in response to such preferences. By definition, an optimal regulatory convergence area assumes that cooperation can be an important means of sharing information and experience regarding regulatory reform, identifying good regulatory practices, and facilitating their eventual adoption by parties to an integration process. For further insights, see Roy, Sauvé, and Shingal (2014); Polanco Lazo and Sauvé (2017); and Neo, Sauvé, and Streho (2019).

¹⁹ This observation traces its origin in the pronounced development gaps within the region, reflected in a per capita GDP ratio of almost 30 to 1 between the region’s richest and poorest member states (expressed in purchasing power parity terms). Whilst such a gap was significantly reduced since 2011, when it stood at 47 to 1, it recalls why convergence towards a common ASEAN norm is only feasible through significant doses of variable geometry. Such convergence also requires liberalisation modalities that incorporate intra-ASEAN forms of special and differential treatment, specifically directed towards the region’s most resource-constrained members.

²⁰ See WTO (2024a).

Table 12.6. Global Ranking on Selected Service Sector Performance Metrics in ASEAN, 2023

Indicator/ASEAN Member State	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar (2022 data)	Philippines	Singapore	Thailand	Viet Nam
Global Innovation Index	87	101	61	110	36	116	56	5	43	46
Institutions	20	87	70	95	29	123	79	1	85	54
Government effectiveness	20	96	49	105	31	124	62	1	57	54
Regulatory quality	31	110	56	120	43	106	69	1	65	94
Rule of law	32	116	74	105	40	125	106	4	59	72
Business environment	52	74	11	56	20	105	51	1	73	31
Human capital	57	101	85	115	32	102	88	2	74	71
Education	63	81	113	122	72	126	115	46	100	70
Tertiary education	39	100	95	99	11	68	45	2	72	89
Research and development	63	109	39	119	31	106	70	14	45	44
Infrastructure	54	108	69	109	51	128	86	8	49	70
ICT access	81	89	49	109	17	-	103	1	29	40
ICT use	41	79	80	104	45	-	100	40	47	67
Logistics performance	-	103	60	103	25	117	42	1	33	42
Knowledge creation	89	120	82	124	66	120	67	20	42	80
Knowledge workers	68	118	125	105	62	126	51	5	56	75
Knowledge intensive employment	43	118	105	96	51	119	83	2	95	112
High tech exports' share of total trade (%)	98	65	45	46	1	69	2	4	8	3
ICT services exports' share of total trade (%)	129	109	93	97	74	110	18	46	128	115
Online creativity	101	77	71	126	64	127	74	16	69	54

ASEAN = Association of Southeast Asian Nations, ICT = information and communication technology, Lao PDR = Lao People's Democratic Republic.

Note: Sample size = 132 economies.

Source: World Intellectual Property Organization, Global Innovation Index 2023.

Situating these trends within a longer timeframe, Table 12.7 shows that from 2016 to 2022, institutional and regulatory performance in ASEAN remains correlated with income and development levels. For eight AMS, data from the World Justice Project's rule of law and regulatory enforcement index indicates that most experienced deteriorating rankings over this period. Recent improvements, observed in 2010–2022, coincide with intensified competition from extra-regional players, notably China and India.

Table 12.7. Selected Regulatory Governance Indicator Rankings in ASEAN, 2016 and 2022

ASEAN Member State	Rule of Law Index Rank		Regulatory Enforcement Rank	
	2016	2022	2016	2022
Cambodia	112	139	112	139
Indonesia	61	64	53	47
Malaysia	56	55	74	53
Myanmar	98	132	87	113
Philippines	70	97	55	82
Singapore	9	17	1	7
Thailand	64	80	56	101
Viet Nam	67	84	91	102

ASEAN = Association of Southeast Asian Nations.

Note: Data for Brunei Darussalam and Lao People's Democratic Republic are unavailable.

Source: World Justice Project (2022), Rule of Law Index 2022.

Equally preoccupying, given the regulatory and licensing intensity that characterises the service economy, is ASEAN's poor overall performance in addressing corruption. Transparency International's latest Corruption Perceptions Index shows limited progress across the region since 2010, with most AMS ranking in the lowest two quartiles of the sample (Table 12A.2).

The disparities observed in the key innovation-related metrics outlined in Table 5.1 weigh heavily on the skills upgrading required to integrate ASEAN workers and firms into higher value-added regional supply chains. Weak innovation metrics inhibit resilience-enhancing diversification efforts, particularly in the digital realm.

Encouragingly, the region's logistics sector shows trade-facilitating efficiency gains. Six of the nine economies for which data are available under the World Bank's Logistics Performance Index improved their rankings between 2016 and 2023. However, only two AMS – Thailand (marginally) and Viet Nam – showed sustained improvements over the longer period from 2010 to 2023 (Table 12.8). To sustain ASEAN's edge as a unified production hub, it is essential to prioritise a comprehensive connectivity agenda. This entails sustained improvements in both the hardware (physical infrastructure) and software (policy and institutional environments) dimensions of transport, logistics, and customs-related performance.

Table 12.8. Logistics Performance Index Rankings in ASEAN, 2010, 2016, 2023

ASEAN Member State	2010	2016	2023	2016–2023 Δ	2010–2023 Δ
Cambodia	129	73	129	–56	0
Indonesia	75	63	75	–12	0
Lao PDR	118	152	118	+34	0
Malaysia	29	32	29	+3	0
Myanmar	133	113	133	–20	0
Philippines	44	71	44	+27	0
Singapore	2	5	2	+3	0
Thailand	35	45	34	+9	+1
Viet Nam	53	64	44	+20	+9

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Note: Sample size = 155 economies.

Source: World Bank, Logistics Performance Index 2023.

Of relevance to the previous section's discussion of ASEAN's uneven structural shift towards modern and digitally delivered services exports is the fact that four AMS – Indonesia (4th), Viet Nam (5th), Thailand (10th), and Malaysia (11th) – rank amongst the most restrictive digital trade regimes out of the 65 economies assessed in the Digital Trade Restrictiveness Index compiled by the Brussels-based European Centre for International Political Economy (ECIPE).²¹ Notably, all AMS other than Cambodia and Viet Nam have participated in the plurilateral Joint Statement Initiative talks on e-commerce at the WTO since 2017.

The pronounced intra-regional diversity in regulatory and institutional performance arguably places important limitations on ASEAN-wide policy convergence. This confirms the need for formula-based flexibilities in the design and implementation of services sector reforms that engage the region as a whole. At the same time, persistent gaps in development, income, and implementation capacity have driven several of ASEAN's more advanced economies to seek deeper forms of services trade and investment liberalisation with external partners in the Asia-Pacific and beyond.

²¹ See ECIPE (2023), *Digital Trade Restrictiveness Index 2023*.

6. Concluding Thoughts and Policy Recommendations

ASEAN's rapid economic advance and the steady rise in living standards witnessed in recent decades have largely been anchored in a growth model that emphasises external demand and integration into global value chains, particularly in manufacturing. Such progress could not, however, have been proven possible without marked improvements in the efficiency with which the region's underlying services infrastructure has sustained productivity growth in upstream and downstream industries, from natural resource extraction and agriculture to manufacturing and services. Yet, the efficiency gains observed appear to have been driven more by unilateral policy initiatives, albeit limited, than by concerted collective action. Consequently, the impact of regional integration processes under AFAS and, more recently, the 2020 ATISA on the region's economic trajectory remains an open question.

The road ahead confronts AMS with numerous (and simultaneous) challenges that mirror those encountered by other successful middle-income emerging economies in a world characterised by heightened production fragmentation and significant trade policy turbulence. For lower-income AMS, such as Cambodia, Lao PDR, and Myanmar, these challenges revolve around narrowing development gap by moving towards greater economic complexity and diversifying export baskets, particularly in the services sector. For more advanced AMS, such as Malaysia and Thailand, the focus must be on guarding against the 'middle-income trap' by moving up the innovation ladder and transitioning towards exports of goods and services with higher technological content. Brunei Darussalam, Indonesia, and Viet Nam face the imperative of leveraging the services sector to accelerate decarbonisation efforts and promote more sustainable patterns of production and exchange.

Moving in this direction will require continued improvements in product and process innovation and sustained gains in labour productivity through skills development. These are areas where, with few exceptions, ASEAN has made inadequate headway since the AEC Blueprint was decreed in 2015. Significant scope exists for deeper structural reforms in key product and factor markets, alongside a more prominent role for services sector reforms and increased trade and investment in services as central pillars of ASEAN's growth and development path.

First, services remain the most important driver of employment growth throughout the region as well as a critical vector of greater inclusivity, given their strongly positive impact on female and youth employment, as well as entrepreneurship.

Second, recent empirical evidence shows that the contribution of services to aggregate labour productivity – hence, to long-term income growth – has been higher than that of manufacturing across all major economies of the region (World Bank, 2023). As services typically employ more skilled workers than manufacturing or agriculture, continued growth in the services sector will increase the relative demand for skilled workers. Such a trend will place heightened pressure on AMS to supply the human capital needs of more service-centric economies through reforms in higher and specialised vocational education, with a particular focus on improving the digital literacy and skills of workers and firms alike.

Third, mounting evidence, including in ASEAN, demonstrates that reducing barriers to competition in the services sector can spur higher productivity growth not only within services but also in manufacturing sectors that heavily depend on service inputs. Despite the sharp drop induced by the COVID-19 pandemic, trade and investment in services remain particularly buoyant, representing the most dynamic component of cross-border exchange in East Asia. In 2012–2029, FDI in services will exceed the growth of FDI in manufacturing in most AMS, in some cases outpacing it by a factor of 5 (World Bank, 2023). Given the central role of FDI as a catalyst for integration in services markets, AMS should lift restrictions on intra-regional investment flows, including the caps currently imposed on foreign equity participation.

Fourth, apart from transport, where determined efforts, particularly in maritime shipping, are underway to reduce carbon footprints through recourse to cleaner energy sources, services sectors generally produce significantly lower greenhouse gas emissions per unit of output than industry or agriculture. ASEAN's structural transformation towards a services-based economy supports the region's shift to lower carbon growth (World Bank and World Trade Organization, 2023). AMS should pursue the greening of regional trade and show global leadership by progressively lifting barriers to trade and investment in environmental goods and services. Doing so could provide AMS with scope to grow new sources of comparative advantage in environmental services that are central to climate mitigation and adaptation efforts within and beyond the region.

Fifth, AMS must deepen liberalisation and improve regulation within the services sector. Despite the recent conclusion of ASEAN's 10th package of service commitments, much work remains under ATISA to promote more competitive and integrated regional services markets. This chapter has documented the degree to which liberalisation of trade and investment in services remains unfinished business in ASEAN. Advancing this agenda requires tackling policy restrictions to market entry and competition, such as discretionary and opaque licensing practices that hold back the potential benefits of MRAs, as well as restrictions on foreign ownership.

In parallel, AMS must strengthen regulatory frameworks in key service markets and address longstanding and emerging market distortions. This includes tackling restrictions that limit competition in digital marketplaces, where several ASEAN economies rank amongst the world's most restrictive. It is doubtful whether ASEAN's Framework Agreement on E-commerce, consisting chiefly of soft law provisions, can move the needle significantly in heeding the call for an ASEAN-wide digital economic community by 2025. AMS, several of which are already bound by more ambitious extra-regional disciplines under agreements such as CPTPP, RCEP, or various bilateral agreements, have an opportunity to exercise leadership by crafting a region-wide digital economy framework that builds upon the latest global advances in digital trade governance. In doing so, attention must be paid to the digital divides within ASEAN by providing targeted technical assistance and allowing flexibility in implementation timetables.

Creating opportunities for digital trade will require adherence to best regulatory practices, as exemplified by the latest generation of PTAs. However, liberalisation commitments in key digitally enabling and enabled services will be key to the region's proposed establishment of a digital economic community. Many services sectors that provide the basic infrastructure for the digital economy and e-commerce, such as telecommunications, computing, distribution, and payment services, remain subject to limited commitments under ASEAN's schedules of commitments. The same can be said of various services sectors that can now readily be supplied digitally. Improving guarantees for market access and non-discrimination would foster competition, improve sector performance, and enhance the business climate by increasing transparency and predictability.

This chapter has pointed out ASEAN's uneven participation in frontier negotiations brokered plurilaterally at the WTO, in areas such as services domestic regulation, investment facilitation, and e-commerce. Joining recently concluded or ongoing plurilateral talks in these areas offers a direct route to enhancing domestic regulatory governance in support of service market integration, an area where region-wide progress has been inadequate over the past decade. AMS should consider incorporating as many of these disciplines as possible into relevant ASEAN instruments, such as the ASEAN Trade in Services Agreement (services domestic regulation and MSMEs), the ASEAN Comprehensive Investment Agreement (investment facilitation), or the Digital Economy Framework Agreement (e-commerce).

Looking ahead, AMS must contend with the demographic transitions that accompany sustained improvements in living conditions. These transitions bring increasingly assertive demands from a growing middle class for enhanced social safety nets, better governance, and improved delivery of public goods such as health, education, housing, transportation, and freedoms of the press and internet. These demands all stand to be improved through greater intra-regional trade, investment flows, and associated factor movements.

At the same time, AMS must decide whether the region's future is best served through continued cohesion and collective intra-regional action or by allowing greater flexibility for individual member states to join other preferential groupings that might deliver ASEAN+ outcomes for third countries. Narrowing intra-ASEAN income and development gaps will reduce the temptation for more advanced AMS to prioritise growth through extra-regional ties with higher-income, technologically advanced partners.

In meeting the AEC's Blueprint 2025 objectives, AMS must continue to face the challenge of devising flexible policy pathways capable of reconciling and accommodating persistent gaps in income levels and implementation capacities across the region. One of ASEAN's defining strengths is its remarkable diversity in development levels – by far the greatest amongst the world's major regional integration initiatives. ASEAN's long-standing and novel practice of promoting deeper integration progressively through variable geometry approaches should continue to serve it well. Flexibility must be complemented by higher-market commitments, supported by stepped-up levels of intra-regional aid for trade. This support is important, as services sector reforms involve complex issues of regulatory convergence and approximation, which require strengthened regulatory institutions and enforcement capacities. However, care must be taken to ensure that the flexibilities and extended transition periods granted to less developed AMS do not dilute the urgency needed to advance policy reforms. These measures must actively contribute to reducing intra-regional development divides. The transition from positive to negative listing under ATISA, whilst significant, has arguably failed to achieve its full potential, largely due to unnecessarily extended transition periods. To instil a greater sense of urgency and facilitate improvements in domestic regulatory governance, these transition periods should be limited to no more than 5 years. This adjustment would better align with ASEAN's ambitions and ensure that reforms progress at a pace consistent with the region's overarching goals.

References

- Ciuriak, D., A. Dadkah, and D. Lysenko (2020), 'The Effect of Binding Commitments on Services Trade', *World Trade Review*, 19(3), pp.365–78.
- Lamprecht, P. and S. Miroudot (2018), 'The Value of Market Access and National Treatment Commitments in Services Trade Agreements', *OECD Trade Policy Papers*, No. 213. Paris: OECD Publishing.
- Lazo, P., R. Sauve, and P. Sauvé (2018), 'The treatment of regulatory convergence in preferential trade agreements', *World Trade Review*, 17(3), pp.1–33.
- Marchetti, J. and M. Roy (2008), 'Services Liberalization in the WTO and PTAs', in J. Marchetti and M. Roy (eds.), *Opening Markets for Trade in Services: Countries and Sectors in Bilateral and WTO Negotiations*. Cambridge (UK): Cambridge University Press and WTO, pp.61–112.
- Mercurio, B. (2019), 'Moving Toward Liberalization: The ATISA and Beyond', in Hsieh, P. L., and B. Mercurio (eds.), *ASEAN Law in the New Regional Economic Order*, Cambridge: Cambridge University Press, pp.85–114.
- Neo, Dora, P. Sauvé, and I. Streho (2019), *Services Trade in ASEAN: The Road Taken and the Journey Ahead, Integration Through Law: The Role of Law and the Rule of Law in ASEAN Integration*, Cambridge: Cambridge University Press.
- OECD (2024), *OECD Services Trade Restrictiveness Index; Policy Trends up to 2024*, Paris.
- Roy, M. (2014), 'Services Commitments in Preferential Trade Agreements: Surveying the Empirical Landscape', in P. Sauve and A. Shingal (eds.), *The Preferential Liberalization of Trade in Services: Comparative Regionalism*. Cheltenham: Edward Elgar Publishing, pp.15–36.
- Roy, M., J. Marchetti, and H. Lim (2007), 'Services Liberalization in the New Generation of Preferential Trade Agreements (PTAs): How Much Further than the GATS?', *World Trade Review* 6(2), pp.155–92.
- Sauvé, P. and S. Lacey (2013), *A Handbook on Negotiating Preferential Trade Agreements: Services Liberalization*. <https://artnet.unescap.org/publications/books-reports/handbook-negotiating-preferential-trade-agreements-services>
- Shingal, A., M. Roy, and P. Sauvé (2018), 'Do WTO+ commitments in services trade agreements reflect a quest for optimal regulatory convergence? Evidence from Asia', *The World Economy* 41(5), pp.1223–50.
- USAID (2019), *ASEAN Services Liberalization Beyond 2015: Assessment and Recommendations*, Washington. <https://www.nathaninc.com/wp-content/uploads/2017/09/ASEAN-Trade-in-Services-Liberalization-1.pdf>
- World Trade Organization (2021), 'Declaration on Micro, Small and Medium-Sized Enterprises (MSMEs)', Informal Working Group on MSMEs, 6 October 2021, INF/MSME/4/Rev.2.
- World Trade Organization (2023), *Trade Profiles 2023*.

World Trade Organization (2024a), *Factsheet on Domestic Regulation*, https://www.wto.org/english/tratop_e/serv_e/sdr_factsheet_feb24_e.pdf

World Trade Organization (2024b), *WTO STATS* (database), <https://stats.wto.org/>

World Trade Organization and World Bank (2023), *Trade in Services for Development; Fostering Sustainable Growth and Economic Diversification*. https://www.wto.org/english/res_e/booksp_e/trade_in_services_and_development_e.pdf

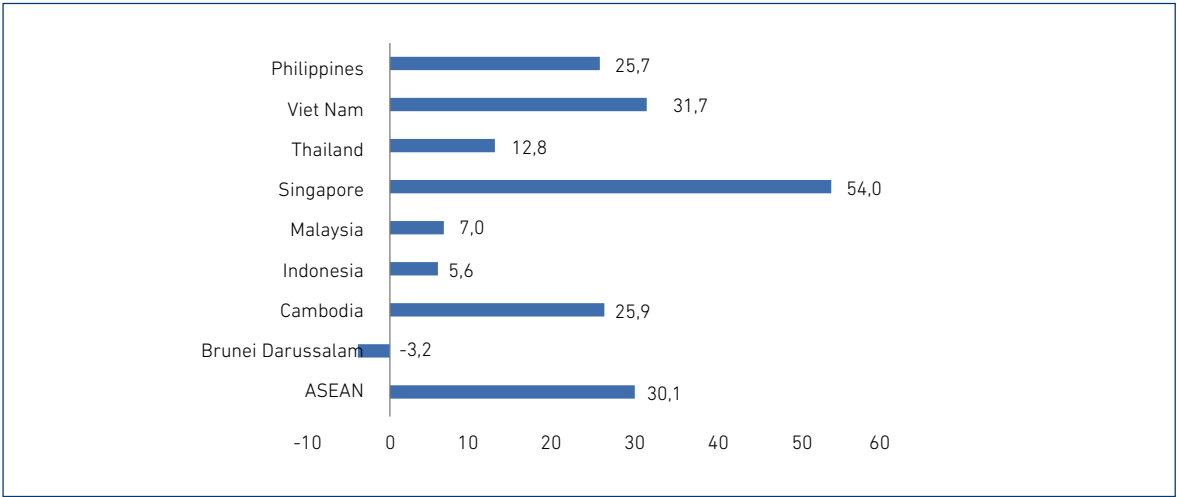
Annex:

Table 12A.1. Share of Employment in Services in ASEAN, 2010, 2015, 2021 (%)

ASEAN Member State	2010	2016	2016–2023 Δ	2010–2023 Δ
Brunei Darussalam	81.0	82.0	74.0	-8.6%
Cambodia	29.0	33.0	36.0	+24.1%
Indonesia	42.0	45.0	49.0	+16.7%
Lao PDR	20.0	27.0	31.0	+55.0%
Malaysia	59.0	60.0	62.0	+5.1%
Myanmar	30.0	32.0	35.0	+16.7%
Philippines	52.0	55.0	57.0	+9.6%
Singapore	76.0	82.0	85.0	+11.8%
Thailand	41.0	44.0	46.0	+12.2%
Viet Nam	30.0	33.0	38.0	+26.7%

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People’s Democratic Republic.
 Source: World Bank, World Development Indicators.

Figure 12A.1. Average Annual Growth Rate of Exports of Other Commercial Services in ASEAN, 2005–2022



ASEAN = Association of Southeast Asian Nations.
 Note: No data is available for Lao PDR and Myanmar in 2022.
 Source: Computed from WTO (2024b).

Table 12A.2. Corruption Perception Index Rankings in ASEAN, 2010, 2015, 2022

ASEAN Member State	2010 Sample size: 178 economies	2015 Sample size: 167 economies	2022 Sample size: 180 economies
Cambodia	154	150	150
Indonesia	116	88	110
Lao PDR	154	139	126
Malaysia	59	54	61
Myanmar	176	147	157
Philippines	146	95	116
Singapore	1	7	5
Thailand	87	76	101
Viet Nam	127	111	77

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: Transparency International, Corruption Perceptions Index 2022.

13.

The Role of Multinational Enterprises in Digital Industries in Furthering AEC Objectives

Hafiz Mirza

1. Introduction

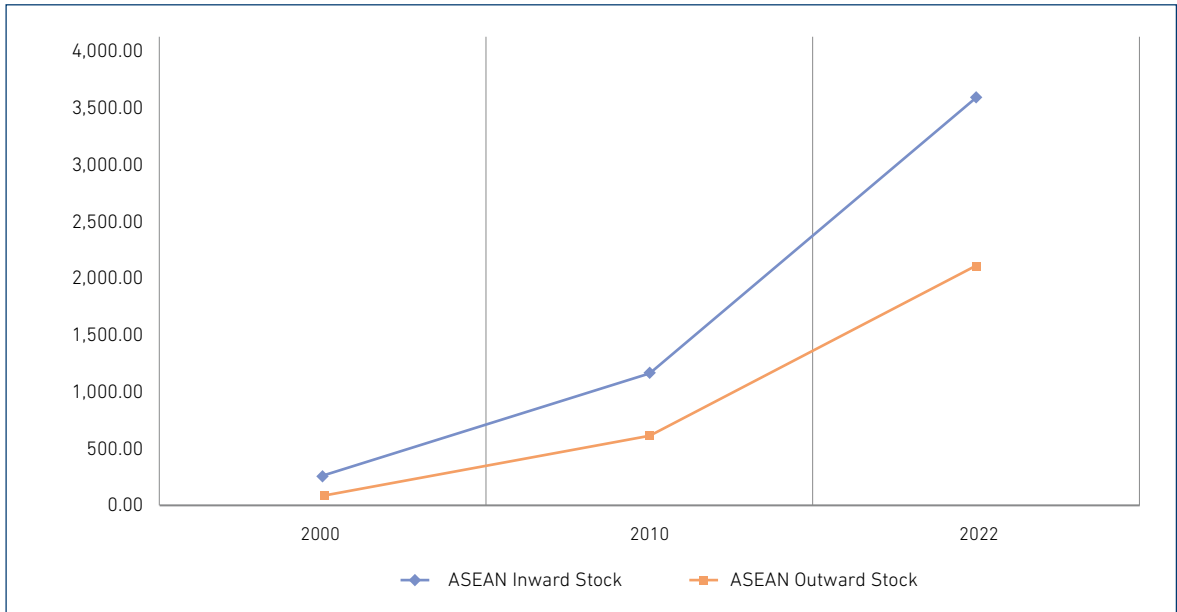
1.1. Trends in Foreign Direct Investment

The stock of foreign direct investment (FDI) by multinational enterprises (MNEs) in the Association of Southeast Asian Nations (ASEAN) region has grown significantly, making it a cornerstone of the region's economic integration. By the end of 2022, ASEAN's FDI stock had reached US\$3.6 trillion (US\$3,564 billion), a remarkable increase from just US\$0.3 trillion (US\$258 billion) in 2000 (Figure 13.1). Whilst this growth partly mirrors the global expansion of FDI during this period and ASEAN's early openness to foreign investment in the 1960s and 1970s, ASEAN's acceleration in attracting international investment has surpassed many other regions, especially in the developing world. By 2022, ASEAN accounted for 8% of global inward FDI stock and 23% of the developing world's total,¹ ranking ahead of all other developing regions except for developing East Asia² (Annex Figure 1).

¹ Developed countries account for 61% of total inward FDI stocks.

² The distribution of FDI stock across regions is not adjusted for population size or other economic indicators. However, it is worth noting that ASEAN, with a population of approximately 670 million, is significantly smaller in demographic terms than regions such as South Asia, which encompasses India, Bangladesh, and Pakistan.

**Figure 13.1. Stock of Inward and Outward Foreign Direct Investment, 2000–2022
(US\$ billion)**



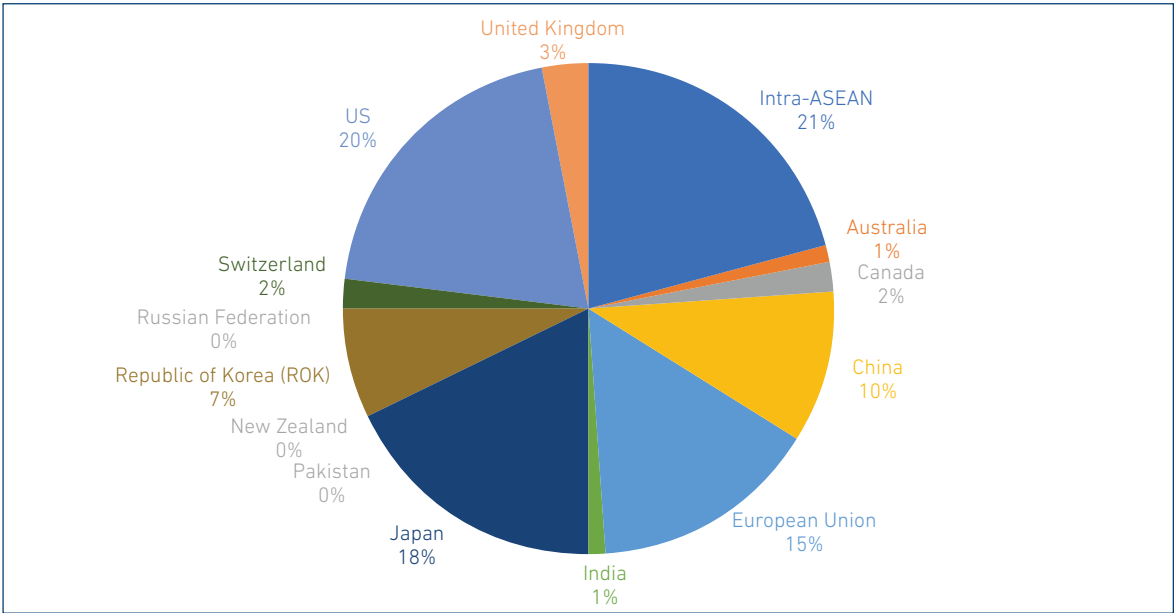
ASEAN = Association of Southeast Asian Nations.

Source: Based on United Nations Conference on Trade and Development 2023 data (Annex Table 2).

ASEAN's largest investors today include the United States (US), Japan, the European Union (EU) (comprising 27 member states,³ excluding the United Kingdom [UK]), and China. However, the sources of investment are highly diversified, with significant contributions from the Republic of Korea, the UK, Switzerland, Canada, and India (Figure 13.2).

³ The Netherlands, France, Belgium, Ireland, and Luxembourg are the largest sources of EU FDI. Investment from the latter three countries is likely driven by local affiliates of foreign MNEs (e.g. affiliates of US-based MNEs operating in Ireland).

Figure 13.2. Principal Sources of Foreign Direct Investment in ASEAN, 2015–2022 (Cumulative)



ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, US = United States of America.
Source: Based on the ASEAN Secretariat FDI database.

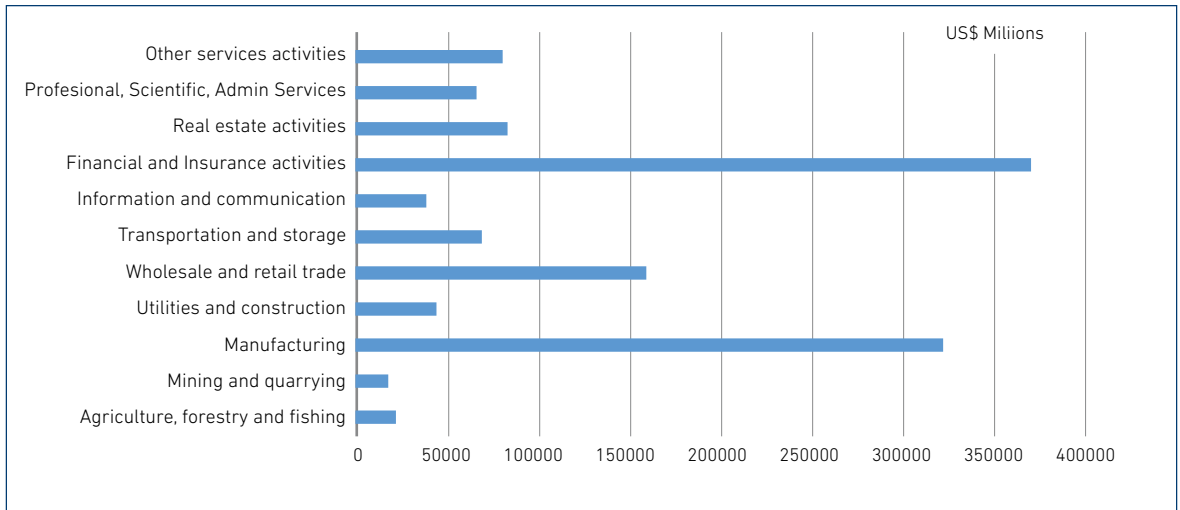
Intra-ASEAN FDI constitutes a significant portion of investment in the region, accounting for approximately 21% of total FDI in 2015–2022 (Figure 13.2). As ASEAN’s economy has expanded over the last 2 decades, ASEAN Member States (AMS) have increasingly invested within the region and beyond. The largest ASEAN sources of FDI are Singapore, Thailand, Malaysia, Indonesia, and the Philippines, in that order. However, some of this intra-ASEAN FDI originates from non-ASEAN companies headquartered in those countries.⁴

⁴ Estimating the share of intra-ASEAN FDI by MNE subsidiaries located in member states is difficult due to the lack of published or, in some cases, collected data. However, insights into the scale – or at least the range – of such FDI can be drawn by examining ownership patterns, especially subsidiaries established by the regional headquarters of non-ASEAN MNEs in other ASEAN countries (see Mirza et al. [2017]).

The primary recipients of intra-ASEAN investment are relatively more developed economies such as Indonesia, Malaysia, Singapore, and Viet Nam. Less developed AMS, including Cambodia, Lao People’s Democratic Republic (Lao PDR), and Myanmar, rely more heavily on FDI from other AMS⁵ (Annex 13A.2). This pattern of intra-ASEAN FDI reflects an evolving intra-industry and intra-regional division of labour, a core aspect of the ASEAN Economic Community (AEC) vision (Mirza et al., 2017).

ASEAN’s emergence as a major regional hub for diverse industries and global value chains (GVCs) is no mean feat for a middle-sized regional grouping, particularly given its position between developing giants such as China and India. Since the foundation of ASEAN in 1967, FDI has played a key role in driving its economic growth. MNEs, regional and global, have been significant actors in many ASEAN industries, ranging from automobiles to electronics to food and agriculture (Mirza et al., 2017). Whilst FDI in ASEAN spans numerous sectors, a few, such as finance, manufacturing, trade, and infrastructure-related activities, continue to dominate (Figure 13.3).

Figure 13.3. Flows of Inward Direct Investment to ASEAN by Economic Sector, 2015–2022



ASEAN = Association of Southeast Asian Nations.

Source: Based on the ASEAN Secretariat foreign direct investment database.

By 2003, when the AEC was first proposed,⁶ AMS had already established themselves as significant players in the international division of labour, especially in GVCs related to the automotive and

Singapore plays a dominant role in this respect, hosting so many non-ASEAN MNE headquarters. Nonetheless, other countries, such as Malaysia, the Philippines, and Thailand are also important hosts, particularly in industries such as the digital sector.

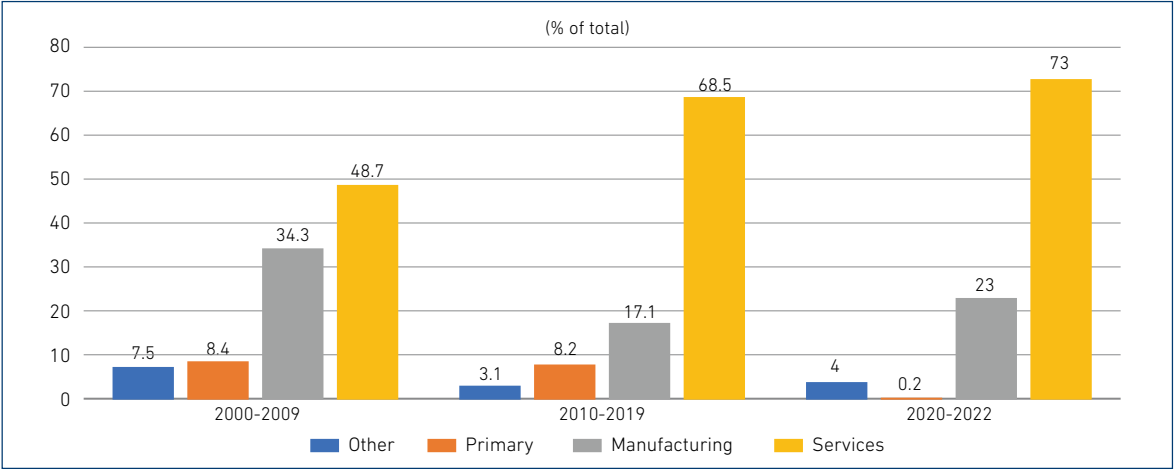
⁵ This is particularly evident in sectors such as food, agriculture, and forestry; mining and quarrying; and, to a lesser extent, garments and textiles.

⁶ These industries align with the objectives of the ASEAN Political Security Community and ASEAN Socio-Cultural Community.

electronic industries.⁷ This achievement was underpinned by FDI-driven industrial development, which persisted despite the challenges of the Asian crisis in the 1990s. Several ASEAN countries were quick to recognise the potential of the emerging international division of labour. They proactively designed, enacted, and implemented policies to attract MNEs and facilitate their international relocations. These efforts initially focused on promoting inward FDI in specific industries and, over time, evolved to target more sophisticated business functions and higher-value segments of the value chain, such as research and development.

Over the years, mutual understanding between countries and multinationals regarding each other’s motives and objectives has fostered a symbiotic co-evolution of corporate strategies and national and regional policies. This dynamic interplay has been extremely important to ASEAN’s sustained growth and progress (Mirza et al., 2017). In the early 2000s, inward FDI flows were predominantly concentrated in manufacturing (approximately one-third of the total), particularly in the automotive, electronics, and electrical industries.⁸ Services accounted for about 50% of FDI inflows, encompassing industries such as finance, trade, and infrastructure (Figure 13.4). Since then, the share of services in ASEAN’s inward FDI has risen significantly, reaching nearly three-quarters of the total in 2020–2022, with manufacturing making up most of the remainder. The share of the primary sector has shrunk. There are notable variations between AMS in the distribution of FDI by sector. For instance, Cambodia and Lao PDR attract a large proportion of FDI in the primary sector, Viet Nam receives a greater share in manufacturing, and Singapore predominantly attracts FDI in services, including hosting regional headquarters for MNEs across all sectors.

Figure 13.4. Structure of Inward Foreign Direct Investment Flows to ASEAN, by Major Economic Sector, 2000–2022



Source: Based on the ASEAN Secretariat’s foreign direct investment database.

⁷ Notably, Indonesia, Malaysia, the Philippines, Singapore, and Thailand have been key players. Cambodia and, especially, Viet Nam have made great strides in manufacturing since 2003.

⁸ In 2022, approximately 70% of announced greenfield manufacturing investments in ASEAN were concentrated in the electronics and electrical industries (AIR, 2023).

1.2. Focus of This Chapter

This chapter focuses on three key aspects of MNE and FDI participation in ASEAN and their implications for the AEC.

First, policies and strategies related to the AEC must perforce account for MNEs. MNEs (both those headquartered in ASEAN countries and those from other regions) are already highly significant players in ASEAN economies and major drivers of the region's growth and development. MNEs have contributed substantially to the realisation of the AEC through their involvement in regional value chains (RVCs), GVCs, and associated regional and international trade.

Many policy measures adopted by AMS across various sectors directly reference MNEs. These measures are documented annually in the ASEAN Investment Report (AIR), published by the ASEAN Secretariat and the United Nations Conference on Trade and Development (UNCTAD). However, there is untapped potential to leverage MNEs and their affiliates more effectively to address identified targets and objectives, such as strengthening industry RVCs. Whilst ASEAN plays an important role in many GVCs, it is strategically important to entrench these chains within the region by embedding local players and MNEs into dynamically reinforcing networks of RVCs for long-term resilience.

Second, despite the recognised importance of MNEs as key drivers of the AEC, their role often receives only superficial attention in many policies, strategies, and plans. MNEs and other private sector stakeholders are frequently introduced at the implementation stage, but their potential contributions – and challenges – should be identified and integrated earlier in the planning process. Proactively incorporating MNEs into AEC-related measures could significantly enhance their effectiveness and alignment with broader economic goals.

Third, this chapter uses MNEs and FDI in digital industries to underline the first two points. Digital MNEs exemplify dedicated RVCs and often regard ASEAN as a hub for their global operations. Digital industries are increasingly central to other industries and value chains, serving as fundamental enablers of international production (UNCTAD, 2017). Whilst many developing countries aspire to attract FDI from digital MNEs, ASEAN benefits from an already significant base of digital MNE activity, providing a solid foundation for further growth.

Section 2 introduces the current position of digital MNEs and FDI in ASEAN. Section 3 examines the degree to which digital MNEs are considered in ASEAN's digital future planning – a key linchpin for furthering the AEC. The final section offers a series of recommendations to better integrate MNEs and FDI into future AEC strategies.

2. Foreign Direct Investment, Multinational Enterprises, and the Importance of Digital Industries in ASEAN

Malaysia, the Philippines, Singapore, and Thailand were early recipients of FDI from MNEs, starting in the 1960s and 1970s. These investments were primarily in GVCs for automobiles, electronics, electrical goods, and garments. Today, these countries remain amongst the foremost hosts of these industries in the developing world. MNEs have extended their investments to all other ASEAN economies, establishing a plethora of regional networks (Mallick and Zhang, 2022; Mikic et al., 2023; Mirza et al., 2017; Padilla et al., 2017; World Bank, 2020).

However, ASEAN's dominance amongst developing regions has diminished as MNEs have diversified their investment across other developing countries. The most significant shift occurred with the rise of China, particularly from the 1990s onwards, when many companies moved the bulk of their production in GVCs to China's coastal provinces, later expanding inland. Recently, production has partially shifted back to ASEAN and other regions, driven by factors such as geopolitical tensions and a decline in China's competitiveness (Cohen, 2024). Annex Table 13A.1 provides examples of recent and ongoing FDI in ASEAN, reflecting supply chain restructuring due to geopolitical dynamics. FDI in ASEAN is expanding into new industries or value chains, such as clean energy ventures and the electric vehicle supply chain (AIR, 2023).

Although current international investment trends are generally favourable for ASEAN, the region must remain vigilant, especially in pursuit of the AEC. China and India present formidable competition (and potential collaboration opportunities), including for FDI in key value chains. To maintain its competitive edge, ASEAN and its member states must capitalise on their formidable asset base, particularly the established presence of MNE affiliates and operations in the region.

ASEAN benefits from its position as a regional and global hub for the world's largest digital MNEs. The definition of digital MNEs adopted in this chapter aligns with UNCTAD's (2017) classification in its landmark report, *Investment and the Digital Economy*. It identifies three categories of MNEs, of which the first two are considered information and communication technology (ICT) or digital MNEs:

- **Tech MNEs.** This group includes MNEs operating in the broader information technology (IT) industry, comprising
 - o manufacturers of computers, ICT devices, and related components (e.g. Apple, Samsung, Hon Hai); and
 - o providers of software and IT services (e.g. Microsoft, SAP).

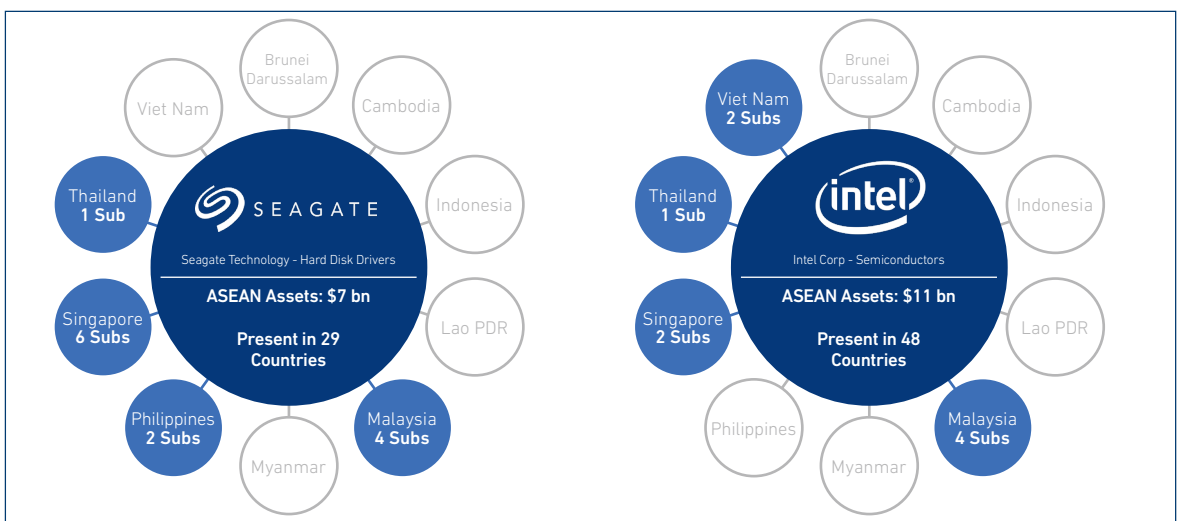
These companies not only supply the tools supporting the digital revolution but also deliver digital services. This group excludes MNEs operating mainly in adjacent sectors, such as consumer electronics (e.g. Philips).

- **Telecom MNEs.** This group includes providers of communication infrastructure and connectivity services.
- **Other MNEs.** This group comprises MNEs from non-digital industries that rely on digital technologies and services but are primarily users rather than providers or enablers.

Many of the largest digital MNEs, especially tech firms, were early investors in ASEAN, with most establishing a presence in the region by the 2010s (Mirza et al., 2017; UNCTAD, 2017; AIR, 2018). These companies commonly maintain operations across several AMS, especially those using ASEAN as a hub for their global production and sales networks (Figure 13.5). For example, Seagate, one of the world's largest global manufacturers of hard disk drives and solid-state drives, has maintained a manufacturing presence in ASEAN for decades. It actively participates in RVCs within the industry and exports from the region to computer manufacturers across the world. Hon Hai (Foxconn), a more recent investor in ASEAN, now operates in all ASEAN countries except one. As a flexible manufacturing service provider, it produces entire devices, such as mobile phones, under contract for companies such as Apple. Through their extensive RVCs, which merge seamlessly with their GVCs, Seagate and Hon Hai illustrate ASEAN's importance as a global hub for digital industries.

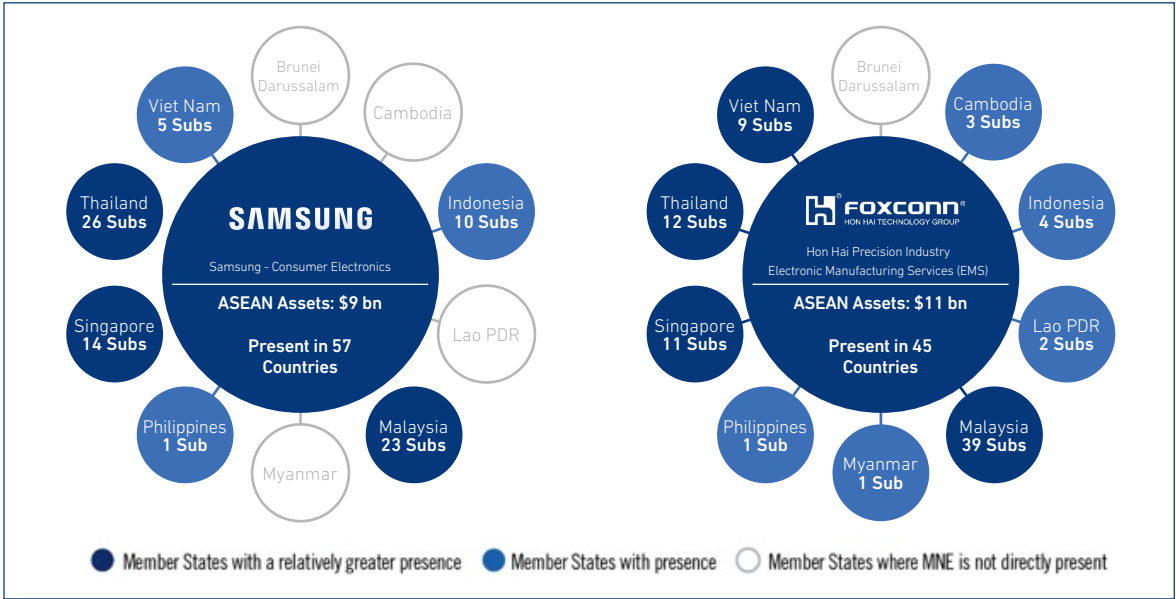
These two MNEs are not alone in their extensive presence in ASEAN. Amongst the top 52 MNEs specialising in ICT devices and components, such as Apple, Hon Hai, IBM, LM Ericsson, Samsung, Toshiba, and ZTE, all but one maintain at least one base or operation in ASEAN (Annex Table 13A.2). Most operate multiple affiliates in the region. For example, in the late 2010s, Hon Hai had 29 affiliates in the region, IBM had 26, Samsung had 36, and Toshiba had 69. A similar pattern exists amongst the top 21 MNEs in IT software and services, including Accenture, Datatec, Microsoft, NEC, Qualcomm, and WIPRO. All these MNEs have established a presence in the region, often on a significant scale. For example, Accenture had 32 affiliates, Microsoft had 16, NEC had 43, and Wipro had 13. Amongst the 27 top MNEs in telecommunications, only eight lack a presence in ASEAN, primarily because they are regional players, such as America Movil in Latin America, MTN in Africa and the Middle East, and Mobile Telesystems in Russia. However, telecommunications MNEs operating in ASEAN often have a substantial footprint. For example, BT Group has 40 affiliates in the region, Telstra has 48, and Nippon Telegraph and Telephone has 65. In most cases, their presence is more concentrated than that of other digital MNEs.⁹

Figure 13.5. Major Multinational Enterprises Using ASEAN as a Production Base for their Global Production and Sales Networks



⁹ This is largely because telecommunication companies tend to focus on local markets, whilst firms that produce ICT devices and components and provide IT software and services often cater to regional or global markets.

Figure 13.5. Cont. Major Multinational Enterprises Using ASEAN as a Production Base for their Global Production and Sales Networks



Lao PDR = Lao People’s Democratic Republic, MNE = multinational enterprise.

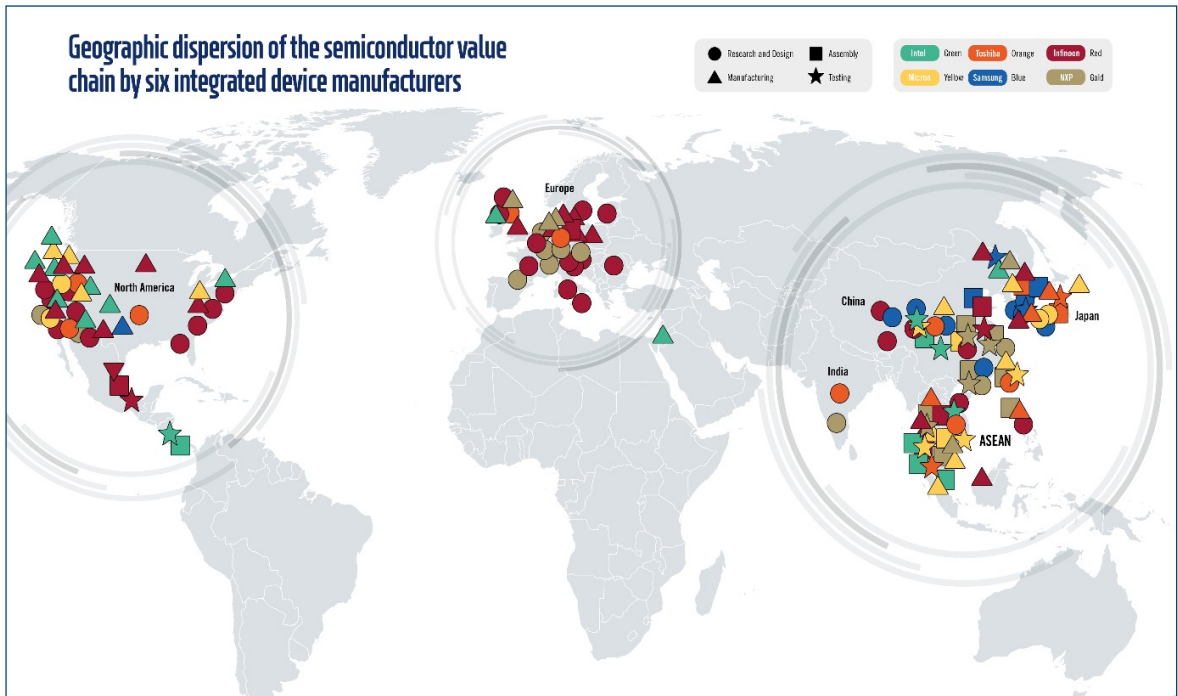
Source: Mirza et al. (2017).

The companies listed in Annex Table 2 are mostly lead MNEs or anchor companies. Many lower-tier suppliers have often relocated to be closer to the operations of lead MNEs. Whilst the annex table includes only the top 100 digital MNES, many additional companies, large and small, have also invested in ASEAN. The region hosts a great number of ASEAN-based digital firms, some of which are themselves MNEs and anchor companies, operating across nearly all AMS.

ASEAN has established itself as an important hub within the global production systems of digital MNEs, providing an excellent starting point for realising the AEC’s full potential.

The semiconductor GVC is in many ways one of the most significant digital value chains, serving as the backbone of all digital industries and services. Increasingly, even traditional industries, including automotive manufacturing, depend heavily on components such as computer chips supplied by the semiconductor industry. ASEAN is a major player in the semiconductor industry (Figure 13.6). This position continues to strengthen as digital companies expand their presence in the region. Annex Table 13A.3 highlights significant continuing FDI by leading MNEs in the semiconductor industry.

Figure 13.6. ASEAN as a Major Hub in the Semiconductor Global Value Chain



Source: Semiconductor Industry Association, Nathan Associates.

3. Addressing a 'Blind Spot' to Leverage Multinational Enterprises in Furthering the ASEAN Economic Community

MNEs are highly significant actors in ASEAN's national and regional economies, serving as an essential building block in the AEC. Whilst MNEs' importance is generally recognised, this chapter contends that policymakers and other stakeholders do not fully integrate MNEs into their strategic planning, an omission that risks sub-optimal or skewed results. This section analyses three strategic documents shaping ASEAN's regional and national digital economies (Table 13.1):

- ASEAN Digital Masterplan 2025 (2021)
- Consolidated Strategy on the Fourth Industrial Revolution for ASEAN (2021)
- Malaysian Digital Economy Blueprint (2021)

Although other documents could have been selected for this analysis, the intention is not to single out deficiencies in these three but rather to highlight a broader gap in recognising the potential role of MNEs and possibly other private sector actors. This oversight undermines efforts to effectively realise the AEC. The first two documents are significant ASEAN Secretariat-led strategies for the digital economy and the Fourth Industrial Revolution, where digital MNEs play a crucial role, interacting with firms across traditional and emerging industries. The third document represents the kind of national strategy that could be examined in any AMS. Malaysia was chosen because of its sizable digital MNE presence and its frequent leadership in strategic planning related to MNEs.

The documents are thorough and well researched and propose innovative and well-considered objectives, targets, and initiatives (Table 13.1). They effectively address issues such as capacity building, digital infrastructure, institutional support, and support for agile digital talent. However, their focus on cross-ASEAN aspects is less well-developed, with limited emphasis on RVCs, MNEs, or similar topics. Alarming, MNEs, particularly digital ones, are almost entirely ignored. This oversight may be a facet of a top-down planning approach but remains problematic. We note the following:

- Each document mentions MNEs only once.
- The securing of new inward investment is emphasised, but existing MNEs, which represent a vast and formidable presence in the region, are largely ignored.
- One document inaccurately assumes that MNEs are primarily motivated by low-cost labour in ASEAN. Whilst low-cost labour remains important in certain industries (e.g. agriculture and garments) and some AMS, it is not a defining factor for the technology-based companies relevant to the digital economy. The focus on low-cost labour is outdated. Whilst ASEAN's labour costs may be lower than in industrialised countries or advanced East Asian economies such as China, factors such as infrastructure, skills, and institutional support now weigh more heavily in MNE decision-making.
- Only the Malaysia Digital Economy Blueprint makes any attempt to incorporate MNEs into its strategy, but this is limited to their participation in a programme to develop agile and competent digital talent.

This blind spot extends beyond policymakers. For instance, a thorough article by the Economic Research Institute for ASEAN and East Asia (Ing et al., 2023) on establishing an ASEAN digital community by 2045 does not mention FDI or MNEs. This omission, likely due to the authors' trade-focused rather than investment expertise, highlights the existence of silos that hinder integrated and systematic progress towards the AEC.

Despite these gaps, MNEs are likely to continue investing in ASEAN, building on an already impressive level of FDI and industrial and service activity, particularly in the digital sector. Alongside the efforts of local companies, these investments are expected to further boost national economies, shape RVCs, and define intra-ASEAN trade patterns.

This evolution contributes to the AEC's development. However, it is crucial for AMS – individually and together – to build on existing and prospective FDI to support a more effective and integrated AEC. This effort must be deliberate, targeted, and fully informed. The final section proposes several non-exhaustive recommendations for more effectively integrating MNEs and FDI into AEC strategies.

Table 13.1. Analysis of Three Key Strategic Plans Highlighting a 'Blind Spot' in the Potential Role of Multinational Enterprises in the ASEAN Digital Economy and the Realisation of the ASEAN Economic Community

Report, Plans, Description	Approach, Aspects Mentioned			
	Overall	Capacity building	Cross-ASEAN	MNEs, FDI
ASEAN Digital Masterplan 2025 (2021a). 'Pursuit of ASEAN as a leading digital community and economic bloc, powered by secure and transformative digital services...' (page 4).	- Desired outcomes are clearly articulated. - The strategy addresses a wide range of contextual factors, including COVID-19, climate change, inclusivity, cybersecurity, international trade dependence. - Considerable background work, analysis, and evidence. - No detailed plan for leveraging existing assets in the industry, both within ASEAN and amongst non-ASEAN firms.	- Mention of pertinent skills development, supporting engagement with the digital economy in line with opportunities. - Detailed enabling actions, e.g. on infrastructure, regulatory action, in telecommunications, for instance, international connectivity.	- Cross-border trade facilitation is a desired outcome. - Promotion of cross-border investment in digital and ICT industries, including contributions from pan-Asian players. - Discussion of ASEAN 'smart cities' as pioneers in digital industries, exploring the potential for a regional smart cities ecosystem to capitalise on opportunities arising from the ongoing digital and Fourth Industrial Revolution.	- Only one mention of MNEs and FDI: '...If such technologies can be applied successfully then this should further increase trade and stimulate foreign direct investment – especially by multinationals wanting to incorporate ASEAN firms into their production value chains' (page 98). - Focuses on securing new inward FDI. Ignores MNEs as existing market players in ASEAN (especially digital and ICT MNEs).
Consolidated Strategy on the Fourth Industrial Revolution for ASEAN (2021b). Provides a vision and strategic framework for a digital ASEAN that '...harnesses technologies to build a resilient, inclusive, integrated, and globally competitive economy' (page 8).	- The vision expressed in terms of the following: 1. Technological governance and cybersecurity 2. Digital economy 3. Digital transformation of society - Whilst the vision is well-defined, there is little focus on concrete actions. However, annex tables identify strategy documents from ASEAN Member States	- Six 'enablers' are identified to reap the rewards of the Fourth Industrial Revolution: 1. Digital infrastructure 2. Capacity building 3. Institutions and governance 4. Cooperation and collaboration 5. Resource mobilisation 6. Effective monitoring	- Not examined per se in the document, especially in terms of directions which could be taken. - ASEAN-wide related initiatives are identified, generally without comment.	- Only one mention of MNEs and FDI. - Claims 'ASEAN nations excel in different sectors, most of which are labour intensive. Multinational companies that have technology but need low-cost labour can excel and achieve growth in ASEAN, which is open to foreign direct investment.' - Whilst ASEAN and non-ASEAN MNEs employ low-cost labour in certain industries and locations, this is a highly inaccurate assessment of the situation in ASEAN today. - Ignores MNEs as existing market players in ASEAN (especially digital and ICT MNEs).

Report, Plans, Description	Approach, Aspects Mentioned			
	Overall	Capacity building	Cross-ASEAN	MNEs, FDI
Malaysian Digital Economy Blueprint (2021). Proposes a vision and strategy to '...successfully transform Malaysia into a digitally-driven, high-income nation and a regional leader in the digital economy' (page 10).	- A comprehensive and detailed assessment of Malaysia's potential in the digital economy and the Fourth Industrial Revolution. - The overall objectives are threefold: 1. Encourage industry players to become creators, users, and adopters... 2. Harness human capital... 3. Nurture an integrated ecosystem to allow society to adopt the digital economy	- Identification of six enablers ('thrusts') for the digital economy, including transformation of the public sector, enabling infrastructure, building agile digital talent, etc. - Examination of each 'thrust' in separate sections, as well as dedicated initiatives led by ministries, and targets to be achieved. - The role of industrial players is recognised, but there is little assessment of who they are and what specifically they could do in pursuit of a digital economy and how they might collaborate in the process.	- Recognises the scale of the ASEAN economy in terms of the digital economy, and likely regional opportunities. - Intention to be a regional leader in the digital economy, but little on cross-ASEAN cooperation to achieve an advanced digital ASEAN.	- Only one reference to MNEs as a target under 'build agile and competent digital talent': '...50% of senior management in Government-linked companies (GLCs), multinationals companies (MNCs) and MSMEs to participate in the programme by 2025'. - This reference at least recognises the role that MNEs and other industry players can play, but the initiative is essentially top-down.

ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, ICT = information and communication technology, MNE = multinational enterprise.

Source: Author.

Note: The three reports have been selected to illustrate several issues, particularly the 'blind spot' regarding the MNEs. Such oversight is not uncommon in ASEAN or AMS reports.

4. Recommendations: Essential Aspects for Effectively Integrating Multinational Enterprises and Foreign Direct Investment into the ASEAN Economic Community

This chapter proposes three priority recommendations for leveraging MNEs and FDI more effectively in furthering the AEC.

4.1. Recommendation 1: Map and analyse ASEAN's current situation in the MNEs and FDI landscape

It is essential to gain a comprehensive understanding of ASEAN's 'assets on the ground' regarding MNEs and FDI. Whilst some AMS already conduct national analyses, the AEC is a regional project. Therefore, it is important to analyse the ASEAN-wide network of MNEs and FDI across all RVCs, particularly in the digital domain. This undertaking would help identify key firms – MNEs and non-MNEs, large enterprises and MSMEs, and ASEAN-based and non-ASEAN investors – alongside their positions in RVCs, financial capacity, resources, and firm-specific capabilities.

ASEAN hosts a formidable asset base of MNE affiliates and regional networks, which is often ignored and underappreciated. For example, in the context of the Fourth Industrial Revolution, planning frequently assumes that key industrial players needed to support AEC ambitions are external, located in non-ASEAN countries such as the US, Japan, Germany, or Taiwan. However, many, if not most, key players are already active in ASEAN (AIR, 2021). This situation applies to many industries and sectors, including agribusiness, automobiles, banking and finance, construction, electronics, petrochemicals, and transport and storage. FDI in some industries may be concentrated in specific AMS, which provides an opportunity: The AEC, as a regional ambition, can leverage the MNEs and value chains in certain countries to achieve broader ASEAN-wide goals.

Who: All AMS and the ASEAN Secretariat, coordinated through a regional task force. The task force should include representatives from national departments and statistical offices specialising in FDI.

Sub-recommendation: Develop a priority list and action plan addressing FDI-related issues critical to the AEC.

Given the potentially broad scope of Recommendation 1, an initial assessment should focus on the FDI-related elements deemed most strategically valuable by the task force. A prioritised list of further tasks should be established to optimise the role of MNEs and FDI in advancing the AEC. Potential areas of focus could include the potential role of FDI in furthering inclusive growth, strengthening resilient value chains, supporting the decarbonisation of ASEAN economies, and building sustainable communities within the AEC framework.¹⁰

4.2. Recommendation 2: Target MNEs already located in ASEAN

Policymakers often prioritise attracting new investment from global partner countries, such as the United States, European countries, Japan, China, and others. Many investment promotion agencies in AMS see this as their primary mission.

However, many MNEs and their ASEAN-based affiliates are already deeply embedded in the region's economies (see Section 2). These companies bring advanced technologies, skills, and other resources, much of which are already accessible within one or more ASEAN countries.¹¹ In some value chains, ASEAN-origin MNEs play an important role, reinforcing the region's capabilities.

Whilst it may still be necessary to attract MNEs with strategic technologies that are currently underrepresented or absent in ASEAN, the mapping exercise proposed in Recommendation 1 will help determine when and where this is required, guiding subsequent decisions and actions effectively.

MNEs with an established presence in ASEAN have already demonstrated their commitment to the region and are familiar with its business environment.¹² They are relatively well-understood entities, making them easier to integrate into AEC strategies. Many of these MNEs have significant sunk costs in the region and are generating profits that can be reinvested locally,¹³ provided the right incentives are in place. AMS, therefore, have a unique opportunity to build on the presence of these MNEs, incorporating them into specific AEC projects. Achieving this, however, requires careful strategic and tactical planning, supported by well-conceived national and regional policies.

⁹ See Mikic (2023) for further discussion on these priorities.

⁹ This chapter has focused on digital MNEs, with Annex Table 2 emphasising their significant presence and distribution across the region. Other industries and value chains with a major presence in the region are highlighted in AIR, published by the ASEAN Secretariat and UNCTAD.

⁹ Efforts to reduce MNEs' learning costs in dealing with local players and institutions are essential, as they minimise the likelihood of avoidable rookie mistakes.

⁹ Many AMS do not collect adequate data on FDI arising from reinvestments. This information would be helpful for making informed decisions on integrating MNEs into AEC projects. AMS could consider improving data collection on reinvestments and addressing other data gaps, potentially as part of actions under Recommendation 1.

4.3. Recommendation 3: Broaden strategies for MNE participation in the AEC beyond FDI and embrace complexity

MNEs operate within the framework of global, regional, and national value chains, either as leaders (e.g. the principal firm in a value chain, such as Apple) or as partners, contractors, or other stakeholders (e.g. subcontractors producing electronic components for final products like mobile phones). As a result, MNE activities in the region extend beyond traditional FDI to include non-equity modes (NEMs) such as subcontracting,¹⁴ business process outsourcing, franchising, licensing, and management contracts. (For a thorough discussion of NEMS, see UNCTAD [2011].)

Many major MNEs operate primarily through NEMs. For example, they may not directly invest in manufacturing operations but instead drive investment, including FDI, by their contractors. Accordingly, AEC policies that aim to integrate MNEs into regional projects must adopt a wider perspective, acknowledging the diverse ways in which MNEs interact with other business and non-business actors in ASEAN. This inevitably requires engaging with the complex relationships and interconnections inherent in these systems.

When seeking to engage MNEs in the service of the AEC, it is vital to delineate objectives and strategies. These could include supporting MSMEs, involving MNEs in skills development, strengthening RVCs, or fostering strategic alliances for industrial projects. Policymakers must consider the context, characteristics, motives, and determinants of MNE activities, leveraging factors that encourage collaboration and participation. Although navigating these complexities can be challenging, MNEs are natural partners in furthering the AEC due to their focus on regional and global value chains. By fostering collaboration with MNEs, AMS can build on complementarities, strengthen partnerships, and create joint value in pursuit of the AEC.

⁹ Including, for example, contract farming for inputs required by agribusiness MNEs.

References

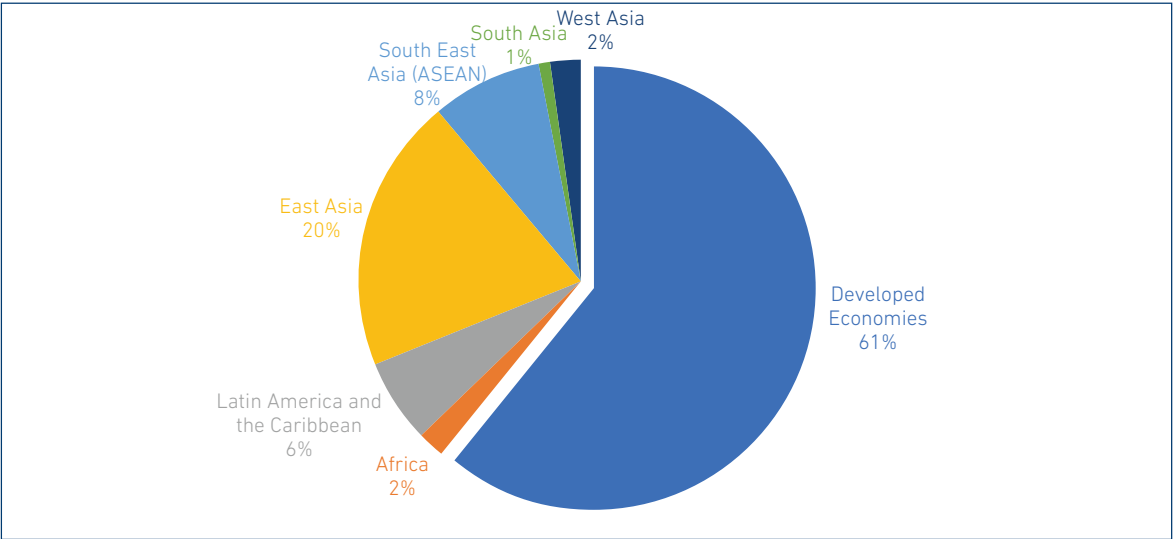
- ASEAN Secretariat and United Nations Conference on Trade and Development (2014), *FDI Development and Regional Value Chains*. Jakarta: ASEAN Secretariat, Geneva; and New York: United Nations.
- ASEAN Secretariat and United Nations Conference on Trade and Development (2018), *Foreign Direct Investment and the Digital Economy in ASEAN*. Jakarta: ASEAN Secretariat; and Geneva and New York: United Nations.
- ASEAN Secretariat and United Nations Conference on Trade and Development (2021), *Investing in Industry 4.0*. Jakarta: ASEAN Secretariat; and Geneva and New York: United Nations.
- ASEAN Secretariat and United Nations Conference on Trade and Development (2023), *A Special ASEAN Investment Report. International investment trends: Key issues and policy options*. Jakarta: ASEAN Secretariat; and Geneva and New York: United Nations.
- ASEAN Secretariat (2021a), *ASEAN Digital Masterplan 2025*. Jakarta: ASEAN Secretariat.
- ASEAN Secretariat (2021b), *Consolidated Strategy on the Fourth Industrial Revolution for ASEAN*. Jakarta: ASEAN Secretariat.
- Cohen, P. (2024), 'Malaysia Rises as Crucial Link in Chip Supply Chain', *New York Times*.
- Ing, L. Y., Y. Vadila, I. Markus, and L. Nazara (2023), 'ASEAN Digital Community 2045', *ERIA Discussion Paper*, No. 487, Jakarta.
- Mallick, J. and A. Zhang (2022), 'Global Value Chains (GVCs) Participation Patterns and Impacts on Productivity Growth in the Asian Economies', *Journal of the Asia Pacific Economy*, 27(3) pp.495–514.
- Mikic, M., G. Sacerdoti, J. Villafuerte, and D. Zara (2023), *ASEAN and Global Value Chains: Locking in Resilience and Sustainability*. Manila: Asian Development Bank.
- Mirza, H., P. Buckley, M. Hanni, P. Konara, K. Sexsmith, and T. Sturgeon (2017), *ASEAN at 50: A Historic Milestone for FDI and MNEs in ASEAN*. Jakarta: ASEAN Secretariat.
- MyDigital (2021), *Malaysia Digital Economy Blueprint*. Kuala Lumpur: Economic Planning Unit, Prime Minister's Department.
- Padilla, M. A. E., D. W. Sari, and R. D. Handoyo (2017), 'Formation of production networks in ASEAN: Measuring the real value-added and identifying the role of ASEAN countries in the world supply chains', *Business and Economic Horizons*, 13(2) pp.237–255.
- United Nations Conference on Trade and Development (2011), *World Investment Report 2011: Non-equity modes of international production and development*. Geneva and New York: United Nations.
- United Nations Conference on Trade and Development (2017), *World Investment Report 2017: Investment and the Digital Economy*. Geneva and New York: United Nations.

United Nations Conference on Trade and Development (2023), *World Investment Report 2023: Investing in Sustainable Energy for all*. Geneva and New York: United Nations.

World Bank (2020), *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. Washington, DC: World Bank.

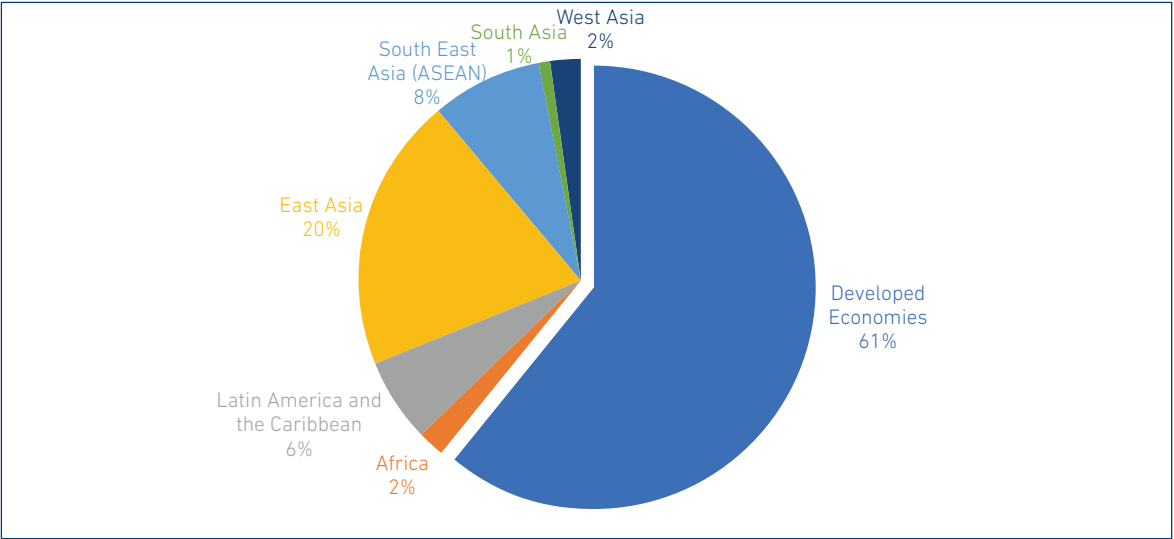
Annex

Figure 13A.1. Breakdown of Global Inward Foreign Direct Investment Stock by Recipient Grouping and Region



ASEAN = Association of Southeast Asian Nations.
Source: Based on United Nations Conference on Trade and Development 2023 data (Annex Table 2).

Figure 13A.2. Breakdown of Intra-ASEAN Foreign Direct Investment Flows by Recipient Country, 2022



ASEAN = Association of Southeast Asian Nations.
Source: Based on data from ASEAN Secretariat foreign direct investment FDI database.

Table 13A.1. Investment Projects Relating to Restructuring Supply Chains in ASEAN, 2022–2023 (Selected cases)

MNE	Headquarters	Activity	Location	Investment (US\$ million)	Date	Motivation
Aoshikang Technology	China	Production facility for PCBs	Thailand	172	2022	Expansion into ASEAN; strengthening supply chain; new investor in the host country
BYD Electronics	China	Manufacturing facility for electronic components (first and second phases)	Viet Nam	269 (first phase) 184 (second phase)	2022/ 2023	Diversification and expansion to strengthen supply chain capacities
BOE Technology	China	Manufacturing facility for electronics (phase 1) Additional electronics manufacturing facility (phase 2)	Viet Nam	400	2023	Geopolitical tensions and concerns about supply chain disruptions; new investor in the host country
Cargill	United States	Sweetener plant, food and beverage	Indonesia	2.4	2022	Upgrading of technology and production capacity to strengthen supply chain
Compeq	Taiwan Province of China	Manufacturing facility for PCBs	Thailand	29	2023	Geopolitical tensions and concerns about supply chain disruptions
Dynamic Electronics	Taiwan Province of China	Manufacturing facility for automotive PCBs	Thailand	..	2023	Geopolitical tensions and concerns about supply chain disruptions
Foxconn	Taiwan Province of China	Manufacturing facilities for additional electronics	Viet Nam	300	2022/ 2023	Geopolitical tensions; strengthening supply chain capacity
Goertek	China	Third manufacturing facility for electronic components (Apple supplier)	Viet Nam	300	2023	Strengthening supply chain capacity; reducing costs
Infineon Technologies	Germany	Manufacturing facility for expansion of semiconductors (Batam)	Indonesia	2,400	2022	Strengthening supply chain capacity
Jindal Stainless	India	New nickel pig iron smelter (joint venture with Eternal Tsingshan [China])	Indonesia	157	2023	Vertical integration; strengthening supply chain linkages
Ju Teng International Holdings	Taiwan Province of China	Manufacturing facility for electronic and automotive parts	Viet Nam	200	2022	Strengthening supply chain capacity

MNE	Headquarters	Activity	Location	Investment (US\$ million)	Date	Motivation
Kingboard Holdings	China	Manufacturing facility for fiberglass yarn and fabric	Thailand	230	2022	Strengthening supply chain capacity; new investor in the host country
Kuraray	Japan	Chemical manufacturing plant	Thailand	310	2023	Strengthening supply chain capacity
Kuraray and Sumitomo	Japan	Manufacturing facility for advanced chemicals (resins for electric vehicles)	Thailand	520	2023	Strengthening supply chain capacity
Luxshare ICT	China	Additional manufacturing facility for electronic products	Viet Nam	150	2022	Geopolitical tensions; concerns about supply chain disruptions
Murata Manufacturing	Japan	Manufacturing plant for multilayer ceramic capacitors (part of electric vehicles supply chain)	Thailand	87	2023	Regional expansion with a new plant; strengthening supply chain capacity
Quanta Computer	Taiwan Province of China	Manufacturing facility for electronics	Viet Nam	120	2023	Strengthening supply chain capacity
Pegatron	Taiwan Province of China	Manufacturing facility for electronics (Apple supplier)	Viet Nam	481	2023	Geopolitical tensions; concerns about supply chain disruptions
Sihui Fuji Electronics	China	Manufacturing facility for PCBs	Thailand	72	2023	Strengthening supply chain capacity; new investor
Skretting	The Netherlands	Manufacturing facility for aquafeed	Viet Nam	24	2022	Strengthening supply chain capacity
Soitec	France	Expansion facility for wafer fabrication	Singapore	571	2022	Strengthening supply chain capacity
Taiwan PCB Techvest	Taiwan Province of China	Manufacturing facility for PCBs	Viet Nam	30	2022	Strengthening supply chain capacity
Taiwan Union Technology	Taiwan Province of China	Manufacturing facility for automotive and other PCBs	Thailand	..	2023	Geopolitical tensions; concerns about supply chain disruptions
TF AMD	China	Manufacturing facility (second semiconductor plant)	Malaysia	455	2022	Expansion of ASEAN presence with a second plant; strengthening supply chain capacity

MNE	Headquarters	Activity	Location	Investment (US\$ million)	Date	Motivation
Tripod Technology	Taiwan Province of China	Manufacturing facility for PCBs and computer products	Viet Nam	200	2023	Geopolitical tensions; strengthening supply chain capacity; new investor in the host country
Unimicron	Taiwan Province of China	Manufacturing facility for PCBs	Thailand	366	2023	Geopolitical tensions; concerns about supply chain disruptions
Wus Printed Circuit	Taiwan Province of China	Manufacturing facility for PCBs	Thailand	280	2023	Geopolitical tensions; strengthening supply chain linkages

ASEAN = Association of Southeast Asian Nations, PCB = printed circuit board.

Source: ASEAN Investment Report 2023.

Table 13A.2. The World's Top 100 Digital Multinational Enterprises: Presence in ASEAN

	Multinational Enterprise Name	Home Country	Whether MNE Is Present in ASEAN (✓)	Number of Principal Subsidiaries in ASEAN Member States
1. IT Devices and Components				
1	Apple	United States	✓	3
2	Samsung Electronics	Republic of Korea	✓	36
3	Hon Hai Precision Industries	Taiwan	✓	29
4	International Business Machines Corp	United States	✓	26
5	Sony	Japan	✓	27
6	Intel	United States	✓	9
7	Dell Technologies	United States	✓	Through partners and subsidiary companies
8	Toshiba	Japan	✓	69
9	Cisco Systems	United States	✓	35
10	HP	United States	✓	29
11	LG Electronics	Republic of Korea	✓	16
12	Legend Holdings	China	✓	1
13	Lenovo Group	Hong Kong (China)	✓	5
14	Fujitsu	Japan	✓	46
15	Pegatron	Taiwan	✓	3
16	Quanta Computer	Taiwan	✓	Joint venture companies, e.g. with 3M
17	LM Ericsson	Sweden	✓	14

	Multinational Enterprise Name	Home Country	Whether MNE Is Present in ASEAN (✓)	Number of Principal Subsidiaries in ASEAN Member States
18	Compal Electronics	Taiwan	✓	7
19	Taiwan Semiconductor Manufacturing	Taiwan	✓	Manufacturing presence in Viet Nam
20	Flex	Singapore	✓	ASEAN company
21	Sharp	Japan	✓	90
22	Wistron	Taiwan	✓	13
23	Jabil Circuit	United States	✓	14
24	SK Hynix	Republic of Korea	✓	1
25	ZTE	China	✓	9
26	Nokia	Finland	✓	23
27	Asustek Computer	Taiwan	✓	17
28	Kyocera	Japan	✓	38
29	Texas Instruments	United States	✓	10
30	Western Digital	United States	✓	21
31	Micron Technology	United States	✓	3
32	Inventec	Taiwan	✓	1
33	Seagate Technology	United States	✓	14
34	China Greatwall Computer Shenzhen	China	x	-
35	TPV Technology	China	✓	5
36	Innolux	Taiwan	x	-
37	AU Optronics	Taiwan	✓	2
38	Murata Manufacturing	Japan	✓	13
39	TDK	Japan	✓	64
40	Seiko Epson	Japan	✓	22
41	Japan Display	Japan	✓	1
42	Advanced Semiconductor Engineering	Taiwan	✓	9
43	Acer	Taiwan	✓	39
44	STMicroelectronics	Switzerland	✓	8
45	Alps Electric	Japan	✓	11
46	Asml Holding	Netherlands	✓	4
47	Lite-On Technology	Taiwan	✓	1
48	Mediatek	Taiwan	✓	4
49	Renesas Electronics	Japan	✓	2
50	NXP Semiconductors	Netherlands	✓	14

	Multinational Enterprise Name	Home Country	Whether MNE Is Present in ASEAN (✓)	Number of Principal Subsidiaries in ASEAN Member States
51	Tokyo Electron	Japan	✓	1
52	Nvidia	United States	✓	2
2. IT Software and Services				
53	Microsoft	United States	✓	16
54	Hewlett Packard Enterprise	United States	✓	30
55	Oracle	United States	✓	23
56	Accenture	Ireland	✓	32
57	NEC	Japan	✓	43
58	Qualcomm	United States	✓	5
59	SAP	Germany	✓	17
60	Tata Consultancy Services	India	✓	8
61	NTT Data	Japan	✓	5
62	Capgemini	France	✓	4
63	Cognizant Technology Solutions	United States	✓	118
64	Atos	France	✓	1
65	Infosys	India	✓	4
66	CGI Group	Canada	✓	2
67	Wipro	India	✓	13
68	Harris	United States	✓	6
69	Computer Sciences Corp	United States	✓	4 (now part of DCX Technology)
70	Samsung SDS	Republic of Korea	✓	5
71	Datatec	South Africa	✓	16
72	Adobe Systems	United States	✓	3
73	HCL Technologies	India	✓	10
3. Telecommunication Companies				
74	AT&T	United States	✓	4
75	Nippon Telegraph and Telephone	Japan	✓	65
76	Softbank Group	Japan	✓	40
77	Deutsche Telekom	Germany	✓	1
78	Vodafone Group	United Kingdom	✓	8
79	America Móvil	Mexico	x	Primary market focus elsewhere
80	Telefonica	Spain	✓	1
81	Orange	France	✓	11

	Multinational Enterprise Name	Home Country	Whether MNE Is Present in ASEAN (✓)	Number of Principal Subsidiaries in ASEAN Member States
82	BT Group	United Kingdom	✓	40
83	Telecom Italia	Italy	✓	2
84	Telstra	Australia	✓	48
85	Altice	Netherlands	x	Primary market focus elsewhere
86	Bharti Airtel	India	✓	3
87	Telenor	Norway	✓	3
88	Emirates Telecommunication Group	United Arab Emirates	x	Primary market focus elsewhere
89	Saudi Telecom Co	Saudi Arabia	✓	1
90	Swisscom	Switzerland	✓	1
91	Vivendi	France	✓	2
92	Telia Co	Sweden	✓	3
93	Vimpelcom	Netherlands	x	Primary market focus elsewhere
94	MTN Group	South Africa	x	Primary market focus elsewhere
95	Ooredoo	Qatar	✓	Limited presence
96	Level 3 Communications	United States	✓	1
97	Millicom	Sweden	x	Primary market focus elsewhere
98	Mobile Telesystems	Russia	x	Primary market focus elsewhere
99	Vodacom Group	South Africa	x	Primary market focus elsewhere
100	PCCW	Hong Kong (China)	✓	2

ASEAN = Association of Southeast Asian Nations, IT = information technology, MNE = multinational enterprise.

Source: ASEAN Secretariat, based on the UNCTAD (2017) table of the world's top 100 ICT MNEs, ranked by sales and operating revenues. The subsidiary data was extracted from the Bureau van Dijk's Orbis database and other sources.

Table 13A.3. Top 10 Largest Multinational Enterprises in the Semiconductor Industry Expanding or with Expansion Plans in ASEAN, 2022

MNE	Headquarters	MNEs' Global Market Share by Revenue (%)	Investment Expansion in ASEAN in 2021–2023	
Samsung Electronics	Republic of Korea	10.9	Singapore	Partner with IBM (United States) and M1 (Singapore) to establish an Industry 4.0 technology centre
			Viet Nam	- Expansion of an existing manufacturing facility for printed circuit boards and other electronic components - Building a US\$220 million research and development centre for smart devices and network technology

MNE	Headquarters	MNEs' Global Market Share by Revenue (%)	Investment Expansion in ASEAN in 2021–2023	
Intel	United States	9.7	Malaysia	Expansion of test and assembly operation with a new production facility (part of a US\$7.1 billion expansion project)
			Singapore	Expansion of Asia-Pacific headquarters and logistics centre
			Thailand	Partner with Ericsson (Sweden) for 5G development
			Viet Nam	Launched a US\$475 million expansion of a test and assembly facility
SK Hynix	Republic of Korea	6.0	Indonesia	Expansion in Indonesia
			Malaysia	Construction of a US\$547 million copper foil manufacturing plant to support electric vehicle value chain
Qualcomm	United States	5.8	Indonesia	Collaborate with Telkomsel (Indonesia) and Ericsson (Sweden) to support 5G development and digitalisation, involving a 4-nanometer baseband chip application
			Thailand	Collaborate with AIS (Thailand) and ZTE (China) to enhance 5G development involving a 4-nanometer baseband chip application
			Viet Nam	Collaborate with the Viettel Group (Viet Nam) to support 5G development
Micron Technologies	United States	4.6	Malaysia	Building a US\$1 billion second semiconductor facility
Broadcom	United States	4.0	Thailand	Partners with T3 Technology (Thailand) to launch WiFi7 technology in Southeast Asia.
AMD	United States	3.9	Malaysia	- Launched a server platform solutions engineering facility involving advanced processors - Expansion of an existing manufacturing facility in Penang with an estimated cost of US\$341 million with TF (China)
			Singapore	- Increased research and development semiconductor workforce with a US\$50 million investment project - Collaborate with Viettel (Viet Nam) for 5G development
			Viet Nam	
Texas Instruments	United States	3.1	Malaysia	Building an additional plant in Melaka.
MediaTek	Taiwan Province of China	3.0	..	..
Apple	United States	2.9	Singapore, Thailand	Established a retail presence in Singapore and Thailand in 2022. Many of its suppliers also expanded in ASEAN (e.g. Foxconn, Pegatron, Wistron, Luxshare, Taiwan Semiconductor Manufacturing Company (all Taiwan Province of China), Intel (United States), Infineon Technologies (Germany))

MNE	Headquarters	MNEs' Global Market Share by Revenue (%)	Investment Expansion in ASEAN in 2021–2023
Others	..	46.1	Selected examples Amkor Technology (United States) is building a US\$1.6 billion facility in Viet Nam (2022) - Global Foundries (United States) expansion of a US\$4 billion facility in Singapore (since 2021) - Infineon Technologies (Germany) is expanding its backend operation with a US\$1.9 billion investment in Indonesia (2022) - Soitec (France) is doubling the capacity of its wafer plant in Singapore (2022)

ASEAN = Association of Southeast Asian Nations, MNE = multinational enterprise.

Source: ASEAN Investment Report 2023.

Table 13A.4. Selected Determinants of Foreign Direct Investment

Economic and General	Policy	Business Facilitation
General environment - Economic, political, and social stability Market factors - Market size and growth potential for local and regional market-oriented services - Distance and access to market or next stage in local, regional, and global value chains - Location-specific consumer preferences for local and regional market-oriented goods and services - Strength of local competition - Size of client base, including foreign client firms in local and regional markets Human resources - Suitability of characteristics of available labour force (costs, skills level, language proficiency, education, and science and technology competencies) Natural resources - Availability of required raw materials - Availability of agricultural land and water - Possession of petroleum, natural gas, and minerals - Underperforming locally owned assets (e.g. petroleum contracts, plantations)	Investment policy - Entry, establishment, and operational conditions - Policies pertaining to foreign ownership, lease, and exploitation and operation of natural resources, including land - Policies pertaining to foreign ownership, lease, and operations in strategic industries and social sectors - Policies towards expatriate staff - Ease of market entry by partners in consortium-type arrangements Industrial and development policy - Government industrial development policy towards specific industries and sectors - Government policy towards small and medium-sized enterprises - Privatisation policies - Infrastructure development policies - Government research and development policies - Credible and enforceable contracts with public and private sector contractors - Laws governing and facilitating contractual modes (e.g. contract manufacturing, service outsourcing, contract farming, management contracts, etc.) Trade policy - Trade restrictions and promotions - Services trade restrictions and promotions - Generalised system of preferences and other preferential trade arrangements - Coherence of trade and investment policies	- General business facilitation (e.g. cost of doing business, hassle costs) Business facilitation to support foreign affiliates - Investment promotion, including one-stop shops, image-building exercises, and facilitation services - Investment incentives - After-investment services Business facilitation to support local firms - Schemes to develop and upgrade capabilities of local firms, smallholder farmers, etc. - Start-up incentives - Support to improve corporate social responsibility, working conditions Other facilitation policies - Customs and border procedures - Social amenities (bilingual schools, quality of life, etc.) - Liveability of location (especially for expatriate senior staff)

Economic and General	Policy	Business Facilitation
<u>Created assets – physical infrastructure</u> • Availability and quality of transport and logistics infrastructure • Availability and quality of telecommunications infrastructure and services • Availability and quality of utility services (electricity, water) • Underperforming locally owned assets (e.g. power and water utilities) • Industrial parks and special economic zones • Science and technology parks <u>Created assets – industrial and firm capabilities</u> • Presence, credibility, and capabilities of locally based firms, including multinational enterprise affiliates. • National innovation system • Research clusters, including design, creativity clusters • Brand names • Availability, quality, and costs of inputs • Industrial clusters	<u>Other national policies</u> • Strong intellectual property regime • Confidentiality and data protection laws • Policies towards sale of intellectual property by local firms ('pure' in-licensing of technology, brands, trademarks, etc.) • Tax policies • Environmental policies • Stable commercial law and contract enforcement regimes • Clear land tenure system, approaches to traditional rights to land, and other resources • Open public tender policies and procedures • Policies supporting skills development through education, science, and technology competencies <u>Regional policies</u> • Membership of a regional integration agreement conducive to the establishment of regional corporate networks • Regional investment agreements and harmonisation policies <u>International policies</u> • International trade agreements	

Source: Author, based on United National Conference on Trade and Development data.

14.

Trade and Competition: Working Together to Advance the ASEAN Economic Community

Susan F. Stone

1. Introduction

It is a generally accepted principle that competition fosters improved outcomes for consumers, sparks innovation, and delivers stronger economic growth. Traditionally, competition has been the domain of domestic policymakers. However, the continued spread of global supply chains, the rising dominance of selected players in the technology field, and the pervasiveness of the digital economy mean that competition authorities must concern themselves with behaviour both within and across national borders. In today's global markets, the instances of interaction between trade and competition are more widespread than ever.¹

A robust competitive environment is essential for economic growth, innovation, and rising standards of living. The seminal work by Nickell (1996) found that competition, as measured by increased numbers of competitors or lower levels of rents, is associated with a significantly higher rate of total factor productivity growth. Whilst these essential principles remain true, the way we look at competition and the identification and measurement of products and markets has changed considerably over the years. This has made applying competition and trade policy increasingly co-dependent and complex. The need to be clear about the goals of competition policy in this complexity becomes more important than ever.

¹ This issue concerning trade and competition has been long recognised. The Charter for an International Trade Organization (Havana Charter), which entered into force in 1948, provided a framework for international cooperation on anti-competitive business practices. Although the Havana Charter was never adopted, it set the tone for dealing with this issue (Anderson et al., 2019).

This chapter will provide a summary of the current state of trade and competition issues both across the Association of Southeast Asian Nations (ASEAN) and the broader global community. This section outlines current issues in competition policy that have a particular impact on trade. Section 2 presents the current treatment of these issues within ASEAN, whilst section 3 takes a broader perspective, discussing how they are treated by countries outside ASEAN. Section 4 presents a potential way forward for ASEAN, considering this discussion, and section 5 provides concluding remarks.

ASEAN states that competition law ‘primarily prohibits anti-competitive agreements, abuse of dominant position and anti-competitive mergers and acquisitions’ (ASEAN, n.d.-b). The need to eradicate anticompetitive behaviour is crucial when trying to promote and protect the competitive process and provide a level playing field for all enterprises. Establishing and protecting market conditions that allow firms to grow and improve profitability motivates these firms to undertake research and development and engage in innovation to meet changing consumer needs.

An economy with robust competition not only experiences rising living standards, but also improves consumer choice and the quality of goods and services. This standard of consumer choice, or consumer sovereignty, in judging standards of competitiveness in markets is well established (Lande, 2001). Consumer sovereignty can be thought of as the ability of consumers to satisfy wants at a competitive price. A robust competitive environment is essential to achieve this goal.²

It is the ambition of domestic policymakers to maintain sufficient levels of competition to achieve innovation and growth. However, as the impact of government domestic policies is increasingly being felt under the scope of international trade, more attention – both at the World Trade Organization (WTO) and in trade agreements – has focused on competition and (potentially) restrictive business practices more generally. Whilst the WTO identified trade and competition policy as part of its negotiating agenda in 1996, it was later abandoned as a specific topic for negotiation.³ Concerns included a lack of consensus on negotiating targets as well as the basic desire amongst the trade community to negotiate this issue. Countries were concerned about their capacity to engage in meaningful negotiations on competition law, and there were further concerns over ‘policy space’ stemming from potential domestic policy implications (Anderson et al., 2019).

Nonetheless, substantial policy overlap between the two areas remains. The goals of trade policy and competition policy are the same: to promote economic growth and welfare. Both focus on non-discrimination though through different means. Competition policy can be found throughout many WTO agreements, including Trade-Related Aspects of Intellectual Property Rights, sanitary and phytosanitary measures, technical barriers to trade, national treatment, most favoured nation principles, and others. Verghese (2023) outlined examples of how competition issues have been brought before the WTO due to inconsistencies with WTO articles and annexes. Indeed, as more firms organise their activities on a global basis, they increasingly find themselves subject to the regulatory systems and business practices of different countries. Trade policy is not sufficient to deal with the potential for the disparities that often arise across these regimes. By incorporating competition policies in the trade mix, more balanced and effective outcomes can be achieved. Likewise, effective competition law enforcement can ensure that the benefits of trade liberalisation are fully realised (Hong, 2022).

² The standard of consumer welfare as the optimal goal of competition law is not universally accepted. See OECD (2023) for a recent discussion.

³ At the WTO Ministerial Conference in Singapore in 1996, trade and competition policy was nominated as one of four ‘Singapore issues’; the other three were trade and investment, transparency in government procurement, and trade facilitation.

However, the relationship between trade and competition policy is not straightforward. One source of this complexity is the difference in the institutional structures and processes through which each is developed and enforced. Trade and competition decision-making processes are usually separated and rarely coordinated. Competition policy tends to concern itself more with consumer welfare and judicial reviews, whilst trade policy focuses on industry and domestic problems, resulting in outcomes where not all parties (i.e. foreign interests) are always sufficiently consulted (Spier, 1997). However, the commonality of their objectives provides justification for the need for these two policy areas to work together. Coordinated approaches will lead to mutually reinforcing outcomes as opposed to policies that undermine and counteract each other. For example, imports, or the potential for effective import competition, can stop the exercise of market power in the domestic market. Conversely, in certain jurisdictions, anticompetitive tendencies are sometimes tolerated to gain advantages in global markets. A cooperative approach across jurisdictions is the most practical method, given the differing business and economic systems.

1.1. Issues in Global Competition

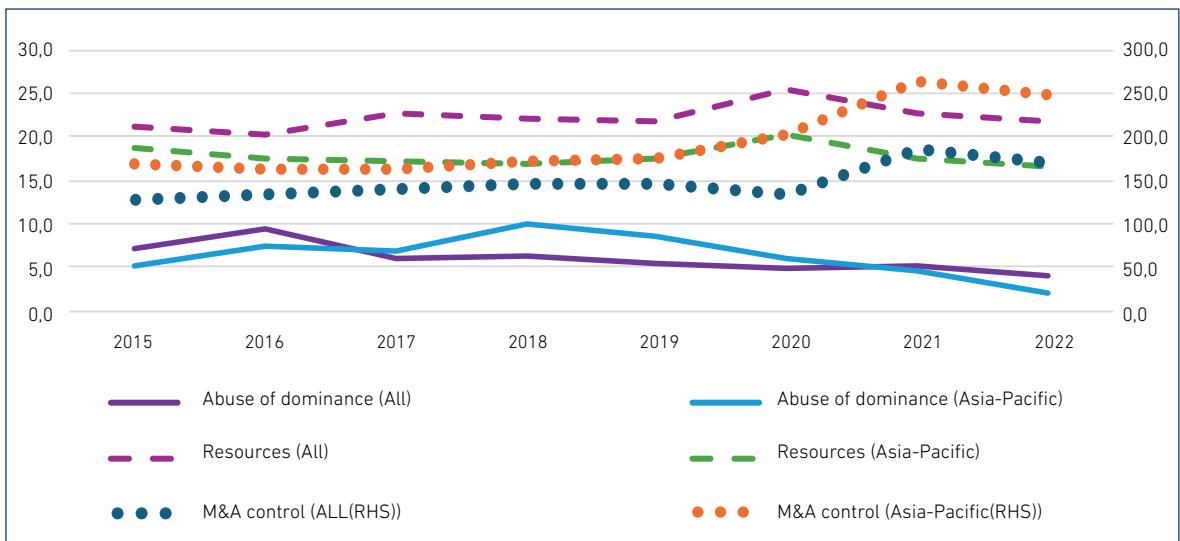
As markets have become global, more competition authorities have come under pressure to manage markets that may go beyond their jurisdiction. This is especially true in mergers and acquisitions (M&A). Globally, the number of cross-border M&A increased from 7,523 per year over the 5 years from 2007 to 2011 to an average of almost 10,000 over 2021–2022. Cross-border M&A were valued at US\$1.57 trillion worldwide in 2022, down from an all-time high of US\$1.7 trillion in 2021, but well above the average of just over US\$1 trillion in 2000 (UNCTAD, various).

This rise in M&A activity is adding to concerns about increasing market power globally. There is growing evidence that rising markups by firms has led to a decline in market innovation and business dynamism. Markups generally stem from excessive market concentration and go a great deal further in telling us about market power than concentration ratios. Concentration ratios tell us what share of the markets the biggest players have, but they do not tell us how much they use their size to influence the market price. Markups – the gap between a firm’s costs and what they charge buyers – is a much more direct link to market power (IMF, 2019).

Whilst much of the literature has been focused on markets in the United States (US), studies have looked at this phenomenon globally. De Loecker and Eeckhout (2018) found that average markups increased globally from around 10% in 1980 to 60% in 2016. Similarly, the International Monetary Fund (IMF, 2019) found that globally, markups increased 8% between 2000 and 2015, mainly in advanced economies. This trend seems particularly true in digitally intensive firms. These results, as well as others, point to a decline in competitive pressures and loss of firm dynamism. One factor contributing to these trends is the rise of M&A – especially by dominant players. Whilst M&A can yield cost savings and better products, they can also weaken incentives for innovation and strengthen a firm’s ability to charge higher prices. Worryingly, analysis shows that M&A by dominant firms contribute to an industry-wide decline in business dynamism – as competitors across the board suffer declines in growth and research and development spending. This is particularly worrisome in a world of low productivity growth.

The IMF (2021) recommended that competition authorities concentrate on four areas: merger control or enforcement of abuse of dominant position, input markets, digitally intensive sectors/firms, and ensuring adequate resources. Since 2015, the Organisation for Economic Co-operation and Development (OECD) has been tracking statistics on competition authorities across 77 jurisdictions, including 15 agencies in the Asia-Pacific. Six ASEAN Member States (AMS) are included in these statistics.⁴ According to the OECD (Figure 14.1), competition authorities in the Asia-Pacific have had a greater number of merger control cases than the average for the group, whilst resources have generally been fewer. Abuse of dominance cases experienced a rise between 2017 and 2018 but have been declining since then and fell below the average for the jurisdictions covered in 2021.

Figure 14.1. Performance of Competition Authorities



M&A = mergers and acquisitions, RHS = right-hand side.

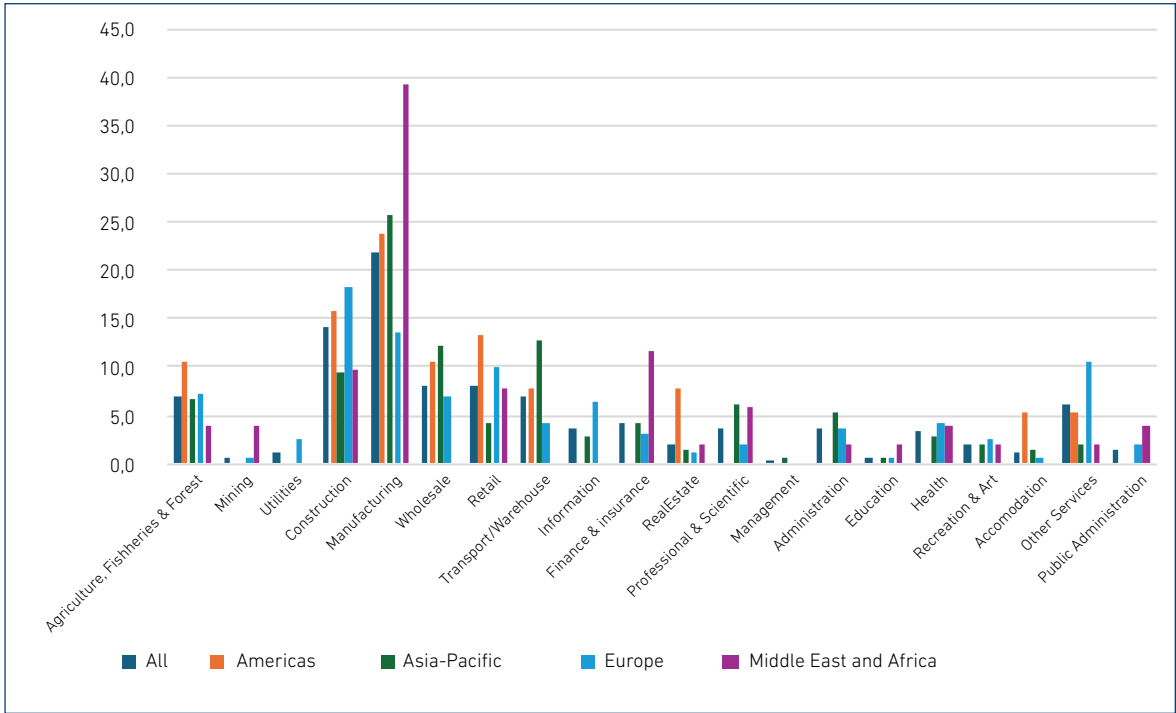
Notes: Abuse of dominance is measured as an average across jurisdictions of abuse of dominance investigations launched by the competition authority; M&A control is the average number of merger decisions across jurisdictions; and resources is measured as the ratio of the nominal competition authority budget per €1 million in gross domestic product.

Source: OECD (2024), Competition Trends data set https://www.oecd.org/en/publications/oecd-competition-trends-2024_e69018f9-en/support-materials.html (accessed 8 March 2024).

Looking at the sectors where cartels or other forms of market dominance have been found (Figure 14.2), we see that manufacturing dominates all jurisdictions – accounting for almost 40% of all cartel decisions. Outside manufacturing, the sectors of concern for Asian authorities have been transport and warehousing at 13%, wholesale at 12%, and construction at almost 10% of findings. Indeed, Asia has the highest number of transport and wholesale sector findings of all jurisdictions. This could have large implications for Asian consumers as these sectors are involved early in the value chain and can inflate prices across any number of other sectors using their services.

⁴ The AMS covered are Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Viet Nam. Other countries included as part of the Asia-Pacific are Australia, Bangladesh, Hong Kong, India, Japan, Kazakhstan, New Zealand, the Republic of Korea, and Taiwan.

Figure 14.2. Sector Share of Cartel Decisions (%)



Notes: Years 1999–2016; individual years vary depending on the jurisdiction.

Source: OECD (2024), Competition Trends data set https://www.oecd.org/en/publications/oecd-competition-trends-2024_e69018f9-en/support-materials.html (accessed 8 March 2024).

Having market dominance in any sector has been shown to create significant costs to a market. Evidence by Nickell (1996) from the United Kingdom found that for every 25% increase in market share, firm level productivity fell by 1%. The benefit of a strong competitive environment is that firms tend to innovate more and improve productivity when there is competition (Hong, 2022; OECD, 2014). Aghion et al. (2003; 2009), using firm-level data, found that competition significantly raises both the level and growth of productivity. Buccirossi et al. (2013) estimated the impact of competition policy on productivity growth using a sample of 22 industries in 12 OECD member countries from 1995 to 2005, finding a positive and highly significant effect. Januszewski, Köke, and Winter (2002) similarly reported a positive link between productivity growth and competition for a survey of firms in the United Kingdom. Using micro-level productivity growth at the firm level and patent panel data following reforms that introduced greater competition in the economy, he found that entry of foreign firms led to greater innovation and faster total factor productivity growth of domestic incumbents, and thus to faster aggregate productivity growth.

These results apply in open markets as well. Evidence has shown that reducing barriers to entry for foreign products and firms has an overall positive effect on innovation and productivity growth (Aghion and Griffith, 2008). The trade literature on this is vast. In general, more openness to trade seems to be associated with faster growth, although the evidence is mixed and effects depend on many factors other than product market competition (Berg and Krueger, 2003). Focusing on competition, Griffith, Harrison,

and Simpson (2006) used the introduction of the European Union (EU) single market to model the effects of increased competition, finding evidence that the reforms carried out under the Single Market Programme were associated with increased product market competition and an increase in innovation intensity and productivity growth for manufacturing sectors.

The institutional environment in which firms function has an impact on whether they benefit from trade liberalisation (Ahn, 2002). Studies have found that competition restrictions imposed by governments can be a key constraint on growth. Cole et al. (2005) argued that the international and domestic competitive barriers in Latin America, compared with Western and East Asian countries, has limited growth and explains lower productivity levels in the region. In contrast, in some Latin American countries, liberalisation has produced significant economic gains, showing that the role of competition in promoting productivity growth is not limited to the most advanced economies (Pavcnik, 2002). There is a rapidly increasing literature studying the effects of increased market openness in India. For example, Aghion et al. (2003) found positive effects of liberalisation on economic performance across manufacturing sectors and states in India during 1980–1997. A study on South Africa (Aghion, Braun, and Fedderke, 2008) argued that competition policy (i.e. a reduction of markups) would have largely positive effects on total factor productivity growth in South Africa – in particular, a 10% reduction in the markups would increase productivity growth by 2.0%–2.5% per year. That does not mean that the poorest countries should necessarily emphasise competition policy over other economic reforms. In the poorest countries, any economic reform that results in workers moving from essentially zero-productivity subsistence farming into productive work can cause large increases in output. In a study covering 179 countries, Gutmann and Voigt (2014) found strong effects on low-income countries through lower perceived corruption levels and higher levels of total investment with the introduction of competition laws. They concluded that ‘introducing competition laws to lend a hand to the invisible hand is a viable policy recommendation not only, but especially in developing countries’ (Gutmann and Voigt, 2014: 16).

2. ASEAN – Where Do Things Stand?

ASEAN is a major player in global markets, accounting for almost 12% of global trade in 2022.⁵ Intra-ASEAN trade is a significant part of that, making up 24% of total ASEAN trade, more than any of ASEAN's major bilateral trade partners (China, Japan, and the US). Given the importance of intra-ASEAN trade, and the stated objective of the ASEAN Community to increase harmonisation, the issue of competition policy has risen in prominence. Indeed, effective competition policy is clearly articulated as part of the ASEAN growth strategy (ASEAN, 2015). This strategy states that ‘Enforceable competition rules that proscribe anti-competitive activities are an important way to facilitate liberalisation and a unified market and production base’ (ASEAN, 2015: 2). In its 2025 blueprint, the ASEAN Economic Community (AEC) nominated five areas to further the goal of achieving deeper economic integration: (i) achieving an integrated and cohesive economy; (ii) enhancing connectivity and sectoral cooperation; (iii) building a resilient, people-centred ASEAN; (iv) building a global ASEAN; and (v) developing a competitive, innovative,

⁴ Based on author's calculation of ASEAN trade of \$3.8 trillion and global trade of \$32 trillion.

and dynamic ASEAN (ASEAN, n.d.-d). In the context of competition, the AEC set out five strategic goals as part of the ASEAN Competition Action Plan, 2016–2025:

1. For all AMS to have a competition regime in place.
2. To continue to strengthen and enhance the capabilities of competition-related agencies.
3. To put in place a regional cooperation arrangement.
4. To support and promote competition awareness in the region.
5. To promote greater harmonisation of competition policies and laws in the region.

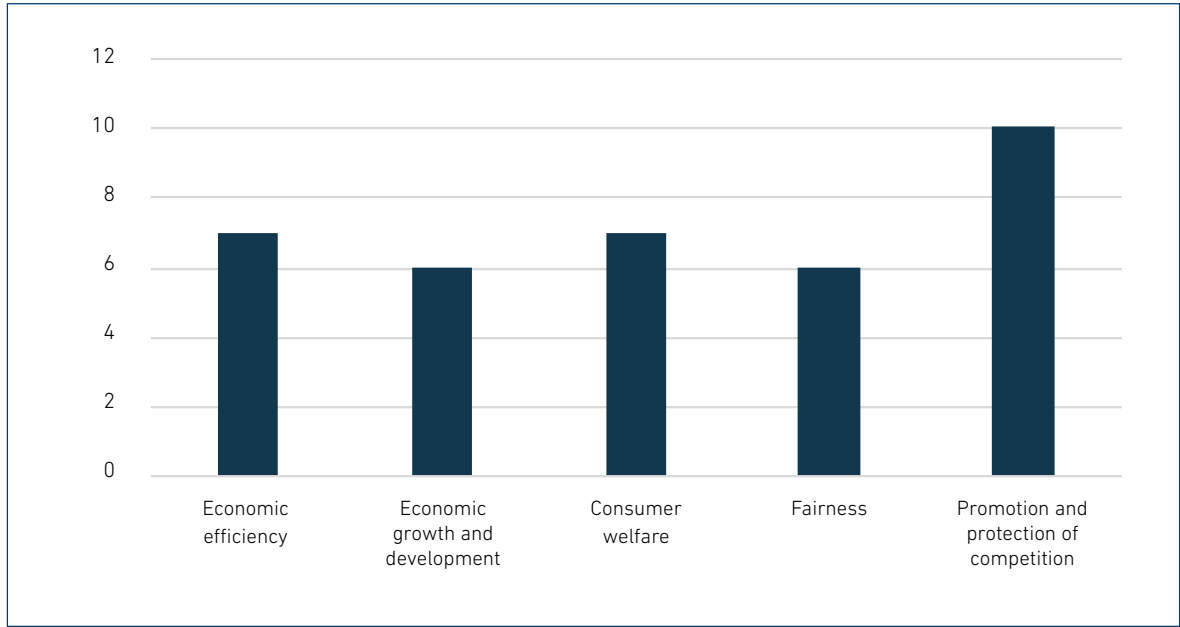
As of 2021, all AMS have competition laws in place, whilst nine of the 10 have a competition regulator (ASEAN, 2022b). The introduction of a regulator has been a relatively recent endeavour for half of the AMS, which is likely the reason for the second strategic goal: enabling competition agencies. The ASEAN Capacity Building Roadmap for competition (ASEAN, 2022b), developed in 2016, noted the ongoing need for training in competition law for both new and mature agencies. Together with the Australian Competition and Consumer Commission, the ASEAN Community developed the Competition Law Implementation Programme. Between 2014 and 2021, the programme delivered over 116 training activities, including placement opportunities for ASEAN competition authority staff within the Australian Competition and Consumer Commission, training for judges, and high-level meeting opportunities for competition agency heads. The ASEAN Community, under the ASEAN Capacity Building Roadmap, has carried out 42 activities, with the major focus on enforcement (ASEAN, 2022a).

These efforts bolster and support the third strategic objective of building regional cooperation in competition law. In 2018, the ASEAN Competition Enforcers Network (ACEN) was established as well as the Virtual ASEAN Competition Research Centre. The ACEN was set up to support the exchange of information amongst AMS and to integrate enforcement actions whenever possible (ASEAN, n.d.-c). The virtual centre acts as a reference for researchers and competition authorities to examine competition issues in the region, building a database and promoting research collaboration in the region. The AMS also established the ASEAN Expert Group on Competition (AEGC), which has produced biennial reports since 2016 (ASEAN, n.d.-a). These reports provide information on the work the AEGC has undertaken to support the implementation of the ASEAN Competition Action Plan 2025.

The fourth goal was to promote competition awareness in the ASEAN Community. To this end, ASEAN has published several editions of the Handbook on Competition Policy Law in ASEAN for Business (e.g. ASEAN, 2019). The AEGC regularly meets with other ASEAN bodies, notably consumer protection regulators (ASEAN, 2020). In 2023, the AEGC held its 10th Competition Conference, which acts as a platform for raising awareness of, and exploring issues in, competition policy and law in Southeast Asia (ASEAN, 2023). It is also undertaking work to improve communication with the business community through its ASEAN Competition Business Perception Index.

The fifth strategic goal has some of the largest implications for trade. This goal aims to promote harmonisation amongst competition policies and laws. Through harmonisation, ASEAN hopes to create a seamless policy environment that facilitates investment, improve the allocation of resources, and enhance enforcement (ASEAN, 2022b). Whilst AMS developed the Guidelines on Competition Policy, they have chosen not to adopt a supra-national competition regulator to enforce a regional competition law (ASEAN, 2013). This means that the region still needs to deal with 10 separate law and enforcement regimes. In addition, whilst the ACEN was created to facilitate cooperation, nothing is binding on AMS. However, individual laws have a fair amount of overlap in policy objectives (Figure 14.3).

**Figure 14.3. AMS Policy Objectives in Competition Law
(number)**



AMS = ASEAN Member State/s, ASEAN = Association of Southeast Asian Nations.

Source: ASEAN (2022b).

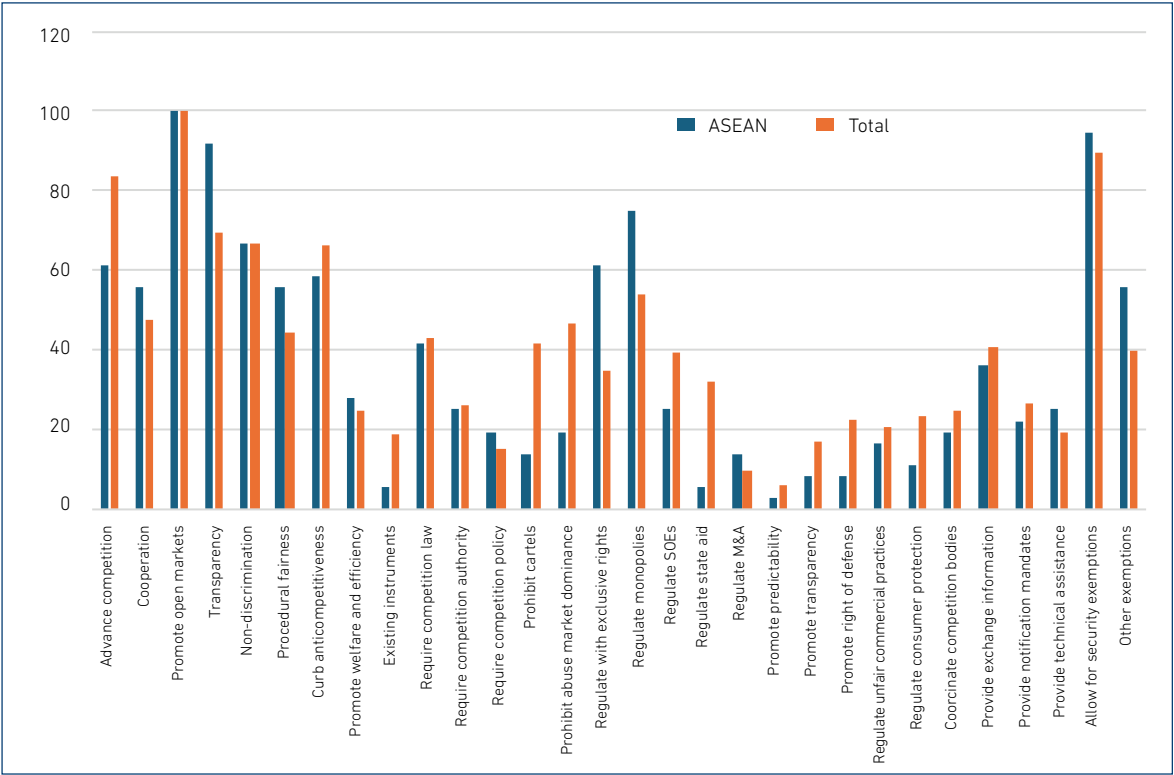
2.1. ASEAN Experience in Competition and Trade

ASEAN has five regional trade agreements (RTAs) that include some aspect of competition policy. These are with Australia–New Zealand; Japan; the Republic of Korea (henceforth, Korea); China; and India (World Bank, 2020). Whilst only the Australia–New Zealand agreement contains a provision explicitly promoting and advancing the condition of competition between the parties, they all have provisions promoting transparency and pledges to keep markets open economy wide.

Whilst ASEAN as a community has undertaken only a handful of agreements that contain competition provisions, individually, AMS have signed nearly 30 agreements containing competition chapters. Singapore is the most active in this space, followed by Malaysia (World Bank, 2020). Individually, all these agreements contain a specific provision to promote and advance competition. These individual agreements have led many AMS to adopt competition laws domestically and continue to strengthen competitiveness by developing their competition policies (Choi and Heinemann, 2020).

As shown in Figure 14.4, all trade agreements that include a chapter on competition have a specific provision to promote open markets, including those by AMS. The AMS agreements, however, more frequently include broad aspirational measures such as advocating transparency, welfare and efficiency, and procedural fairness. They also more often include specific provisions requiring the existence of competition policies and on the regulation of monopolies and M&A. As noted above, the IMF has recommended that these provisions be included in trade agreements to control the rise of dominant firms in a sector (IMF et al., 2022). However, ASEAN agreements allow exemptions (including security exemptions) at a higher rate than other agreements.

Figure 14.4. Comparison of Competition Chapters in Trade Agreements (%)



ASEAN = Association of Southeast Asian Nations, M&A = mergers and acquisitions, SOE = state-owned enterprise.
 Note: 'ASEAN' includes agreements by the Community as well as individual ASEAN Member States.
 Source: Compiled by the author from World Bank (n.d.), Deep Trade Agreements (DTA), <https://datatopics.worldbank.org/dta/overview.html> (accessed 16 April 2024).

Non-ASEAN agreements include specific provisions at a greater rate than ASEAN agreements. These include specific provisions to advance competition and curb anticompetitive behaviour as well as promote transparency. In addition, more non-ASEAN agreements have prohibitions of cartels and abuse from market dominance, which, as noted above, are pivotal for preventing the growth of market dominance. Also, AMS agreements include provisions for regulating state aid and state-owned enterprises (SOEs) at a lower rate than other regional agreements.

As noted, ASEAN agreements tend to remain at a broader aspirational level. This can be seen when looking at the enforceability of these provisions. The few AMS agreements that include more specific provisions often do not include specific requirements for enforcement, and those that do are generally rated a '2' (out of 5) by the World Bank's Deep Trade Agreements (DTA) database (World Bank 2020).⁶

ASEAN undertook a recent review of the status of competition policy in the Community. The study found that regional convergence can be achieved through converging policy objectives, the development of soft law (e.g. guidelines), and coordination and cooperation amongst the AMS regulators (ASEAN, 2022b). However, it identified concerns in the implementation of many parts of AMS competition law, where multiple policy objectives were stated. This raises difficulties for individual AMS to determine which policy objective should apply in a given situation (ASEAN, 2022b). The report recommended the expansion of the ASEAN Regional Guidelines on Competition Policy (2010) to focus on cooperation to help facilitate issues in relation to cross-border mergers and cartels, establish regular meetings between representatives of the AMS competition authorities, increase training on the commonalities and differences in ASEAN competition laws, and develop a framework for dealing with differences that arise across regimes (ASEAN, 2022b).

The review also identified five strategic goals for the ASEAN Competition Action Plan. Included in these goals are specific actions stemming from, or relating to, trade activities. They are in anticipation of (i) the growing importance of cross-border mergers; (ii) activities of multinational companies and the rise of 'private international' cartels; (iii) the abuse of dominance in export, regional, or global markets; and (iv) competition issues surrounding foreign direct investment activity. The fact that these are global trends illustrates the importance of increasing convergence in competition rules amongst AMS to support growing trade and supply chain activity. Cooperation on competition law and policy is necessary to ensure the benefits of trade and foreign direct investment liberalisation are not compromised by cross-border anticompetitive behaviour. The ASEAN Competition Action Plan notes the potential danger that the dismantling of state-constructed trade barriers will only be replaced by individual restrictive practices and thus there is a need to create region-wide competition policies and institutions to help achieve goals of regional growth.

3. Experience in Competition and Trade

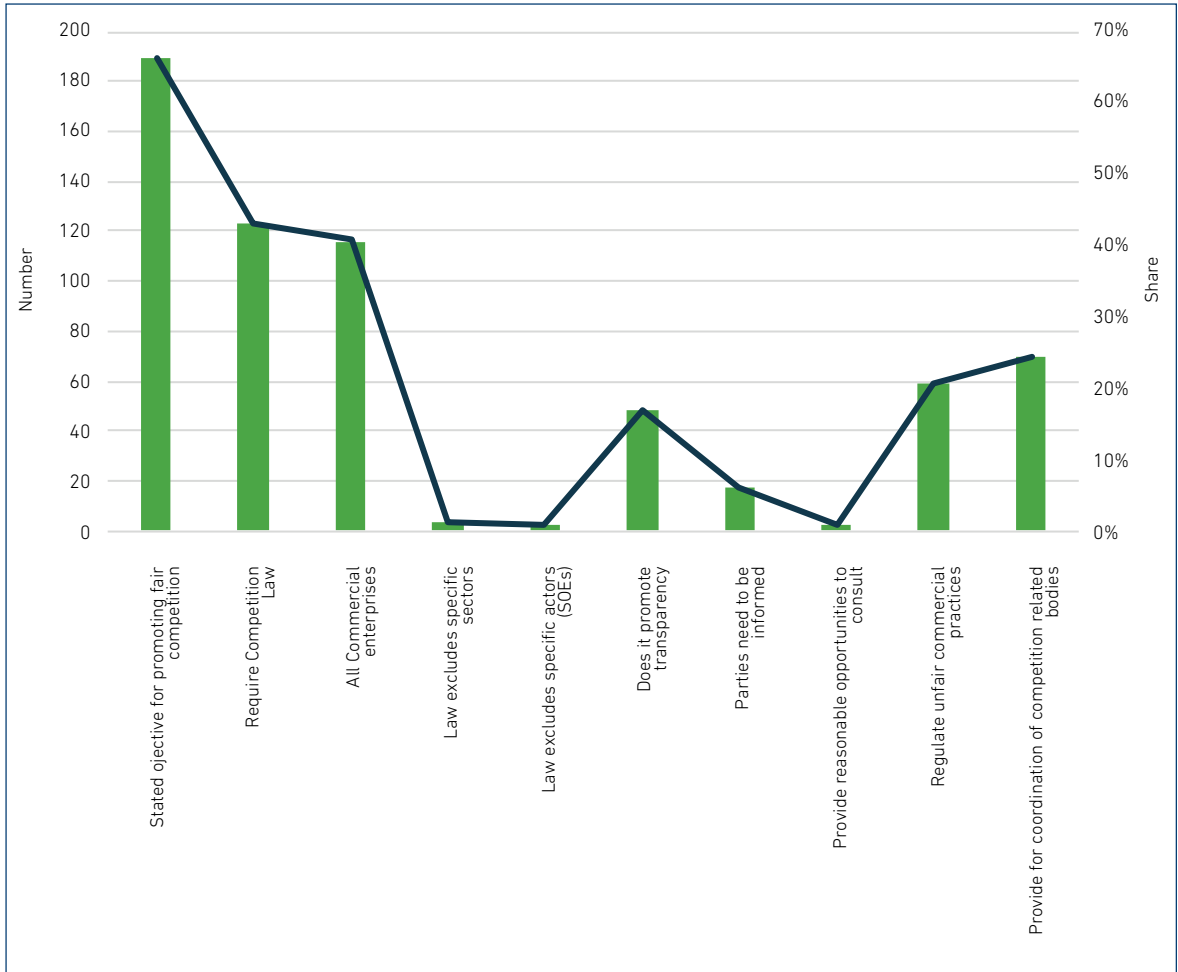
The World Bank's DTA database tracks the various provisions of preferential trade agreements to measure the extent to which agreements are 'deep' (Mattoo, Rocha, and Ruta, 2020), meaning agreements that go beyond traditional trade policy areas to include provisions on issues like investment, labour, the environment, intellectual property, and competition (World Bank, n.d.). Through a series of questions, the database attempts to ascertain what is included in these provisions, and judges, amongst other things, how binding they are. As these nontraditional issues have become more mainstream over the years, the degree to which parties are willing to make binding agreements in a preferential trade agreement has increased. The level of enforcement and accountability can thus provide an indication of the level of maturity and acceptance of an issue in the trade community.

⁶ The exception is the revised competition policy between Thailand and Australia, which was rated a '5' for its promotion of open markets and the level of exemption in the agreement.

As already noted, competition is increasingly part of the modern trade agreement. As recently as 2000, only six trade agreements directly addressed competition policy. As of 2020, of the 296 RTAs notified to the WTO, around 80% contained either dedicated chapters or provisions on competition policy, whilst roughly 55% recognised the importance of competition policy for trade (Anderson et al., 2019). Not only is the number of RTAs, including competition policy provisions, growing, but the content of these provisions is evolving significantly. Initially, RTA parties only recognised the importance of competition policy for trade and did not include self-contained chapters on competition policy. This began to change, particularly after 2004, when the WTO's Working Group on the Interaction between Trade and Competition Policy was disbanded and cooperation on competition issues was relegated to the accession process. RTAs adopted since then increasingly incorporate comprehensive coverage of issues pertaining to competition policy, such as obligations to have in place some sort of legal framework, especially regarding merger activity.

Much progress has been made on other provisions apart from simply promoting competition, to include legislation and institutional requirements, principles for competition law enforcement, specific anticompetitive practices, provisions for SOEs and designated monopolies, and cooperation/coordination on competition law enforcement. By 2016, 238 agreements had a provision that 'Promotes and advances the conditions of competition between parties' (Licetti, Miralles, and Teh, 2020: 549). The issues covered by these agreements vary, but most contain a stated objective for promoting fair competition (Figure 14.5). However, despite the significant progress made, less than half of these agreements (45%) include a provision that requires a dedicated competition law. Nevertheless, most have few exclusions (e.g. sectors and SOEs) and apply across all enterprises. Finally, to be truly effective, these agreements need to include provisions that allow for the exchange of information. As shown in Figure 5, only 25% of the competition chapters in trade agreements contain a provision that provides for coordination between competition-related entities.

Figure 14.5. Competition Issues Covered in Trade Agreements



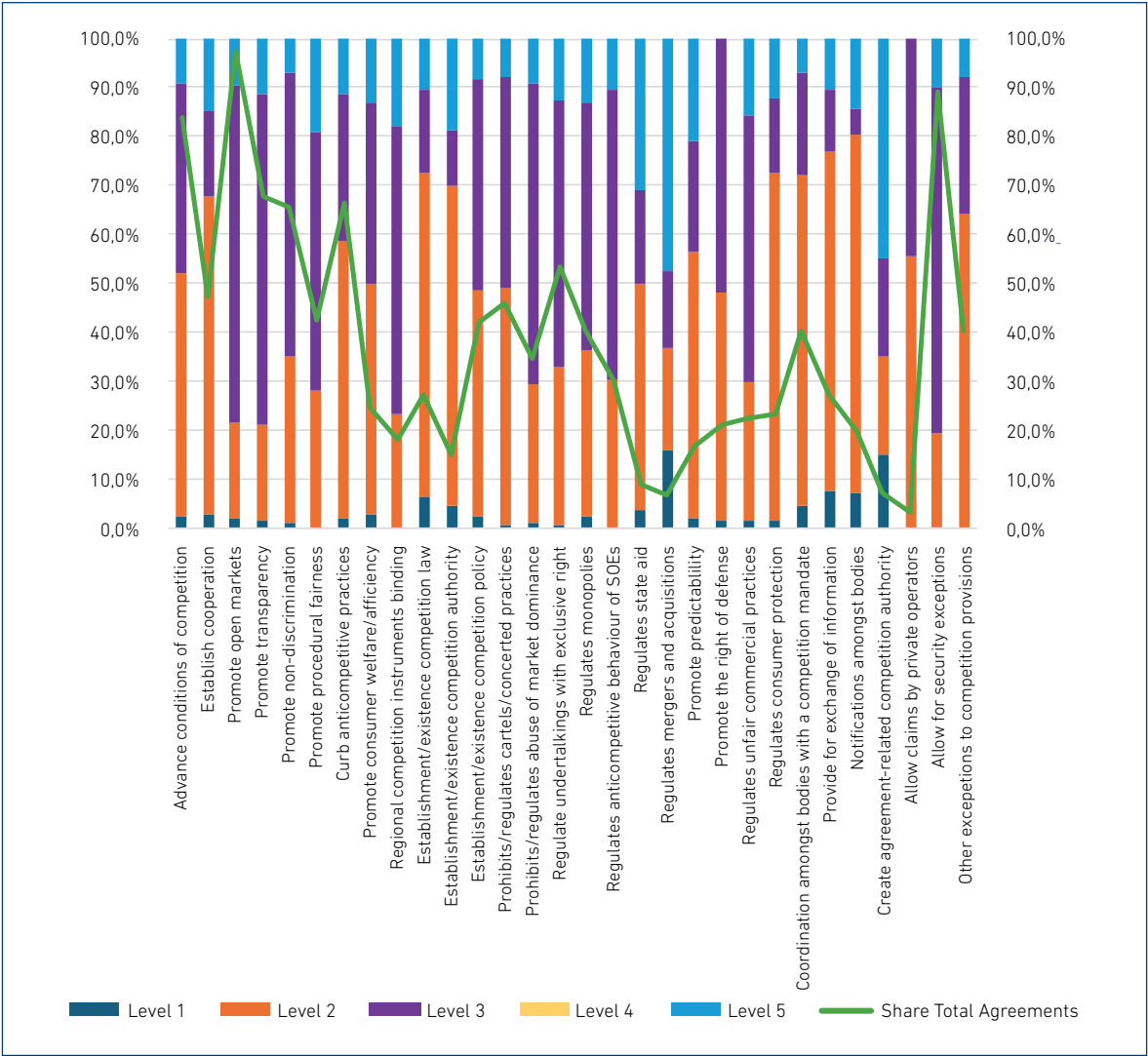
SOE = state-owned enterprise.

Source: Compiled by the author from World Bank (n.d.), Deep Trade Agreements (DTA), <https://datatopics.worldbank.org/dta/overview.html> (accessed 16 April 2024).

Most of these chapters remain aspirational in nature, using the word 'promote' rather than 'require'. Each of the various provisions included in the competition chapters of the World Bank's DTA database is rated on a scale of 1 to 5 for its level of enforceability. The least stringent is rated '1', the least enforceable, whilst a '5' is considered the most enforceable. Figure 14.6 shows the results for the provisions measured in the competition chapters. Very few agreements are rated a '5' when it comes to enforcement (Figure 14.6). The one area with the most (almost 50%) agreements rated a '5' is the inclusion of regulations

regarding M&A. None of the ASEAN competition provisions covered in the database were rated a '5';⁷ most areas are rated a '2' or a '3'. Only around 34% of RTAs with dedicated competition chapters subject competition policies to full RTA dispute settlement procedures (Anderson et al., 2019). These agreements often involve the EU or European Free Trade Association as well as some RTAs amongst the Commonwealth of Independent States and MERCOSUR (Southern Common Market). Other RTAs, though exempting competition chapters from dispute settlement, still provide for consultations. This is the case for more than half of RTAs with detailed competition chapters.

Figure 14.6. Levels of Enforcement for Competition Provisions



Source: Compiled by the author from World Bank (n.d.), Deep Trade Agreements (DTA), <https://datatopics.worldbank.org/dta/overview.html> accessed 16 April 2024.

⁷ The revised Thailand–Australia agreement was rated a '5' for the enforceability of the provisions allowing exceptions.

In the absence of an international standard for competition-related obligations in trade agreements, these obligations vary by agreement. The EU, for instance, advanced its goal of regional integration by promoting the establishment and enforcement of national competition policies that were in harmony with the EU's overall objective of reducing market distortions to achieve a more integrated economy. Following the European example, the Caribbean Community and Common Market (CARICOM), Eurasian Economic Union (EAEU), West African Economic and Monetary Union (WAEMU), and Common Market for Eastern and Southern Africa (COMESA) incorporate fairly comprehensive competition frameworks as a tool for economic integration. The competition provisions included in these agreements serve the dual purpose of creating national and supranational competition legal/institutional frameworks, whilst harmonising sector regulations and eliminating technical barriers to entry. Building on these examples, the competition-related obligations included in RTAs can be classified into various groups generally falling under three headings: economy-wide obligations, sector-specific obligations, and enforceability. Whilst ASEAN contains economy-wide and some sector-specific guidelines on competition, there are no obligations and enforcement remains with individual AMS.

3.1. Cooperation in Competition Policy

As issues of market access and market dominance across national boundaries increasingly draw the attention of policymakers, the instances of cooperation in competition have increased. Whilst regional groupings like the EU have long-standing institutional structures regarding competition across individual countries, a growing number of countries is participating in other forums, notably the International Competition Network, Asia-Pacific Economic Cooperation (APEC), the OECD, the Seoul International Competition Forum, and the East Asia Top Level Officials' Meeting on Competition Policy.

Whilst the EU model is often copied, it continues to be debated. Those who favour the active role the European Commission often plays argue that Europe's competition policy not only favours consumers' interests but also supports dynamic innovation and investment – fostering economic opportunity at a rate higher than that of the US, which is seen as being plagued with concentrated markets characterised by high entry barriers, especially in the technology sector. Those supporting a softer approach argue that the current policy often gets in the way of firms achieving economies of scale and note that all the technology giants are based in the US. This argument points out that Europe has made few contributions to technological and industrial renewal and that overly strict competition law undermines domestic firms' ability to compete in international markets, e.g. China in the rail sector.

The International Competition Network, launched in 2001, provides competition authorities with a dedicated venue for addressing practical competition concerns. The purpose is to build consensus towards sound competition policy principles across the global antitrust community. It is the only global body devoted exclusively to competition law enforcement, and its members represent national and multinational competition authorities (International Competition Network, n.d.).

The APEC Competition Policy and Law Group, originally known as the Competition Policy and Deregulation Group, was established in 1996 to promote understanding of regional competition laws and policies, identify areas for technical cooperation and capacity building amongst APEC member economies, promote exchanges on experiences and best practices on competition policies and competition law enforcement, and build networks amongst competition agencies of member economies (APEC, n.d.).

The Seoul International Competition Forum is a venue for officials of competition agencies across the globe to share views on diverse and current issues in competition law and policies (Korea Fair Trade Commission, n.d.). This differs from the East Asia Top Level Officials' Meeting on Competition Policy, which focuses on issues of cooperation, aiming to strengthen the cooperative relationship amongst competition authorities as well as reviewing developments in competition law (Japan Fair Trade Commission, n.d.).

The OECD's Global Forum on Competition is an annual event that brings together officials from over 100 competition authorities and international organisations worldwide. Participants debate and discuss key topics on the global competition agenda, with the objective of providing wider dialogue that encompasses the linkages between competition policy and other cornerstones of economic development, including trade.

3.2. Issues in Competition and Trade Policy

Discussion and cooperation are fundamental to furthering progress on issues where trade and competition policy interact. This is often difficult because competition authorities are primarily responsible for domestic markets, whilst in today's marketplace, competition takes place on a global stage. In an environment where firms are increasingly organising their operations on a global scale and where trade barriers between nations are falling, firms are more exposed to the regulatory systems and business practices that exist in different countries. Trade policy is not sufficient, on its own, to deal with the frictions that result. By incorporating, in appropriate circumstances, the application of competition principles to the policy mix, balanced and desirable outcomes can be achieved more readily.

Some of the key issues competition authorities face when dealing with firms (both domestic and foreign) operating in global markets is the challenge of not only defining but also identifying what a competitor is. As markets evolve, goods and services that were distinct and identifiable now overlap or are embedded in other goods and services. We see more cases of services that are embedded in goods (e.g. electronic reading devices and the content that is accessed on them). Often, these goods become intertwined, and associated issues of first-mover advantage can limit or stifle innovation and competition.

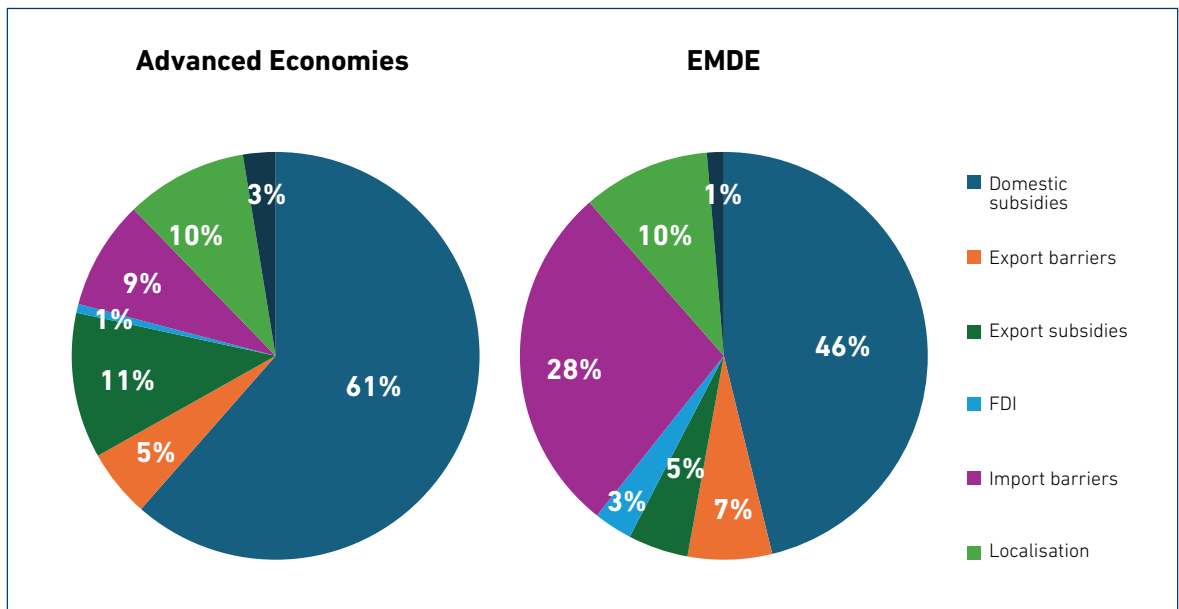
Issues around market power and subsidies, as well as increasing scepticism regarding supporting institutions, create a market environment that is challenging for policymakers. Competition policy can be distortive, and the notion of a level playing field is far from straightforward. Significant market distortions may arise when some firms benefit from competitive advantages conferred by state actions, e.g. based on their ownership, nationality, or activity in the market. These distortions can prevent competition from reaching its potential for economic growth, productivity, and innovation. They also spill over into other markets through trade. These policies can discourage investment, create regulatory uncertainty, and encourage trading partners to adopt similar distortions that undermine global markets. Competition authorities have a role to play in promoting the application of competitive neutrality principles, including addressing distortions through their enforcement tools and advocating for neutrality in state actions.

The WTO places limits on the degree of influence that state-sponsored firms can have on the market, but it does not cover the full scope of these enterprises. In a joint study on subsidies and trade, international organisations argued that the growing use of distortive subsidies, especially through state-invested enterprises, alters trade and investment and undermines tariff bindings, market access commitments, and undercuts public support for open trade (IMF et al., 2022). This is important because most

merchandise trade takes place in products and markets in which at least one subsidised firm operates (OECD, 2021). Many recent trade agreements have attempted to address this issue by going beyond the provisions of the WTO to provide discipline on the behaviour of SOEs and including more extensive lists of prohibited subsidies. The landscape for competition policy is growing more complex. Global value chains, digital markets and their related network concentration effects, and the growing importance of economies in which the state plays a central role all combine to create an overlapping and interwoven competition terrain which is difficult to manage by a single competition authority. However, the urgent challenge of climate change, and the recognition that well-crafted subsidies can be an important part of the public response to economic and health emergencies, muddies the waters and can create contradictory objectives across the competition and trade landscape.

In a post-coronavirus disease (COVID-19) world, the use of industrial policy, and the accompanying subsidies, has reached a level not seen for decades (Evenett et al., 2024). This renewed interest stems from overlapping and reinforcing trends and differs distinctly from the policy goals of industrial policy in the past – that is, it is less about protecting infant industries or increasing productivity and more about pulling back global value chains, maintaining technological advantages, and attempting to gain more control over external shocks. It is also motivated by China's use of industrial policy and outsized influence on global markets. Given the cross-border nature of supply chains, some governments are attempting to coordinate their industrial policies with key partners, as opposed to implementing everything at the national level. Finally, the climate change crisis is also playing a central role in modern industrial policy initiatives where 'green' subsidies are rising significantly (Evenett et al., 2024). Another key difference from the past is that these policies, for the most part, are found in advanced economies (Figure 14.7). Domestic subsidies are being used at a rate of 3:1 in advanced economies, where emerging and developing economies, whilst using domestic subsidies, rely more heavily on import barriers.

Figure 14.7. Incidence of Subsidies Across Economies, 2023

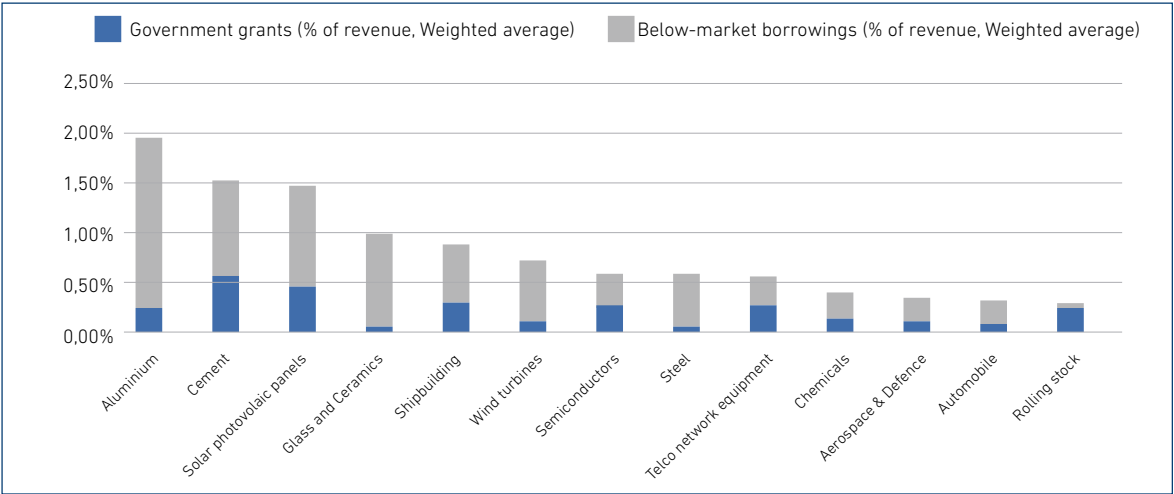


EMDE = emerging markets and developing economies, FDI = foreign direct investment.

Source: Evenett et al. (2024).

These subsidies not only distort domestic markets but also alter incentives globally for investment, output, employment, and trade. By altering a firm’s cost and revenue stream, they also change where and how they invest, often leading to a long-term need for subsidies in industries. These can become costly to governments and consumers over time, leading to entrenched structures that are very difficult to remove. In many heavy manufacturing industries, subsidies have long played a major role. Recent work by the OECD (2021) showed that whilst government grants (a traditional form of domestic subsidy) are significant in some sectors (e.g. cement, solar panels, semiconductors, and rolling stock), they are often insignificant compared with favourable financing deals (Figure 14.8). Providing financing at levels that fall below market rates allows firms to engage in investment that may not be profitable over time and entails the need for further subsidies down the line. These subsidies can then have a permanent impact on competition, both domestically and globally.

Figure 14.8. Examples of Subsidies Expressed as a Share of Firm Revenue by Manufacturing Sector (averaged for 2005–2019)



Source: OECD (2021).

3.3. ASEAN–Australia–New Zealand Free Trade Area

One ASEAN trade agreement that has made considerable strides in competition policy is the ASEAN–Australia–New Zealand Free Trade Area agreement. The chapter on competition highlights the importance of cooperation in the promotion of competition, economic efficiency, consumer welfare, and the curtailment of anticompetitive practices. The chapter on competition also provides for a framework for cooperation on competition and, importantly, the designation of contact points for technical cooperation and information exchange.

This agreement flows from the success of the Australia–New Zealand cooperation on competition. The Australia–New Zealand Closer Economic Relations Trade Agreement (CER Agreement) was one of the first agreements, outside Europe, to include specific provisions for competition. The 1983 agreement set out four objectives, including developing trade between New Zealand and Australia under the rules of fair competition (Department of Foreign Affairs and Trade, 1997). When the agreement was signed, only CARICOM and the Central American Common Market in Latin America and the European Community and European Free Trade Association in Europe had specific provisions dealing with competition policy. The CER Agreement remains one of the most comprehensive trade agreements in the world, covering almost \$30 billion in trade and \$185 billion in investment in 2021–22.

The CER Agreement recognised that addressing matters of standards, technical specifications, labelling, testing, etc. was necessary to create an effective free trade and competition regime. The agreement requires the two governments to work together towards the harmonisation of such requirements. Through a series of side agreements and memoranda, the two countries adopted similar approaches to not just competition law but also commercial law more broadly. A significant step was taken in 1990 when the two countries moved from a reliance on anti-dumping legislation to a reliance on competition law provisions. The provision removed Australia from New Zealand's Trade (Anti-dumping and Countervailing Duties) Act, 1988 and created a new trans-Tasman provision on anticompetitive use of monopoly power. This applied to both the use of dominant position in trans-Tasman markets as well as the misuse of market power – treating actions in one, the other, or both markets the same. Thus, it moved from defining injury to a specific firm or domestic competitor to looking at injury to competition in the whole market.

The nature of the provision of many services provides a potential avenue through which restrictive trade practices by services businesses can influence the competition in a goods market.⁸ However, the CER allows these activities to be addressed through this new regime. Further, with New Zealand adopting the basic approach of Australia's laws, court precedents and commission procedures from Australia could be recognised and adopted by New Zealand, greatly expanding the investigatory and enforcement powers of the two countries. This forces regulators to regularly review competition law for consistency across both markets whilst allowing for regular assessment of international innovation and regulatory practices, keeping the countries' competition policies at the forefront of best practice.

Harmonisation is not an end in itself but rather a way of furthering the economic goals of productive, efficient, and improved competition. In 2013, the two nations developed a cooperation agreement that allowed New Zealand's Commerce Commission to share compulsorily acquired material and to provide investigative assistance to the Australia Competition and Consumer Commission. This then allows New Zealand, whose law had previously applied strict limitations on the ability to share such information with an international agency, to improve efficient competition enforcement. Although many AMS have the power to cooperate with foreign competition agencies, there are significant barriers to sharing confidential information. Developing such protocols and agreements within the ASEAN Community would go a long way to achieving a more effective competition regime.

⁸ An example may be the preferential provision of financing terms or access to certain software.

4. ASEAN into the Future

Given the multitude of critical changes that have impacted the underpinnings of the AEC, the post-2025 AEC agenda cannot be business as usual. Instead, it should adopt a more dynamic approach to market integration, i.e. one that can implement measures in response to changing market and economic conditions. A good example is the use of digital technologies in promoting supply chain resilience in ASEAN, which was not considered before in the AEC agenda.

The key concern is whether competition policy can achieve its objectives in today's markets. Existing competition law may quickly become outdated and, thus, no longer conform to current economic reality. Whilst it has come a long way, ASEAN needs to address this policy area in the context of other policy areas – notably trade. Increasing difficulties in defining markets and thus identifying concentration levels are only going to grow. Ensuring national economic competitiveness includes the ability to spur increases in domestic productivity and standards of living. In the domestic realm of competition policy, governments can take clear measures to improve productivity and innovation with limited effects on other nations, e.g. investment in the education system. However, fields like technology are harder to contain. The idea of global technology leadership and the appropriate role of government action to encourage this development is a much-debated topic. Developing consistent approaches on which institutions, policies, and governments can rely, needs to be undertaken. These approaches need to consider a range of issues from broad market conditions to specific policies that support individual technologies or economic sectors. But even more than with exports or investment, tracing the pathway from government action to success in the field of technology is difficult, and has had mixed results when implemented (Shatz, 2020).

The digital economy is a leading driver of economic growth, but it can also lead to economic upheaval and significant societal changes. The evolution of the digital economy facilitates the entry and growth of internet-based suppliers and distributors as well as access by consumers to a vast global product market. Such potential benefits are particularly attractive to AMS, where the digital economy is seen as having boosted economic development, improved the productivity of capital and labour, lowered transaction costs, and facilitated access to global markets (Choi and Poramamond, 2023). Southeast Asia has encountered rapid economic growth, primarily driven by the digital economy, which is projected to reach US\$240 billion by 2025 (Choi and Poramamond, 2023).

However, technology will remain a major challenge to competition authorities. Goods and services such as cars, medical devices, financial transactions, and phones all rely on software that makes them harder to understand or, in some cases, control. The rise in complexity, with a corresponding decline in control and transparency, is, in some markets, leading to a rise in the concentration of economic power. Indeed, Korea has included in its competition law multiple goals dealing with the dispersion of economic power, protection of small and medium-sized enterprises, and assurance of free competition. However, these goals can often be conflicting, with no clear guidance on which should be prioritised.

Along with the rise of the digital economy came concerns about the data that is both collected and generated. Singapore adopted the first data protection law of AMS in 2012: the Personal Data Protection Act. Since then, AMS have either adopted a version of the Personal Data Protection Act or implemented some form of data protection legislation (Thio, 2018). The Digital Markets Act (DMA), adopted by the EU

in 2022, broadly prohibits various types of conduct by digital platforms, the so-called gatekeepers.⁹ The DMA prohibits, for example, the conduct of 'self-preferencing' and the collection and combination of users' data. The European approaches in the DMA can be considered as a new trend in digital competition law, but they also may harm dynamics in the digital market if the new act excessively prohibits the conduct of platforms. Such a line of inquiry should also be discussed within ASEAN.

The questions that AMS are grappling with include the extent to which vigorous enforcement of competition law in the context of digital markets stifles innovation and competition, and the extent to which a consistent approach should be part of the fundamental design of an ASEAN policy on the digital economy. It is important to have an effective competition law that only prohibits the conduct of gatekeepers that can potentially harm competition and distort market integration, especially when the conduct impedes access to the ASEAN market. Nonetheless, it is crucial to acknowledge the notable benefits of vertical arrangements that have the potential to achieve efficient results and improve inter-brand competition. Moreover, the conduct of digital platforms may involve dynamic efficiency. Therefore, ASEAN needs to adopt a balanced view in providing guidance for competition law enforcement related to digital cases.

According to a European Commission report, the primary issues facing competition policy regarding the digital sector are issues that define the main characteristics of the digital economy, such as extreme returns to scale, network externalities, and the role of data (Crémer, de Montjoye, and Schweitzer, 2019). These characteristics influence the enforcement of competition law and can provide contradictory evidence as to their benefits or costs to consumers. In this regard, the European Commission has made notable decisions against Google and has initiated several investigations of large platforms for possible violations of existing law (Choi and Porananond, 2023). Likewise, the Korea Fair Trade Commission concluded that one of the large search engines in Korea, Naver, infringed its Monopoly Regulation and Fair Trade Act, 1981. In addition, both the Chinese and Japanese competition authorities have made important decisions against several digital undertakings for violations of their competition rules (Choi and Porananond, 2023). These cases reveal the increasing importance of competition policy for the digital economy.

More generally, ASEAN's competition regimes often suffer from two major shortcomings. First, competition law objectives are often unclear and suffer from an overemphasis on fairness, which can have many meanings across different jurisdictions. Second, this ambiguous terminology can lead to biased interpretation of the rules. The principle of fair competition has been noted as a primary objective of AMS (Choi and Porananond, 2023). However, ASEAN's recent approaches do not always define or focus on fair competition. The Guidelines on Developing Core Competencies in Competition Policy and Law for ASEAN (ASEAN, 2012) highlighted the goal of promotion and protection of a competitive process that includes the improvement of economic efficiency, economic growth, and consumer welfare. By emphasising consumer welfare, however, it is unclear whether the law should protect the competitive process, the outcome, or the individual competitors, all of which have different meanings with respect to 'fair' competition. Importantly, the guidelines oppose 'additional objectives' because the additional objectives or sociopolitical goals can trigger incoherent applications of competition law amongst AMS (Choi and Porananond, 2023). So, there continues to remain much room in the guidelines for individual interpretation and application. A more coherent approach is needed to ensure a more consistent application across jurisdictions.

⁹ Digital platforms or gatekeepers refer to software or technology used to unify and streamline business and information technology (IT) activity. They include Amazon, Facebook, Quora, Airbnb, and many others.

Another important question that needs to be considered is information sharing. Without meaningful information sharing amongst AMS, the ability to engage in regional cooperation, or achieve significant regional convergence, cannot be achieved. Both the benefits and the risks of cross-border sharing of information will need to be considered. As seen in the Grab/Uber case, there is an immediate need for such cooperation in relation to cross-border mergers, and the same point is relevant to cross-border cartels (ASEAN, 2018).

ASEAN should focus on the recommendations made in its recent review of competition policy in the region (ASEAN, 2022b). The priority list, given the discussion above, should be:

- (i) Establish informal, but precisely articulated, ASEAN-wide competition policy goals.
- (ii) Prioritise collaborative efforts on enforcement priorities to ensure common policy objectives and their enforcement.
- (iii) Establish collaborative frameworks on proposed remedies for cross-border cases, where possible, including established channels for information exchange.

The ASEAN Community needs to focus on collaboration and information sharing. This is an area where ongoing discourse between the AMS competition regulators will be important. AMS should continually stress the commonality of the stated goals of competition law and work towards a consistent application (and potential narrowing) of these policy goals in practice.

In addition, a priority area for competition regimes in the region is the digital economy. As the discussion has illustrated, this area permeates all aspects of the economy and has a major impact on competition. Furthermore, given that the digital market is inherently global, trade policy needs to be an integral part of the development of a coherent competition regime.

5. Conclusion

Trade policy and competition law can complement the advancements made by the other, but they can also act as barriers to achieving their joint objectives of improved welfare and more efficient allocation of resources. The liberalisation of trade policy is widely credited for reducing global poverty in the past 30 years; improving efficiency; and increasing product specialisation, innovation, and choice. This has provided consumers and business with greater access, at lower prices, to a larger variety of goods and services improving welfare. Competition law, by applying rules to ensure that businesses compete fairly, helps ensure the same outcomes, i.e. wider choice for consumers, business efficiency, and improved quality at a lower price.

To ensure that open trade remains competitive trade within the Community, ASEAN needs to work to develop a common approach to competition policy with similar levels of enforcement. The growth of digitally enabled and driven commerce will continue to grow, and ASEAN needs to be prepared by working cooperatively and engaging in international dialogue to ensure its approach to this issue is forward looking.

ASEAN needs to provide guidance to avoid AMS adopting different, potentially innovation-detering regulations rather than a consistent gatekeeper-controlling rule. Despite soft law's absence of binding commitments, guidelines set by ASEAN could assist AMS to establish a legal framework for the digital economy and avoid conflicts in the enforcement of competition law amongst them.

The ASEAN Community needs to develop a common understanding of the meaning of fair competition and abuse of market power. Moreover, AMS that do not have sufficient resources for policy development and enforcement could more easily implement competition policy by accepting ASEAN-established rules and guidance. At the ASEAN level, AMS could pool their resources of legal techniques and approaches to many competition issues, notably to the digital market. AMS could then fully or partially adopt or adapt the ASEAN guidelines by considering their own circumstances.

Regional guidelines, as a form of soft harmonisation, can be considered an important basis for future binding (hard law) commitments. Although soft law can have limited effectiveness, it can provide important improvements by enhancing cooperation amongst AMS and signalling future policy and law enforcement pathways to the market, thereby offering legal certainty or predictability for markets. The absence of effective cooperation without guidance from ASEAN could cause divergent competition law and policy, resulting in incoherent implementation of the law amongst AMS. This lack of clarity and coherence could limit the amount of investment and trade within, and outside, the region.

Finally, ASEAN must engage in international cooperative efforts between competition regulators and trade policy (and vice versa). International cooperation in competition law takes place in several forums, from APEC to the OECD. These arenas provide a venue for working out mutually advantageous forms of cooperation, as well as frameworks of operations, and adopting best practice. To ensure the effectiveness of any outcomes, it is essential that trade officials take part in these discussions. ASEAN, with its commitment to trade and collaboration amongst policy areas, is in a strong position to lead the global debate on these issues.

References

- Aghion, P., R. Blundell, R. Griffith, P. Howitt, and S. Prantl (2009), 'The Effects of Entry on Incumbent Innovation and Productivity', *The Review of Economics and Statistics*, 91(1), pp.20–32.
- Aghion, P., M. Braun, and J. Fedderke (2008), 'Competition and Productivity Growth in South Africa', *Economics of Transition and Institutional Change*, 16(4), pp.741–68.
- Aghion, P., R. Burgess, S. Redding, and F. Zilibotti (2003), 'The Unequal Effects of Liberalization: Theory and Evidence from India', London School of Economics and Political Science. <http://econ.lse.ac.uk/staff/rburgess/wp/abrz031002.pdf>
- Aghion P. and R. Griffith (2008), *Competition and Growth: Reconciling Theory and Evidence*, Zeuthen Lectures, Cambridge, MA: MIT Press.
- Ahn, S. (2002), 'Competition, Innovation and Productivity Growth: A Review of Theory and Evidence', *OECD Economics Department Working Papers*, No. 317, Paris: Organisation for Economic Co-operation and Development.

- Anderson, R.D., W.E. Kovacic, A.C. Müller, and N. Sporysheva (2019), 'Competition Policy, Trade and the Global Economy: An Overview of Existing WTO Elements, Commitments in Regional Trade Agreements, Current Challenges and Issues for Reflection', Global Forum on Competition, OECD, 5 December. [https://one.oecd.org/document/DAF/COMP/GF\(2019\)11/en/pdf](https://one.oecd.org/document/DAF/COMP/GF(2019)11/en/pdf)
- APEC (n.d.), Competition Policy and Law Group. <https://www.apec.org/groups/economic-committee/competition-policy-and-law-group>
- ASEAN (n.d.-a), ASEAN Competition: Annual Reports. <https://www.asean-competition.org/annualreport>
- (n.d.-b), Competition. <https://asean.org/our-communities/economic-community/competitive-innovative-and-inclusive-economic-region/competition/>
- (n.d.-c), Competitive, Innovative and Inclusive Economy Region. <https://asean.org/our-communities/economic-community/competitive-innovative-and-inclusive-economic-region/competition/overview/>
- (n.d.-d), Economic Community. <https://asean.org/our-communities/economic-community/>
- (2012), *Guidelines on Developing Core Competencies in Competition Policy and Law for ASEAN*, Jakarta: ASEAN Secretariat.
- (2013), *ASEAN Regional Guidelines on Competition Policy*, Jakarta: ASEAN Secretariat.
- (2015), *ASEAN Economic Community Blueprint 2025*, Jakarta: ASEAN Secretariat.
- (2018), 'Grab-Uber Merger: CCCS Imposes Directions on Parties to Restore Market Contestability and Penalties to Deter Anti-Competitive Mergers'. <https://www.asean-competition.org/read-cases-grab-uber-merger-cccs-imposes-directions-on-parties-to-restore-market-contestability-and-penalties-to-deter-anti-competitive-mergers>
- (2019), *Handbook on Competition Policy and Law in ASEAN for Business 2019*, Jakarta: ASEAN Secretariat.
- (2020), *Post Mid-Term Review: ASEAN Competition Plan*, Jakarta: ASEAN Secretariat.
- (2022a), 'Review of the ASEAN Capacity Building Roadmap Completed', News article, 26 August. <https://asean-competition.org/read-news-review-of-the-asean-capacity-building-roadmap-completed>
- (2022b), *Study on Commonalities and Differences across Competition Legislation in ASEAN and Areas Feasible for Regional Convergence*, Second edition, Jakarta: ASEAN Secretariat.
- (2023), 'Balancing IP Rights, Competition Takes Center Stage at 10th ASEAN Competition Conference', News article, 23 November. <https://asean-competition.org/read-news-balancing-ip-rights-competition-takes-center-stage-at-10th-asean-competition-conference>
- Berg, A. and A. Krueger (2003), 'Trade, Growth, and Poverty: A Selective Survey', *IMF Working Paper*, No.03/30, Washington, DC: International Monetary Fund.
- Buccirosi, P., L. Ciari, T. Duso, G. Spagnolo, and C. Vitale (2013), 'Competition Policy and Productivity Growth: An Empirical Assessment', *Review of Economics and Statistics*, 95(4), pp.1324–36.

- Choi, Y.S. and A. Heinemann (2020), 'Competition and Trade: The Rise of Competition Law in Trade Agreements and Its Implications for the World Trading System', *World Competition*, 43(4), pp.521–42.
- Choi, Y.S. and P. Porananond (2023), 'Competition Law and Policy of the ASEAN Member States for the Digital Economy: A Proposal for Greater Harmonization', *Asia Pacific Law Review*, 31(2), pp.358–79.
- Cole, H. L., L.E. Ohanian, A. Riascos, and J.A. Schmitz Jr. (2005), 'Latin America in the Rearview Mirror', *Journal of Monetary Economics*, 52(1), pp.69–107.
- Crémer J., Y-A. de Montjoye, and H. Schweitzer (2019), *Competition Policy for the Digital Era*, Brussels: European Commission (Directorate-General for Competition).
- De Loecker, J. and J. Eeckhout (2018), 'Global Market Power', *NBER Working Paper Series*, No. 24768, Cambridge, MA: National Bureau of Economic Research.
- Department of Foreign Affairs and Trade (1997), 'Closer Economic Relations: Background Guide of the Australia New Zealand Economic Relationship'. <https://www.dfat.gov.au/sites/default/files/cer.pdf>
- Evenett, S., A. Jakubik, F. Martín, and M. Ruta (2024), 'The Return of Industrial Policy in Data', *IMF Working Paper*, No. 24/1, Washington, DC: International Monetary Fund.
- Georgieva, K, F.J. Díez, R. Duval, and D. Schwarz (2021), 'Rising Market Power – A Threat to the Recovery?', IMF Blog, 15 March. <https://www.imf.org/en/Blogs/Articles/2021/03/15/blog-rising-market-power-a-threat-to-the-recovery>
- Griffith, R., R. Harrison, and H. Simpson (2006), 'The Link Between Product Market Reform, Innovation and EU Macroeconomic Performance', *Economic Papers*, No. 243, Brussels: European Commission (Directorate-General for Economic and Financial Affairs).
- Gutmann, J. and S. Voigt (2014), 'Lending a Hand to the Invisible Hand? Assessing the Effects of Newly Enacted Competition Laws', *Assessing the Effects of Newly Enacted Competition Laws*. <http://ssrn.com/abstract=2392780>
- Hong, H.J. (2022), 'Effects of Competition Policy on Macroeconomic Outcomes', *The Journal of Economic Integration*, 37(2), pp.337–76.
- Hughes, G.A. (1995), 'Redirecting CER and the Harmonisation of Competition Law', *Auckland University Law Review*, Rw8, pp.1039–66.
- IMF (2019), 'The Rise of Corporate Market Power and its Macroeconomic Effects', in *World Economic Outlook: Growth Slowdown, Precarious Recovery*, Washington, DC: International Monetary Fund, pp.55–76.
- IMF (2021), 'From Fragmentation to Cooperation: Boosting Competition and Share Prosperity', Speeches, Washington, DC: International Monetary Fund, <https://www.imf.org/en/News/Articles/2021/12/06/sp120621-keynote-address-at-the-oecd-global-forum-on-competition> 6 December.
- IMF, OECD, World Bank, and WTO (2022), *Subsidies, Trade, and International Cooperation*, Washington, DC: International Monetary Fund, Organisation for Economic Co-operation and Development, World Bank, and World Trade Organization.
- International Competition Network (n.d.), About. <https://www.internationalcompetitionnetwork.org/about/>

- Januszewski, S.I., J. Köke, and J.K. Winter (2002), 'Product Market Competition, Corporate Governance and Firm Performance: An Empirical Analysis for Germany', *Research in Economics*, 56(3), pp.299–332.
- Japan Fair Trade Commission (n.d.), 'The East Asia Top Level Officials' Meeting on Competition Policy and the East Asia Conference on Competition Law and Policy'. https://www.jftc.go.jp/en/int_relations/eastasia.html
- Köke, J. and L. Renneboog (2005), 'Do Corporate Control and Product Market Competition Lead to Stronger Productivity Growth? Evidence from Market-Oriented and Blockholder-Based Governance Regimes', *Journal of Law and Economics*, 48(2), pp.475–516.
- Korea Fair Trade Commission (n.d.), International Relations: Seoul International Competition Forum. https://www.ftc.go.kr/eng/cop/bbs/selectBoardList.do?key=534&bbsId=BBSMSTR_000000002417&bbsTyCode=BBST08
- Lande, R.H. (2001), 'Consumer Choice as the Ultimate Goal of Antitrust', *University of Pittsburgh Law Review*, 62(3), pp.503–26.
- Licetti M., G. Miralles and R. Teh (2020), 'Competition Policy', in A. Mattoo, N. Rocha, M. Ruta (eds.), *Handbook of Deep Trade Agreements*, Washington, DC: World Bank.
- Mattoo, A., N. Rocha, and M. Ruta, eds. (2020), *Handbook of Deep Trade Agreements*. Washington, DC: World Bank.
- Nickell, S.J. (1996), 'Competition and Corporate Performance', *Journal of Political Economy*, 104(4), pp.724–46.
- OECD (2014), 'Factsheet on How Competition Policy Affects Macro-Economic Outcomes', Paris: Organisation for Economic Co-operation and Development.
- (2021), 'Measuring Distortions in International Markets: Below-Market Finance', *OECD Trade Policy Papers*, No. 247, Paris: Organisation for Economic Co-operation and Development.
- (2023), 'Consumer Welfare Standards – Advantages and Disadvantages Compared to Alternative Standards', *OECD Roundtables on Competition Policy Papers*, No. 295, Paris: Organisation for Economic Co-operation and Development.
- Patanakul, P. and J.K. Pinto (2014), 'Examining the Roles of Government Policy on Innovation', *The Journal of High Technology Management Research*, 25(2), pp.97–107.
- Pavcnik, N. (2002), 'Trade Liberalization, Exit, and Productivity Improvements: Evidence from Chilean Plants', *The Review of Economic Studies*, 69(1), pp.245–76.
- Shatz, H.J. (2020), "Economic Competition in the 21st Century", RAND Corporation. https://www.rand.org/pubs/research_reports/RR4188.html
- Spier, H. (1997), 'The Interaction Between Trade and Competition Policy: The Perspective of the Australian Competition & Consumer Commission', Presented at the Seminar on International Trade Policies After the WTO Singapore Ministerial Conference, Taipei, 2 May.
- Thio, T.G. (2018), 'Data and Privacy Protection in ASEAN: What Does It Mean for Businesses in the Region', Deloitte. <https://www2.deloitte.com/id/en/pages/risk/articles/data-privacy-in-asean.html>

UNCTAD (various issues), *Global Investments Trends Monitor*. [https://unctad.org/publications-search?f\[0\]=product%3A609](https://unctad.org/publications-search?f[0]=product%3A609)

Vergheze, A.S. (2023), 'Trade and Competition Policy', in J. Chaisse and C. Rodríguez-Chiffelle (eds.) *The Elgar Companion to the World Trade Organisation*, Cheltenham, UK: Edward Elgar, pp.151–68.

World Bank (2020), Deep Trade Agreements: Data, Analysis and Toolkits – Overview. <https://datatopics.worldbank.org/dta/overview.html>

15.

Energy Security in the ASEAN Economic Community Beyond 2025

Youngho Chang

1. Introduction

Energy, alongside capital and labour, is a key input for production and hence a critical factor of economic growth, contributing to improved well-being across the economy. Consumed in various forms – chemical and electrical, for example – energy is essential not only for daily life but also for the proper functioning of an economy. Securing energy is, therefore, crucial for both the survival and affluence of people.

Traditionally, energy security has been defined as ensuring the supply or availability of physical energy resources for an economy or country. A more detailed definition described it as ‘an adequate and reliable supply of energy at a reasonable price’ (Yao and Chang, 2014; Taghizadeh-Hesary et al, 2019). The ASEAN Economic Community (AEC) Blueprint 2025 identifies key issues and sets forth new approaches, insights, and recommendations for energy cooperation, positioning energy security as a priority. The blueprint addresses this directly and indirectly discussed under B.8 Sustainable Economic Development and C.4 Energy, envisioning ‘enhancing energy connectivity and market integration in ASEAN to achieve energy security, accessibility, affordability and sustainability for all’ (ASEAN Secretariat, 2015). Whilst ASEAN member countries are working on enhancing energy connectivity and market integration, progress has been slow. Although the mid-term review of the AEC Blueprint 2025 does not explicitly discuss energy security, it notes progress in energy connectivity, such as the ASEAN Power Grid and the Trans-ASEAN Gas Pipeline (ASEAN Secretariat, 2021). Cooperation amongst ASEAN member countries on energy security is progressing, but more concerted action should be taken. Experiences from the European Union (EU) and West African countries could provide valuable lessons for ASEAN.

Focusing solely on the assurance of energy supply or physical availability may overlook key factors that could prevent energy resources from reaching end-users, thereby undermining energy security. To reach end-users, energy must pass through four stages: physical availability, technological applicability, societal acceptability, and affordability. Failing at any stage disrupts delivery to end-users.

The multi-stage approach suggests a more comprehensive framework for evaluating energy security in any country or region. For an energy resource to be accessible to end-users, a country must first have sufficient physical energy resources within its borders or be able to import them, defining the availability stage that addresses the scientific aspects of energy security.

Next, the resources must be extracted, processed, and delivered using appropriate technologies. For example, vast oil reserves remained untapped until advancements such as horizontal drilling enabled extraction, defining the applicability stage that addresses the technical aspects of energy security. Beyond technical feasibility, societal acceptance is essential. Even with applicable technologies, an energy resource must be accepted by end-users to reach them. The acceptability stage is illustrated by coal, which, despite significant reserves, is being phased out in many countries, especially in Europe. Nuclear energy, too, though technically mature, is limited or being scaled down in countries such as Germany and Japan.

Finally, accepted energy resources must be affordable. Renewable resources such as solar and wind are increasingly available and supported by applicable technologies and societal acceptance. However, their relatively high prices compared with conventional resources often prevent full adoption.

The four-dimensional model, known as the 4A framework of energy security, has been applied in countries such as China, India, Pakistan, and Bangladesh, and in regions such as ASEAN (Yao and Chang, 2014; Sarangi et al., 2019; Malik et al., 2020; Amin et al., 2022; Tongsoptit et al., 2016). This analytical framework reveals how energy security evolves within a country or region and identifies key factors driving the changes.

The study applies the 4A framework to assess energy security in ASEAN, examining the availability, applicability, acceptability, and affordability of energy resources. By exploring the four dimensions, the review aims to critically discuss ASEAN's energy security, identify current challenges and gaps, and offer recommendations for addressing them. Following an analysis of ASEAN's current energy security status, challenges and issues, the chapter suggests new initiatives to bridge the gaps and enhance the region's energy cooperation framework.

2. Energy Security in ASEAN: Status, Challenges, and Issues

ASEAN has undertaken collective efforts to secure energy resources, focusing mainly on the physical supply and regional cooperation to increase energy availability. The ASEAN Petroleum Security Agreement, signed on 24 June 1986, established the ASEAN Emergency Petroleum Sharing Scheme for crude oil and petroleum products. In 1990, the Program of Action for the Enhancement of ASEAN Cooperation on Energy was approved by the Ministers on Energy Cooperation. Since its establishment in 1999, the ASEAN Center for Energy (ACE) has developed a series of the ASEAN Plans of Action for Energy Cooperation, guiding regional initiatives to enhance energy security. The ACE has facilitated the formation of special bodies to support energy security through cooperative efforts, such as the Heads of ASEAN Power Utilities and Authorities (HAPUA), the ASEAN Council on Petroleum, and the ASEAN Forum on Coal. ASEAN has launched programmes such as the ASEAN Power Grid and the Trans-ASEAN Gas Pipeline to strengthen energy security by connecting power grids and establishing transport networks

for natural gas across the region. The mid-term review of the ASEAN Economic Community Blueprint 2025 acknowledged some progress in enhancing energy security (ASEAN Secretariat, 2021). However, a comprehensive analysis of ASEAN’s energy security remains limited. A recent study used the 4A framework to assess energy security in ASEAN (Tongsopit et al., 2016), highlighting critical issues.

This study discusses the efforts of ASEAN member countries to enhance energy security through the four pillars of the 4A framework: availability, applicability, acceptability, and affordability. By evaluating ASEAN’s performance across these dimensions, it identifies challenges and gaps, recommending ways to strengthen energy security across the region.

2.1. Availability

A few ASEAN countries have limited fossil fuel reserves (Table 15.1).

Table 15.1. Fossil Fuel Reserves in ASEAN Countries (as of December 2020)

Country	Oil (million tonnes)	Natural Gas (trillion cubic feet)	Coal (million tonnes)
Brunei	149.86 (27.3)	7.85 (17.6)	
Indonesia	337.48 (9.0)	44.22 (19.8)	34,869 (62)
Malaysia	357.57 (12.5)	32.07 (12.4)	
Myanmar		15.26 (24.4)	
Thailand	30.46 (1.7)	5.05 (4.4)	1,063 (80)
Viet Nam	594.59 (58.1)	22.81 (74.1)	3,360 (69)

ASEAN = Association of Southeast Asian Nations.
Source: BP Statistical Review of World Energy 2021 (British Petroleum, 2021).
Note: Numbers in the parentheses indicate reserve/production (R/P) ratio.

Table 15.2, Table 15. 3, and Table 15. 4 show the production and consumption levels of oil, natural gas, and coal in ASEAN, respectively. Despite being oil producers, Indonesia, Malaysia, Thailand, and Viet Nam still import oil.

Table 15.2. Oil Production and Consumption in Selected ASEAN Countries
(Unit: Thousand barrels per day)

Country	Production	Consumption	Import Dependency (%)
Indonesia	644	1,768	63.6
Malaysia	567	921	38.4
Philippines		469	100.0
Singapore		1,199	100.0
Thailand	331	1,325	75.0
Viet Nam	194	515	62.3

ASEAN = Association of Southeast Asian Nations.

Source: Statistical Review of World Energy 2023 (Energy Institute, 2023).

Whilst natural gas-producing countries such as Indonesia and Malaysia are net exporters of natural gas, as shown in Table 15. 3, four ASEAN member countries are importing natural gas.

Table 15.3. Natural Gas Production and Consumption in Selected ASEAN Countries
(billion cubic metres)

Country	Production	Consumption	Import Dependency (%)
Indonesia	57.7	37	-55.9
Malaysia	82.4	49.4	-66.8
Philippines		3.1	100.0
Singapore		18.1	100.0
Thailand	25.6	44.3	42.2
Viet Nam	7.8	7.8	0

ASEAN = Association of Southeast Asian Nations.

Source: Statistical Review of World Energy 2023 (Energy Institute, 2023).

Except for Indonesia, five ASEAN countries import coal (Table 15.4).

Table 15.4. Coal Production and Consumption in Selected ASEAN Countries (exajoules)

Country	Production	Consumption	Import Dependency (%)
Indonesia	13.95	4.38	-218.5
Malaysia		0.94	100.0
Philippines		0.84	100.0
Singapore		0.017	100.0
Thailand	0.14	0.71	80.3
Viet Nam	1.17	2.05	42.9

ASEAN = Association of Southeast Asian Nations.

Source: Statistical Review of World Energy 2023 (Energy Institute, 2023).

Whilst fossil fuel endowments are modest, ASEAN countries possess abundant renewable energy potential, especially in hydro, wind, and solar energy resources (Table 15.5).

Table 15.5. Potential Renewable Energy Sources in ASEAN Countries (GW)

Country	Biomass	Hydro	Geothermal	Wind	Solar PV
Brunei	-	0.07	-	0.02	16
Cambodia	-	10.00	-	69.00	3,198
Indonesia	32.60	75.00	29.50	50.00	1,052
Lao PDR	1.20	26.00	0.05	13.00	1,278
Malaysia	0.60	29.00	-	2.00	1,965
Myanmar	0.99	40.40	-	482.00	7,717
Philippines	0.24	10.50	4.00	217.00	1,910
Singapore	-	-	-	0.02	2
Thailand	2.50	15.00	-	239.00	10,538
Viet Nam	0.56	35.00	0.34	311.00	2,847
Total	38.69	240.97	33.89	1,383.04	30,523

ASEAN = Association of Southeast Asian Nations, GW = gigawatt, Lao PDR = Lao People’s Democratic Republic, solar PV = solar photovoltaic.

Source: Handayani et al. (2022).

To meet the region’s fast-growing energy demand, ASEAN must develop domestically available energy resources, mainly renewable energy sources, and/or increase imports. Whilst ASEAN’s fossil fuel reserves are limited, its substantial renewable energy potential offers a critical opportunity to enhance energy security. This raises the question of how best to utilise renewable energy resources to meet ASEAN’s energy needs.

2.2. Applicability

A study on ASEAN’s pathways to net-zero emissions by 2050 presents 16 electricity generation technologies, covering both currently used ones and new technologies, such as nuclear and carbon capture and storage (CCS). The technologies considered include ultra-supercritical coal, combined-cycle and open-cycle natural gas, diesel, geothermal, hydro, mini-hydro, biomass, wind, solar photovoltaic (PV), nuclear, coal with CCS, natural gas combined cycle with CCS, bioenergy with CCS, lithium-ion (Li-ion) batteries, and hydro pumped storage (Handayani et al., 2022). ASEAN has the potential to deploy available and highly advanced electricity generation technologies.

Another study on the possibility of decarbonisation potential in ASEAN shows eight electricity generation technologies ready for deployment. The technologies include hydro, biomass, geothermal, wind, solar PV, coal with CCS, gas with CCS, and nuclear (Lau, 2023). Notably, renewable energy storage solutions, such as batteries, are not considered due to their limited readiness or maturity. Whilst this study presents a narrower range of applicable technologies, advanced power generation technologies are likely to become available with adequate investment and technology transfer.

In terms of applicability or the technological dimension, there appears to be no significant barrier to utilising available energy resources within ASEAN. The region can collectively develop energy technologies and foster electricity market integration through power grid interconnections. An integrated electricity market would, for example, enable the Lao People's Democratic Republic (Lao PDR) to export hydropower-generated electricity to Singapore, supporting Singapore in meeting its growing electricity demand.

2.3. Acceptability

The societal acceptance of energy resources, especially fossil fuels, is commonly measured by carbon dioxide emissions per capita, used here as a proxy indicator. Generally, a higher level of carbon dioxide emissions per capita suggests a lower level of societal acceptance of fossil fuels. Table 15.6 presents carbon dioxide emissions per capita for selected countries in ASEAN and northeast Asia. Notably, in most ASEAN member countries, carbon dioxide emissions per capita remain below 4 tonnes, with exceptions in Malaysia and Singapore.

Table 15.6. Carbon Dioxide Emissions Per Capita in Selected Countries
(tonnes)

Country	CO ₂ Emissions per Capita
Indonesia	2.07
Malaysia	7.38
Philippines	1.19
Singapore	7.69
Thailand	3.71
Viet Nam	3.68
China	7.75
Japan	8.03
Korea	10.99

CO₂ = carbon dioxide.

Source: Our World in Data (World Bank, 2024).

In terms of energy acceptability, ASEAN countries show a relatively moderate acceptance of fossil fuels, as indicated by comparatively low carbon emissions per capita. This contrasts with developed countries such as Japan, the Republic of Korea, and China, the largest carbon-emitting country in the world.

2.4. Affordability

The affordability of energy resources is measured by the primary energy consumption per capita, amongst other factors. Table 15. 7 presents the levels of primary energy consumption per person in selected ASEAN countries.

Table 15.7. Primary Energy Consumption in Selected ASEAN Countries
(gigajoules per capita)

Country	Consumption
Indonesia	35.5
Malaysia	142.5
Philippines	18.2
Singapore	529.5
Thailand	70.6
Viet Nam	46.7
Asia-Pacific (average)	64.4
North America (average)	235.6
Europe (average)	118.0
World (average)	75.7

ASEAN = Association of Southeast Asian Nations.
 Source: Statistical Review of World Energy 2023 (Energy Institute, 2023).

Countries such as Indonesia, the Philippines, and Viet Nam show lower primary energy consumption per capita than the global average (75.7 gigajoules [GJ]), with all but Thailand falling below the Asia-Pacific average of 64.4 GJ. Singapore’s consumption exceeds even the North American average (235.6 GJ), and Malaysia’s surpasses the Euro7pean average (118.0 GJ).

Regarding energy affordability, there remains room for improvement across the ASEAN region. ASEAN could consider establishing funds to provide fair and better energy access for low-income households within the region.

3. Energy Security in ASEAN: A Way Forward

This study recommends ways to enhance energy security in ASEAN member countries, based on an analysis of the 4A framework. The recommendations are structured around four key areas: increasing the availability of energy resources, enhancing the technological applicability of energy harnessing, ensuring societal acceptability, and guaranteeing affordability. The overarching theme is that energy security must be pursued through a fair and equitable energy transition.

To improve the availability of energy resources, the study suggests developing fossil fuels only with carbon capture and storage (CCS) or carbon capture, usage, and storage (CCUS) technologies, expanding renewable energy and green hydrogen, integrating regional electricity markets, and establishing a consortium to harness civilian nuclear energy use, such as small-scale nuclear reactors. To enhance the applicability of energy resources, it recommends establishing ASEAN-wide technology centres focused on research on CCUS, nuclear technology, and renewables. In terms of acceptability, the study suggests studying ways to alleviate public fears around civilian nuclear energy and to build consensus amongst ASEAN populations on its safe use. To ensure affordability, the study recommends establishing ASEAN-wide funds to support low-income households, guaranteeing fair and better access to energy, and furthering the integration of electricity markets across ASEAN.

3.1. Increasing the Availability of Energy Resources

ASEAN has reserves of fossil fuels, which could strengthen its energy availability (Table 1). However, it is recommended that these reserves be developed only if supported by CCS or CCUS technologies. ASEAN has huge potential in renewable energy resources, including hydropower, wind, and solar PV (Table 5). These resources should be harnessed to produce green hydrogen, with development potentially accelerated through an integrated electricity market across ASEAN.

Integrating individual electricity markets can significantly increase the availability of energy resources within a region, as shown by the European common electricity market (Jamasp and Pollitt, 2005), Western African countries (Oseni and Pollitt, 2016), Northeast Asia's power grid interconnection (Otsuki et al., 2016), bilateral cooperation in electricity trade in South Asia (Singh et al., 2018), and the integrated electricity market in ASEAN (Chang and Li, 2015; Chang et al., 2016; Chang, 2021).

In ASEAN, regional power market integration has advanced institutional and policy frameworks for energy cooperation (Yu, 2003; Yu et al., 2005; Watcharejyothin and Shrestha, 2009; Economic Consulting Associates, 2010). Linking energy-rich and energy-poor countries within ASEAN could reduce the overall cost of meeting growing electricity demand (Chang and Li, 2013).

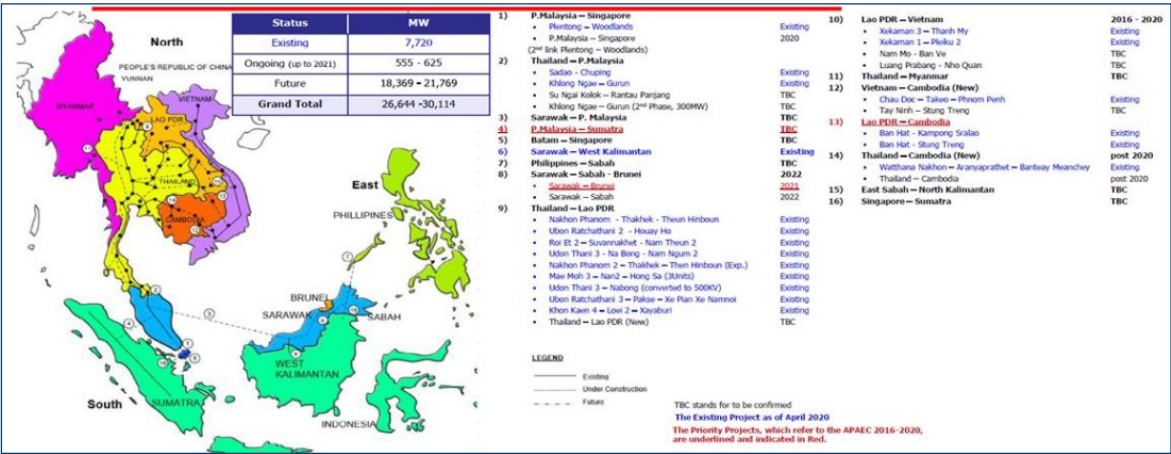
Hydropower is expected to promote cross-border power trade between the United States (US) and Canada, supporting the US transition to a low-carbon economy (Yuan et al, 2021), although, in North America, such trade may also increase reliance on natural gas (Siddiqui et al, 2020). In ASEAN, cross-border power trade is expected to accelerate wind energy development (Chang and Phoumin, 2021). Excess renewable electricity, such as wind power, could be tapped to produce hydrogen to replace fossil fuels in generating electricity (Chang and Phoumin, 2022).

Transmission grids are essential to facilitate cross-border power trade, but constructing an integrated electricity market requires substantial upfront investments. These costs, however, could be offset by the benefits of cross-border power trade, bringing net positive gains despite relatively small absolute returns (Li and Chang, 2015). Cross-border energy trade infrastructures within the Central Asia Regional Economic Cooperation Energy Corridor have reduced carbon emissions per gross domestic product (GDP), increased GDP per energy use, and accelerated renewable energy generation in the region (Qadir and Dosmagambet, 2020). The evidence suggests that promoting power trade through interconnected transmission grids in an integrated electricity market would bring net benefits for participating countries.

The Great Mekong Subregion (GMS) countries possess abundant hydropower capacity. Cross-border power trade appears to stimulate hydropower development in the GMS (Chang, 2024a). The study shows that the utilisation rate of hydropower capacity in the GMS increases with the maximum allowed electricity imports. If an importing country is allowed to import electricity up to 50% of its domestic demand, the utilisation rate could exceed 80%, compared to just over 50% if no imports are allowed. However, utilisation rates differ across countries: Cambodia, Lao PDR, and Myanmar experience increases, whilst Malaysia, the Philippines, and Viet Nam show no change, and Indonesia and Thailand see decreases (Chang, 2024a). These findings suggest that the GMS countries should work to remove cross-border trade barriers and address hydropower underutilisation to increase energy resource availability through enhanced hydropower development and trade.

ASEAN has established a master plan to connect transmission networks across the region. According to the ASEAN Centre for Energy (2023) (Figure 15.1), the cross-border interconnection capacity within ASEAN stood at 7,720 megawatts (MW) as of April 2020. Additional capacity, from 555 MW to 625 MW, was planned by 2021, with future capacity expected to increase from 18,369 MW to 21,769 MW by 2025.

Figure 15.1. ASEAN Power Grid Interconnection Project Status



ASEAN = Association of Southeast Asian Nations.

Source: ASEAN Centre for Energy (2023).

Once these interconnections are complete, energy availability in ASEAN will increase, and the cost of meeting electricity demand will be lower than in a scenario without interconnections or cross-border trade (Chang, 2024b).

A cross-border power trade model explores how to minimise total electricity generation costs in ASEAN by considering capital expenditure, operational expenditure, carbon emissions and their costs, transmission costs, and losses under various trade conditions (Chang, 2024b). The model simulates two scenarios: a baseline scenario, replicating current networks with no cross-border trade, and an alternative scenario that assumes the full operation of planned ASEAN Power Grid interconnections, factoring in transmission costs over distances. The study explores how energy availability could increase under a net-zero transition by 2050 in ASEAN, along with economic and environmental implications.

Following the two cases, the study constructs four scenarios: the business-as-usual (BAU) case, no cross-border power trade with emissions capped at 2030 levels (NT2030), cross-border power trade up to 50% of domestic electricity demand (T50), and cross-border power trade up to 50% of domestic electricity demand with emissions capped at 2030 levels (T50-2030). The study presents four key findings. First, NT2030 incurs the highest total system cost, whilst T50 incurs the lowest. Second, completing the planned cross-border interconnections in ASEAN would be advantageous. Third, accelerating the integration of hydropower into ASEAN's power system would be beneficial, although it is essential to address possible environmental repercussions of hydropower development. Fourth, it is imperative to develop transparent, fair, and efficient frameworks for cross-border power trade in ASEAN.

Grid interconnections are anticipated to foster cooperation and peaceful relations (Stegen, 2023). The above simulation studies support the premise that cooperation amongst ASEAN member countries will ensure energy security by increasing the availability of energy resources in the region.

Long-distance interconnections are economically viable when the combined cost of renewable energy production costs in favourable locations, plus transmission costs and losses to less favourable areas, is lower than the cost of lower production in the less favourable area (Financial Times, 2023a). The interconnection of power grids and cross-border power trade is expected to increase the availability of energy resources in ASEAN, emphasising the need for expedited interconnection.

Small-scale nuclear reactors could further enhance the availability dimension of energy security in ASEAN. ASEAN should consider incorporating civilian nuclear energy into its fuel mix by forming a nuclear task force to study how ASEAN can best harness civilian nuclear energy, such as by establishing regulatory frameworks, advancing research collaboration, and nurturing a skilled nuclear workforce.

3.2. Enhance the Technological Applicability of Harnessing Energy Resources

Electricity generation in ASEAN member countries typically relies on nine technologies: coal, oil, gas, hydro, geothermal, solar PV, wind, biomass, and waste. Coal holds the largest share at about 43%, followed by gas at 33% and hydro at 14% (Lau, 2023). ASEAN countries have substantial renewable energy potential, especially in solar PV, wind, and hydro. Power generation technologies, both existing and emerging, include ultra-supercritical coal, combined-cycle and open-cycle natural gas, diesel, geothermal, hydro, mini-hydro, biomass, wind, solar PV, nuclear, coal with CCS, natural gas combined-cycle with CCS, bioenergy with CCS, lithium-ion batteries, and hydro pumped storage (Handayani et al, 2022).

New power generation technologies, especially renewables, incur high capital costs exceeding \$2,000/MW. Similarly, carbon removal technologies such as CCS face high capital costs, ranging from \$1,840 for natural gas CCS to over \$3,000 for coal CCS and \$5,000 for biomass CCS (Handayani et al., 2022). These substantial upfront capital costs are the main barrier to enhancing the technological applicability of harnessing energy resources. CCUS is another promising area for strengthening energy security.

Renewable energy resources, being capital-intensive, can be particularly vulnerable to 'working capital crunch' risks, especially with high interest rates increasing the borrowing costs. Green and transition finance can help ease the burden of these high capital costs. A green and transition finance taxonomy tailored to ASEAN – similar to the EU's Green New Deal and Japan's Green Growth Strategy – is expected

to draw private capital for sustainable technology investments. A working group under the ASEAN Secretariat, or a consortium of central banks in ASEAN, can work together to develop the finance taxonomy. It is critical to remain vigilant against 'transition-wash' to ensure that green and transition finance are used genuinely and effectively.

Civilian nuclear energy, as discussed in the availability dimension of energy security, also holds potential in the applicability dimension. ASEAN would benefit from a collective effort to develop a road map for harnessing civilian nuclear energy across ASEAN.

3.3. Ensuring the Societal Acceptability of Energy Resources

ASEAN member countries' carbon emissions from energy remain lower than those of other Asian countries such as China, Japan, and Korea (Section 2.3). However, this does not imply that ASEAN member countries have free rein to emit unlimited carbon dioxide. ASEAN member countries are advised to commit to reducing carbon dioxide emissions, improving energy efficiency, and targeting a net-zero transition by 2050.

The phase-down of fossil fuels was a key issue at the COP28 in the United Arab Emirates (Financial Times, 2023b), and a global shift away from fossil fuels is becoming imperative. ASEAN member countries would benefit from setting clear timelines to eliminate fossil fuels from their energy mix. Collaboration with financial institutions is essential to redirect capital towards a net-zero transition supported by clean energy technologies.

Civilian nuclear energy, as noted in the availability and applicability dimensions of energy security, presents a viable option to bolster energy security in ASEAN. Small-scale nuclear reactors may be appropriate for ASEAN's needs. Exploring how best to incorporate civilian nuclear energy into ASEAN's energy landscape is advisable. In addition to establishing a consortium to assess the feasibility of nuclear energy, forming a neutral body with representatives from both the private and public sectors is crucial to addressing public concerns and eliminating fears surrounding civilian nuclear energy use.

3.4. Guaranteeing the Affordability of Energy Resources

The per capita levels of primary energy consumption in ASEAN member countries remain lower than those of other countries (Section 2.4). Ensuring energy access and eliminating energy poverty amongst low-income households in ASEAN member countries must be prioritised. Establishing ASEAN-wide funds to promote the integration of electricity markets and the development of standalone renewable energy solutions can be considered. Such measures would enable fairer and improved energy access for low-income households, enhancing their overall well-being.

Developing strategies to guarantee the affordability of energy resources for people in ASEAN member countries requires an adaptable whole-of-government approach as well as ASEAN-wide schemes. One effective measure to support low-income households could be lowering energy bills and providing direct financial assistance, as has been suggested for the Roma community in Europe (Jovanovic, 2023). Collecting more comprehensive data on the status of energy access for those vulnerable to the net-zero transition is advised. Such data would facilitate the development and implementation of more viable policies.

4. Conclusion

Energy security is generally understood as the assurance of the physical availability of energy resources. However, this interpretation often tends to miss other key factors that are equally essential in securing energy supply. The mere physical availability of energy resources does not guarantee their delivery to end-users, as extraction, processing, and transport require applicable energy technologies. If a society does not accept a particular energy resource, as seen with coal or nuclear energy, it will remain unused. If energy prices are prohibitively high, resources become unaffordable, as is often the case with renewable energy sources, which, despite their potential, are still more expensive than fossil fuels.

Applying the 4A framework to ASEAN member countries, the study examines energy security across four key dimensions: the availability of physical energy resources, the technological applicability of energy resources, the societal acceptability of energy resources, and the affordability of energy resources. ASEAN shows limited availability of fossil fuels but huge potential for renewable energy development. The region has the capacity to deploy existing power generation technologies and could adopt advanced technologies with proper investment and technology transfer. Relatively low carbon dioxide emissions from energy use imply that ASEAN may not object to the use of fossil fuels, whilst low per capita primary energy consumption suggests that there is room for improvement in energy affordability.

Based on the evaluation of energy security across the four dimensions, the following four recommendations are proposed:

1. **Increase energy availability.** Develop fossil fuel reserves only with CCS or CCUS, invest in renewable energy and green hydrogen, accelerate the interconnection of power grids across ASEAN, and establish a consortium to study the use of civilian nuclear energy in the region.
2. **Enhance technological capabilities.** Establish ASEAN-wide technology centres to research and develop energy technologies such as CCS, CCUS, and civilian nuclear energy. Develop a workable taxonomy for green and transition finance to support environmentally friendly power generation and avoid 'transition-wash' when developing this taxonomy.
3. **Increase social acceptance.** Form a private–public body to study and address the concerns associated with civilian nuclear energy. Establish a timeline to reduce reliance on fossil fuels and gradually phase them out.
4. **Ensure affordability and fair energy transition.** Implement an adoptable, whole-of-government approach to enhance the affordability of energy resources, with fairness and equity as guiding principles. Create ASEAN-wide funds to support low-income households, ensuring that they have better access to energy and a better quality of life.

References

- Amin, S.B., Y. Chang, F. Khan, and F. Taghizadeh-Hesary (2022), 'Energy security and sustainable energy policy in Bangladesh: From the lens of 4As framework', *Energy Policy*, 161, Article 112719.
- ASEAN Centre for Energy (2023), Status of Southeast Asia Interconnectivity under ASEAN Power Grid, presented at Asia Pacific Energy Forum in Bangkok, 16 October 2023. <https://tinyurl.com/yfnp59xp>
- ASEAN Secretariat (2015), *ASEAN Economic Community Blueprint 2025*. Jakarta: The ASEAN Secretariat.
- ASEAN Secretariat (2021), *Mid-Term Review: ASEAN Economic Community Blueprint 2025*. Jakarta: The ASEAN Secretariat.
- British Petroleum (2021), *BP Statistical Review of World Energy 2021*. British Petroleum.
- Chang, Y. (2021), 'Integrated regional energy markets: Principles and prospects', in S.C. Park, C.J. Kim, F. Taghizadeh-Hesary, and P. Sirivunnabood (eds.), *Economic Integration in Asia and Europe: Lessons and Policies*. Tokyo: Asia Development Bank Institute, pp.621–37.
- Chang, Y. (2024a), 'Power trade and hydroelectricity development in the Greater Mekong Sub-region: Perspectives on economic and environmental implications', in H. Phoumin, R. Nepal, F. Kimura, and F. Taghizadeh-Hesary (eds.), *Economic Analysis of Large-Scale Development of Solar PV with Battery Storage in ASEAN*. Jakarta: Springer and Economic Research Institute for ASEAN and East Asia, pp.55–77.
- Chang, Y. (2024b), 'Net-zero transition and the power sector in ASEAN: Perspectives from an integrated electricity market', in F. Kimura, R. Shi, and H. Phoumin (eds.), *Navigating the Complexities of Energy Transitions in ASEAN and East Asia Region*. Jakarta: Economic Research Institute for ASEAN and East Asia (forthcoming).
- Chang, Y. and Y. Li (2013), 'Power generation and cross-border grid planning for the integrated ASEAN electricity market: A dynamic linear programming model', *Energy Strategy Reviews*, 2(2), pp.153–60.
- Chang, Y. and Y. Li (2015), 'Renewable energy and policy options in an integrated ASEAN electricity market: Quantitative assessments and policy implications', *Energy Policy*, 85, pp.39–49.
- Chang, Y. and H. Phoumin (2021), 'Harnessing wind energy potential in ASEAN: Modelling and policy implications', *Sustainability*, 13, 4279.
- Chang Y. and H. Phoumin (2022), 'Curtailed electricity and hydrogen in Association of Southeast Asian Nations and East Asia Summit: Perspectives from an economic and environmental analysis', *International Journal of Hydrogen Energy*, 47, pp.24548–57.
- Chang, Y., Z. Fang, and Y. Li (2016), 'Renewable energy policies in promoting financing and investment among the East Asia Summit countries: Quantitative assessment and policy implications', *Energy Policy*, 95, pp.427–36.
- Economic Consulting Associates (2010), *Greater Mekong Subregion (GMS) Transmission & Trading Case Study*. London: Economic Consulting Associates Limited.

- Energy Institute (2023), *Statistical Review of World Energy 2023*. London: Energy Institute.
- Financial Times (2023a), 'Interconnectors: why long-distance electricity makes sense', *Financial Times*, 23 October. <https://tinyurl.com/48rnunzp> (accessed 24 October 2023).
- Financial Times (2023b), 'Ikea and BT among 130 companies to push COP28 for a timeline to ditch fossil fuels', *Financial Times*. <https://tinyurl.com/4kvj9rvn> (accessed 24 October 2023).
- Handayani, K., P. Anugrah, F. Goembira, I. Overland, B. Suryadi, and A. Swandaru (2022), 'Moving beyond NDCs: ASEAN pathways to a net-zero emissions power sector 2050', *Applied Energy*, 311, Article 118580.
- Jamasb, T. and M. Pollitt (2005), *Electricity Market Reform in the European Union: Review of Progress toward Liberalization and Integration*. Cambridge: Center for Energy and Environmental Policy Research.
- Jovanovic, Z. (2023), 'Roma energy security', *Nature Energy*, 8, pp.1049–50.
- Lau, H. C. (2023), 'Decarbonization of ASEAN's power sector: A holistic approach', *Energy Reports*, 9, pp.676–702.
- Li, Y. and Y. Chang (2015), 'Infrastructure investments for power trade and transmission in ASEAN+2: Costs, benefits, long-term contracts and prioritized developments', *Energy Economics*, 51, pp.484–92.
- Malik, S., M. Qasim, H. Saeed, Y. Chang, and F. Taghizadeh-Hesary (2020), 'Energy Security in Pakistan: Perspectives and Policy Implications from a Quantitative Analysis', *Energy Policy*, 144, Article 111552.
- Oseni, M. O. and M. G. Pollitt (2016), 'The promotion of regional integration of electricity markets: lessons for developing countries', *Energy Policy*, 88, pp.628–38.
- Otsuki, T., A. B. M. Isa, and R. D. Samuelson (2016), 'Electric power grid interconnections in Northeast Asia: A quantitative analysis of opportunities and challenges', *Energy Policy*, 80, pp.311–29.
- Qadir, S. and Y. Dosmagambet (2020), 'CAREC energy corridor: Opportunities, challenges, and IMPACT of regional energy trade integration on carbon emissions and energy access', *Energy Policy*, 147, Article 111427.
- Sarangi, G. K., A. Mishra, F. Taghizadeh-Hesary, and Y. Chang (2019), 'Indian electricity sector, energy security and sustainability: An empirical assessment', *Energy Policy*, 135, Article 110964.
- Siddiqui, S., K. Vailancourt, O. Bahn, N. Victor, C. Nichols, C. Avraam, and M. Brown (2020), 'Integrated North American energy markets under different futures of cross-border energy infrastructure', *Energy Policy*, 144, Article 111658.
- Stegen, K. S. (2023), 'International relations theory on grid communities and international politics in a green world', *Nature Energy*, 8, pp.1073–77.
- Taghizadeh-Hesary, F., N. Yoshino, Y. Chang, and A. Rillo (eds.), (2019), *Energy Security in Asia: Diversification, Integration and Policy Implications*. World Scientific.
- Tongsopit, S. N. K., Y. Chang, A. Aksornkij, and W. Wangjiraniran (2016), 'Energy security in ASEAN: A quantitative approach for sustainable energy', *Energy Policy*, 90, pp.60–72.

Watcharejyothin, M. and R.M. Shrestha (2009), 'Effects of cross-border power trade between Laos and Thailand: Energy security and environmental implications', *Energy Policy*, 37, pp. 1782–92.

Word Bank (2024), *World in Data*. <https://ourworldindata.org/co2-and-greenhouse-gas-emissions> (accessed 3 February 2024).

Yao, L. and Y. Chang (2014), 'Energy security in China: A quantitative analysis and policy implications', *Energy Policy*, 67, pp.595–604.

Yu, X. (2003), 'Regional Cooperation and Energy Development in the Greater Mekong Sub-region', *Energy Policy*, 31, pp.1221–34.

Yu, Z., B.H. Bowen, F.T. Sparrow, V. Siriariyaporn, and L. Yu (2005), 'Integrated Energy Resources Planning for the ASEAN Countries and Southern China', *Oil, Gas & Energy Law Intelligence*, 3(4), pp.1–12.

Yuan, M., K. Tapia-Ahumada, and J. Reilly (2021), 'The role of cross-border electricity trade in transition to a low-carbon economy in the Northeastern U.S.', *Energy Policy*, 154, Article 112261.

16.

Post-2025 ASEAN Connectivity: Challenges and Opportunities

Ruth Banomyong

1. Introduction

The Association of Southeast Asian Nations (ASEAN) has set ambitious connectivity goals to enhance regional integration, economic growth, and sustainable development (ASEAN, 2016). The Master Plan on ASEAN Connectivity (MPAC) 2025 serves as a comprehensive blueprint guiding ASEAN's efforts to achieve seamless and comprehensive connectivity by 2025. MPAC 2025 identifies five strategic areas to enable connectivity: sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility. The document outlines specific initiatives and projects to address connectivity challenges, such as developing resilient infrastructure, promoting digital ecosystems, creating integrated logistics networks, harmonising regulations, and enhancing mobility through visa-free travel and cultural exchanges.

These initiatives aim to reduce the cost and time associated with the movement of goods and services, improve regulatory frameworks, and foster a stronger ASEAN community. Through enhanced connectivity, ASEAN seeks to build a more cohesive and integrated region, focusing on sustainable and inclusive development to ensure that all ASEAN Member States (AMS) share the benefits. If successfully implemented, MPAC 2025 will contribute to ASEAN's vision of a cohesive, competitive, and prosperous community, addressing current and future connectivity challenges and driving regional progress (Koichi, 2021).

The coronavirus disease (COVID-19) pandemic has significantly impacted ASEAN's connectivity efforts, presenting both challenges and opportunities (Djalante et al., 2020). The pandemic disrupted physical connectivity, causing unprecedented interruptions to transport and logistics networks. Lockdowns, travel restrictions, and border closures hindered the movement of goods and people, exacerbating supply chain disruptions and increasing costs (ADB and UNESCAP, 2021). These disruptions highlighted vulnerabilities in ASEAN's infrastructure and logistics systems, emphasising the need for more resilient and adaptive connectivity solutions.

Institutional and regulatory connectivity also faced setbacks during the pandemic. The sudden shift to remote work and virtual interactions created challenges for the harmonisation of regulations and the implementation of regional agreements (ERIA, 2023). AMS had to quickly adapt to new governance and collaboration methods, often resulting in delays and inefficiencies. The pandemic exposed gaps in existing frameworks and underscored the importance of digital solutions to maintain continuity in regulatory processes and cross-border trade.

Despite these challenges, the COVID-19 pandemic accelerated ASEAN's digital transformation and highlighted the critical role of digital connectivity. Increased reliance on digital technologies for communication, commerce, and service delivery underscored the urgency of developing robust digital infrastructure (Son, 2022). AMS implemented measures to enhance digital trade, e-commerce, and online services, driving innovation and economic resilience. The pandemic thus served as a catalyst for digital innovation, pushing ASEAN to integrate digital connectivity more comprehensively into its connectivity agenda and paving the way for a more digitalised and resilient post-pandemic recovery.

This chapter critically assesses the progress of MPAC 2025, identifies key challenges and gaps in achieving the MPAC 2025 objectives, and proposes a new framework for post-2025 connectivity.

2. MPAC 2025: Objectives and Achievements

This section provides an overview of MPAC's 2025 five strategic areas, with insights into the various activities implemented. Whilst not exhaustive, the overview offers a glimpse into the diversified scope of the MPAC 2025.

2.1. Sustainable Infrastructure

Sustainable infrastructure is a cornerstone of MPAC 2025, focusing on developing and enhancing physical infrastructure that supports long-term economic growth whilst minimising environmental impact (ASEAN, 2016). This strategic area includes the construction and modernisation of roads, railways, airports, and seaports to create a more efficient and interconnected transport network across ASEAN. The goal is to ensure that infrastructure projects are robust and reliable, and environmentally sustainable, incorporating green technologies and practices. By improving physical connectivity, ASEAN seeks to reduce transport costs, facilitate trade, and enhance regional integration, contributing to economic resilience and sustainable development.

MPAC 2025 has made notable progress in enhancing sustainable infrastructure across the region. Key achievements include the improvement of critical road networks under the ASEAN Highway Network (Tang and Bradshaw, 2024), which has reduced travel times and facilitated smoother cross-border transport. ASEAN has embarked on green infrastructure initiatives, smart city projects, and investments in renewable energy sources like solar and wind power to support sustainable development. Although challenges remain in implementation, these initiatives show promise.

The ASEAN Smart Cities Network (ASCN) exemplifies efforts to develop smart and sustainable urban areas across the region, with pilot projects in cities such as Singapore, Bangkok, and Hanoi. This initiative seeks to integrate advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), and data analytics to improve urban management and enhance the residents' quality of life (Crumpton et al., 2020). The focus on sustainable urban development aims to reduce environmental impact through efficient resource management and green infrastructure. However, the ASCN serves more as a platform for knowledge sharing and collaboration amongst AMS, promoting best practices in smart urban development, rather than facilitating actual coordinated implementation.

2.2. Digital Innovation

Digital innovation is essential for ASEAN's transformation into a digital economy. MPAC 2025 emphasises the development of digital infrastructure, including high-speed internet, cloud computing, and cybersecurity measures, to support the growth of digital services and e-commerce (ASEAN, 2016). The strategic focus aims to bridge the digital divide within the region, ensuring that all AMS can participate in and benefit from the digital economy. ASEAN seeks to enhance productivity, create new business opportunities, and improve access to information and services for its citizens. Integrating digital technologies is critical for enhancing other strategic areas, such as seamless logistics and regulatory excellence.

ASEAN has made significant progress in expanding its digital infrastructure. The rollout of high-speed internet and 5G networks in several AMS has bolstered digital communication and the digital economy (Avirutha, 2021). The ASEAN Digital Integration Framework aims to harmonise digital regulations and foster an environment conducive to digital trade and e-commerce. The growth of regional e-commerce platforms has further driven online transactions, simplifying cross-border commerce for businesses and consumers (Isono and Prilliadi, 2023).

This initiative is expected to drive significant growth in e-commerce by creating a conducive regulatory environment and reducing barriers to digital trade. However, the rapid growth of e-commerce may have been accelerated by the pandemic, as movement restrictions forced people to rely more on online services. The ASEAN Digital Economy Framework Agreement (DEFA) aims to cultivate an innovation ecosystem that encourages startups and small and medium-sized enterprises to leverage digital technologies and expand their market reach. Enhanced regulations for consumer protection and data privacy are still needed if trust in digital transactions is to be achieved. Cross-border collaboration in areas such as cybersecurity and digital payments is slowly developing, but achieving a secure and integrated digital market across the region will take time.

The goal of increasing the number of internet users in ASEAN by 50% is considered on track, with significant strides made in expanding internet access and digital connectivity (ASEAN, 2021). Substantial investments in digital infrastructure by various AMS have contributed to a substantial increase in internet users. However, disparities in internet access persist between urban and rural areas and amongst different AMS. Continued efforts are necessary to bridge this digital divide and ensure equitable access across the region.

2.3. Seamless Logistics

Seamless logistics aims to create an integrated and efficient logistics network that facilitates the smooth movement of goods and services within ASEAN. This strategic focus involves improving customs procedures, streamlining transport and trade facilitation measures, and developing infrastructure that supports logistics operations (ASEAN, 2016). The objective is to reduce the time and cost of moving goods across borders, thereby enhancing trade efficiency and competitiveness. Initiatives in this area include the ASEAN Single Window (ASW), which enables the electronic exchange of trade-related documents amongst AMS, and the harmonisation of logistics standards and regulations. Achieving seamless logistics will strengthen ASEAN's position in global value chains and support overall economic growth.

The ASW is a digital platform designed to streamline customs procedures by enabling the electronic exchange of trade-related documents amongst AMS (UNESCAP, 2015). The initiative has enhanced trade facilitation by reducing processing times and transaction costs, benefiting businesses in the participating countries. The ASW has helped institutional connectivity, encouraging customs authorities across the region to cooperate in international trade processes.

2.4. Regulatory Excellence

Regulatory excellence involves harmonising and simplifying regulations and standards across ASEAN to create a more conducive business environment. This strategic area seeks to reduce regulatory barriers, enhance transparency, and promote good regulatory practices. Key initiatives include aligning technical standards, streamlining licensing and certification processes, and improving regulatory cooperation amongst AMS. ASEAN's goal is to facilitate trade and investment, reduce compliance costs for businesses, and enhance regional economic integration (ASEAN, 2016). Effective regulatory frameworks are crucial to ensuring the smooth implementation of connectivity initiatives and maximising their benefits.

Advancing regulatory excellence involves harmonising standards and establishing mutual recognition arrangements for professional qualifications, which facilitate the movement of skilled labour across AMS. Regulatory reforms and the promotion of good governance have created a more predictable, business-friendly environment that attracts foreign investment and fosters economic growth.

Mutual recognition arrangements enable the recognition of professional qualifications across ASEAN, allowing professionals to practice in other AMS (Fornalé, 2018). The initiative theoretically enhances labour mobility, making it easier for professionals to cross borders, address skill shortages, and boost economic integration. The harmonisation of professional standards and qualifications ensures high-quality services across the region, contributing to economic growth and development in sectors such as engineering, architecture, and accountancy. However, implementation has been hindered by vested interests within various professional sectors in AMS.

Progress has been made towards reducing trade and investment barriers by 25% through agreements such as the ASEAN Trade in Goods Agreement (ATIGA) and the implementation of the ASW (Sukegawa, 2021). However, non-tariff barriers and regulatory inconsistencies remain significant obstacles. The pace of reform varies amongst AMS, affecting the overall impact of regional initiatives. Whilst progress has been made in reducing barriers, achieving the 25% reduction target remains a work in progress, requiring more effective solutions to address remaining regulatory and non-tariff barriers.

2.5. People Mobility

People mobility focuses on facilitating the movement of people within ASEAN for purposes such as tourism, education, and employment. This strategic area includes initiatives to promote visa-free travel and improve immigration procedures (ASEAN, 2016). By simplifying cross-border travel and work, ASEAN aims to foster greater cultural exchange, mutual understanding, and cooperation amongst its citizens. Enhanced people mobility also supports economic integration by addressing labour market needs and enabling the flow of talent and skills. Initiatives such as student exchange programmes and regional tourism campaigns are examples of efforts to boost people-to-people connectivity and strengthen the ASEAN community.

Progress in people mobility is evident through visa-free travel agreements, which have made it easier for ASEAN citizens to travel within the region for tourism, work, and education. These efforts have promoted greater integration and collaboration amongst AMS, reinforcing the ASEAN community, although, in certain countries, the dedicated ASEAN lanes have disappeared.

3. Assessment of MPAC 2025

It is important to use the MPAC framework for assessment, which is built around three connectivity pillars: infrastructure, institutional, and people-to-people connectivity. The following sub-sections discuss the challenges related to each connectivity dimension. The goal of reducing the time and cost of transporting goods and services within ASEAN by 15% has yielded mixed results (Tongzon, 2011).

3.1. Infrastructure Connectivity

A significant challenge in infrastructure development under MPAC 2025 is aligning regional infrastructure priorities with national interests, as the planning processes of each AMS do not always align with the various ASEAN Master Plans (Banomyong, 2008). Each AMS follows its own development agenda, which may not always coincide with regional goals. The misalignment can lead to conflicts in setting priorities and allocating resources, hindering the progress of regional projects. National interests often take precedence over regional objectives, resulting in delays to cross-border projects and slowing the development of essential infrastructure for regional connectivity.

Adequate funding is another significant challenge for infrastructure projects. Many ASEAN countries face budgetary constraints that limit their capacity to invest in large-scale infrastructure projects (Banomyong, 2010). To bridge these funding gaps, some ASEAN countries rely on external financing from international donors, development banks, and private investors. However, this dependence can lead to delays, as funding is often directed towards projects that align with donors' interests, particularly in cases of bilateral aid. Securing external financing can also place a heavy fiscal burden on recipient countries, as seen in the high-speed railway developments in Lao People's Democratic Republic (Lao PDR) and Indonesia.

The existence of missing links in the regional infrastructure network presents a critical challenge, especially in the CLMV (Cambodia, Lao PDR, Myanmar, Viet Nam) countries. Missing links, such as unpaved road segments or incomplete railway connections, disrupt the seamless movement of goods and people across borders, reducing the overall efficiency of the ASEAN connectivity agenda. Completing these missing links often involves overcoming significant geographical and technical barriers, such as difficult terrain, insufficient technical expertise, and inadequate local infrastructure. These barriers can increase project costs and extend timelines, making it difficult to achieve the intended connectivity improvements. For instance, financing the Lao PDR's China railway project, valued at US\$5,950 million – approximately 40% of Lao PDR's GDP – is the largest infrastructure project in the country's history and exemplifies these challenges. The average cost of constructing a kilometre of rail is around US\$15 million per kilometre. Notably, the cost per kilometre of the Lao PDR–China railway falls slightly below this average. For further details on the costs of other railway construction in the region, see Anggina (2023).

The Trans-ASEAN Gas Pipeline (TAGP) project further illustrates the difficulties in aligning regional and national priorities. The TAGP aims to create a regional gas pipeline network to enhance energy security and connectivity. However, differing national energy policies, regulatory frameworks, and funding challenges have delayed its implementation, demonstrating the complexity of coordinating infrastructure projects (Syah and Mahmud, 2019). Such delays can lead to higher costs, inefficiencies in trade, and missed economic opportunities.

The challenges and constraints in achieving infrastructure connectivity stem from the need to align regional and national priorities, address budgetary constraints, and complete critical missing links. Overcoming these challenges requires stronger regional cooperation, innovative financing solutions, and a commitment to aligned, long-term planning and investment (Fünfgeld, 2019).

3.2. Institutional Connectivity

Institutional connectivity poses a greater challenge to ASEAN than infrastructure connectivity. Whilst infrastructure projects can progress with sufficient funding, institutional connectivity is influenced by political economy, with national priorities often taking precedence. The biggest challenge from a regional perspective is implementing agreed-upon frameworks and policies. Despite numerous agreements and initiatives designed to enhance regional integration, actual execution often falls short due to administrative and bureaucratic hurdles. Such initiatives often become opportunities for ASEAN leaders to stage photo opportunities rather than achieve substantial progress.

AMS face difficulties aligning their national regulations and procedures with regional agreements, leading to inconsistent application and enforcement. Inadequate institutional capacity and resources in some AMS impede the implementation of connectivity initiatives, resulting in delays and inefficiencies, which is why technical assistance is often obtained on a regional level.¹

¹ See the assistance given by the European Union in their Arise Plus project (Arise Plus, 2024)

It is normal for AMS to be reluctant to cede control over certain policy areas or regulatory practices to a supranational authority, which hinders deeper regional economic integration and cooperation. This reluctance stems from a desire to maintain national autonomy and protect domestic interests. This challenge is particularly evident in areas such as customs, trade facilitation, and regulatory harmonisation, where deeper integration requires AMS to closely align their policies (Sheldon, 2008). Balancing national sovereignty with regional commitments often leads to compromises that dilute the effectiveness of regional agreements.

Although many ASEAN agreements have been established to promote institutional connectivity, their impact is often limited by a lack of enforcement mechanisms and compliance monitoring. As an example, whilst the ASW initiative is claimed to be a success, its effectiveness varies across AMS due to differing levels of implementation and adherence to agreed standards. The absence of binding enforcement measures means that non-compliance does not result in penalties, reducing the overall effectiveness of ASEAN agreements. This fragmentation undermines the economic integration goals of MPAC 2025, limiting the potential for regional economic growth and development.

Institutional connectivity faces several challenges and constraints, including implementation difficulties, national sovereignty issues, and the effectiveness of regional agreements. Addressing these challenges requires enhanced cooperation, capacity-building efforts, and the development of robust enforcement and compliance mechanisms that AMS are willing to adhere to.

3.3. People-to-People Connectivity

In the area of student exchanges, funding and resource constraints often limit the scale and reach of the programmes, many of which rely on inconsistent financial support. Additionally, differences in educational systems, accreditation standards, and language barriers pose challenges to the effective implementation and widespread adoption of these exchange programmes. ASEAN would benefit from an ERASMUS type of program that mandates students to spend at least one semester in at least two AMS, alongside the development of an ASEAN Credit Transfer System (Chao, 2023).

ASEAN's people-to-people connectivity faces challenges stemming from cultural and linguistic diversity. Whilst enriching, diversity can create communication challenges and hinder deeper integration. Economic disparities amongst AMS also affect individuals' ability to participate in cross-border activities, with financial barriers limiting travel and exchange opportunities. Regulatory and institutional hurdles can present significant obstacles. The lack of harmonised regulations and policies on people's mobility, such as differing immigration laws and standards for professional qualification recognition, creates barriers. Institutional inertia and the slow pace of implementing regional frameworks further delay the benefits of these connectivity initiatives.

Insufficient infrastructure, particularly in less developed regions of ASEAN, limits the effectiveness of people-to-people connectivity initiatives. Remote and underserved areas do not fully benefit from these programmes, perpetuating regional inequalities and limiting overall connectivity within ASEAN.

Prior to the COVID-19 pandemic, efforts to increase intra-ASEAN tourism by 50% were progressing well, driven by visa-free travel agreements and regional tourism campaigns. However, the pandemic severely disrupted tourism, causing a sharp decline in travel and impacting progress towards this goal. Whilst recovery efforts are ongoing, tourism will need sustained efforts to restore and boost post-pandemic travel to meet the 50% increase target (ASEAN, 2015).

3.4. MPAC 2025 Implementation Gaps

Significant administrative and bureaucratic hurdles are the primary reasons for the implementation gaps in MPAC 2025 (Valockova, 2021). Aligning national regulations and procedures with regional agreements is often complex and time-consuming. Each AMS has its own set of regulations and administrative frameworks, complicating efforts to harmonise them with the regional standards set out in the MPAC 2025. The misalignment leads to inconsistencies in policy application and enforcement, causing delays and inefficiencies in the execution of regional projects.

Another factor contributing to the gaps is the lack of institutional capacity and resources in some ASEAN countries. Effective implementation of the MPAC initiatives requires well-developed institutional frameworks and sufficient resources, both of which are lacking in several AMS. Inadequate funding, a shortage of skilled personnel, and limited technical expertise severely hamper the ability of these countries to implement connectivity projects effectively. This is evident in the case of Brunei Darussalam, Lao PDR, and Malaysia regarding the implementation of the ASEAN Framework Agreement on Multimodal Transport. Disparities in institutional capacity amongst AMS create uneven progress and affect the overall success of MPAC 2025.

AMS are often hesitant to cede control over certain policy areas or regulatory practices to a supranational authority, akin to the European Commission, a step necessary for deeper integration and cooperation. The desire to maintain national autonomy and protect domestic interests has led to reluctance to fully commit to regional agreements (Cockerham, 2010). The reluctance is particularly evident in areas such as customs, trade facilitation, and regulatory harmonisation, where policy alignment is crucial. Balancing national sovereignty with regional commitments often results in compromises that dilute the effectiveness of regional agreements.

The key strategies of the MPAC 2025 have seen varying degrees of progress. Whilst there have been notable achievements in areas such as digital connectivity and initial trade facilitation efforts, challenges remain, including the impact of the COVID-19 pandemic on tourism, regulatory barriers, and disparities in infrastructure development. The implementation gaps stem from a combination of administrative and bureaucratic hurdles, limited institutional capacity and resources, sovereignty concerns, and absence of commitment. To bridge these gaps, continued efforts, sustained political commitment, and strategic investments are needed to fully realise MPAC 2025's goals and ensure the equitable distribution of connectivity benefits across ASEAN. MPAC 2025 should be regarded as a living document, as its objectives will not be achieved by the set deadline, and a new approach is needed to enhance regional connectivity in a more flexible and agile manner.

4. A Proposed Framework for Post-2025 Connectivity

To effectively address evolving challenges and opportunities in the post-2025 era, ASEAN must adopt a dynamic and flexible approach to developing its connectivity strategy. Table 16.1 shows the guiding principles proposed for post-2025 ASEAN connectivity.

Table 16.1. Post-2025 ASEAN Connectivity Guiding Principles

Principle 1	• Develop Adaptive Planning and Implementation
Principle 2	• Enable Inclusive and Participatory Processes
Principle 3	• Focus on Sustainability and Resilience
Principle 4	• Leverage Emerging Technologies

ASEAN = Association of Southeast Asian Nations.

4.1. Principle 1: Adaptive Planning and Implementation

Developing an adaptive framework for ASEAN’s connectivity strategy is essential to ensure that connectivity initiatives remain effective and relevant amidst evolving trends, technological advancements, and shifting regional dynamics. This framework should allow for regular updates and adjustments, thereby accommodating new developments and addressing unforeseen challenges. Integrating continuous monitoring and feedback mechanisms will help identify emerging trends and technological breakthroughs that can enhance connectivity projects. Flexible planning processes should be included, enabling swift responses to changing circumstances, such as economic shifts or geopolitical developments. This adaptability will help maintain the relevance of the region’s connectivity strategy and enhance its resilience, ensuring it can withstand and recover from disruptions. Such a framework would support the long-term sustainability and success of regional connectivity efforts by fostering an environment of continuous improvement and innovation.

Jelenc et al. (2020) highlight the Plan-Do-Check-Out (PDCA) as a valuable tool for managing strategy deployment and fostering a culture of continuous improvement. ASEAN’s new connectivity strategy should embed and endorse the PDCA method across all AMS.

Table 16.2 presents a proposed adaptive framework for regional connectivity based on a PDCA method.

Table 16.2. Regional Connectivity Adaptive Framework

Dimensions	Activities
Continuous monitoring and feedback mechanisms	• Data collection and analysis. Establish a robust system for collecting data on key performance indicators related to connectivity activities. This includes metrics on infrastructure usage, digital service adoption, regulatory compliance, and socio-economic impacts. • Feedback loops. Implement regular feedback loops with key stakeholders, including government agencies, private sector partners, local communities, and international organisations, ensuring that the experiences and insights of those directly affected by the connectivity activity inform ongoing adjustments.
Flexible planning process	• Scenario planning. Develop multiple scenarios based on potential future trends and uncertainties. This allows ASEAN policymakers to anticipate various outcomes and prepare flexible responses, considering technological advancements, economic shifts, and geopolitical changes. • Modular project design. Structure connectivity initiatives in a modular way, enabling components to be added, removed, or modified without disrupting the entire initiative. For example, phased implementation plans for infrastructure projects can allow adjustments based on emerging needs and resources.
Iterative implementation	• Pilot projects. Initiate small-scale pilot projects to test new concepts and technologies, serving as learning opportunities to refine approaches before broader implementation. • Phased scaling. Scale successful pilot projects iteratively, starting with local implementations, then expanding regionally, and applying best practices and lessons learned to other areas.
Responsive governance and coordination	• Adaptive governance structures. Create governance structures that can quickly respond to new information and changing conditions, including flexible regulatory frameworks and cross-sectoral coordination bodies capable of adjusting policies and priorities. • Regular review and adjustment. Schedule regular reviews of all connectivity initiatives to assess progress and make necessary adjustments, informed by collected data and stakeholder feedback, ensuring alignment with current realities and future projections.
Leveraging technology and innovation	• Technology watch. Establish a technology watch function to monitor advancements that could impact connectivity projects, focusing on areas such as artificial intelligence, the Internet of Things, and digital infrastructure. • Innovation hubs. Create innovation hubs to foster the development and deployment of cutting-edge technologies, providing support and funding for startups and small and medium-sized enterprises working on innovative connectivity solutions.
Stakeholder engagement and capacity building	• Inclusive engagement. Ensure continuous engagement with stakeholders, including marginalised and underserved communities, to gather a wide array of perspectives and needs. • Capacity-building programmes. Implement programmes to enhance the skills and knowledge of national authorities, project managers, and other stakeholders, ensuring they are equipped to contribute effectively to the adaptive framework.

Adopting this adaptive framework would enable ASEAN's regional connectivity strategy to remain dynamic, resilient, and responsive to the ever-changing landscape of technological, economic, and social developments.

4.2. Principle 2: Enable Inclusive and Participatory Processes

Engaging a wide range of stakeholders – including governments, the private sector, civil society, and local communities—is crucial for the success of ASEAN's connectivity strategy. This inclusive approach ensures that diverse perspectives and expertise are considered, leading to more holistic and effective solutions. Governments can provide regulatory support and public funding, whilst the private sector can offer technical expertise and investment. Civil society organisations can advocate for the needs of marginalised groups and monitor project impacts, ensuring accountability and transparency. Local communities, as the ultimate beneficiaries, offer invaluable insights into the on-the-ground realities and cultural nuances that can make or break the success of an initiative (Wells et al., 2021). This comprehensive engagement helps build trust and buy-in from all parties, which is essential for the long-term sustainability of ASEAN's connectivity strategy and its various initiatives.

4.3. Principle 3: Focus on Sustainability and Resilience

ASEAN must prioritise the development of green infrastructure to minimise environmental impact and enhance the climate resilience of connectivity projects. This involves integrating renewable energy sources, such as solar and wind power, to reduce dependence on fossil fuels and reduce greenhouse gas emissions. Incorporating energy-efficient technologies, such as LED lighting and smart grid systems, can further reduce the environmental footprint of infrastructure projects. Sustainable land-use practices, including the preservation of natural habitats and the creation of green spaces, help maintain ecological balance and protect biodiversity. Beyond environmental benefits, these initiatives must contribute to building resilient systems that can withstand and quickly recover from disruptions, such as natural disasters, economic shocks, and technological failures. By designing infrastructure that is both green and resilient, projects can ensure the continuity of connectivity and its benefits even under adverse conditions (Corfee-Morlot et al., 2012). This comprehensive approach not only addresses immediate environmental concerns but also promotes long-term sustainability and adaptability, making communities more robust and better prepared for future challenges.

4.4. Principle 4: Leverage Emerging Technologies

ASEAN must harness the power of digital technologies, such as AI, IoT, blockchain, and big data analytics, as these are crucial for enhancing connectivity in modern infrastructure projects. These technologies enable the deployment of smart transportation systems that optimise traffic flow and reduce congestion, digital trade platforms that streamline cross-border transactions, and real-time data monitoring and analysis tools that provide critical insights for proactive decision-making. ASEAN must foster innovation ecosystems to support the continuous development and deployment of these cutting-edge technologies (Pangarkar and Vandenberg, 2022). This involves providing adequate funding and infrastructure for startups and tech companies, as well as creating a conducive regulatory environment that encourages innovation and experimentation. ASEAN and its private sector partners can drive technological advancements that not only enhance connectivity but also stimulate economic growth and competitiveness. This dual approach ensures that the benefits of digital transformation are fully realised, leading to more intelligent, efficient, and resilient connectivity solutions.

4.5. Integration of MPAC 2025 with Other ASEAN Initiatives

Aligning ASEAN's connectivity strategy with the broader economic integration goals of the ASEAN Economic Community is crucial. The alignment should prioritise reducing trade barriers, harmonising regulations, and promoting the free flow of goods, services, capital, and skilled labour. Such alignment enhances the efficiency and competitiveness of the ASEAN single market, creating a more integrated regional economy. Collaboration across various economic sectors, including transport, energy, finance, and the digital economy, should be fostered to ensure cohesive and interconnected operations. Aligning sector-specific policies and standards facilitates seamless cross-border activities, driving economic growth and integration.

Leveraging the trade facilitation provisions of the Regional Comprehensive Economic Partnership (RCEP) can further enhance regional connectivity through streamlined customs procedures, improved logistics infrastructure, and the promotion of digital trade platforms. These efforts facilitate faster and more efficient cross-border trade. Aligning connectivity projects with RCEP's investment promotion goals can attract regional and global investors. Creating a conducive regulatory environment and offering investment incentives will help finance infrastructure development and promote economic resilience.

A holistic approach to connectivity initiatives is necessary for effective integration across different sectors and governance levels. This includes aligning national, regional, and local projects to create a seamless and interconnected infrastructure network. Establishing mechanisms for inter-agency coordination, such as joint task forces, coordinating committees, and inter-ministerial working groups, ensures coherent and coordinated implementation of connectivity projects. Promoting inclusive growth and development is also critical, with a focus on equitable access to opportunities and resources, particularly for marginalised and underserved communities. Investment in rural infrastructure, digital inclusion programmes, and capacity-building initiatives, along with the implementation of social and environmental safeguards, ensures that connectivity projects are sustainable and benefit all segments of society.

The new framework for post-2025 connectivity has been proposed, designed to be dynamic, flexible, and integrated with other key ASEAN initiatives. By adopting adaptive planning and implementation, fostering inclusive and participatory processes, emphasising sustainability and resilience, and leveraging emerging technologies, ASEAN can enhance regional connectivity and promote sustainable and inclusive growth. However, certain conditions must be met before a new regional connectivity plan can be developed and implemented.

5. Key Conditions for Post-2025 ASEAN Connectivity

To achieve seamless and comprehensive connectivity in the ASEAN region post-2025, several essential conditions must be met. These include aligning regulations and standards across AMS to remove barriers to trade and investment, establishing robust financial support through an ASEAN Connectivity Fund, and strengthening institutional capabilities with regional capacity-building programmes. Prioritising sustainable infrastructure projects that minimise environmental impact, ensuring digital inclusion across all areas, enhancing the role and capacity of ASEAN bodies, and promoting inclusive stakeholder engagement are also vital. Implementing a robust monitoring and evaluation framework with clear indicators and benchmarks is necessary to track progress and ensure transparency. Addressing these conditions will enable ASEAN to overcome current challenges, enhance regional connectivity, and achieve sustainable and inclusive growth in the post-2025 era.

The foremost condition for successful ASEAN connectivity is the harmonisation of regulations and standards across AMS. Regulatory discrepancies create barriers to trade, investment, and cross-border operations, hindering regional integration. ASEAN should establish a dedicated task force with supranational authority to align customs procedures, technical standards, and licensing requirements, significantly reducing these barriers. Developing a comprehensive roadmap for regulatory alignment, with regular reviews and updates to maintain compliance with international best practices, will facilitate smoother cross-border operations and make the ASEAN single market a reality.

Funding is crucial for the development and maintenance of connectivity infrastructure. Creating an ASEAN Connectivity Fund that pools resources from AMS, international donors, and private investors can provide the financial backing necessary for regional connectivity projects. This fund can serve as a catalyst for large-scale infrastructure development, ensuring that the financial constraints of individual AMS do not hinder progress.

Improving institutional capabilities across ASEAN is vital for the successful management and implementation of the post-2025 ASEAN connectivity strategy. Launching a regional capacity-building programme to provide training and technical assistance to government agencies and local authorities will enhance their ability to handle large-scale projects. Partnerships with international organisations and educational institutions can deliver targeted training in areas such as project management, regulatory compliance, and emerging technology usage. Strengthening institutional capacity will ensure that AMS are well-equipped to manage complex connectivity initiatives.

Enhancing the role and capacity of regional institutions is crucial for better coordination amongst AMS. Strengthening bodies such as the ASEAN Secretariat and the ASEAN Coordinating Committee on Connectivity, through increased delegation of authority, will facilitate effective oversight and advancement of the region's connectivity agenda. Providing these bodies with the necessary resources and authority will enable them to coordinate efforts and drive progress more efficiently. Joint task forces composed of representatives from relevant ministries and agencies across AMS can address specific connectivity challenges, ensuring focused and coordinated action.

Last but not least, the development of a regional monitoring and evaluation framework with clear indicators and benchmarks is essential to maintain transparency and regular assessments of connectivity initiatives. Cultivating a culture of continuous improvement, which has been lacking in ASEAN thus far, will be key to achieving sustained progress.

6. Conclusion

The MPAC 2025 has laid a solid foundation by identifying five strategic areas: sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility. Significant strides have been made, notably in enhancing digital infrastructure and promoting green technologies in infrastructure projects.

However, the implementation of MPAC 2025 has not been without its hurdles. The COVID-19 pandemic has both hindered and accelerated connectivity efforts, revealing gaps in physical infrastructure and institutional frameworks whilst simultaneously pushing for digital transformation. The region has faced challenges such as the misalignment of regional and national priorities, funding constraints, and regulatory inconsistencies.

To address these challenges and capitalise on new opportunities, the proposed framework for post-2025 connectivity emphasises adaptive planning, inclusive and participatory processes, sustainability and resilience, and leveraging emerging technologies. This approach aims to ensure that ASEAN's post-2025 connectivity strategy remains dynamic and responsive to evolving regional and global contexts.

Key conditions for the success of ASEAN's post-2025 connectivity include regulatory harmonisation, enhanced funding mechanisms, capacity building, and the strengthening of regional institutions. By addressing these critical areas, ASEAN can enhance its regional connectivity, promote sustainable and inclusive growth, and build a more integrated and resilient community.

Whilst commendable progress has been made under MPAC 2025, continuous efforts and strategic adjustments are essential to overcome current limitations and achieve long-term connectivity goals. The proposed adaptive framework and the key conditions outlined in this paper can serve as a roadmap for ASEAN to navigate future challenges and opportunities, ensuring the region's connectivity ambitions are met in a sustainable and inclusive manner.

References

- Anggina, N.C. (2023), *Indonesia: The high cost of high-speed rail*, the Lowly Institute. <https://www.lowyinstitute.org/the-interpreter/indonesia-high-cost-high-speed-rail> (accessed 27 November 2024).
- ARISE PLUS (2024), Final Report, ASEAN Regional Integration Support by the European Union. Jakarta: ASEAN Secretariat. https://ariseplus.asean.org/wp-content/uploads/2023/04/Final_Report-1-1-1.pdf (accessed 10 December 2024).
- Asian Development Bank and United Nations Economic and Social Commission for Asia and the Pacific (2021), *Asia-Pacific Trade Facilitation Report 2021: Supply Chains of Critical Goods Amid the Covid-19 Pandemic: Disruptions, Recovery, and Resilience*. Manila: ADB.
- Association of Southeast Asian Nations (2015), *ASEAN Tourism Strategic Plan 2016–2025*. Jakarta: ASEAN Secretariat.
- ASEAN (2016), *Master Plan on ASEAN Connectivity 2025*. Jakarta: ASEAN Secretariat.
- ASEAN (2021), *ASEAN Digital Master Plan 2025*. Jakarta: ASEAN Secretariat.
- Avirutha, A. (2021), 'ASEAN in Digital Economy: Opportunities and Challenges', *Journal of ASEAN PLUS+ Studies*, 2(1), pp.17–25.
- Banomyong, R. (2008), 'Logistics Development in the Greater Mekong Subregion: A Study of the North-South Economic Corridor', *Journal of Greater Mekong Subregion Development Studies*, 4, pp.43–58.
- Banomyong, R. and M. Ishida (eds.) (2010), *Logistics Challenges in Cambodia, Lao PDR, Myanmar and Vietnam: A Study on Upgrading Industrial Structure of CLMV Countries*. Jakarta: Economic Research Institute for ASEAN and East Asia.
- Chao, R. Y. (2023), 'Intra-ASEAN student mobility: overview, challenges and opportunities', *Journal of Applied Research in Higher Education*, 15(5), pp.1736–51. <https://doi.org/10.1108/JARHE-07-2019-0178> (accessed 27 November 2024).
- Cockerham, G.B. (2010), 'Regional Integration in ASEAN: Institutional Design and the ASEAN Way', *East Asia*, 27, pp.165–85.
- Corfee-Morlot, J., V. Marchal, C. Kauffmann, C. Kennedy, F. Stewart, Kaminker, and G. Ang (2012), 'Towards a Green Investment Policy Framework: The Case of Low-Carbon, Climate-Resilient Infrastructure', *OECD Environment Working Paper*, No.48. ENV/WKP(2012)7.
- Crumpton, C.D., S. Wongthanavas, P. Kamnuansilpa, J. Draper, and E. Bialobrzeski (2020), 'Assessing the ASEAN Smart Cities Network (ASCN) via the Quintuple Helix Innovation Framework, with Special Regard to Smart City Discourse, Civil Participation, and Environmental Performance', *International Journal of Urban Sustainable Development*, 13(1), pp.97–116.
- Djalante, R., L. Nurhidayah, H.V. Minh, N.T.N. Phuong, Y. Mahendradhata, A. Trias, J. Lassa, and M.A. Miller (2020), 'COVID-19 and ASEAN responses: Comparative policy analysis', *Progress in Disaster Science*, 8, 100129.

- Economic Research Institute for ASEAN and East Asia (2023), *Follow-up ASEAN Seamless Trade Facilitation Indicators*. Jakarta: Economic Research Institute for ASEAN and East Asia.
- Fornalé, E. (2018), 'ASEAN People-to-People Connectivity: The Role of the Mutual Recognition Regime', *European Journal of East Asian Studies*, 17(1), pp.31–54.
- Fünfgeld, A. (2019), 'The Dream of ASEAN Connectivity: Imagining Infrastructure in Southeast Asia', *Pacific Affairs*, 92(2), pp.287–311(25).
- Isono, I. and H. Prilliadi (2023), *ASEAN's Digital Integration: Evolution of Framework Documents*. Jakarta: Economic Research Institute for ASEAN and East Asia.
- Jelenc, L., S. Lerner, and V. Knapic (2020), 'Strategy deployment using PDCA cycle', *Lean Spring Summit 2020 Conference Proceedings - 5th International Scientific Conference*, 1, pp.11–17. <https://ssrn.com/abstract=3955890> (accessed 15 June 2024).
- Koichi, I. (2021), 'The ASEAN Economic Community and ASEAN Economic Integration', *Journal of Contemporary East Asia Studies*, 10(1), pp.24–41.
- Pangarkar, N. and P. Vandenberg (2022), 'Singapore's Ecosystem for Technology Startups and Lessons for its Neighbors', *Country Report No. 2: Ecosystems for Technology Startups in Asia and the Pacific*.
- Simon, S. (2008), 'ASEAN and Multilateralism: The Long, Bumpy Road to Community', *Contemporary Southeast Asia: A Journal of International and Strategic Affairs*, 30(2), pp.264–92.
- Son, C.Y. (2022), *Digital connectivity: Bolstering technical development and shaping the digital economy in South East Asia*. Bangkok: UNESCAP.
- Sukegawa, S. (2021), 'ASEAN's initiatives for free trade in East Asia under AEC', *Journal of Contemporary East Asia Studies*, 10(1), pp.42–64. <https://doi.org/10.1080/24761028.2021.1902068> (accessed 27 November 2024).
- Syah, R.A., and Z.K. Mahmud (2019), 'Realism in the Trans-ASEAN Gas Pipeline Project', *Indonesian Journal of Energy*, 2(2), pp.89–98. <https://doi.org/10.33116/ije.v2i2.39> (accessed 15 June 2024).
- Tang, C.M. and A. Bradshaw (2024), 'Unveiling ASEAN's Logistics Infrastructure Investments and Their Intended Economic Impacts', in S.R. Tan, H. Jang, and J. Wood (eds.), *Economic Growth and Development in the Tropics*. London: Routledge.
- Tongzon, J. (2011), 'Liberalisation of logistics services: the case of ASEAN', *International Journal of Logistics Research and Applications*, 14(1), pp.11–34.
- United Nations Economic and Social Commission for Asia and the Pacific (2015), *ASEAN single window: a regional single window for ASEAN connectivity*. Bangkok: UNESCAP.
- Valockova, B. (2021), 'ASEAN's Limited Centrality in Connectivity: Managing Infrastructure Competition Between China and Japan', *Asia Policy*, 16(1), pp.129–154.
- Wells, E.C., G.R. Lehigh, and A.M. Vidmar (2021), 'Stakeholder Engagement for Sustainable Communities', in *The Palgrave Handbook of Global Sustainability*. London: Palgrave Macmillan.

17.

A Forward-Looking Framework for ASEAN's Free Trade Agreement Strategy

Soo Yeon Kim

This chapter makes four main recommendations regarding the free trade agreement (FTA) strategy of the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC). First, ASEAN should consider new ASEAN-level FTAs that build on and consolidate existing FTAs of individual ASEAN Member States (AMS). The approach involves leveraging current individual member FTAs and negotiating agreements that encompass all ASEAN countries at the regional level. Second, all FTA projects should align with the internal objectives of the AEC, ensuring that FTA commitments are consistent with the strategic measures and key action lines enumerated in the AEC Blueprint 2025. Such alignment ensures that past, present, and future FTA projects progress in harmony with the AEC's evolution at every stage. FTA projects in step with the AEC Blueprint 2025 will provide the strongest foundation for future agreements. Third, ASEAN should base future FTA projects on commitments established in its most recent FTA, the Regional Comprehensive Economic Partnership (RCEP) agreement. As RCEP consolidates existing FTAs amongst its signatories, it should serve as a key reference point for future commitments. Adopting RCEP as a baseline will help prevent fragmentation of trade regulations in new FTA projects. Finally, in the rapidly developing area of digital trade, ASEAN should adopt a two-fold strategy: consider joining the stand-alone Digital Economic Partnership Agreement (DEPA) and at the same time build upon the e-commerce chapter of the RCEP to develop digital trade commitments. The approach will ensure ASEAN's full engagement and manoeuvrability within overlapping agreements, securing its position in the most important emerging frontier for trade governance.

ASEAN's FTA strategy is anchored in two key dimensions. The first is the status of FTAs, both at the ASEAN level and amongst individual AMS. ASEAN's future strategy should build on these accomplishments, especially by enhancing the network of FTA ties between AMS and external trade partners. The second anchor is the AEC Blueprint 2025, which contains strategic measures and key action lines that set the priorities for ASEAN's trade agreements. Building on existing FTA achievements and advancing the AEC's goals provide constructive parameters for crafting an FTA strategy for ASEAN.

This chapter is organised into two main sections: partners and provisions. The first section explores the AEC’s objectives as outlined in the AEC Blueprint 2025, providing clear guidance for future FTA strategy. The section examines the status of ASEAN’s FTAs at both the regional and individual AMS levels. The second section uses the identified goals in the Blueprint to provide detailed recommendations for the AEC’s FTA strategy. It draws on the Global ASEAN goal, which recommends review and reform of existing ASEAN+1 FTAs. The discussion emphasises ASEAN’s institutional and economic role, FTA projects undertaken by individual AMS, and the key provisions needed to advance regional integration.

1. The State of Play: ASEAN’s Current Free Trade Agreement Partners

ASEAN has six FTAs in effect, all of which are with trade partners in Asia. The agreements include the ASEAN–Australia–New Zealand Free Trade Area, the ASEAN–China Free Trade Area, the ASEAN–India Free Trade Area, the ASEAN–Republic of Korea Free Trade Area, the ASEAN–Japan Comprehensive Economic Partnership, and the RCEP.

Table 17.1 lists the agreements, their signature dates, and their effective dates. Agreements highlighted in bold have been identified for review under the AEC Blueprint 2025 and its accompanying Consolidated Strategic Action Plan, which lays out key action lines for achieving AEC goals in FTAs. Whilst ASEAN FTAs are exclusively with Asian partners, individual AMS have bilateral or plurilateral trade agreements with partners both within Asia and beyond. Appendix Table 17.6 to Table 17.11 list FTAs in effect for each ASEAN member. Figure 17.1 shows a network analysis of FTA connections involving AMS, illustrating the density of FTA relationships and highlighting prominent non-ASEAN FTA partners. AMS are represented by blue nodes, whilst non-ASEAN states with at least one FTA involving an ASEAN member are represented by red nodes. The size of each node indicates its degree centrality, which reflects the number of FTAs a country has with other nations. A higher degree centrality, represented by a larger node, indicates more FTA connections.

Figure 17.1 shows that Singapore has the highest degree centrality amongst the AMS, with 18 FTAs in effect. Singapore's Asian FTA partners include China, the Republic of Korea, India, Japan, Australia, New Zealand, and Sri Lanka. Singapore is also a member of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Singapore has FTAs with Peru, Panama, the United States (US), and Costa Rica in the Americas, and bilateral FTAs with the European Union (EU), United Kingdom, the European Free Trade Association (EFTA), and Türkiye in Europe. In the Middle East, Singapore's FTA partners include Jordan and the Gulf Cooperation Council.

Malaysia ranks second amongst ASEAN members, with seven FTAs in effect. Its agreement partners include India, Japan, Australia, New Zealand, Türkiye, Chile, and Pakistan. Viet Nam follows closely with six FTAs, partnering with the Republic of Korea, Japan, the EU, the United Kingdom, Chile, and the Eurasian Economic Union. Indonesia, also with six FTAs, has partners including Australia, Japan, the EU, EFTA, Chile, and Pakistan. Thailand has five FTAs, with partners including Japan, Australia, New Zealand, Peru, and Chile. Cambodia, the Philippines, and Brunei Darussalam each have one FTA in effect: Cambodia–China, the Philippines–EFTA, and Brunei Darussalam–Japan.

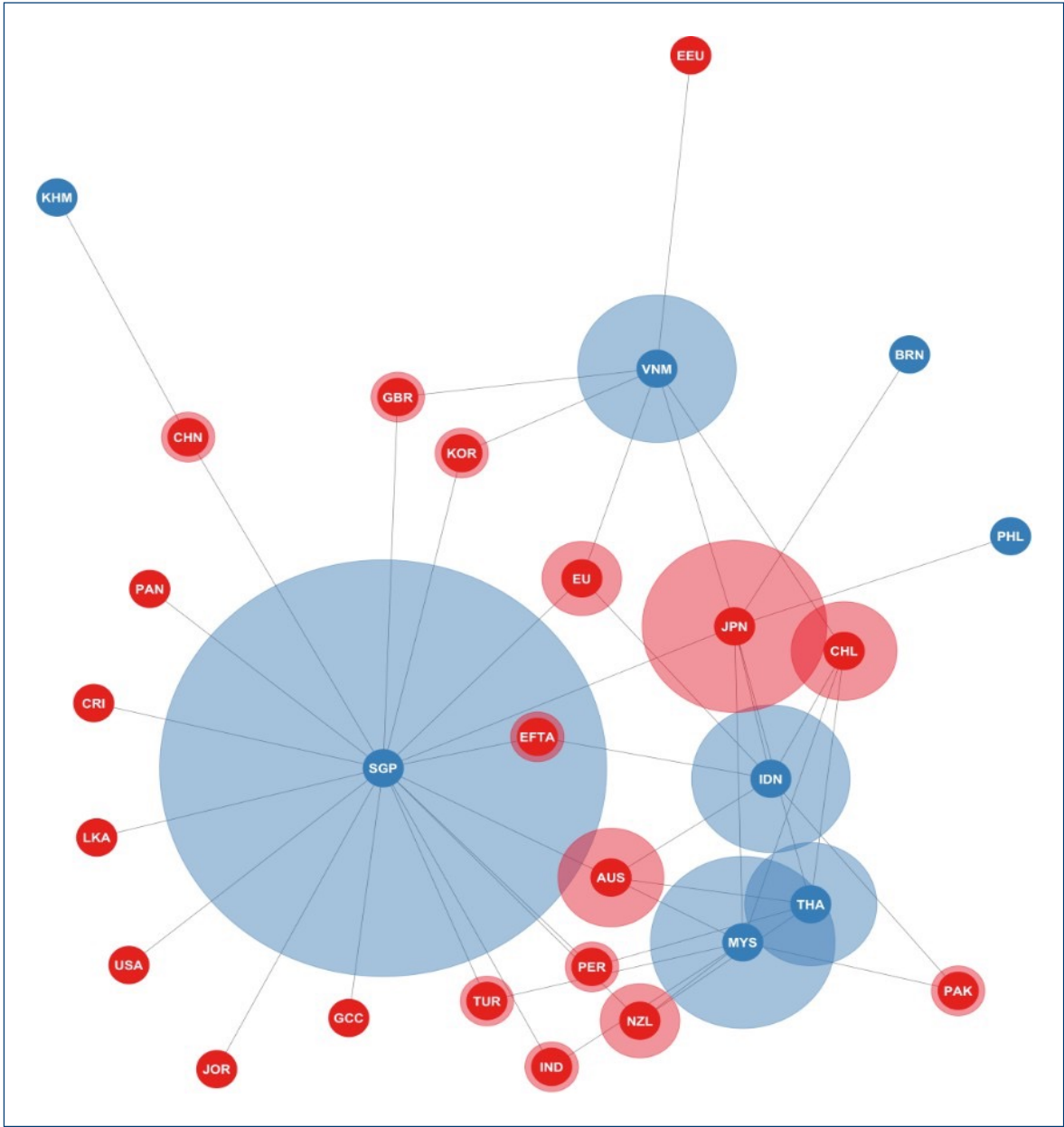
Table 17.1. ASEAN Free Trade Agreements in Effect

Partner	Name of FTA	Date Signed	In Effect
China	ASEAN–China Free Trade Area	29 Nov 2004	01 Jul 2005
Republic of Korea	ASEAN–Republic of Korea Free Trade Area	24 Aug 2006	01 Jun 2007
India	ASEAN–India Free Trade Area	13 Aug 2009	01 Jan 2010
Japan	ASEAN–Japan Comprehensive Economic Partnership	14 Apr 2008	01 Dec 2008
Australia	ASEAN–Australia–New Zealand Free Trade Area	27 Feb 2009	01 Jan 2010
New Zealand	ASEAN–Australia–New Zealand Free Trade Area	27 Feb 2009	01 Jan 2010
Hong Kong	ASEAN–Hong Kong, China Free Trade Area	12 Nov 2017	11 Jun 2019
China, Republic of Korea, Japan, Australia, New Zealand	Regional Comprehensive Economic Partnership	15 Nov 2020	01 Jan 2022

Note: Agreements in boldface are marked for review.

Source: Consolidated Strategic Action Plan, AEC Blueprint 2025

Figure 17.1. Network of Free Trade Agreements of ASEAN Member States



- Notes:
- ASEAN Member States (AMS) are depicted as blue nodes.
 - Non-AMS with at least one FTA with an AMS are depicted as red nodes.
 - The node size indicates degree centrality of a given AMS, where degree centrality represents the number of FTAs. The more FTAs in effect, the larger the node.

ASEAN = Association of Southeast Asian Nations, AUS = Australia, BRN = Brunei Darussalam, CHL = Chile, CHN = China, CRI = Costa Rica, EEU = Eurasian Economic Union, EFTA = European Free Trade Association, EU = The European Union, GBR = Great Britain, GCC = Gulf Cooperation Council, IDN = Indonesia, IND = India, JOR = Jordan, JPA = Japan, KHM = Cambodia, KOR = Korea, LKA = Sri Lanka, MYS = Malaysia, NZL = New Zealand, PAK = Pakistan, PAN = Panama, PHL = Philippines, SGP = Singapore, THA = Thailand, TUR = Türkiye, USA = United States of America, VNM = Viet Nam.

Source: Author, based on free trade agreement information from ASEAN Members States' websites.

Table 17.2. Future Partners for ASEAN Free Trade Agreements

Partner	Current FTAs	ASEAN Member FTA Partners
Chile	4 bilateral FTAs and CPTPP	Indonesia, Malaysia, Thailand, and Viet Nam; Singapore through CPTPP
Peru	2 bilateral FTAs and CPTPP	Singapore and Thailand Malaysia and Viet Nam through CPTPP
European Union	3 bilateral FTAs	Indonesia, Singapore, and Viet Nam
EFTA	2 bilateral FTAs	Singapore and Indonesia
United Kingdom	2 bilateral FTAs	Singapore and Viet Nam
Türkiye	2 bilateral FTAs	Malaysia and Singapore
Pakistan	2 bilateral FTAs	Malaysia and Indonesia

ASEAN = Association of Southeast Asian Nations, CPTPP = Comprehensive and Progressive Agreement for Trans-Pacific Partnership, EFTA = European Free Trade Association, FTA = free trade agreement.

Source: Author, based on ASEAN Member States' websites.

2. Leverage Existing Free Trade Agreements for Upgrades to ASEAN Free Trade Agreements

All of ASEAN's current FTAs involve partners exclusively from Asia. ASEAN, along with the AEC, has consistently committed to open regionalism, and the participation of all ASEAN members in the RCEP has consolidated existing FTAs with Australia, China, Japan, New Zealand, and the Republic of Korea. An effective strategy moving forward would involve leveraging the existing FTAs of individual member states and upgrading these to ASEAN-level agreements. The FTA portfolios of individual ASEAN members can help determine potential partners and the commitments outlined in these agreements.

Table 17.2 highlights the FTAs in effect between non-ASEAN trade partners and individual AMS. Amongst non-ASEAN members with high centrality within the FTA network, Japan, China, India, Australia, and New Zealand already have FTAs with ASEAN. Amongst trade partners without an ASEAN-wide agreement, Chile has the highest number of bilateral FTAs with ASEAN members, with four FTAs in effect. Chile's FTA partner countries include Viet Nam, Indonesia, Malaysia, and Thailand. Chile is also linked to Singapore through shared membership in the plurilateral CPTPP. Peru has two bilateral FTAs with Singapore and

Thailand and is linked to Malaysia and Viet Nam through the CPTPP. The EU has bilateral FTAs with Viet Nam, Singapore, and Indonesia, whilst the EFTA group has bilateral FTAs with Singapore and Indonesia. The United Kingdom has FTAs with Singapore and Viet Nam, and Türkiye has bilateral FTAs with Singapore and Malaysia. In South Asia, Pakistan has bilateral FTAs with Indonesia and Malaysia.

The current portfolio of FTAs between individual ASEAN members and non-ASEAN partners suggests that Chile and Peru are promising candidates for ASEAN FTAs. Both countries have existing FTAs with several of the largest ASEAN economies. Consolidating these bilateral agreements at the ASEAN level and extending them to the remaining AMS would be a viable and strategic project for the immediate future. Such agreements would strengthen and expand ASEAN's trade ties across the Pacific. Peru and Chile are particularly important due to their membership in the Asia-Pacific Economic Cooperation (APEC) forum.

The EU stands out as a most important potential candidate for an FTA with ASEAN. The EU has FTAs with three major ASEAN economies, and the benefits of an ASEAN-wide trade agreement with the EU would be considerable. The EU, which comprises 27 member countries including Germany – the world's third-largest economy – is a major global trade player. The EU represents the most advanced regional integration model, serving as an influential example for ASEAN's own economic integration efforts.

Lastly, EFTA, the United Kingdom, Türkiye, and Pakistan, each with two existing FTAs with ASEAN members, are viable potential partners for ASEAN FTAs. It will be important to monitor the FTA initiatives pursued by these non-ASEAN partners. Should they negotiate new bilateral FTAs with additional AMS, their importance and potential for full ASEAN FTA partners will increase.

3. Aligning Free Trade Agreement Commitments with the Goals of the ASEAN Economic Community

Whilst the network of FTAs and partnerships amongst AMS shows potential for upgrading to ASEAN-level FTAs, any such efforts should align with the explicit goals of the AEC, especially in advancing objectives under the economic pillar. ASEAN's FTA strategy should build on the goals set out in the AEC Blueprint 2025, with a view to the post-2025 era and the next stage of regional integration. The AEC Blueprint 2025 builds on the achievements of the AEC Blueprint 2015, which guided the AEC's first decade and saw significant achievements. These included the elimination of tariffs, facilitation of trade and skilled labour mobility, progress in investment liberalisation, trade in services, competition policy, consumer protection, intellectual property rights protection, regulatory harmonisation to facilitate capital markets, enhanced connectivity, efforts to close development gaps in the region, and strengthened relations with external partners. The AEC Blueprint 2025 seeks to deepen these efforts through the following goals:

1. A highly integrated and cohesive economy
2. A competitive, innovative, and dynamic ASEAN
3. Enhanced connectivity and sectoral cooperation
4. A resilient, inclusive, and people-oriented, people-centred ASEAN
5. A global ASEAN

ASEAN's FTA strategy should be designed to serve these goals. This discussion references the AEC 2025 Consolidated Strategic Action Plan (CSAP), a comprehensive guide for stakeholders and the public. The CSAP, envisioned in the AEC Blueprint 2025, outlines key action lines to be implemented through the work plans of sector bodies. It identifies over 150 strategic measures aimed at achieving AEC goals and serves as a dynamic document, periodically reviewed to reflect sector developments. The CSAP facilitates the monitoring and progress of goals under the AEC Blueprint 2025, providing indicative timelines for the completion of key action lines by relevant ASEAN sector bodies. The periodic reviews and updates allow for stakeholder feedback and adjustments.

The strategic measures and objectives outlined in the AEC Blueprint 2025 are interconnected. For example, improving the investment environment is important for facilitating multinational firms' activities across ASEAN and enhancing and expanding regional value chains. FTAs, as broad institutional tools, can leverage the CSAP's cross-cutting approach, which enables single-sector bodies to carry out key action lines that span multiple strategic measures under a unified work plan. This integrated approach highlights sector complementarities and fosters greater coordination amongst ASEAN bodies. Collectively, the action lines outlined in the CSAP support ongoing deep integration and reaffirm the AEC's commitment to completing the remaining integration measures under the Blueprint 2025.

4. Alignment of Free Trade Agreement Strategy with Key Action Lines for a Global ASEAN

The AEC Blueprint 2025 outlines strategic measures prioritised according to the five AEC goals. The CSAP provides the key action lines, timelines, sector work plans, and sector bodies that will implement these measures.

Global ASEAN. The fifth goal of the AEC Blueprint 2025, Global ASEAN, focuses on future FTA priorities. Its objective is 'to strengthen ASEAN's position as an open and inclusive economic region and lay the foundation for ASEAN to retain its centrality in global and regional engagements, where possible'. The CSAP identifies six strategic measures for achieving a Global ASEAN, most of which directly align with AEC's evolving strategy.

1. **Develop a common position in regional and economic forums.** The CSAP highlights the importance of a unified stand, particularly in the technical barriers to trade (TBT) chapters of ASEAN+1 FTAs, to support ASEAN-led initiatives, technical support, and consultation. These initiatives should be coordinated with the World Trade Organization (WTO) through the TBT Committee.

2. **Review and reform ASEAN FTAs and comprehensive economic partnerships.** This measure focuses on updating FTAs to ensure that they are comprehensive and meet the needs of businesses in ASEAN. Key action lines included the conclusion of ongoing negotiations for the RCEP, signed on 15 November 2020 and effective from 1 January 2022, and the ASEAN–Hong Kong, China FTA, signed on 28 March 2018 and fully in force by 12 February 2021.¹

Table 1 in the CSAP lists ASEAN+1 FTAs slated for review, with the exception of the ASEAN–China Free Trade Area agreement and the RCEP. For the ASEAN–Japan Comprehensive Economic Partnership Agreement, effective since 1 December 2008, priority is given to implementing outcomes related to trade in services, movement of natural persons, and investment.² Reviews are planned for the ASEAN–India Trade in Goods Agreement, in force since 1 January 2010, and the ASEAN–Australia–New Zealand Free Trade Agreement, effective since January 2012. In August 2023, AMS and India agreed to begin a review of the ASEAN–India Trade in Goods Agreement, aiming for completion by 2025. On 21 August 2023, ASEAN and its partners in the ASEAN–Australia–New Zealand Free Trade Agreement signed an upgraded agreement expanding its scope to services, investment, and broader economic cooperation. For the ASEAN–Korea Trade in Goods Agreement, priority is given to concluding negotiations on further liberalising sensitive-track products, which have staggered tariff reduction schedules.

3. **Upgrade existing trade and investment frameworks and agreements with non-FTA partners.** This measure supports the enhancement of existing trade and investment frameworks and plans as potential foundations for comprehensive ASEAN-level FTAs. Key action lines include agreements such as the ASEAN–European Union Trade and Investment Work Programme, and post-2015 initiatives such as the ASEAN–Russia Trade and Investment Work Programme, the ASEAN–Canada Joint Declaration on Trade and Investment, the ASEAN–US Trade and Investment Framework Arrangement, and the Expanded Engagement (E3) Initiatives Work Plan under the US–ASEAN Connect framework. The EU, which already has FTAs with Indonesia, Singapore, and Viet Nam, presents a very promising opportunity for an upgraded ASEAN FTA. For frameworks with Russia, Canada, and the US, progress is expected to be incremental. The US holds an FTA with Singapore only, Canada is linked through the Comprehensive and Progressive Transpacific Partnership to Brunei, Malaysia, Singapore, and Viet Nam, whilst Russia has an FTA with Viet Nam through the Viet Nam–Eurasian Economic Union FTA. To enhance these programmes, AMS already connected to non-ASEAN partners – the EU, Canada, Russia, and the US – should be encouraged to lead efforts to strengthen ASEAN trade and investment programmes and explore opportunities for upgrading them to full ASEAN-level FTAs.
4. **Engage strategically with emerging markets and regional groupings.** This measure emphasises forming global and regional partnerships, including with emerging markets and regional groupings such as APEC and the Eurasian Economic Union. Viet Nam is the sole ASEAN member with an FTA with the Eurasian Economic Union. Continued engagement with APEC aligns with the ASEAN commitment to open regionalism. APEC recognises the importance of trade agreements for trade liberalisation, which complements ASEAN's goals.

¹ The ASEAN–Hong Kong FTA (AHKFTA) went into force in stages: beginning on 11 June 2019 for Hong Kong, Lao People's Democratic Republic, Myanmar, Singapore, Thailand, and Viet Nam; on 13 October 2019 for Malaysia; on 12 May 2020 for the Philippines; on 4 July 2020 for Indonesia; on 20 October 2020 for Brunei Darussalam; and on 12 February 2021 for Cambodia. The AHKFTA prioritises reducing TBTs, aligning with ASEAN's strategic focus.

² The ASEAN–Japan Comprehensive Economic Partnership Agreement was signed on 14 April 2008 and came into force on 1 December 2008.

The APEC Free Trade Area of the Asia-Pacific (FTAAP) project represents a significant opportunity for ASEAN's engagement. Progress towards establishing the FTAAP began in November 2014, when APEC leaders endorsed the Beijing Roadmap for APEC's Contribution to the Realization of the Free Trade Area of Asia-Pacific. By November 2016, the Collective Strategic Study on Issues Related to the Realisation of the FTAAP was completed, highlighting topics that align closely with the priorities of the AEC. These include next-generation trade and investment issues, specific measures affecting trade and investment activities, and an evaluation of existing trade agreements within the Asia-Pacific region. In November 2016, APEC leaders issued the Lima Declaration on Free Trade Area of the Asia-Pacific, which initiated the implementation of measures and a series of initiatives aimed at facilitating the eventual realisation of the FTAAP. The seven AMS in APEC – Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam – should pursue close cooperation to ensure strong representation of ASEAN's interests during FTAAP negotiations.

5. **Maintain strong support for the multilateral trading system.** This strategic measure requires sustained and active engagement in the Doha Development Agenda to support ongoing reforms in international trade.
6. **Promote engagement with regional and global institutions.** This involves cooperation and engagement with the Asian Development Bank, the World Bank, the International Monetary Fund, the Organisation for Economic Co-operation and Development, and other regional and global institutions.

5. Aligning Trade Liberalisation Within AEC With Its FTAs

Aligning ASEAN's FTA strategy with the AEC's goal of a Global ASEAN is as significant as achieving the AEC's internal objectives, which focus on i) a highly integrated and cohesive economy; ii) a competitive, innovative, and dynamic ASEAN; iii) enhanced connectivity and sector cooperation; and iv) a resilient, inclusive, and people-oriented, people-centred ASEAN. The key action lines defined in the AEC Blueprint 2025 parallel the areas typically addressed in FTAs. These measures specify the provisions that will promote and support AEC integration and identify the ASEAN agreements to be integrated into FTAs.

A highly integrated and cohesive economy. This goal covers six primary areas, addressing more FTA-related issues than any other goal. The strategic measures cover the trade in goods (A1); trade in services (A2); the investment environment (A3); financial integration, inclusion, and stability (A4); facilitation of the movement of skilled labour and business visitors (A5); and enhancement of participation in global value chains (A6). The aim is to reduce or eliminate regulatory barriers, both at and behind borders, to facilitate competitive, efficient, and seamless movement of goods within the region. Table 17.3 summarises the strategic measures and key action lines related to this goal, with the third column specifying the ASEAN agreements that should guide the development of FTA provisions in each area.

Aligning ASEAN agreements with FTAs is essential to foster and support economic integration within the AEC. The strategic measures associated with this goal also emphasise the most relevant FTA provisions, including trade liberalisation in goods, investment, and services, with particular focus on financial services and the movement of skilled labour and business visitors.

A competitive, innovative, and dynamic ASEAN. The AEC's second objective underscores key provisions that align AEC integration efforts with FTA commitments. The key action lines relevant to FTA negotiations include effective competition policy (B1), strengthening cooperation on intellectual property rights (B3), and promoting sustainable economic development (B8). The ASEAN Competition Action Plan (2016–2025) serves as the foundation for completing the legal framework on competition policy and law within the region.

The strategic measures emphasise developing a legal framework for competition, harmonising competition policy terminology amongst AMS, updating the 5-year Regional Capacity Building Roadmap, enhancing national institutional capacities relevant to competition policy, and increasing awareness of competition policy and its interface with other economic areas. Competition policy is recognised as one of the most difficult areas of economic governance in the context of trade policy (Anderson et al., 2020, 2018). In addition, a clear commitment to aligning AEC and FTA provisions is outlined in strategic measure 32 of the Consolidated Strategic Action Plan: 'Ensure alignment of competition policy chapters that are negotiated by ASEAN under the various FTAs with Dialogue Partners and other trading nations with competition policy and law in ASEAN to maintain consistency on the approach to competition policy and law in the region'.

The key objectives under B3 (strengthening intellectual property rights cooperation) encompass measures aimed at strengthening domestic intellectual property (IP) offices and building IP infrastructure within AMS, contributing to a solid ASEAN IP system. ASEAN objectives include the development of regional IP platforms and infrastructure, and the expansion of the ASEAN IP ecosystem, involving cooperation amongst intellectual property bodies, the judiciary, customs, and other enforcement agencies within member countries. A particular focus is the goal of promoting the commercialisation of geographical indications in ASEAN and establishing a protection mechanism for genetic resources, traditional knowledge, and traditional cultural expressions. For instance, the creation of a geographical indication registry could become a new area for negotiation as ASEAN seeks new FTA partners.

Table 17.3. A Highly Integrated and Cohesive Economy: Elements and Objectives

Element	Objective	Relevant ASEAN agreement
A1. Trade in Goods	Reduce or eliminate border and behind-the-border regulatory barriers	ASEAN Trade in Goods Agreement (ATIGA)
A2. Trade in Services	Broaden and deepen services integration within ASEAN and its integration into global supply chains, enhancing AMS competitiveness	ASEAN Trade in Services Agreement (ATISA)
A3. Investment Environment	Establish an open, transparent, and predictable investment regime to enhance ASEAN's attractiveness as an investment destination	ASEAN Comprehensive Investment Agreement (ACIA)
A4. Financial Integration, Financial Inclusion, and Financial Stability	Support ASEAN macroeconomic stability and growth	ASEAN Banking Integration Framework (ABIF); ASEAN Framework Agreement on Services (AFAS) within ASEAN Trade in Services Agreement (ATISA)

Element	Objective	Relevant ASEAN agreement
A5. Facilitating Movement of Skilled Labour and Business Visitors	Enable temporary cross-border movement of skilled individuals and business visitors involved in trade, services, and investment	ASEAN Agreement on Movement of Natural Persons (MNP); ASEAN Mutual Recognition Agreements; ASEAN Qualifications Reference Framework (AQRF)
A6. Enhancing Participation in Global Value Chains	Develop regional value chains to enhance ASEAN's participation in global value chains	

Source: ASEAN Economic Community 2025 Consolidated Strategic Action Plan.

To ensure alignment with ASEAN's strategic goals, the *ASEAN Intellectual Property Rights Action Plan 2016–2025* should guide any FTA negotiations.

Regarding the goal of B8 (sustainable economic development), objectives include promoting green development that emphasises the use of clean energy and related technologies such as renewable energy and fostering sustainable consumption and production. Strategic measures focus on collective targets to support the development of renewable energy. FTA negotiations should align with the *ASEAN Plan of Action for Energy Cooperation (APAEC) 2016–2025*. Strategic measures also support the development and utilisation of efficient and cost-efficient low-carbon technologies, free trade in biofuels within ASEAN, and investment in research and development (R&D) for third-generation biofuels to encourage their use in transport. Other strategic measures include promoting multilateral electricity trade under the ASEAN Power Grid framework and cooperation on the use of liquefied natural gas (LNG) through the Trans-ASEAN Gas Pipeline, enhancing regional connectivity. Additional key action lines aim to support the *ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture, and Forestry* to address food security and investment needs in these sectors. They also focus on developing new technologies and best practices for food safety, harmonising ASEAN-level standards, and accrediting and certifying food, agricultural and forestry products. Further action lines are devoted to conserving natural resources such as soil, forests, and water, and to reducing greenhouse gas emissions. Notably, measures to promote sustainable forest management emphasise the importance of coordinating policies between forestry and related sectors. The *Strategic Plan of ASEAN Cooperation in Food, Agriculture and Forestry 2016–2025* outlines the goals in this area, and any FTA strategy should align with the action plan's provisions.

Enhanced connectivity and sectoral cooperation. Strategic measures aim to reinforce the objectives outlined under the theme of A Competitive, Innovative, and Dynamic ASEAN, the second goal stipulated in the AEC Blueprint 2025. Strategic measures relevant to FTA negotiations include the development of sustainable transport systems that prioritise low carbon, user-friendly solutions, energy efficiency, integrated transport networks, and sustainable land-use planning.

The set of key action lines under C3 (E-commerce) is particularly important for negotiating FTAs in the digital era. The objective is to promote the growth of e-commerce and facilitate its development within the ASEAN region. Strategic measures for the AEC include a wide range of harmonisation measures. These cover consumer rights and protection laws, a legal framework for dispute resolution, and e-identification and authorisation (electronic signature) schemes based on principles of interoperability and mutual recognition, ensuring that they are secure, reliable, and user-friendly. A comprehensive framework for personal data protection is required to implement the ASEAN Framework on Personal Data Protection Framework.³

Resilient, inclusive, and people-oriented, people-centred ASEAN. This goal focuses on strengthening the role of micro, small, and medium-sized enterprises (MSMEs) in line with the ASEAN Strategic Action Plan for SME [Small and Medium-Sized Enterprise] Development, 2015–2025, which is important for ASEAN's FTA strategy. Specific strategic measures and key action lines aim to enhance MSME productivity through innovation, industry clusters, private–public dialogue, and business–academia collaboration. Other strategic measures include improving MSMEs' access to finance by strengthening financial infrastructure and creating a conducive policy environment to support their activities. The ASEAN SME Service Centre is responsible for facilitating market access and internationalisation of MSMEs, with a key action line focused on improving market information, advancing FTAs, and identifying potential partners. This goal is linked to the promotion of e-commerce to foster partnerships between MSMEs and multinational firms, enabling their integration into the global supply chain. Negotiations focusing on MSMEs and e-commerce are likely to be crucial for ASEAN as interconnected areas of strategic importance.

6. Putting It All Together

The AEC Blueprint 2025, along with the accompanying Consolidated Strategic Action Plan, offers vital, substantive guidance on negotiation areas, their goals and linkages, as well as ASEAN programmes that will align regional integration within the AEC with external FTA projects. Table 17.4 summarises the blueprint's goals and elements, with those in boldface highlighting the key negotiating areas essential for ASEAN integration and alignment with upcoming FTA projects.

Several key negotiation areas fall under the theme of Highly Integrated and Cohesive Economy, covering central issues in trade liberalisation, including trade in goods, services, investment environment, commercial presence, and movement of persons. Competition policy, intellectual property rights, and sustainable economic development are major negotiating areas under the theme of A Competitive, Innovative, and Dynamic ASEAN. The theme Global Megatrends and Emerging Trade-Related Issues covers e-commerce and agriculture, whilst A Resilient, Inclusive, and People- Oriented, People-Centered ASEAN focuses on MSMEs. Finally, Global ASEAN provides direct guidance on FTAs, encompassing the review of existing agreements, the upgrading of trade and investment frameworks to full FTAs, and seeking stronger engagement with regional agreements through APEC and the Eurasian Economic Union.

³ <https://asean.org/wp-content/uploads/2012/05/10-ASEAN-Framework-on-PDP.pdf>. (accessed 24 November 2024).

7. The RCEP Agreement as a Baseline

In pursuing FTAs with non-ASEAN partners, whether by upgrading existing trade and investment partnerships or seeking new FTA projects, the RCEP should be used as the baseline for negotiations. The RCEP is ASEAN's most recently concluded trade agreement and one that has been in effect since 1 January 2022. As the most recent agreement to include all ASEAN members as signatories, the RCEP represents ASEAN's highest standard of commitment in trade liberalisation, as it consolidates numerous ASEAN + 1 FTAs. This suggests that the RCEP provisions are at least minimally aligned with ASEAN's ongoing regional integration goals as outlined in the AEC framework.

The key provisions of the RCEP suggest that this comprehensive FTA surpasses the scope and sophistication of ASEAN+1 FTAs, which are individual agreements between ASEAN and the six negotiating partners of RCEP. The RCEP's legal text comprises 20 substantive chapters and four annexes. These chapters cover various areas, including trade in goods; rules of origin; customs procedures and trade facilitation; sanitary and phytosanitary measures; standards, technical regulations, and conformity assessment procedures; trade remedies; trade in services; temporary movement of natural persons; investment; intellectual property; and electronic commerce, competition; small and medium-scaled enterprises; economic and technical cooperation; government procurement; and dispute settlement. Chapter 20, Final Provisions, details the RCEP's relationship with the WTO, conditions for entry into force, and provisions for accession and withdrawal. Government procurement, notably included in the RCEP, is a substantive chapter not previously included in existing FTAs (Shimizu, 2021). The annexes include member countries' individual tariff schedules, schedules of specific commitments for services, schedules of reservations and non-conforming measures for services and investment, and schedules of specific commitments on temporary movement of natural persons.

Table 17.4. ASEAN 2025: Forging Ahead Together

ASEAN Economic Community Blueprint 2025	
A. Highly Integrated and Cohesive Economy	
A1	Trade in Goods
A2	Trade in Services
A3	Investment Environment
A4	Financial Integration, Financial Inclusion, and Financial Stability
A5	Facilitating Movement of Skilled Labor and Business Visitors
A6	Enhancing Participation in Global Value Chains
B. A Competitive, Innovative and Dynamic ASEAN	
B1	Effective Competition Policy
B2	Consumer Protection
B3	Strengthening Intellectual Property Rights Cooperation
B4	Productivity-Driven Growth, Innovation, Research and Development, and Technology Commercialization
B5	Taxation Cooperation
B6	Good Governance
B7	Effective, Efficient, Coherent, and Responsive Regulations, and Good Regulatory Practice
B8	Sustainable Economic Development
B9	Global Megatrends and Emerging Trade-Related Issues

ASEAN Economic Community Blueprint 2025

C. Enhanced Connectivity and Sector Cooperation

- C1 Transport
- C2 Information and Communications Technology
- C3 E-Commerce
- C4 Energy
- C5 Food, Agriculture and Forestry
- C6 Tourism
- C7 Healthcare
- C8 Minerals
- C9 Science and Technology

D. A Resilient, Inclusive, People-Oriented and People-Centered ASEAN

- D1 Strengthening the Role of Micro, Small, and Medium Enterprises
- D2 Strengthening the Role of the Private Sector D3 Public-Private Partnerships
- D4 Narrowing the Development Gap
- D5 Contribution of Stakeholders on Regional Integration Efforts

E. A Global ASEAN

- Steady progress towards integrating the region into the global economy through FTAs and comprehensive economic partnership agreements (CEPs), etc.

Source: ASEAN Economic Community Blueprint 2025.

8. Regional Comprehensive Economic Partnership and ASEAN+1 Free Trade Agreements

The suitability of the RCEP as the baseline agreement for the AEC's FTA strategy is evident when compared to existing ASEAN+1 FTAs. Table 17.5, constructed using data from the Design of Trade Agreements (DESTA) (Dür et al., 2014), shows the depth of trade agreements. The table presents depth as an additive index derived from provisions across seven key negotiating areas, with each provision coded 1 if included in the agreement and 0 if not. The first provision – FTA – indicates whether the agreement commits signatories to reduce all tariffs (with limited exceptions) to zero in the future, thereby signalling support for the formation of a full free trade area. The remaining six areas – standards, investment, services, procurement, competition, and intellectual property rights – are assessed to determine the extent of commitments to trade cooperation beyond tariff liberalisation. The DESTA database captures substantive provisions for each negotiation topic; for instance, a detailed National Treatment provision in the Services chapter, as opposed to a general statement promoting market liberalisation. The total depth index, with a maximum of 7, is calculated by summing the binary values of the provisions.⁴

⁴ The DESTA database also codes for flexibility, the strength of dispute settlement provisions, and an alternative measure of depth. This analysis uses a basic additive index, constructed from dichotomous indicators that show whether key chapters are included.

The RCEP agreement achieves the highest depth score of 7, representing the most comprehensive set of commitments adopted collectively by AMS (Table 17.5). The RCEP plays a crucial role in promoting regional integration within the AEC by harmonising the rules and regulations found in existing FTAs between ASEAN and its RCEP partners. This harmonisation effectively multilateralises the commitments of FTAs and strengthens links with WTO agreements, supporting the goal of a Global ASEAN as outlined in the AEC Blueprint 2025.

Table 17.5. Depth of Regional Comprehensive Economic Partnership and ASEAN+1 Free Trade Agreements

Agreement	Year signed	FTA	Standards	Investment	Services	Procurement	Competition	IPRs	Depth (DESTA)
ASEAN FTA	1992	1	1	0	0	0	0	0	2
ATIGA	2009	1	1	0	0	0	0	0	2
ASEAN–India	2009	1	1	0	0	0	0	0	2
ASEAN–China	2007	1	1	0	1	0	0	0	3
ASEAN–Japan	2008	1	1	1	0	0	0	0	3
ASEAN–Korea	2007	1	1	0	1	0	0	0	3
ASEAN–Australia–New Zealand	2009	1	1	1	1	0	1	1	6
RCEP	2021	1	1	1	1	1	1	1	7

ASEAN FTA = Association of Southeast Asian Nations Free Trade Agreement, DESTA = Design of Trade Agreements, IPRs = intellectual property rights, RCEP = Regional Comprehensive Economic Partnership.

Source: DESTA, author coding for RCEP.

Beyond these provisions, the RCEP has unified rules of origin requirements (ROOs), consolidating these standards for its 15 signatories. This harmonisation ensures that all traded goods adhere to common ROO and cumulation rules. Chapter 3 of the RCEP agreement, which follows Chapter 2 on trade in goods, includes Article 3.4 on cumulation, stating: ‘...goods and materials which comply with the origin requirements provided in Article 3.2 (Originating Goods), and which are used in another Party as materials in the production of another good or material, shall be considered as originating in the Party where working or processing of the finished good or material has taken place’. This ensures that production and value added within RCEP member countries qualify for preferential treatment. Consequently, firms can use intermediate goods from RCEP partners, and the final product will maintain its originating status, qualifying for trade preferences under the agreement.

9. The Next Frontier: Governance of Digital Trade

The WTO defines digital trade as ‘all international trade transactions that are digitally ordered and/or digitally delivered’ (Fund et al., 2023). Digital trade has emerged as one of the most dynamic and fastest-growing areas of global trade and the broader global economy. In 2022, global exports of digital trade were valued at US\$3.8 trillion, representing 54% of the global services exports and 12% of total world’s exports in goods and services. From 2005 to 2022, digitally delivered services grew at an estimated average annual rate of 8.1%, surpassing the growth rate of goods exports (5.6%) and other service exports (4.2%) (OECD, 2023).

Given the rapid rise of digital trade as a significant part of global trade, the AEC’s FTA strategy should be anchored in its e-commerce goals and the ongoing negotiations of the Digital Economy Framework Agreement (DEFA). The DEFA negotiations were announced on 3 September 2024 at the ASEAN Economic Community Council meeting, following the endorsement of the ASEAN DEFA by the ASEAN economic ministers held earlier in August. The study identified nine core areas of interest for ASEAN, including digital trade, cross-border e-commerce, cybersecurity, digital ID, digital payments, cross-border data flows, and flexibility for emerging issues to be proposed for negotiations in the framework agreement.

ASEAN’s FTA strategy for digital trade should follow a two-fold approach. First, ASEAN should explore joining the DEPA, signed on 12 June 2020 by Singapore, Chile, and New Zealand. DEPA is a pioneering agreement focusing on digital trade issues, promoting innovative approaches and cooperation in digital trade governance. Its main priorities include ensuring interoperability between different regulatory frameworks and addressing challenges brought by digitalisation. DEPA’s key objectives include i) facilitating digital trade through measures such as digital identities, e-invoicing, and paperless trade, along with fintech sector cooperation; ii) promoting trust in data flows by enhancing personal data protection, supporting open government data, enabling cross-border data flows, and promoting data-driven innovation across member states; and iii) building trust in digital systems, supporting SME capacity-building, protecting online consumers, and advancing digital inclusivity. The DEPA is a stand-alone agreement dedicated to governance in the digital economy, encompassing trade and addressing broader issues of trust and inclusivity within this rapidly evolving sector. Its scope aligns with and overlaps the negotiating areas of ASEAN’s DEFA, creating significant opportunities for fruitful collaboration. This is especially promising as Singapore is a party in both initiatives.

The other strategy focuses on pursuing commitments for digital trade liberalisation within the FTAs themselves. The RCEP, ASEAN’s most recent community FTA, includes a chapter dedicated to electronic commerce. The chapter outlines commitments related to cooperation amongst SMEs; trade facilitation measures such as paperless trading, electronic authentication, and electronic signatures (related to digital IDs); and the establishment of an environment conducive to electronic commerce, emphasising online consumer protection, personal data security, domestic regulatory frameworks, customs duties (specifically the prohibition of such duties on electronic transmissions amongst signatories), transparency, and cybersecurity. It promotes cross-border electronic commerce, addressing the location

⁵ ‘ASEAN launches world’s first regionwide Digital Economy Framework Agreement’ (ASEAN, 3 September 2023).

of computing facilities and the transfer of information by electronic means, whilst including provisions for continued dialogue on electronic commerce and mechanisms for dispute settlement. The scope of these commitments aligns with ASEAN's governance objectives in the ongoing negotiations of ASEAN's DEFA and the DEPA signed by Singapore, Chile, and New Zealand.

ASEAN's FTA strategy for digital trade and e-commerce would benefit from a two-fold strategy: pursuing a stand-alone digital trade agreement and incorporating digital trade and e-commerce commitments as dedicated chapters within comprehensive FTAs. When seeking membership in digital-only agreements such as the DEPA, ASEAN should ensure that its strategy aligns with its ongoing negotiations for the DEFA. In pursuing e-commerce or digital trade chapters as components of comprehensive FTAs, ASEAN's strategy should build upon the commitments established in the RCEP, its most recent FTA. This dual strategy enables ASEAN to advocate for its interests through two distinct governance frameworks: stand-alone agreements and comprehensive FTAs. The stand-alone agreements, like the DEPA, are particularly beneficial for addressing new and evolving issues, given their nature as 'living agreements'. Conversely, comprehensive FTAs create connections between e-commerce and other key areas vital for developing the AEC as a unified market and production zone. Looking ahead, the future of digital trade and digital economy governance remains uncertain. Institutionally, the regulation of digital trade and the digital economy may continue along two paths: stand-alone agreements and FTA chapters. In either scenario and considering that the importance of digital economy governance is set to increase in the coming years, it is in ASEAN's best interest to pursue harmonisation and liberalisation through both channels.

10. Conclusion: Harmonisation Within, Liberalisation Without

This chapter has outlined a forward-looking framework for ASEAN's FTA strategy, aligned with the progress of the AEC and its regional economic integration goals. Analysis of ASEAN's current FTAs, the AEC Blueprint 2025 and its Consolidated Strategic Action Plan, alongside the challenges and opportunities posed by the expanding digital economy, has led to several key recommendations for advancing ASEAN's FTA initiatives. Central to these recommendations is the idea that ASEAN's FTA strategy should encompass both internal harmonisation and external liberalisation. Harmonisation is essential for the continued economic integration of the ASEAN region, whilst liberalisation reflects ASEAN's commitment to open regionalism, facilitating economic exchange with external trade and investment partners. The specific recommendations are as follows:

- Leverage FTAs of individual ASEAN members by exploring the possibility of upgrading them to ASEAN agreements that include all member states. For instance, ASEAN could consider new FTAs with Chile, Peru, the EU, the EFTA group, the United Kingdom, Türkiye, and Pakistan (Table 2). These countries already have FTAs with individual AMS, and negotiating these up to ASEAN agreements would enhance regional trade cohesion.
- Anchor FTA commitments in the objectives of the AEC's internal goals, ensuring that provisions align with the strategic measures and key action lines outlined in the AEC Blueprint 2025. This consistency guarantees that FTA projects evolve in step with the AEC's development.

- Use the RCEP as a baseline for future FTA negotiations. The RCEP consolidates 38 FTAs amongst its signatories, including ASEAN and individual member agreements, and harmonises key provisions such as rules of origin. This approach supports cross-border production and facilitates the trade and investment activities of multinational firms in the region. Basing new FTAs on the RCEP ensures that important trade rules remain harmonised across AMS and their partners, preventing fragmentation.
- Adopt a two-fold strategy for digital trade by considering accession to the stand-alone DEPA and by building on the e-commerce chapter of the RCEP to include similar or more advanced commitments in future FTAs. With the rapidly evolving landscape of digital trade governance, the two-fold approach ensures that ASEAN retains flexibility in determining the most effective pathway for digital trade governance, whether through standalone agreements or leveraging the existing framework.

These recommendations outline an ASEAN FTA strategy designed to reinforce ASEAN centrality and its pivotal role in promoting regional integration and open regionalism across Asia. ASEAN centrality, in both theory and practice, has significantly influenced Asia's political economy in the post-Cold War period. The ASEAN Way, marked by consensus and consultation, serves as a distinctive decision-making approach. This approach has been evident since the early post-Cold War years, exemplified by instances such as the Kuching Consensus adopted by the APEC forum (Damond, 2003; Elek, 2005; Elek and Soesastro, 2010).

As a theoretical construct, ASEAN centrality embodies two key characteristics. First, it underscores the 'actorness' of ASEAN in international arenas. Although the concept of actorness has traditionally been associated with the EU as a unified entity in international politics (Bretherton and Vogler, 2005; Broude and Haftel, 2022), it is equally applicable to ASEAN, which functions as a cohesive actor in Asia and in major international fora. ASEAN's actorness is evident in the capacity of its member states to collaborate and advocate for shared interests in the pursuit of economic integration. This cooperative endeavour, achieved without any transfer or pooling of sovereignty, is a defining feature of ASEAN's unique brand of actorness. Notably, ASEAN distinguishes itself as a distinct actor in Asia's international politics by successfully engaging with external actors and assuming a prominent role in the establishment of Asia's institutional architecture. Thus, ASEAN's actorness is unparalleled as a regional organisation originating from the Global South.

Secondly, ASEAN centrality is intrinsically connected to the ASEAN Way, a distinctive decision-making process characterised by consultation and consensus amongst the AMS to address differences and reach shared agreements (Acharya, 2009; Goh, 2000; Narine, 1997; Yukawa, 2018). This normative aspect of ASEAN centrality values informal practices of consultation and consensus as essential for facilitating cooperation amongst governments. In the early post-Cold War years, ASEAN's use of these practices was seen as a way to cultivate 'trust and confidence and instill habits of cooperation and consultation' amongst countries in the wider Asia-Pacific region (Snitwongse, 1995).

ASEAN's pursuit of deeper economic integration is taking place amidst an unprecedented level of tension between the US and China in the post-Cold War period. This rivalry has manifested through the US–China trade war, which began in 2016, and the emergence of competing institutions such as the RCEP, the CPTPP, and the recent Indo-Pacific Economic Framework spearheaded by the US. Geoeconomic factors (Luttwak, 1990; Blackwill and Harris, 2016) continue to shape Asia's political and economic exchanges, particularly in trade policy (Harding and Harding, 2017; Adriaensen and Postnikov, 2022). In response, ASEAN must continue to assert its centrality in pursuing its FTA projects.

References

- Acharya, A. (1998), 'Culture, Security, Multilateralism: The 'ASEAN Way' and Regional Order', *Contemporary Security Policy*, 19(1), pp.55–84.
- Acharya, A. (2009), *Constructing a Security Community in Southeast Asia: ASEAN and the Problem of Regional Order*. London: Routledge.
- Adriaensen, J. and E. Postnikov (2022), *Geo-Economic Turn in Trade Policy? New York: Springer*.
- Anderson, R.D., W.E. Kovacic, A.C. Muller, A. Salgueiro, and N. Sporysheva (2020), 'Competition Policy and the Global Economy: Current Developments and Issues for Reflection', *George Washington Law Review* 88, 1421.
- Anderson, R.D., W.E. Kovacic, A.C. Müller, and N. Sporysheva (2018), *Competition Policy, Trade and the Global Economy: Existing WTO Elements, Commitments in Regional Trade Agreements, Current Challenges and Issues for Reflection*. Working Paper.
- Blackwill, R.D. and J.M. Harris (2016), *War by Other Means: Geoeconomics and Statecraft*. Cambridge, MA: Harvard University Press.
- Bretherton, C. and J. Vogler (2005), *The European Union as a Global Actor*. London: Routledge.
- Broude, T. and Y.Z. Haftel (2022), 'The Growing Pains of Actorness: The European Union in Global Investment Governance', *Journal of European Integration* 44.5, pp.749–68.
- Damond, J.M. (2003), 'The APEC Decision-making Process for Trade Policy Issues', in Richard Feinberg, (ed.), *APEC as an institution: multilateral governance in the Asia-Pacific*, Volume 7. Singapore: Institute of Southeast Asian Studies.
- Dür, A., L. Baccini, and M. Elsig (2014), 'The Design of International Trade Agreements: Introducing a New Dataset', *The Review of International Organizations*, 9, pp.353–75.
- Elek, A. (2005), 'Back to Canberra: Founding Apec', *The Evolution of PECC: The first 25*, pp.66–85.
- Elek, A. and H. Soesastro (2010), '10 APEC: Origins, Rationale, Evolution, Achievements and Potential', *International Institutions and Economic Development in Asia*, p.182.
- Goh, G. (2000), The 'ASEAN Way', *Pacific Review*, 13 (3), p.439.
- Harding, R. and J. Harding (2017), *The Weaponization of Trade: The Great Unbalancing of Politics and Economics*. London Publishing Partnership.
- Organisation for Economic Co-operation and Development, World Trade Organization, International Monetary Fund (2020), *Handbook on measuring digital trade*, Second Edition. https://www.oecd.org/en/publications/handbook-on-measuring-digital-trade-second-edition_ac99e6d3-en.html. (accessed 24 November 2024).
- Luttwak, E.N. (1990), 'From Geopolitics to Geo-economics: Logic of Conflict, Grammar of Commerce', *The National Interest*, 20, pp.17–23.

Narine, S. (1997), ASEAN and the ARF: The Limits of the 'ASEAN Way', *Asian Survey*, 37(10), pp.961–78.

Shimizu, K. (2021), 'The ASEAN Economic Community and the RCEP in the World Economy', *Journal of Contemporary East Asia Studies*, 10(1), pp.1–23.

Snitwongse, K. (1995), 'ASEAN's Security Cooperation: Searching for a Regional Order', *The Pacific Review*, 8 (3), pp.518–30.

World Trade Organization (2023), *Global Trade Outlook and Statistics*. https://www.wto.org/english/res_e/statis_e/statistics2023_e.htm#:~:text=In%202023%2C%20world%20trade%20in,trajectory%2C%20increasing%20by%209%25 (accessed 24 November 2024).

Yukawa, T. (2018), 'The ASEAN Way as a Symbol: An Analysis of Discourses on the ASEAN Norms', *The Pacific Review*, 31(3), pp.298–314.

Table 17A.1. Singapore's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
China	China–Singapore Free Trade Agreement	23 Oct 2008	01 Jan 2009
Republic of Korea	Republic of Korea–Singapore Free Trade Agreement	04 Aug 2005	02 Mar 2006
India	India–Singapore Comprehensive Economic Cooperation Agreement	29 Jun 2005	01 Aug 2005
Japan	Japan–Singapore Economic Partnership Agreement	13 Jan 2002	30 Nov 2002
Australia	Singapore–Australia Free Trade Agreement	17 Feb 2003	28 Jul 2003
New Zealand	New Zealand–Singapore Closer Economic Partnership	14 Nov 2000	01 Jan 2001
Peru	Peru–Singapore Free Trade Agreement	28 May 2008	01 Aug 2009
European Union	European Union–Singapore Free Trade Agreement	19 Oct 2018	21 Nov 2019
Panama	Panama–Singapore Free Trade Agreement	01 Mar 2006	24 Jul 2006
United States	US–Singapore Free Trade Agreement	06 May 2003	01 Jan 2004
Costa Rica	Singapore–Costa Rica Free Trade Agreement	06 Apr 2010	01 Jul 2013
Jordan	Singapore–Jordan Free Trade Agreement	16 May 2004	22 Aug 2005
Sri Lanka	Sri Lanka–Singapore Free Trade Agreement	23 Jan 2018	01 May 2018
Türkiye	Türkiye–Singapore Free Trade Agreement	14 Nov 2015	01 Oct 2017
United Kingdom	United Kingdom–Singapore Free Trade Agreement	10 Dec 2020	11 Feb 2021
Gulf Cooperation Council	Gulf Cooperation Council–Singapore Free Trade Agreement	15 Dec 2008	01 Sep 2013
European Free Trade Association	European Free Trade Association–Singapore Free Trade Agreement	26 Jun 2002	01 Jan 2003
Canada, Australia, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Viet Nam	Comprehensive and Progressive Agreement for Trans-Pacific Partnership	08 Mar 2018	30 Dec 2018

Table 17A.2. Malaysia's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
India	India–Malaysia Comprehensive Economic Cooperation Agreement	18 Feb 2011	01 Jul 2011
Japan	Japan–Malaysia Economic Partnership Agreement	13 Dec 2005	13 Jul 2006
Australia	Australia–Malaysia Free Trade Agreement	22 May 2012	01 Jan 2013
New Zealand	New Zealand–Malaysia Free Trade Agreement	26 Oct 2009	01 Aug 2010
Türkiye	Malaysia–Türkiye Free Trade Agreement	17 Apr 2014	01 Aug 2015
Chile	Malaysia–Chile Free Trade Agreement	13 Nov 2010	18 Apr 2012
Pakistan	Malaysia–Pakistan Closer Economic Partnership Agreement	08 Nov 2007	01 Jan 2008

Table 17A.3. Viet Nam Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
Republic of Korea	Republic of Korea–Viet Nam Free Trade Agreement	05 May 2015	20 Dec 2015
Japan	Japan–Viet Nam Economic Partnership Agreement	25 Dec 2008	01 Oct 2009
European Union	Viet Nam–European Union Free Trade Agreement	30 Jun 2019	01 Aug 2020
United Kingdom	Viet Nam–United Kingdom Free Trade Agreement	01 Jan 2021	01 May 2021
Chile	Viet Nam–Chile Free Trade Agreement	11 Nov 2011	14 Mar 2012
Eurasian Economic Union	Viet Nam–Eurasian Economic Union Free Trade Agreement	29 May 2015	05 Oct 2016

Table 17A.4. Indonesia's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
Australia	Indonesia–Australia Comprehensive Economic Partnership Agreement	04 Mar 2019	05 Jul 2020
Japan	Indonesia–Japan Economic Partnership Agreement	20 Aug 2007	01 Jul 2008
European Union	Indonesia–European Union Comprehensive Economic Partnership Agreement	18 Jul 2016	01 Nov 2021
European Free Trade Association	Indonesia–European Free Trade Association Free Trade Agreement	16 Dec 2018	01 Nov 2021
Chile	Indonesia–Chile Free Trade Agreement	14 Dec 2017	08 Oct 2019
Pakistan	Indonesia–Pakistan Free Trade Agreement	03 Feb 2012	13 Sep 2013

Table 17A.5. Thailand's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
Japan	Japan–Thailand Economic Partnership Agreement	03 Apr 2007	01 Nov 2007
Australia	Australia–Thailand Free Trade Agreement	05 Jul 2004	01 Jan 2005
New Zealand	New Zealand–Thailand Closer Economic Partnership Agreement	19 Apr 2005	01 Jul 2005
Peru	Thailand–Peru Free Trade Agreement	18 Nov 2010	31 Dec 2011
Chile	Thailand–Chile Free Trade Agreement	04 Oct 2013	05 Nov 2015

Table 17A.6. Brunei Darussalam's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
Japan	Brunei Darussalam–Japan Free Trade Agreement	18 Jun 2007	31 Jul 2008

Table 17A.7. Cambodia's Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
China	Cambodia–China Free Trade Agreement	01 Jan 2022	12 Oct 2020

Table 17A.8. Philippines Free Trade Agreements in Effect

Partner	Name of Free Trade Agreement	Date Signed	In Effect
European Free Trade Association	Philippines–European Free Trade Association Free Trade Agreement	28 Apr 2016	01 Jun 2018



Part IV

Enabling the AEC – From Governance to Monitoring

18.

Towards a Resilience Agenda for the Post-2025 ASEAN Economic Community

Julia Tijaja and Albert Sanghoon Park

1. Introduction

As the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) approaches the last mile of its 2025 journey, preparations for its post-2025 strategic plan are underway to support the operationalisation of the ASEAN Community Vision 2045. Whilst neither the plan nor the vision is publicly available yet, they will need to address at least three foreseeable challenges.

First, geopolitical and geoeconomic forces will continue to shape global dynamics for years to come, marking the end of a unipolar period of past decades. Second, ASEAN recognises the increasingly complex, cross-cutting challenges facing the region. These challenges require more effective cross-sector and cross-pillar coordination, raising associated institutional difficulties. Third, the AEC needs a more agile approach to support the ambitious 20-year vision, requiring improved planning and decision-making processes across AEC stakeholders. Altogether, these challenges call for greater regional resilience to deliver the post-2025 AEC agenda and the ASEAN Community Vision 2045.

In an era marked by heightened risk and uncertainty, international policymakers are increasingly prioritising resilience as a strategic goal. Resilience is often described as the ability to 'bounce back' from stressors and shocks. More ambitious interpretations involve structural transformation towards green transition and sustainable development, focusing on 'bouncing forward' rather than just 'bouncing back'. These differing perspectives present both opportunities and challenges for building resilience within ASEAN.

One significant issue is the ambiguity amongst policy stakeholders regarding appropriate definitions of and methods for building resilience, and ASEAN is no exception. Despite the growing use of resilience language within ASEAN, there is no shared framework or common terms of reference for coordinating resilience-building efforts. This lack of coherence suggests a missed opportunity for articulating and implementing

an AEC and broader ASEAN resilience agenda, whilst also posing the risk of being influenced – if not disadvantaged – by external resilience agendas that may not adequately reflect the region's priorities or interests.

This chapter argues that resilience can serve as a pathway to achieve regional objectives, addressing key challenges for post-2025 AEC strategic planning in alignment with the ASEAN Community Vision 2045. Whilst a full AEC or ASEAN resilience agenda extends beyond this chapter's scope, it sheds light on potential directions for the post-2025 AEC agenda. This includes an analysis of the term's growing significance and application, an exploration of how resilience works within ASEAN's past policies, and an examination of present geopolitical and geoeconomic contexts. The chapter concludes with policy recommendations, suggesting pathways for what a resilience agenda could look like for the post-2025 AEC.

1.1. Present Challenges and the Need for an AEC and ASEAN Resilience Agenda

This section highlights the present challenges facing ASEAN and the AEC, underscoring the need for a regional resilience agenda. Firstly, geopolitical and geoeconomic tensions continue to grow with little sign of abating. What began as a simple tariff war between the United States (US) and China in 2018 has expanded to include export restrictions (e.g. US advanced technology, Chinese critical minerals), capital flow controls (e.g. inward and outward investment), and indirect discriminatory subsidies. Increasingly, technology has become a new frontier for strategic competition. The ensuing fragmentation and decoupling may align with geopolitical and geoeconomic strategies but come at a significant cost, often borne by developing regions like ASEAN (Goes and Bekkers, 2022; IMF, 2023).

These geopolitical and geoeconomic challenges intersect with non-geopolitical factors. For example, some supply chains are already shifting away from China due to rising domestic labour costs (Storey, 2023). Not all diversification or de-risking efforts are geopolitically driven. Diversified sourcing to enhance supply chain resilience is a basis for risk management or good business sense (Park, Nayyar, and Low, 2013; Tijaja and Faisal, 2014). Amidst increasing risk and uncertainty, firms and governments must address systemic vulnerabilities. The frequency and severity of social-ecological shocks (e.g. natural and man-made disasters) and stressors (e.g. stagflation, global warming) have raised calls for systemic resilience. In a time marked by polycrisis or permacrisis, distinguishing, isolating, and addressing geopolitical, geoeconomic, and other systemic crises have become increasingly challenging.

The AEC and ASEAN community face similar struggles in navigating this multidimensional, interconnected polycrisis (Tijaja and Park, 2023). Such complexity exposes the AEC to manifold risks and uncertain headwinds, which, in turn, undermine confidence in the open, rules-based multilateralism that has supported AEC's growth over past decades. Instead, unilateral actions are becoming more common, to the detriment of multilateral norms.

This scenario points to a future where ASEAN may no longer be able to rely on the stability of past multilateral systems to safeguard regional economic interests. Whilst crises can present opportunities, how should ASEAN respond to a polycrisis? One potential solution lies in developing a regional ASEAN and AEC resilience agenda. This approach should not be misinterpreted as a rejection of multilateralism. On the contrary, regional and global multilateralism should reinforce each other. Strengthening multilateralism should be viewed as essential to ASEAN's resilience, opening global channels for cooperation on shared challenges or objectives (e.g. middle powers, South–South and triangular cooperation; see Ardhani and Alvian [2023], Howe and Park [2019], Park [2022])

Associating ASEAN resilience with resilient multilateralism also counters the risk of inward or isolationist responses to polycrisis and uncertainty. The entangled challenges of today, including climate change, pandemic recovery, and financial crises, all require collective action. Without concerted efforts to build resilient regional and global multilateralism, competition amidst economic uncertainty could lead to negative cycles and zero-sum outcomes (Park, 2022). As ASEAN Member States (AMS) refocus on national priorities, the risk of weakening ASEAN centrality and regional collective action increases. To mitigate the risk, AMS need clear evidence that ASEAN can deliver public goods and solutions beyond the capabilities of any single country (e.g. regional economic stability, transboundary haze management, maritime security).

The polycrisis framing ASEAN's post-2025 strategic plans presents an opportunity to reimagine how an ASEAN resilience agenda could strengthen ASEAN centrality and action in the face of regional risks and uncertainties. The opportunity is not one to be forfeited to external partners or other multilateral frameworks. Just as the term 'Indo-Pacific' gained prominence through the ASEAN Outlook on the Indo-Pacific, the concept of 'resilience' opens an opportunity to establish an agenda tailored to regional priorities (Anwar, 2020; Park, 2023). However, the opportunity is neither guaranteed nor obvious in present resilience policy discussions. Building an ASEAN resilience agenda requires a critical awareness of how resilience can be leveraged to serve regional priorities, including those highlighted in the ASEAN Community Vision 2045. To this end, it is important to start with a shared understanding of resilience and how it has been used by ASEAN and the AEC thus far.

1.2. What We Talk About When We Talk About Resilience

Resilience is often described in academia and policy as a system's ability to 'bounce back' or 'bounce forward' (Park, 2024). In theory, resilience can apply to any kind of system, whether mechanical, environmental, financial, or otherwise. It is, in fact, a concept used across a wide range of natural and social science disciplines, including economics, ecology, engineering, politics, and psychology. In its more technical applications, resilience is a precise concept. For example, it might indicate the speed at which a market recovers from financial shocks or serve as an alternative measure of mechanical strength, such as the tensile strength of bamboo compared to brittle ceramic or brick (Bellini, 2017; Park, 2023; Vitale et al., 2022).

However, in policy and practice, the term ‘resilience’ is often used less technically. Harkening back to the idea that ‘ambiguity is the lifeblood of diplomacy’, the term’s inherent ambiguity has allowed it to be used in multiple – and sometimes inconsistent – ways. This adaptability arguably enables another key feature of resilience: its ‘whole-of-society’ approach, which recognises systemic complexity and interconnectedness. For example, resilience in climate policy offers a common language for a wide range of actors and dimensions involved in social-ecological systems and climate action.

The ability to offer a common language points to a distinction between technical and political uses of resilience. Technically, resilience supports the consistent analysis of systemic risks and uncertainties, encompassing a broad tent of concepts and tools across an array of disciplines and sectors. In policy, this technical scope may extend to methods of foresight analysis, measurement scorecards, or specialised metrics for modelling risks (Kim and Marcouiller, 2020; Tan, 2021).

These technical approaches are, in turn, embedded in the political discourses that shape resilience policy and practice. Beyond its technical applications, resilience also serves specific policy priorities and interests, which raises not only the technical question of what resilience can measure but also the political question of who employs resilience and for whose benefit. Some critical scholars argue that resilience policies can perpetuate exclusionary or violent politics, such as neoliberal inequality or authoritarian practices (see Gutierrez [2020], Lewis and Sagnayeva [2020], and Wares [2022]).

Nonetheless, the political use of resilience does not inherently imply conflict or harm. Its broad tent of concepts, dimensions, and actors can also render politics as the ‘art of the possible’. Indeed, the rise of resilience policy can be associated with a shared reckoning with the need for effective cooperation against interconnected global threats. The past few decades have brought plenty of examples, from the coronavirus disease (COVID-19) pandemic to the global financial crisis, geopolitical instability, and worsening natural disasters.

Understanding the technical and political uses of resilience will be useful when considering ASEAN’s use of the term in the past, present, and future. Amidst the many ways in which policy actors speak about resilience, distinguishing between technical and political uses will be key to understanding both the possibilities and the limits of resilience policy in envisioning a post-2025 AEC.

1.3. Looking Back to Look Forward: How ASEAN and the AEC Have Used Resilience to Date

One compelling feature of resilience within ASEAN is its consistent application across all three community pillars, both in the past and present. Likewise, the AEC has harnessed resilience to respond to a growing array of regional challenges. This section draws on a systematic review of ASEAN policy documents to unpack the various resilience policies and associated initiatives. The review includes a content analysis of the ASEAN summit chairperson’s statements and ASEAN annual reports from 2004 to 2023. Three distinct waves of resilience policies can be identified in response to contemporaneous ASEAN challenges. It should be noted that the main methodology used for this section, i.e. content analysis, has its limitations. It captures only those instances where the term ‘resilience’ is explicitly mentioned in key ASEAN documents and may inadvertently exclude areas that implicitly contribute to the ASEAN resilience agenda.

The first wave, spanning from 2004 to 2012, represents a relatively modest set of resilience policies. This initial set encompasses all three key pillars of the ASEAN Community: the AEC, the ASEAN Political Security Community (APSC), and the ASEAN Socio-Cultural Community (ASCC). However, the drivers of these policies notably diverge across each pillar.

During the 2000s and 2010s, the AEC emphasised financial resilience in response to the 1997 Asian financial crisis, which led to the establishment of the Chiang Mai Initiative by the ASEAN+3 Finance Ministers' Meeting. The initiative was further strengthened into the Chiang Mai Initiative Multilateralism (CMIM) in 2010, following the 2008 global financial crisis. Additional efforts were made to monitor capital flows to bolster financial resilience against macroeconomic shocks. ASEAN also strengthened its financial resilience to natural disasters through disaster risk financing and insurance initiatives launched in 2011, which entered a second phase in 2019. Another AEC priority focused on strengthening the resilience of micro, small, and medium-sized enterprises (MSMEs), recognising their significant contribution to the ASEAN economy and employment. Although the practical measures undertaken to strengthen MSME resilience have not been readily apparent, the topic intersects with ASCC concerns, including priorities tied to social development and stable jobs for women and youth.

The ASCC was active in pursuing resilience policies related to disaster and youth resilience. Notable amongst these was the establishment of the ASEAN Coordinating Centre for Humanitarian Assistance in 2011 to enhance disaster resilience, motivated by the devastating 2004 Indian Ocean earthquake and tsunami. In contrast, the APSC produced the least explicit indicators of resilience policies, mainly through regular affirmations of its core aim to enhance 'national and regional resilience'.

Resilience policy language saw a notable increase in activity during a second wave from 2013 to 2019. Within the AEC, priorities concerning macroeconomic and SME resilience were extended into several adjoining sectors, such as energy and food security, trade and investment, tourism, and transport. Whilst the first wave was partly driven by the 2008 global financial crisis, the second was a response to the ensuing macroeconomic instability in capital markets and trade. In response, the AEC developed policy instruments, including insurance facilities and infrastructure funds, to support a growing resilience agenda that emphasised regional trade and economic integration.

The ASCC, in turn, expanded its previous focus on disaster resilience to encompass climate resilience. This significantly expanded the potential scope of resilience activities, enabling responses not only to sudden shocks (e.g. natural and manmade disasters) but also to chronic stressors exacerbated by climate change. The broadened approach included sector initiatives, such as promoting women's entrepreneurship, potentially aligning with AEC activities.

Beyond geoeconomic and environmental risks, the second period brought geopolitical risks. These required rapid responses to emerging security issues that were increasingly transnational and unconventional (e.g. non-military threats). Consequently, the APSC's resilience policy agenda expanded to include transnational crime, maritime security, terrorism, cyber resilience, and climate security. Echoing the rapid expansion in resilience agendas across all three pillars, 2018 was declared the year of 'An innovative and resilient ASEAN' under Singapore's ASEAN chairmanship (ASEAN, 2018).

However, the third wave of expansion in ASEAN resilience policies began with the onset of the COVID-19 pandemic in 2020, amidst growing geopolitical and geoeconomic risks. The period led to increased recognition of a state of polycrisis or permacrisis, where resilience policies and narratives were urgently put to work across all ASEAN pillars. Whilst previous waves pointed to potential alignments in addressing

interconnected challenges, the current wave has brought the most notable overlaps in policy challenges. The pandemic proved to be more than a health crisis; it demanded a whole-of-society response with cross-sector coordination. High levels of coordination were required across multiple social sectors (Kim and Kim, 2020). A key example of this response was the adoption of the ASEAN Comprehensive Recovery Framework (ACRF) and its Implementation Plan (Box 1; ASEAN 2020a, 2020b).

Box 1. ASEAN Comprehensive Recovery Framework: An Exit Strategy from the COVID-19 Pandemic

The framework was adopted in 2020 under Viet Nam's ASEAN chairmanship, as the region faced the unprecedented challenge of a global pandemic. The framework comprises five broad strategies: 1) enhancing health systems, 2) strengthening human security, 3) maximising the potential of the intra-ASEAN market and broader economic integration, 4) accelerating inclusive digital transformation, and 5) advancing towards a more sustainable and resilient future. The approach highlighted the region's recognition of the pandemic as a multidimensional crisis, extending beyond health. The framework is accompanied by an implementation plan that outlines priority initiatives and activities under the five initiatives, along with their outputs or deliverables, implementation phases (reopening, recovery, resilience), and the lead and supporting sector bodies. In practice, the initiatives cover both existing and planned initiatives and new undertakings.

Internally, the framework provides stakeholders within the region with confidence and clarity on ASEAN's path forward and the value it adds during challenging times. Externally, it signals ASEAN's strategic directions and regional cooperation priorities for overcoming the pandemic. The framework has received unanimous support from various partners and has been instrumental in mobilising support and prioritising resource allocation in the years following the pandemic. As ASEAN enters the post-pandemic phase, many of the framework's broad strategies remain relevant and are expected to inform the development of ASEAN's post-2025 agenda.

In addition to the framework, a few COVID-19-specific initiatives were introduced during the pandemic, including the ASEAN COVID-19 Response Fund (which evolved into the ASEAN Response Fund for Public Health Emergencies and Emerging Diseases), the ASEAN Centre for Public Health Emergencies and Emerging Diseases, and the Memorandum of Understanding on the Implementation of Non-Tariff Measures for Essential Goods.

The cross-sector and cross-pillar nature of resilience is evident in many of today's interconnected global challenges. For instance, maritime conflict and natural disasters have intensified pressure on supply chain resilience. Climate change has increased the burdens for the AEC, ranging from the need for climate and disaster insurance mechanisms to recurring risks of zoonotic diseases, future epidemics and pandemics, and the high costs associated with the green transition. Even the virtual space is vulnerable, as regional economic integration efforts increase the demand for critical cybersecurity infrastructure to strengthen regional cyber resilience.

The recent history of AEC and broader ASEAN resilience policies point to several triggers behind the growing influence of resilience in international policy. The first is the response to interconnected risks. The increasingly entangled nature of 21st-century international society has prompted a reckoning with globalisation and the interdependencies it fosters (Park, 2020, 2021). Resilience, as a conceptual response to systemic risks, addresses the limitations of past policy tools by recognising complexity and interconnectedness.

The second driver is resilience as a response to the pervasive effects of climate change. Policymakers have accepted that climate change is an enduring reality. Beyond mitigation efforts, they focus on climate change adaptation to minimise disruptions to daily social and economic activities. Together, these strategies form climate-resilient responses. For example, climate-resilient agriculture may include technological innovations that reduce water usage or encourage a shift to more climate-resilient crops. The third driver, particularly relevant to the AEC, is the response to disruptions in supply chains observed during the COVID-19 pandemic, when mobility and production restrictions affected the provision of essential goods and exposed vulnerabilities from supply chain over-concentration. The disruptions have reinforced the need for supply chain resilience, highlighting the importance of anticipating and managing them in key parts of the supply chains.

Lastly, the backdrop of growing geopolitical and geoeconomic tensions compound environmental crises and bring economic and security concerns into closer orbit or overlap (Tijaja and Tong, 2023). Strengthening resilience against actions by countries that are less aligned geopolitically or geoeconomically is crucial. Efforts related to supply chain decoupling, or derisking (the preferred euphemism), fall under this category.

Amidst present geopolitical, geoeconomic, and environmental dynamics, the cross-cutting challenges seem unlikely to abate, nor does the need for resilience. Yet, the rapid rise of resilience in the AEC, ASEAN, and broader international policy has not come without problems. Unclear and inconsistent definitions of resilience can impair policy effectiveness by complicating its application and implementation. The evolving use of resilience within ASEAN may be outpacing the development of its institutions and infrastructure. The increasing cross-sector nature of the ASEAN resilience policy has yet to translate into increased cross-pillar coordination. This poses operational constraints that need to be considered in not only a post-2025 AEC resilience policy agenda but also a post-2025 ASEAN agenda. We now turn to addressing the present challenges in ASEAN's resilience efforts.

1.4. Resilient Futures: Resilience for a Post-2025 ASEAN Economic Community

The past three waves of ASEAN resilience policies have seen rapid growth in both scale and scope. However, the expansion brings with it both opportunities and challenges, which present significant considerations for ASEAN and the AEC in shaping the post-2025 agenda (Table 18.1).

Table 18.1. Key Opportunities and Challenges for Utilising Resilience in International Policy

Opportunities	Resilience as a rallying call A new consensus for global action	A platform for international cooperation
		A platform for interdisciplinary innovation
Challenges	Resilience as a siren song A new mechanism for political control	A problem of language
		A problem of measurement
		A problem of trade-offs
		A problem of control

Source: Park (2024).

2. Resilience as a Forum for Collective Action

Resilience is not a novel concept for ASEAN, but its application has grown in response to the current context, which demands a better response to the polycrisis. The expanding application of resilience opens new avenues for ASEAN to use it as a strategic tool.

At the technical level, the AEC’s resilience agenda can focus on how different aspects of economic integration and cooperation endure, respond to, and recover from shocks, stressors and crises. Beyond financial, trade, and supply chain resilience, the development of climate resilience – covering areas such as smart agriculture, energy, and transport transition – will likely take centre stage, alongside critical infrastructure resilience. Digitalisation and cyber resilience must go hand in hand with the AEC’s aim to become a leading regional digital economy, covering digital connectivity and interoperability, cybersecurity, and digital inclusion.

The word ‘resilience’ need not be explicitly referred to in sector work agendas. What must be avoided is the superficial incorporation of resilience in all sector initiatives, which merely adds to the extensive AEC agenda without creating a meaningful impact. Instead, sector bodies should assess how future challenges and uncertainties may impact their work plans, and develop strategies to minimise risks and respond effectively. In many cases, such efforts will call for inter-sector and even inter-pillar cooperation.

At a strategic level, ASEAN can use its resilience agenda to galvanise swift ASEAN Community-wide responses to multidimensional crises that cannot be sufficiently addressed through standard mechanisms. The ACRF is one example (Box 1). Another is the introduction of the ASEAN Outlook on the Indo-Pacific (AOIP), which asserted the region’s narrative amidst competing external discourses. ASEAN has used the AOIP to advance its priorities in areas such as maritime and blue economy cooperation as well as in infrastructure development.

As crises and uncertainties are expected, resilience will increasingly be a vehicle for collective action, with use cases that may be outward- or inward-oriented. For example, amidst geopolitical and economic fragmentation and diminishing enthusiasm for global cooperation, ASEAN’s collaboration with like-minded nations to uphold an open, inclusive, rules-based multilateral trading system serves as an economic resilience strategy, as this system has underpinned the region’s growth. Similarly, prioritising industry- and technology-responsive skills development, informed by economic opportunities and the

near-term challenges of an ageing population, is an economic resilience strategy to safeguard economic productivity. The former example highlights the need for closer collaboration between the political security and economic pillars, whilst the latter highlights the importance of cooperation between the economic and socio-cultural pillars.

At the institutional level, weakening multilateralism and prolonged geopolitical and geoeconomic tensions threaten ASEAN's institutional relevance. Preserving this relevance requires bolstering ASEAN's institutional resilience. Achieving this involves strengthening ASEAN's capacity to monitor and respond promptly to complex multidimensional issues whilst consistently reaffirming its importance to both internal and external stakeholders (Tijaja et al., 2024). Whilst progress has been made in improving cross-pillar coordination, decision-making processes, and operational methods, more concrete follow-up is needed. Article 21.2 of the ASEAN Charter on Implementation and Procedure, which outlines the ASEAN Minus X formula for flexible participation in economic commitments, may need to be applied more broadly as ASEAN faces increasingly complex challenges. Platforms for raising alarms and discussing potential disruptions should be made available without sector- or pillar-based constraints.

Asserting ASEAN's institutional appeal and relevance is more complex. Internally, it calls for better prioritisation and effective follow-up on AEC commitments to ensure tangible benefits for AMS and stakeholders. This complexity highlights the need to streamline and refocus the work agenda. Strengthening feedback loops with stakeholders, such as businesses, MSMEs, entrepreneurs, and the workforce, will help keep the AEC agenda relevant and contribute to institutional resilience.

Externally, AMS should promote ASEAN's positions and narratives, align bilateral and plurilateral engagements with the ASEAN agenda, and coordinate on relevant issues. Consistent messaging about how ASEAN and its members expect their partners to engage, as well as clear communication of regional priorities and concerns, is needed, especially in the context of proliferating parallel frameworks.

3. Resilience as a Design Goal in ASEAN's Institutional Structure

To strengthen its institutional resilience, ASEAN should also focus on its being as an organisation rather than solely an association of nations, emphasising the need for concrete improvements to ASEAN institutions. In 2014, whilst the ASEAN Community Vision and Blueprints 2025 were being drafted, ASEAN established a high-level task force (HLTF) on Strengthening the ASEAN Secretariat and Reviewing the ASEAN Organs. The HLTF produced a report with detailed recommendations on strengthening ASEAN's institutional structure and operational methods to better support the ASEAN Community Vision 2025 and its associated blueprints. ASEAN had regularly monitored and reported on the implementation of the recommendations, which helped ensure complete follow-up to the recommendations.

In the current round of monitoring and reporting, ASEAN adopts a more phased approach. In 2020, under Viet Nam's chairmanship, the review of the ASEAN Charter's implementation was initiated alongside the mid-term review of the three ASEAN Community Blueprints 2025 (Seah, 2020). The review led to a series of ASEAN processes, including the development of a scoping report by the ASEAN Secretariat to assess institutional structures, examine the implementation of ASEAN rules and procedures, identify

implementation gaps, and recommend improvements. In 2023, under the chairmanship of Indonesia, which has long championed the strengthening of ASEAN institutions, the ASEAN Coordinating Council adopted the Rules of Procedure to Support Decision-Making Process at the ASEAN Summit. The adoption of the rules aimed to facilitate urgent and specific decision-making at the ASEAN Summit when consensus could not be reached, enabling more timely responses. However, faster coordination and decision-making processes may be required not only in the absence of consensus but also in cases that demand a whole-of-community response.

For greater resilience, ASEAN needs a more meaningful interface across sectors and pillars for discussion and decision-making. Cross-pillar coordination has long been recognised as essential, but the challenge lies in its practical application. Existing cross-pillar bodies, such as the Joint Consultative Meeting and the ASEAN Coordinating Council, have historically been more focused on administrative and reporting functions, with limited opportunities for more substantive cross-pillar discussions. Within the AEC, the Committee of the Whole for the AEC, which serves as the coordinating committee for the AEC pillar, lacks the authority to enforce decisions on sector bodies. It relies on the chairs of the bodies to follow up on decisions, and it cannot compel representatives from coordinating committees of other pillars to act.

One option could be to use the momentum from the post-2025 strategic planning process to formalise community-wide discussions and institutionalise platforms or forums dedicated to cross-cutting themes. These would bring together bodies and pillars for joint initiative development and implementation. However, this should be done with caution to minimise lengthy and resource-intensive processes and the proliferation of more documents and frameworks.

To enhance effectiveness and efficiency, it may be necessary to streamline and refresh AEC sector bodies to ensure that they remain relevant and effective, updated with current agenda and priorities. The post-2025 strategic planning process offers good momentum for this initiative. Many AEC sector bodies were established decades ago, and few have been evaluated for their capacity to go beyond routine operations and deliver impactful initiatives within their sectors. Ideally, a periodic review mechanism should be in place to ensure that AEC institutions remain agile and effective.

The AEC should explore more innovative working methods beyond formal meetings, such as intersessional communications, inclusive focus group dialogues, the establishment of task forces with clear terms of reference – including conditions for their dissolution – and avenues for the direct reporting of key issues to senior official bodies such as the Joint Consultative Committee (JCM). The JCM's agenda should be made more substantive, extending beyond processes and procedures to include updates, exchanges of views, decisions, and reports on substantive cross-pillar themes. Better use and monitoring of transparency and consultation provisions in existing AEC agreements can advance the AEC agenda more meaningfully than dedicating resources to the constant development of documents and strategies. Cross-forum coordination must be encouraged to help ASEAN advance its positions in broader regional and global arenas by working with like-minded partners. Indonesia's initiative to host an ASEAN Caucus on the sidelines of Asia-Pacific Economic Cooperation meetings in 2023 helped raise ASEAN's priorities and aligned narratives. Greater coordination amongst AMS during the Indo-Pacific Economic Framework negotiations is a positive development. The signing of memorandums of understanding between ASEAN and the Pacific Island Forum, as well as with the Indian Ocean Rim Association, is a good start but should lead to meaningful cooperation activities. ASEAN would do well to draw a map of forums for collaboration and alignment of issues of interest, potentially starting with the concrete implementation of the AOIP.

4. Prioritising Next Steps and the Risks of Inaction

It is useful to summarise what the AEC's priority resilience agenda could be and to reflect on the implications of continuing with business as usual.

The AEC's resilience priorities should include assessing the impact of geoeconomic fragmentation and developing strategies to respond to the emergence of parallel engagement frameworks by partners outside ASEAN-led mechanisms and processes. Establishing cross-pillar and cross-sector coordination mechanisms to address priority cross-cutting issues, such as climate change and economic security, is essential. Sector bodies should be urged to incorporate responses to systemic risks and uncertainties into their planning process, and cross-forum coordination with like-minded countries should be strengthened to promote and align with ASEAN's positions and priorities.

The consequences of inaction are significant. First, without sufficiently addressing resilience in its post-2025 agenda, the AEC will be less prepared to devise timely and effective responses to challenges, whether unanticipated or linked to known megatrends. This could lead to slower decision-making, fragmented or partial responses, and ineffective coordination across sectors or pillars, disrupting the achievement of AEC's goals.

Second, the AEC and ASEAN would become more susceptible to external narratives on resilience. Whilst external alignment can sometimes be beneficial, particularly given the transboundary nature of many challenges, periods of geopolitical and geoeconomic tension could see the ASEAN resilience agenda co-opted by external interests. This risk is heightened when ASEAN relies on external support to implement its resilience strategies.

Third, if the AEC lacks the capacity to respond to or overcome challenges, it risks losing relevance for both its internal and external stakeholders. For internal stakeholders, this could lead to a diminished commitment to the ASEAN agenda or a reallocation of resources towards other cooperation platforms or bilateral and plurilateral relations deemed to be more effective. For external stakeholders, reduced interest in investing in ASEAN-led frameworks and mechanisms could result in a shift in focus towards bilateral relations with the AMS and engagement with alternative frameworks introduced by themselves or others.

Last, the AEC risks missing the opportunity to use its resilience narrative as a powerful tool to galvanise collective action on issues of interest and concern to ASEAN. The ASEAN resilience agenda could effectively address parallel resilience and related agendas introduced by other global actors. As a channel for international cooperation, a regional resilience agenda would not only strengthen ASEAN centrality but also foster engagements with parallel agendas, frameworks, and actors within and beyond the region.

5. Conclusion

This chapter underscores the relevance of a resilience agenda for the AEC and ASEAN, particularly within the context of the post-2025 agenda. It highlights the increasingly complex challenges facing the region and emphasises the urgent need for effective, collective action. In particular, the transnational and cross-sector nature of these challenges requires innovative institutions and policy strategies. It draws attention to the political contexts and potential risks associated with resilience agendas promoted by different entities. The chapter calls on the region to prioritise institutional resilience amidst ongoing geopolitical and geoeconomic tensions and climate change, aiming to ensure ASEAN's sustained relevance and appeal to both internal and external stakeholders.

Resilience is not a novel concept for ASEAN; it has historically embraced it in times of crisis, although without necessarily expounding on it. Recently, however, there has been a marked increase in the technical use of the term across multiple sectors of ASEAN's activities. Today, the resilience agenda takes place in an increasingly charged geopolitical and geoeconomic arena.

The post-2025 strategic planning process provides ASEAN with a valuable opportunity to mainstream resilience at technical, strategic, and institutional levels. This chapter offers concrete recommendations for ASEAN policymakers to better mainstream resilience, including testing new approaches to tackling multidimensional challenges that require rapid and cross-cutting responses, mapping key issues and potential platforms for cross-fora coordination with like-minded partners, and strengthening ongoing stakeholder feedback loops.

Recognising the constraints on resources and the numerous strategies and frameworks already in place, this chapter does not suggest the creation of a new body or a resilience-specific framework. Instead, it proposes a comprehensive resilience agenda that extends beyond the term's literal usage in ASEAN statements and documents. This agenda should cover initiatives, actions, and supportive institutions to better prepare ASEAN for challenges and crises, provide a platform for coordinated action within ASEAN and beyond, strengthen ASEAN institutions, and safeguard the organisation's relevance.

References

- Ardhani, I., R.W. Nandyatama, and R.A. Alvian (2023), 'Middle power legitimization strategies: The case of Indonesia and the ASEAN Outlook on the Indo-Pacific', *Australian Journal of International Affairs*, 77(4), pp.359–79.
- Anwar, D.F. (2020), 'Indonesia and the ASEAN Outlook on the Indo-Pacific', *International Affairs*, 96(1), pp.111–29.
- Association of Southeast Asian Nations (2018), *ASEAN leaders' vision for a resilient and innovative ASEAN*. <https://asean.org/wp-content/uploads/2018/04/ASEAN-Leaders-Vision-for-a-Resilient-and-Innovative-ASEAN.pdf>

- Association of Southeast Asian Nations (2020a), *ASEAN Comprehensive Recovery Framework*. https://asean.org/wp-content/uploads/2021/09/ASEAN-Comprehensive-Recovery-Framework_Pub_2020_1.pdf
- Association of Southeast Asian Nations (2020b), *ASEAN Comprehensive Recovery Framework Implementation Plan*. https://asean.org/wp-content/uploads/ACRF-Implementation-Plan_Pub-2020.pdf
- Association of Southeast Asian Nations (2023a), *ASEAN leaders declaration on sustainable resilience*. <https://asean.org/wp-content/uploads/2023/09/ASEAN-Leaders-Declaration-on-Sustainable-Resilience.pdf>
- Association of Southeast Asian Nations (2023b), 'The faces of resilience: How women help build a stronger ASEAN', *The ASEAN*, Issue 27. <https://asean.org/wp-content/uploads/2023/05/Issue-27-Digital-version.pdf>
- Bellini, N., F. Grillo, G. Lazzeri, and C. Pasquinelli (2019), 'Tourism and regional economic resilience from a policy perspective: Lessons from smart specialization strategies in Europe', *The Role of Art and Culture for Regional and Urban Resilience*. Abingdon: Routledge.
- Goes, C. and E. Bekkers (2022), 'The Impact of Geopolitical Conflicts on Trade, Growth, and Innovation', *WTO Staff Working Paper ERSD-2022-09*, 4 July 2022, https://www.wto.org/english/res_e/reser_e/ersd202209_e.pdf.
- Gutierrez, E.D. (2020), 'The paradox of illicit economies: survival, resilience, and the limits of development and drug policy orthodoxy', *Globalizations*, 17(6), pp.1008–26.
- Howe, B. and M.J. Park (2019), 'South Korea's (incomplete) middle-power diplomacy toward ASEAN', *International Journal of Asia-Pacific Studies*, 15(2), pp.117–42.
- International Monetary Fund (2023), *The High Cost of Global Economic Fragmentation*. <https://www.imf.org/en/Blogs/Articles/2023/08/28/the-high-cost-of-global-economic-fragmentation>
- Kim, T. and B.K. Kim (2020), 'Enhancing mixed accountability for state-society synergy: South Korea's responses to COVID-19 with ambidexterity governance', *Inter-Asia Cultural Studies*, 21(4), pp.533–41.
- Kim, H. and D.W. Marcouiller (2020), 'Making sense of resilience planning and policy in the pursuit of sustainable development and disaster risk reduction', *Climate and development*, 12(3), pp.228–40.
- Lewis, D.G. and S. Sagnayeva (2020), 'Corruption, patronage and illiberal peace: Forging political settlement in post-conflict Kyrgyzstan', *Third World Quarterly*, 41(1), pp.77–95.
- Park, A. S. (2020), *When better worlds collide: historical essays on the politics of international development and social science* (Doctoral dissertation). University of Cambridge.
- Park, A.S. (2021), 'Navigating Regional Identity and Development: Implications for ASEAN', *ASEAN Development Outlook: Inclusion and Sustainable Development*. Jakarta: ASEAN.
- Park, A.S. (2022), 'Beyond great powers: Middle power paths to resilient multilateralism', *Asian Journal of Peacebuilding*, 10(1), pp.131–57.
- Park, A.S. (2023), *Building resilience knowledge for sustainable development: Insights from development studies*. Helsinki: UNU-WIDER.

- Park, A.S. (2024), 'Understanding resilience in sustainable development: Rallying call or siren song?', *Sustainable Development*, 32(1), pp.260–74.
- Park, A., G. Nayyar, and P. Low (2013), *Supply chain perspectives and issues: A literature review*. Geneva: World Trade Organization.
- Seah, S. (2020), 'A Review of the ASEAN Charter: In the Fullness of Time', *ISEAS Commentary*. <https://tinyurl.com/4fcr2pz5>
- Storey, H. (2023), *Supply Chains Leave China But It's Complicated*. <https://www.hinrichfoundation.com/research/article/trade-and-geopolitics/supply-chains-are-moving-away-from-china/>
- Tan, S.B. (2021), 'Measuring community resilience: A critical analysis of a policy-oriented indicator tool', *Environmental and Sustainability Indicators*, 12, 100142.
- Tijaja, J. and M. Faisal (2014), 'Industrial policy in Indonesia: A global value chain perspective', *Asian Development Bank Economics Working Paper Series*, 411.
- Tijaja, J. and A.S. Park (2022), 'ASEAN resilience: A pillar for open and inclusive multilateralism', *The Jakarta Post*. <https://www.thejakartapost.com/paper/2023/01/09/asean-resilience-a-pillar-for-open-and-inclusive-multilateralism.html>
- Tijaja, J., S. Tay, and S. Basu-Das (2024), 'ASEAN Post-2025: Reimagining the ASEAN Economic Community', *ISEAS Trends on Southeast Asia* 2024/7. <https://www.iseas.edu.sg/articles-commentaries/trends-in-southeast-asia/asean-post-2025-reimagining-theasean-economic-community-by-julia-tijaja-simon-tay-and-sanchita-basu-das/>
- Tijaja, J. and Y.S. Tong (2023), 'Global economic fragmentation calls for proactive, unified ASEAN strategy', *The Jakarta Post*. <https://www.thejakartapost.com/opinion/2023/05/04/global-economic-fragmentation-calls-for-proactive-unified-asean-strategy.html>
- Vitale, C., S. Meijerink, and F.D. Moccia (2023), 'Urban flood resilience, a multi-level institutional analysis of planning practices in the Metropolitan City of Naples', *Journal of Environmental Planning and Management*, 66(4), pp.813–35.
- Wares, H. (2022), 'Under waves of resilience—Dwesa-Cwebe: a case study on environmental policy and the expectation of resilience on South African coastal communities', *Social Dynamics*, 48(1), pp.46–62.

19.

Monitoring the ASEAN Economic Community: Towards a New Approach Post-2025

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1. Introduction

It has been observed on a number of occasions that the development effectiveness and impact of regional economic cooperation or integration policies crucially depends on the implementation and uptake of regionally agreed policies, and that monitoring, including indicator-based monitoring, can be an important part of the policy puzzle (Schiff and Winters, 2003; World Bank, 2005; De Lombaerde, Estevadeordal, and Suominen, 2008; De Lombaerde, Saucedo Acosta, and Vida, 2017).

In the case of the Association of Southeast Asian Nations (ASEAN), monitoring systems to accompany the regional integration process include the ASEAN Community Progress Monitoring System initiated in 2000, and the ASEAN Economic Community (AEC) Scorecard, developed in 2008 in response to the signing of the AEC Blueprint in 2007.¹ The blueprint was updated in 2018 as the AEC 2025 Consolidated Strategic Action Plan (CSAP).

The creation of the AEC, with a 2020 target date, was proposed at the Heads of Government Meeting/the 8th ASEAN Summit in Phnom Penh in November 2002. The AEC was agreed in principle at the October 2003 ASEAN Summit in Bali (Plummer, 2006). The AEC is essentially conceived as a common market, taking into account the specific institutional *context* of ASEAN. Its legal situation has been considered as complex because of the absence of a treaty base, a *hard* definition of the common market, and a court (Pelkmans, 2024). The AEC consists in practice of a set of building blocks of a common market, some of which were already operating before the announcement of the AEC.

¹ For an earlier proposal for an indicator-based monitoring system for ASEAN, see Dennis and Yusof (2003), in the context of the ASEAN–Australia Regional Economic Policy Support Facility.

Trade liberalisation was initiated in 1992 with the ASEAN Free Trade Area, characterised by gradual tariff reductions or eliminations through the Common Effective Preferential Tariff scheme. The ASEAN Trade in Goods Agreement (ATIGA) was signed in 2009 and entered into force in 2010.² In addition to expanding the scope of the Common Effective Preferential Tariff, the ATIGA included provisions on the codification and reduction of non-tariff measures, rules of origin, trade facilitation, and sanitary and phytosanitary measures. A new institution was also created: the Coordinating Committee for the Implementation of the ATIGA.

Trade in services was first dealt with through the ASEAN Framework Agreement on Services (AFAS), in force since 1998. The AFAS has made gradual progress through a sequence of packaged liberalisation commitments, especially since the AEC Blueprint (2008–2015). The ASEAN Trade in Services Agreement was signed in 2020 as the new legal instrument for the integration of the services market. With the ASEAN Trade in Services Agreement, the commitment schedules under the AFAS, which are based on a positive list approach, will be transformed into schedules of non-conforming measures, based on a negative list approach in combination with time frames. For air transport, telecommunications, and financial services, separate routes are explored. For air transport services, the ASEAN Single Aviation Market was proposed in 2007, and open skies protocols have followed.

Liberalisation and regulation of financial services and capital movements are guided by the 2018 CSAP but are generally less ambitious in terms of market integration. The outlier here is intra-ASEAN foreign direct investment, which has been liberalised with few exceptions. Foreign direct investment policies are guided by the ASEAN Comprehensive Investment Agreement, which took effect in 2012, consolidating and building on two pre-existing agreements: the Framework Agreement on the ASEAN Investment Area and the ASEAN Investment Guarantee Agreement. Meanwhile, for the movement of skilled labour, the provisions are guided by Mutual Recognition Agreements (MRAs), which allow for the skills, accreditations, and experience of skilled workers to be recognised outside their home country. Current MRAs encompass six sectors: engineering, nursing, architecture, medicine, dentistry, and tourism. Two framework agreements are in place – surveying qualifications and accountancy services (ASEAN, n.d.).

This chapter is organised as follows: in section 2, the current AEC monitoring framework is assessed. Section 3 presents international mapping and benchmarking of indicator-based monitoring experiences worldwide, with a focus on their aims and scope. Building on the two preceding sections, section 4 presents guidance on how to adapt the AEC monitoring system for the future.

² For an evaluation of the ATIGA, see ERIA (2021).

2. Assessment of the AEC Monitoring Framework

The evolution of the AEC monitoring approach from the first (2008–2015) to the second (2016–2025) blueprints highlighted significant advancements in the approach to monitoring ASEAN economic integration. Initially developed in 2008, the so-called ‘AEC Scorecard’ served as a compliance tool to measure the implementation of the AEC blueprint and track countries’ adherence to their commitments. This scorecard focused on four elements: a single market and production base, a highly competitive economic region, equitable economic development, and full integration into the global economy. However, it primarily ensured compliance rather than evaluating the impact of these measures (Rillo, 2017). The AEC Scorecard’s monitoring and reporting initially followed a biennial cycle, covering the periods of 2008–2009, 2010–2011, 2012–2013, and 2014–2015 (ASEAN, 2015a).

In the first AEC Blueprint (2008–2015), monitoring was done through simple reporting and updating of measures by various working bodies responsible for implementing the measures in their respective areas. In calculating the implementation rate, a measure was considered as implemented only when all the activities under the said measure were fully completed by all ASEAN Member States (AMS). Country-specific measures to be implemented by individual AMS were not counted as measures for ASEAN, but these measures were counted for the country scorecard.

The Economic Research Institute for ASEAN and East Asia (ERIA) also conducted a series of studies to monitor the implementation and compliance status of selected AMS in relation to the scorecard from 2009 to 2014.³ ERIA found that the AEC Scorecard indicated a positive development in trade facilitation, and the results of the scorecard exercise by ERIA showed that Singapore was making good progress on the ASEAN standards and conformance roadmap for priority investment sectors such as automotives, cosmetics, electrical and electronics equipment, medical devices, and pharmaceuticals (Lim, Aw, and Loke, 2015).

The AEC Blueprint 2025, adopted at the 27th ASEAN Summit in November 2015, reflects a more comprehensive and dynamic approach. Covering 2016–2025, the blueprint expands its focus to five characteristics: (i) a highly integrated and cohesive economy; (ii) a competitive, innovative, and dynamic ASEAN; (iii) enhanced connectivity and sectoral cooperation; (iv) a resilient, inclusive, people-oriented, and people-centred ASEAN; and (v) a global ASEAN. This iteration emphasised not only compliance but also the strategic implementation of measures across various sectors through detailed sectoral work plans.

Furthermore, the transition from the 2008 to the 2016 version of the AEC monitoring approach represented a shift from a compliance-centric approach to a more holistic and strategic framework. This evolution underscored the need for a broader and deeper evaluation of ASEAN economic integration, encompassing both compliance and the tangible impact of integration efforts on the region’s economic landscape.

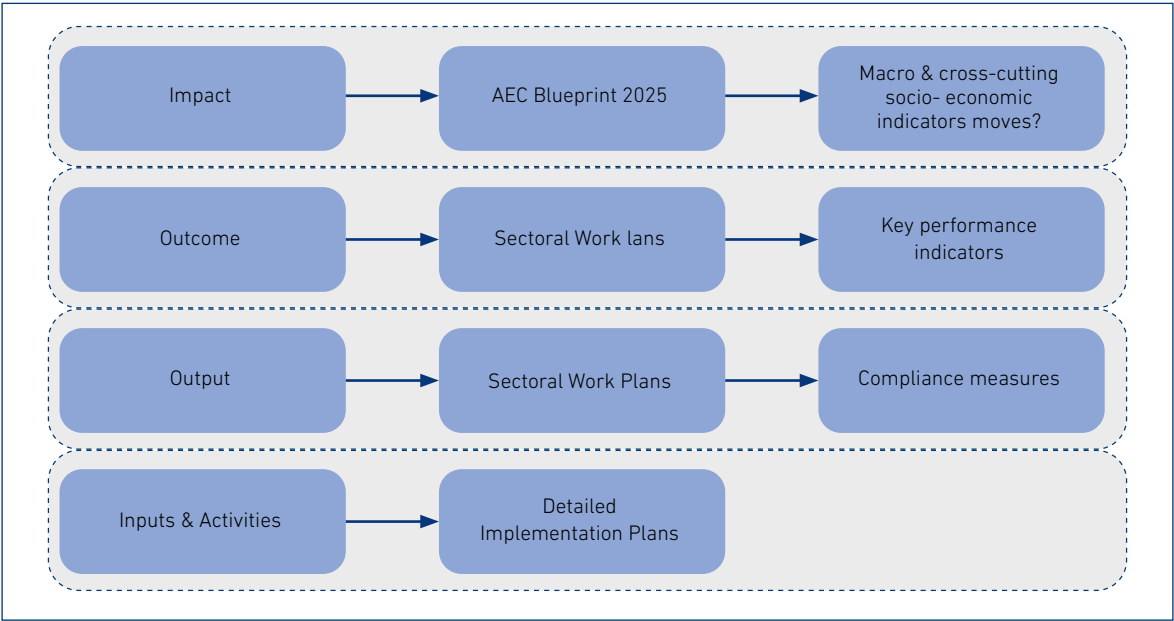
³ For further details, see Aldaba et al. (2010); Intal, Narjoko, and Simorangkir (2011); and Lim, Aw, and Locke (2015).

To support this enhanced monitoring framework, the ASEAN Secretariat's ASEAN Integration Monitoring Directorate (AIMD) played a critical role in ensuring the effective implementation and oversight of regional commitments and policies. The AIMD's mandate includes leading regional surveillance and economic integration monitoring; providing policy and technical advice; shaping economic research and policy analysis; ensuring effective communication and reporting on economic integration; and offering capacity development for monitoring, analysis, and research.⁴

AMS, recognising that regional economic integration is a dynamic ongoing process as economies as well as domestic and external environments are constantly evolving, adopted the AEC 2025 Blueprint. The AEC 2025 Blueprint was envisioned to provide a comprehensive strategy towards achieving deeper integration and economic resilience. With the new five characteristics of the 2025 blueprint, ASEAN needed to review its implementation and monitoring approach, to one that was more holistic, strategic, and impact focused.

Figure 19.1 details the current monitoring approach towards the 2025 AEC.

Figure 19.1. AEC 2025 Monitoring and Evaluation Framework

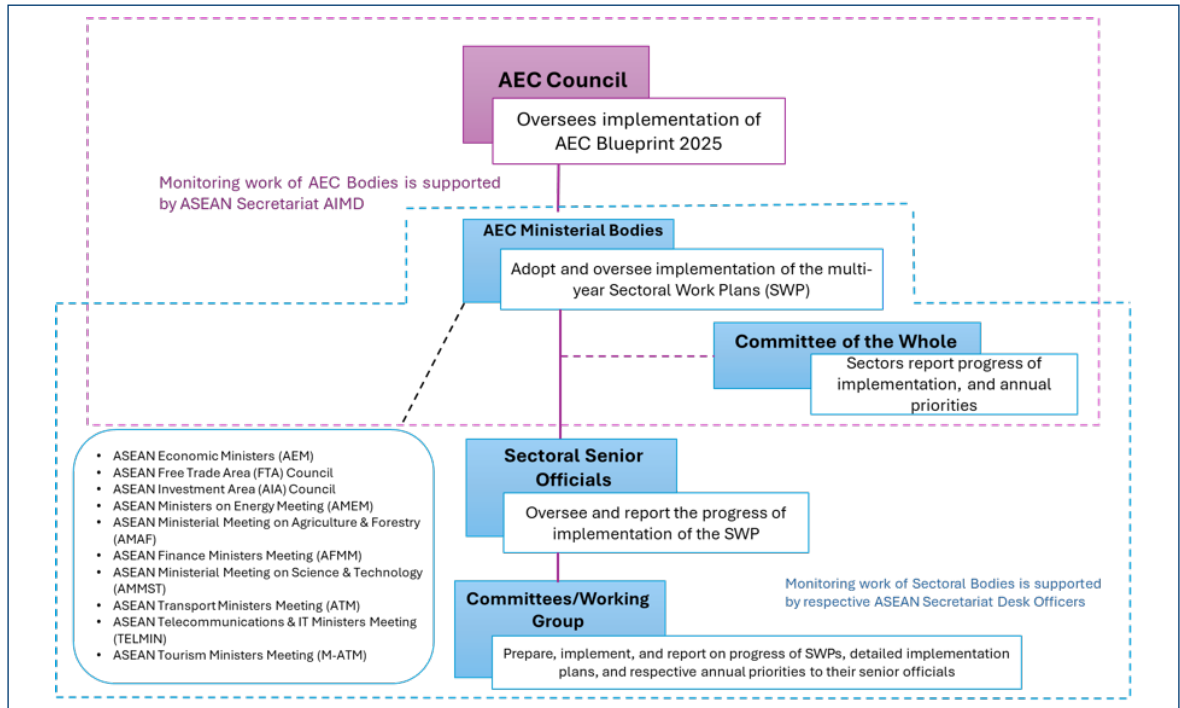


AEC = ASEAN Economic Community, ASEAN = Association of Southeast Asian Nations.
Source: ASEAN (2017b).

Figure 19.1 details the shift from compliance monitoring to outcome evaluation in the new AEC 2025 Monitoring and Evaluation (M&E) Framework. Figure 19.2 presents an overview of the roles of AEC bodies and sectoral bodies in monitoring the implementation of the AEC Blueprint 2025 at the aggregate level and the sectoral work plans (SWPs) at the sectoral level and of the ASEAN Secretariat, which shows that monitoring now involves more stakeholder participation.

⁴ For further details, see ASEAN (2017b).

Figure 19.2. Roles of AEC Bodies and Sectoral Bodies in Monitoring the AEC



AEC = ASEAN Economic Community, AIMD = ASEAN Integration Monitoring Directorate, ASEAN = Association of Southeast Asian Nations, IT = information technology, SWP = sectoral work plan.

Source: ASEAN (2017b).

The Mid-Term Review (MTR) on the AEC 2025 Blueprint provided a pivotal opportunity to assess the AEC's performance over 5 years, identify areas for improvement, and adjust strategies towards the 2025 vision. The MTR covered 23 SWPs, 1,700 action lines, and 370 key performance indicators. It included external studies and surveys targeting businesses operating within ASEAN, alongside consultations with the ASEAN Business Advisory Council and research institutions (ASEAN, 2021). ASEAN must take into consideration emerging and cross-cutting issues. Therefore, the MTR opened up opportunities to calibrate new approaches and initiatives moving forward, which may be continued towards a post-2025 ASEAN.

The AEC 2025 M&E process has three components: compliance monitoring, outcome monitoring, and impact evaluation. Compliance monitoring in the AEC tracks the implementation of key outputs aligned with the strategic goals of the AEC Blueprint 2025 and relevant SWPs. Enhanced from its 2015 predecessor, the M&E framework now includes outcome monitoring and impact assessment, providing a more comprehensive approach to progress tracking. The AEC 2025 CSAP compiles key action lines from all SWPs, serving as the primary guide for ASEAN's economic integration from 2016 to 2025. These action lines are reviewed periodically through an annual prioritisation process, setting intermediary milestones and ensuring the timely execution of initiatives across sectors (ASEAN, 2017b).

Meanwhile, outcomes monitoring in the AEC assesses progress towards the strategic goals outlined in the AEC Blueprint 2025 and relevant SWPs. This process uses key performance indicators (KPIs) to measure changes in sectoral and economic indicators resulting from the blueprint's implementation. Regular monitoring of these KPIs provides essential feedback to stakeholders, helping guide decisions on the prioritisation, sequencing, or even phasing out of initiatives. Examples of KPIs include the utilisation rate of ATIGA preferential tariffs, intra-ASEAN trade, and foreign direct investment flows. Data sources for these KPIs range from ASEAN statistics to external databases and inputs from various organisations.

Furthermore, impact evaluation goes beyond monitoring by assessing how regional economic integration strategies and goals impact the broader socio-economic environment of AMS, using empirical research and studies. As part of the AEC 2025 M&E process, impact evaluation is essential for testing the effectiveness of integration approaches on socio-economic development. This evaluation provides valuable insights for policymakers and stakeholders, enabling them to review and refine existing initiatives. Feedback from stakeholders, including private sector engagement and business councils, plays a vital role in verifying the impact of integration efforts. Additionally, AIMD country visits and independent assessments help ensure compliance and assess the national implementation of regional initiatives, providing further verification of regional economic integration progress.

ASEAN's monitoring approach has evolved from a compliance-based system to a more strategic, impact-driven framework under the AEC Blueprint 2025, focusing on outcomes, cross-sectoral cooperation, and deeper economic integration. Whilst improvements have been made from the earlier version, ASEAN could still improve and learn from the experiences of other regions regarding monitoring in the context of regional organisation, as will be further explained in the following section.

3. What Can Be Learned from Monitoring Experience of Other Regions?

Monitoring in the context of regional organisations (and of the underlying regional integration processes) covers multiple instruments, corresponding to a diverse range of monitoring mandates in diverse institutional contexts. The instruments range from descriptive annual reports to sophisticated indicator-based monitoring systems (De Lombaerde, Estevadeordal, and Suominen, 2008). The ambition and complexity of regional institutions is typically reflected in the sophistication of the monitoring instruments.

If we narrow the focus to indicator-based regional integration monitoring systems, broadly speaking, three categories of such systems can be considered: The first group of indicator systems focuses on the implementation of regional integration policies and measures, i.e. the process of regional integration, rather than the outcomes and impact. They are essentially scoreboards or scorecards. The AEC Scorecard, which tracks the compliance of AMS with the commitments listed in the AEC Blueprint, is an example of such systems (ASEAN, 2010; Rillo and dela Cruz, 2016; Rillo, 2017).

The historical example of this category of systems is the European Commission Single Market Scoreboard, launched in 1997, which was renamed the Internal Market Scoreboard in its eighth edition in 2001 (European Commission, 1997, 2001; Fernández Moriana, Vida, and De Lombaerde, 2017). The scoreboard generated quite some impact in the framework of the construction of the European Union (EU) common market. Although the scoreboard initially focused on reporting the transposition of single market directives in a series of annual reports, it has evolved towards an online platform, covering the performance of EU member states on other governance tools, and in its more recent iterations it has included *de facto* regional integration indicators.

On the African continent, the East African Community (EAC) Common Market Scorecard was launched in 2014 to monitor EAC member state compliance with the obligations derived from the EAC Common Market Protocol and related instruments (World Bank EAC Secretariat, 2014; Ombudo K'Ombudo, De Lombaerde, and Borda, 2017). More recently, the African Multidimensional Regional Integration Index was launched in 2020 by the African Union Commission in collaboration with regional economic communities (African Union, 2020). It has a somewhat broader remit than the previous cases. It monitors the implementation of the Abuja Treaty and, more specifically, the implementation of the African Economic Community, as well as Agenda 2063 and its focus on structural and socio-economic transformation.

The second group of indicator systems does not take treaty obligations or policy commitments as the main point of departure, even if they can be part of them but have a broader scope and feature indicators of *de facto* regional integration (reflecting the importance and evolution of intra-regional trade, investment and people mobility, and macro-economic convergence), i.e. these systems focus on outcome and impact indicators, sometimes combined with process indicators. The ASEAN Community Progress Monitoring System is an example of such a more general indicator system (ASEAN, 2012, 2017a, 2017b; Rillo, 2017).

In the Asian context, several indicator systems fit this category, though they do not necessarily focus on a specific regional organisation. They include the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Index of Asia-Pacific Regional Integration Effort (Ye and Mikic, 2016); the Asian Development Bank (ADB) Asia-Pacific Regional Integration Index (Huh and Park, 2017, 2018); and more recently, ADB's Asia-Pacific Regional Cooperation and Integration Index (and the related Enhanced Framework) (Park and Claveria, 2018; ADB, 2021). The Eurasian Development Bank (EDB) also developed its System of Indicators of Eurasian Integration (De Lombaerde, 2009; Vinokurov, 2010, 2014; EDB, 2012, 2017, 2019; Vinokurov, Libman, and Pereboyev, 2017).

In an African context, the Assessing Regional Integration in Africa Index of the United Nations Economic Commission for Africa (UNECA) (Tanoe, 2017) and the Africa Regional Integration Index (AU, AfDB, and UNECA, 2016a, 2016b, 2019a, 2019b, 2019c) should be mentioned. Other proposals for indicator systems in this category include the EU Integration Index (König and Ohr, 2013; König, 2017) and the Latin American and Caribbean Economic System (SELA) Integration Index for Latin America and the Caribbean (SELA, 2016).

The third group of indicator systems is one where regional integration indicators are incorporated into monitoring systems with a broader scope. In an Asian context, these include the UNESCAP Digital and Sustainable Regional Integration Index 2.0, which is part of UNESCAP's Regional Integration and Value Chain Analyzer; the United Nations Economic and Social Commission for Western Asia (UNESCWA) Arab Economic Integration System of Indices (UNESCWA, 2006–2009, 2014, 2015, 2018, 2021), in which a limited number of *de facto* regional integration indicators (i.e. trade, investment and remittances) is part

of a large set of more than 100 indicators, covering 'potentialities', 'policies', and 'outcomes', including globalisation indices; and the Asia–Europe Meeting Sustainable Connectivity Indices (Becker et al., 2019a, 2019b), in which interregional connectivity is also covered and where the system includes a three-dimensional sustainability sub-index. In an African context, the African Union Development Agency–New Partnership for Africa's Development Dashboard should be mentioned, in which African integration corresponds to a subset of (continental) performance indicators on Agenda 2063 (Aspiration 2), in addition to Sustainable Development Goal (SDG) performance indicators (NEPAD, n.d.).

Over the last decades, indicator-based monitoring systems have become more sophisticated, thanks to technological advances as well as increased data availability. However, the reported efforts have not necessarily been sustained over longer periods of time, which points to the fact that the governance of such systems is not always adequate and/or there is not always a consensus amongst stakeholders (including technocrats and member states) about the underlying methodology and/or the interpretation of the monitoring results.

It is also clear that adequate monitoring goes hand in hand with (regional) policy implementation and the involvement of interest groups and citizens more broadly in the regional integration process. Composite indices are thereby not essential ingredients.

4. Towards a New Approach to Monitoring the AEC

The evolution of AEC monitoring from the 2008–2015 to the 2016–2025 blueprints shows significant improvements in tracking regional integration. The initial AEC Scorecard (2008–2015) focused on compliance, measuring the implementation of the blueprint's four pillars – single market, competitive region, equitable development, and integration into the global economy – through a binary system. Meanwhile, the AEC Blueprint 2025 introduced a more comprehensive framework that emphasises both compliance and the broader impact of integration across five interrelated and mutually reinforcing characteristics: (i) a highly integrated and cohesive economy; (ii) a competitive, innovative, and dynamic ASEAN; (iii) enhanced connectivity and sectoral cooperation; (iv) a resilient, inclusive, people-oriented, and people-centred ASEAN; and (v) a global ASEAN (ASEAN, 2017a).

The current M&E framework, led by the AIMD, includes outcomes monitoring and impact evaluation to measure adherence and tangible socio-economic effects. The framework involves regular stakeholder engagement, including private sector feedback, and country visits to verify compliance and assess real-world implementation. This marks a more strategic and inclusive approach to ASEAN's economic integration, ensuring measurable and impactful progress.

If a new AEC blueprint is agreed for the post-2025 period, a new monitoring system will be needed, adapted to the new circumstances. The various chapters in this book provide ideas and scenarios for shaping the post-2025 AEC. These can be taken as a point of departure for reflecting on an adequate monitoring system.

The suggested ideas include those that further develop and deepen sectoral agenda, as discussed in the previous chapters:

- In goods trade, new ambitious targets are proposed for trade facilitation, including targets for the implementation of digital technologies and for intra-ASEAN convergence in this area; digital connectivity should be strengthened to support well-functioning global value chains in which ASEAN participates; non-tariff barriers to digital trade should be made transparent and/or reduced; and a clear sustainability strategy should be incorporated in trade policy.
- In services trade, progress is possible in reducing barriers to trade, regulatory convergence, and institutional performance amongst AMS, as well as in the protection of service-related intellectual property rights.
- Regarding the negotiation or upgrading of trade agreements, recommendations include the upgrading of bilateral (i.e. member state) free trade agreements (FTAs) to ASEAN-level FTAs; the alignment of the substantive commitments of ASEAN in FTAs and the AEC objective; the negotiation of digital trade provisions; and the adoption of a proactive stance on gender and economic inclusion provisions.
- In the area of energy, a proactive strategy to protect and consolidate energy security is proposed that acts on four axes (4A framework): availability of energy resources, technological applicability of harnessing energy resources, societal acceptability of using energy resources, and affordability of using energy resources.
- The connectivity agenda, as outlined in the Master Plan on ASEAN Connectivity 2025, needs updating: requiring regulatory harmonisation, strengthened digital dimension, strengthened funding mechanisms, strengthened regional institutions, and capacity building; and freer flows of data should be accompanied by measures to build trust and cybersecurity.
- Competition policy needs further strengthening in the face of a (possibly) increasing market power trend.

A new monitoring system can contribute to strengthening information sharing mechanisms within the AEC, and thus contribute to economic policy coordination.

New sectoral commitments, in terms of policy measures or outcomes, can form the basis for the new monitoring system, especially if they are clearly formulated and quantified. These can include formula-based flexibilities and (revised) transition periods.

The ideas also include the consolidation or strengthening of transversal agendas, again as highlighted in previous chapters, including:

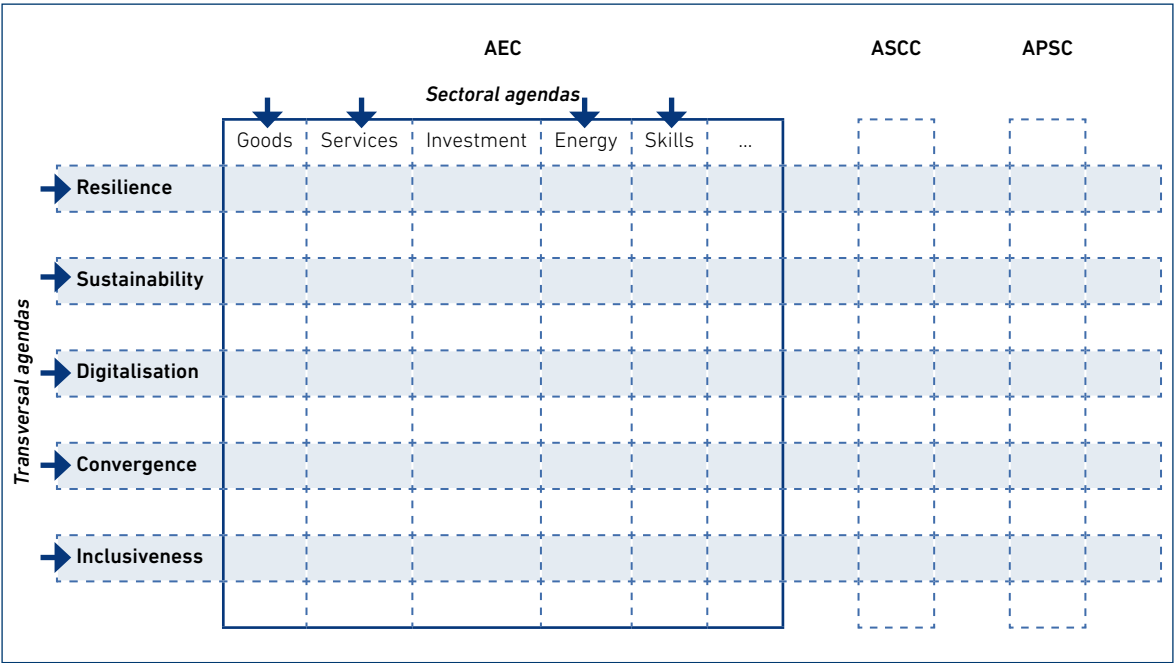
- consolidating the *convergence agenda*, in place since the 2000 Initiative for ASEAN Integration;
- formulating a coherent *sustainability agenda*, which should imply the alignment of ASEAN's objectives with the globally defined SDGs;
- introducing a *resilience agenda* as a strategic tool to help achieve the ASEAN Community Vision 2045;
- upgrading the *digitalisation agenda*, moving from the existing nine frameworks (2016–2023) with an emphasis on digital trade, not only towards a deepening of this agenda but also towards a broadening of the agenda in the direction of an ASEAN Digital Community 2045; and
- formulating an *inclusiveness agenda*.

These transversal agendas can build on guidelines developed by ASEAN sectoral bodies over the last years, as in the case of sustainable development where mainstreaming sustainability across sectors has been attempted.

These transversal agendas are not only cross-sector (within the AEC framework) but are likely to extend beyond the AEC pillar into the other two pillars (Figure 19.3). The convergence agenda is, for example, connected to ASEAN strategies on economic integration, physical connectivity, institutional connectivity, and people-to-people connectivity. The inclusiveness agenda is connected to poverty reduction strategies as part of the AEC but is also connected to the inclusiveness criterion in the ASEAN Socio Cultural Community Blueprint, 2016–2025. The gender equality and women’s empowerment agenda in the AEC is clearly connected to the Socio Cultural Community, which plays a leading role in this area, and the ASEAN Political Security Community, so far supported by the ASEAN Gender Mainstreaming Strategic Framework, 2021–2025. Likewise, it is recommended to roll out a digitalisation strategy across all pillars, covering elements such as data governance, value-added enhancement, improved digital connectivity, and digital inclusivity.

The transversal agendas are also overlapping to some extent. In Chapter 9 by Simon Feeny, for example, the overlap between the convergence and resilience agendas is pointed at when referring to the importance of building and monitoring the resilience of lower-income AMS and vulnerable populations in general. There is also overlap between the digitalisation agenda and the inclusiveness agenda. The multidimensional 2030 Agenda for Sustainable Development also connects these transversal agendas (see, for example, chapter 7 by Anbumozhi, et al.)

Figure19.3. Holistic Approach to Monitoring in ASEAN



AEC = ASEAN Economic Community, APSC = ASEAN Political Security Community, ASCC = ASEAN Socio Cultural Community, ASEAN = Association of Southeast Asian Nations.
Source: Authors.

For the further development of the AEC monitoring framework, various scenarios are available. ASEAN stakeholders will have to take decisions spanning various aspects, translating to a more (or less) ambitious monitoring system. The following questions about the monitoring system will need to be answered:⁵

- Should the monitoring system essentially monitor compliance with regional policy commitments (e.g. commitments to eliminate specific barriers to trade in services) or be a broader system including outcome and impact variables (intra-regional trade in services, convergence in terms of service delivery performance, etc.) – in other words, should it cover *de jure* regionalism, *de facto* regionalisation, or a combination of both?
- Should the monitoring system be centralised or decentralised?
- Should the monitoring system mainly have internal purposes (i.e. serving the ASEAN Secretariat and AMS) and/or external purposes (i.e. serving observers, civil society, citizens, and extra-ASEAN actors)?
- Should the monitoring system be limited to providing an indicator dashboard or also involve analytical work to identify causalities between regional policy implementation and outcomes (as suggested in chapter 9 by Simon Feeny, and chapter 20 by Bernard Hoekman)?
- Should the monitoring system be limited to providing an indicator dashboard or a system that also includes the computation of composite indices?
- Should the monitoring system adopt a logical framework for its organisation (distinguishing between inputs, process, output, outcome, and/or impact indicators; see also chapter 11, Shepherd) or not?
- What technology and what data sets should power the monitoring system?

An effective monitoring system will also have to provide clarity on a number of conceptual issues. These include establishing a common standard and definition of intra-ASEAN development gap(s) as reference points for the operationalisation of convergence policies (chapter 9, Feeny); conceptualising resilience as a multidimensional concept with both technical and political aspects (chapter 18, Tijaja and Park), in addition to basic requirements such as making the logical structure of the system explicit; and distinguishing between *de jure* regionalism and *de facto* regionalisation.

Likewise, a number of measurement issues will have to be addressed. Maximum use should thereby be made of existing measurement efforts in other international organisations such as ERIA, the World Bank, the United Nations Trade and Development (UNCTAD), and the International Trade Centre, e.g. on non-tariff measures (see chapter 20, Hoekman). Measurement issues are also related to the measurement of (aspects of) convergence, resilience, and sustainability performance and impacts. Measurement challenges are, finally, present in the digitalisation agenda, although one can build on existing efforts, including the ASEAN Digital Integration Index.

The monitoring system should also be accompanied by institutional innovations. The capacity of the AIMD could be strengthened, for example (see chapter 7, Anbumozhi et al.). At the same time, the new monitoring system will have to reflect any other institutional adjustments or experimentation within the ASEAN institutions. For the cross-cutting strategic agendas, for example, task forces have been suggested with clear terms of reference and reporting obligations, which would undoubtedly benefit from adequate indicator systems to support their monitoring activities. Likewise, multilevel domain-specific platforms that bring together epistemic communities have been suggested to make ASEAN more effective in reaching its goals (whilst respecting its essential member-driven intergovernmental characteristics).

⁵ See also De Lombaerde (2024).

5. Conclusion

Effective goal-achieving regional policies require monitoring systems as catalysts for policy implementation, accountability, and participation. This is not different for the post-2025 AEC.

The current monitoring apparatus will have to be adjusted or rethought for that purpose, taking into account the level of ambition that the AMS agree on for the AEC. Various proposals for the post-2025 period are suggested in this volume. When rethinking the monitoring system, ASEAN can learn from its own experiences with monitoring for over 20 years, as well as experiences in other regions and regional organisations worldwide. Although the latter do not necessarily offer a very clear direction to follow in the design of monitoring systems, they offer a wide array of useful references and experiences and some interesting recent developments in this field.

Smart choices will have to be made regarding various aspects of this new monitoring framework for the AEC. These aspects are related to scope, centralised versus decentralised, inward versus outward-looking, compliance-oriented versus outcome-oriented, various technical options, etc. In addition, the new framework will have to be able to speak to sectoral and transversal agendas simultaneously. The latter include convergence, sustainability, resilience, digitalisation, and inclusiveness.

The choices that have to be made regarding the new monitoring framework require time and consultations with the various stakeholders. It is recommended to create a steering committee, with representatives from the ASEAN Secretariat, AMS, and external experts, to accompany this process.

References

- ADB (2021), *Asia-Pacific Regional Cooperation and Integration Index: Enhanced Framework, Analysis, and Applications*, Manila: Asian Development Bank.
- African Union (2020), *AMRII – African Multidimensional Regional Integration Index*, Addis Ababa: African Union.
- Aldaba, R.M. et al. (2010), 'ERIA Study to Further Improve the ASEAN Economic Community Scorecard: the Philippines', *PIDS Discussion Paper Series, No. 2010-24*, Manila: Philippine Institute for Development Studies.
- ASEAN (n.d.), ASEAN Mutual Recognition Arrangements. <https://investasean.asean.org/asean-free-trade-area-agreements/view/757/newsid/868/asean-mutual-recognition-arrangements.html>
- (2010), *ASEAN Economic Community Scorecard*, Jakarta: ASEAN Secretariat.
- (2012), *ASEAN Community Progress Monitoring System 2012*, Jakarta: ASEAN Secretariat.
- (2015a), *A Blueprint for Growth – ASEAN Economic Community 2015: Progress and Key Achievements*, Jakarta: ASEAN Secretariat
- (2015b), *ASEAN Economic Community Blueprint 2025*, Jakarta: ASEAN Secretariat

- (2017a), *ASEAN Community Progress Monitoring System 2017*, Jakarta: ASEAN Secretariat.
- (2017b), *Towards ASEAN Economic Community 2025: Monitoring ASEAN Economic Integration*, Jakarta: ASEAN Secretariat.
- (2021), *Mid-Term Review ASEAN Economic Community Blueprint 2025*, Jakarta: ASEAN Secretariat.
- AU, AfDB, and UNECA (2016a), *Africa Regional Integration Index Report 2016*, Addis Ababa: African Union, African Development Bank, and United Nations Economic Commission for Africa.
- (2016b), *Methodology for Calculating the Africa Regional Integration Index (ARII)*, Addis Ababa: African Union, African Development Bank, and United Nations Economic Commission for Africa.
- (2019a), *Africa Regional Integration Index Report 2019*, Addis Ababa: African Union, African Development Bank, and United Nations Economic Commission for Africa.
- (2019b), *Africa Regional Integration Index (ARII) Technical Report 2019*, Addis Ababa: African Union, African Development Bank, and United Nations Economic Commission for Africa.
- (2019c), *Africa Regional Integration Index (ARII) Methodological Note 2019*, Addis Ababa: African Union, African Development Bank, and United Nations Economic Commission for Africa.
- Becker, W., M. Domínguez-Torreiro, A.R. Neves, C.J. Tacao Moura, and M. Saisana (2019a), *Exploring ASEM Sustainable Connectivity – What Brings Asia and Europe Together?* Luxembourg: European Union.
- (2019b), *Exploring ASEM Sustainable Connectivity – What Brings Asia and Europe Together? Methodological Annex*, Luxembourg: European Union.
- Becker, W., M. Saisana, P. Paruolo, and I. Vandecasteele (2017), 'Weights and Importance in Composite Indicators: Closing the Gap', *Ecological Indicators*, 80, pp.12–22.
- De Lombaerde, P. (2009), 'Indicator-Based Monitoring of the Eurasian Integration Process: Preliminary Remarks', in *EDB Eurasian Integration Yearbook 2009*, Almaty: Eurasian Development Bank, pp.283–89.
- (2024), 'Build Your Own Regional Integration Indicator System', in P. De Lombaerde (ed.), *Handbook on Regional Cooperation and Integration*, Cheltenham: Edward Elgar, pp.460–89.
- De Lombaerde, P., A. Estevadeordal, and K. Suominen (eds.) (2008), *Governing Regional Integration for Development: Monitoring Experiences, Methods and Prospects*, London: Routledge.
- De Lombaerde, P., E.J. Saucedo Acosta, and A.M. Vida (2017), 'Introduction: Indicator-Based Monitoring of Regional Economic Integration', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.xv–xxxiv.
- Dennis, D.J. and Z.A. Yusof (2003), *Developing Indicators of ASEAN Integration – A Preliminary Survey for a Road Map, Final Report*, AADCP Regional Economic Policy Support Facility, Kuala Lumpur: Econsult Sdn Bhd.
- EDB (2012), *The EDB System of Indicators of Eurasian Integration*, Saint Petersburg: EDB. <http://www.eabr.org/e/research/centreCIS/projectsandreportsCIS>

- (2017), *Eurasian Economic Integration – 2017*, Saint Petersburg: Eurasian Development Bank Centre for Integration Studies.
- (2019), *Eurasian Economic Integration – 2019*, Moscow: Eurasian Development Bank Centre for Integration Studies.
- ERIA (2021), *Impact of the ASEAN Trade in Goods Agreement (ATIGA) on Intra-ASEAN Trade*, Jakarta: ERIA.
- ESCAP (n.d.), *Digital and Sustainable Regional Integration Index (DigiSRII) 2.0 Technical Note*, Bangkok: Economic and Social Commission for Asia and the Pacific. https://riva.negotiatetrade.org/riva2_technical_note/ (accessed 1 April 2023).
- European Commission (1997), *Single Market Scoreboard*, Brussels: European Commission.
- (2001), *Internal Market Scoreboard*, No. 8, Brussels: European Commission.
- Fernández Moriana, V., A.M. Vida, and P. De Lombaerde (2017), 'The European Commission Single Market Scoreboard', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.3–26.
- Huh, H.-S. and C.-Y. Park (2017), 'Asia-Pacific Regional Integration Index: Construction, Interpretation, and Comparison', *ADB Economics Working Paper Series*, No. 511, Manila: Asian Development Bank.
- (2018), 'Asia-Pacific Regional Integration Index: Construction, Interpretation, and Comparison', *Journal of Asian Economics*, 54, pp.22–38.
- Intal Jr., P., D. Narjoko, and M. Simorangkir (2011), 'ERIA Study to Further Improve the ASEAN Economic Scorecard Phase II: Toward a More Effective ASEAN Community Scorecard Monitoring System and Mechanism', *mimeo*, Jakarta: Economic Institute for ASEAN and East Asia.
- König, J. (2017), 'The EU Index of Integration Effort', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.73–94.
- König, J. and R. Ohr (2013), 'Different Efforts in European Economic Integration: Implications of the EU Index', *Journal of Common Market Studies*, 51(6), pp.1074–90.
- Lim, H., B. Aw, and H.Y. Loke (2015), 'AEC Scorecard Phase IV: Furthering the Implementation of the AEC Blueprint Measures – The Singapore Country Report', *ERIA Discussion Paper Series*, No. DP-2015-47, Jakarta: Economic Research Institute for ASEAN and East Asia.
- NEPAD (n.d.), Agenda 2063. <https://nepad.org/agenda-dashboard-v2>
- Ombudo K'Ombudo, A., P. De Lombaerde, and M. Borda (2017), 'The East African Community Common Market Scorecard', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.239–59.
- Park, C.-Y. and R. Claveria (2018), 'Constructing the Asia-Pacific Regional Cooperation and Integration Index: A Panel Approach', *ADB Economics Working Paper Series*, No. 544, Manila: Asian Development Bank.

- Pelkmans, J. (2024), 'Common Markets', in P. De Lombaerde (ed.), *Handbook on Regional Cooperation and Integration*, Cheltenham: Edward Elgar, pp.63–107.
- Plummer, M.G. (2006), 'The ASEAN Economic Community and the European Experience', *ADB Working Paper Series on Regional Economic Integration*, No. 1, Manila: Asian Development Bank.
- Rillo, A.D. (2017), 'Monitoring the ASEAN Economic Community', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer Nature, pp.287–297.
- Rillo, A.D. and V. dela Cruz (2016), 'Monitoring Regional Economic Integration in Asia', *ADB Policy Brief*, No. 2016-1, Tokyo: Asian Development Bank Institute.
- Schiff, M. and A. Winters (2003), *Regional Integration and Development*, Washington, DC: World Bank and Oxford University Press.
- SELA (2016), 'Integration Index for Latin America and the Caribbean', Working Paper, Regional Meeting on the Integration Index for Latin America and the Caribbean, Guatemala City, 11 October, Caracas: Sistema Económico Latinoamericano y del Caribe.
- Tanoe, D. (2017), 'Assessing Regional Integration in Africa (ARIA): Indicators of Integration Effort in Africa', in P. De Lombaerde and E.J. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.209–22.
- UNESCWA (2006), *Annual Review of Developments in Globalization and Regional Integration in the Arab Countries 2006*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2007), *Annual Review of Developments in Globalization and Regional Integration in the Arab Countries 2007*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2008), *Annual Review of Developments in Globalization and Regional Integration in the Arab Countries 2008*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2009), *Annual Review of Developments in Globalization and Regional Integration in the Arab Countries 2009*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2014), *Arab Integration: A 21st Century Development Imperative*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2015), *Assessing Arab Economic Integration: Towards the Arab Customs Union*, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2018), 'Assessing Arab Economic Integration: Trade in Services as a Driver of Growth and Development', Executing Committee Sixth Meeting, Marrakech, 15–16 June, Beirut: United Nations Economic and Social Commission for Western Asia.
- (2021), *User Guide Arab Economic Integration System of Indices*, Beirut: United Nations Economic and Social Commission for Western Asia.

Vinokurov, E., ed. (2010), *The System of Indicators of Eurasian Integration 2009*, Almaty: Eurasian Development Bank.

——— (2014), *System of Indicators of Eurasian Integration II*, Saint-Petersburg: Eurasian Development Bank Centre for Integration Studies.

Vinokurov, E., A. Libman, and V. Pereboyev (2017), 'The EDB System of Indicators of Eurasian Integration: Eurasian Integration's Trends from 1999 to 2012', in P. De Lombaerde, and E.J. Saucedo Acosta (eds.), *Indicator-based Monitoring of Regional Economic Integration, Fourth World Report on Regional Integration*, Cham: Springer, pp.135–56.

World Bank (2005), *Global Economic Prospects 2005: Trade, Regionalism, and Development*, Washington, DC: World Bank.

World Bank East African Community Secretariat (2014), *East African Common Market Scorecard 2014: Tracking EAC Compliance in Movement of Capital Services and Goods*, Washington, DC: World Bank.

Ye, Y.V. and M. Mikic (2016), 'The Index of Asia-Pacific Regional Integration Effort', *East Asian Economic Review*, 20(2), pp.129–68.

20.

Multilevel Institutional Approaches to Support Deeper Integration in ASEAN

Bernard Hoekman

1. Introduction

The Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) aspires to become a single market where goods, services, people, and capital can move freely across members' borders. Unlike formally institutionalised common markets, such as the European Union (EU), the AEC does not have supranational institutions. ASEAN operates as a free trade arrangement, with ASEAN Member States (AMS) retaining sovereignty over external trade policies for non-ASEAN states. In contrast to customs unions such as the East African Community or the South African Customs Union, ASEAN does not impose a common external tariff or require a mechanism to share collected import tariff revenue. As extensively analysed in the literature (e.g. Pelkmans [2024]), ASEAN's model is unique. It views integration as a means to achieve economic growth and regional security rather than as an end in itself, avoiding the ambition of formal economic, monetary, or political union. Members retain control over economic and regulatory policies whilst balancing negative integration (commitments to limit specific policies, such as tariffs) and positive integration (measures to adopt common regulatory standards, good regulatory practices or mutual recognition of standards amongst AMS) to facilitate intra-ASEAN trade, investment, and mobility. Cooperation is based on a goal-setting strategy (Young, 2017) and informal intergovernmental organisation (Vabulas and Snidal, 2013; Snidal and Vabulas, 2021).

In considering institutional arrangements to deepen integration amongst AEC members post-2025, this chapter takes as its premise that moving towards additional legally binding treaties, pooling of sovereignty, and delegation of decision-making and enforcement to supranational bodies is neither in the cards nor necessarily desirable for dealing with the extent of emerging regional and global challenges. Instead, the chapter discusses mechanisms and institutional approaches that deepen regional cooperation whilst conforming to ASEAN's revealed preference for a goal-oriented, soft law, and coordination model.

This chapter is structured as follows: Section 2 reviews the current state of ASEAN's institutionalisation. Section 3 examines intergovernmental arrangements and institutional approaches that could further deepen intra-ASEAN trade integration and respond to a rapidly changing regional and global geo-economic landscape. Section 4 explores domestic regulatory regimes and security cooperation. Section 5 outlines conclusions.

2. The ASEAN Institutional Framework¹

Many observers have long argued that ASEAN lacks sufficient institutionalisation to achieve its stated objective of creating a single integrated market for goods, services, investment, and the movement of people (Pitakdumrongki, 2017). This perspective often assumes that successful market integration requires creating common institutions with the power to initiate, enforce, and adapt rules and commitments made by AMS and to revise legislation and rules to keep them fit for purpose as circumstances change. Comparisons to the European Union (EU) – generally recognised as the most successful regional economic integration agreement – frequently underlie this view, either implicitly or explicitly.² In ASEAN, however, the member states retain control over the integration process and associated cooperative efforts, supported by a Secretariat with very limited agency and no decision-making authority or delegated powers.³

Consequently, ASEAN's institutional framework has evolved as a complex and multifaceted network, comprising an ever-expanding constellation of councils, committees, working groups, task forces, initiatives, programmes and projects that address an ever-increasing number of issues and policy areas.⁴ This structure engages a diverse range of government agencies within ASEAN states and includes collaboration with external partners. The networked, member-driven nature of ASEAN adds to this complexity by enabling initiatives that do not necessarily involve all AMS, embodying a variable geometry approach. This flexibility extends to the actors involved in projects and initiatives, which may comprise sub-national government bodies (e.g. municipalities), international organisations, and non-ASEAN partner countries. As discussed subsequently, ASEAN's flexible structure allows for experimentation with institutional arrangements to achieve deeper integration across policy domains, an approach less constrained than the hard law-based frameworks of common markets.

Since its creation in 1967 as an informal intergovernmental organisation aimed at enhancing regional security through dialogue and cooperation around shared values, ASEAN has taken periodic steps to establish and strengthen its institutional framework. A major step towards institutionalisation occurred in 2007 with the adoption of the ASEAN Charter, transforming ASEAN into a formal intergovernmental

¹ This section draws extensively on information provided on the ASEAN homepage. For a succinct yet comprehensive discussion of ASEAN's many components involved in economic integration, see Elms (2020).

² A substantial body of regionalism literature also examines this subject. See, for example, Sbragia (2008) and Börzel and Risse (2016).

³ For an analysis of the history of the ASEAN Secretariat, see Nair (2016).

⁴ ASEAN's documentation includes an extensive array of acronyms, comparable to, if not exceeding the acronym density found in EU documents.

organisation, whilst still largely limiting delegation, pooling, and associated sovereignty costs. The apex decision-making body in ASEAN is the Leaders' Summit, where heads of state meet annually. The ASEAN Coordinating Council (ACC), comprising ministers of foreign affairs, who meet twice a year, is responsible for implementing summit decisions and preparing the summit agenda. The ACC operates in consultation with, and is informed by, three domain-specific community councils: the ASEAN Political Security Community (APSC), the AEC, and the ASEAN Socio-Cultural Community (ASCC). Several other ASEAN bodies report to the ACC, including the Joint Consultative Meeting, the Committee of Permanent Representatives, and ad hoc working groups on specific issues, such as the Working Group on Public Health Emergencies or those addressing requests for membership (currently Timor-Leste).

The three community councils function at the ministerial level, with each AMS designating a minister responsible for implementing the council-specific Blueprints. The Blueprints, adopted by the ASEAN Summit, outline the goals within each of the three broad domains, or pillars. The current Blueprints run through 2025.⁵ The community councils are linked to and oversee the work of sector- and issue-specific working groups, working committees, and task forces of national officials, who address the policy areas defined by ASEAN Summit agreements and decisions. Each community council convenes twice a year. The APSC and ASCC are usually represented by foreign affairs ministers, mirroring the ACC, whereas the AEC Council includes ministers in charge of economic affairs, often overseeing trade and industry. Each council is chaired by the minister from the member state holding the ASEAN's rotating chairmanship for the year.

The APSC Council is responsible for implementing the APSC Blueprint, which focuses on political development, norm-setting, conflict prevention and resolution, and post-conflict peace-building mechanisms. Unlike the other two community councils, its activities are largely centred on dialogue and coordination rather than joint action. The ASCC Council, tasked with implementing the ASCC Blueprint, is supported by the senior officials committee for the ASEAN Socio-Cultural Community (SOCA), which fosters collaboration amongst ASCC sector bodies, including establishing working groups for specific issues areas as needed. The Coordinating Conference on the ASCC (SOC-COM), a subsidiary body meeting at least annually, gives SOCA technical and operational support. SOC-COM includes representatives from ASCC sector bodies, the Committee of Permanent Representatives, relevant bodies from the political security and economic pillars, ASEAN entities and the ASEAN Secretariat. Similarly, the AEC Council coordinates the work of AEC sector ministerial bodies,⁶ supported by national senior economic officials and the ASEAN Secretariat. The Secretariat works closely with national economic officials to monitor, coordinate, and consult with sector ministerial bodies on implementing the AEC Blueprint measures. Community council meetings are generally preceded by preparatory meetings of senior officials. For example, the AEC Council meeting is preceded by a senior economic officials meeting and includes subsidiary bodies such as the ASEAN Free Trade Area (AFTA) Council and the ASEAN Investment Area (AIA) Council. These preparatory meetings ensure that national officials from line ministries and sector regulators regularly interact on ASEAN-related matters, discussing the state of play in areas covered by the Consolidated Strategic Action Plan, which lays out actions to be pursued at the national level.

⁵ A high-level task force was established in 2022 to draft suggestions for the ASEAN Community Post-2025 Vision.

⁶ The national ministries meet regularly, exemplified by the ASEAN Finance Ministers' and Central Bank Governors' Meeting, which addresses a range of ASEAN initiatives pertaining to financial services regulation, liberalisation, and taxation. The finance ministers and central bank governors oversee working committees, working groups, and task forces dealing with matters ranging from implementing financial services liberalisation under the ASEAN Framework Agreement on Services and its successor, the ASEAN Trade in Services Agreement. They also manage initiatives within the ASEAN Banking Integration Framework, capital account liberalisation, and the enhancement of the bilateral tax treaty network amongst AMS.

Given the cross-sector nature of many policy areas and issues addressed by the Blueprints and associated action plans, platforms have been developed to promote coordination across ASEAN bodies and policy coherence amongst national government agencies. Key initiatives include ASEAN connectivity and integration programmes that seek to bridge development gaps amongst member states.⁷ The Initiative for ASEAN Integration supports this goal, focusing on financial aid and technical assistance from more developed AMS, with support from partner countries and international organisations, to bolster infrastructure, human resources, and information and communication technology networks in Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, and Viet Nam, enhancing their capacity to meet ASEAN commitments (ASEAN, 2020).

The Committee of Permanent Representatives, comprising national ambassadors, supports the work of the community councils and sector ministerial bodies and acts as a liaison between AMS and the ASEAN Secretariat. Permanent missions of AMS coordinate closely with their ASEAN national secretariats, which serve as focal points for implementing ASEAN decisions. The ASEAN Secretariat, based in Jakarta and led by a secretary-general with a 5-year non-renewable term, supported by four deputies from different AMS, provides administrative services and support. Its mandate is to 'facilitate and coordinate ASEAN stakeholder collaboration in realising the purposes and principles of ASEAN as reflected in the ASEAN Charter' (ASEAN, 2024).

With a budget of approximately US\$22 million to US\$25 million and a staff of 400 (Nair, 2016; Elms, 2020),⁸ the Secretariat is relatively small for an intergovernmental organisation with ambitions to establish an economic community. The Secretariat's limited discretionary budget results in a high dependence on in-kind contributions from member states and grants from non-ASEAN partner countries, such as Japan, Australia, New Zealand, the United States, European countries, and the EU, amongst others. Resources from these donors support ASEAN-related cooperation projects and programmes. Since 2009, over US\$1.8 billion has been allocated to such activities, distributed across socio-cultural (45%), economic community (40%), political and security (9.5%), and cross-cutting connectivity and capacity-building projects (5%).⁹ The complementary ASEAN Foundation promotes community building by fostering awareness of the ASEAN identity, encouraging people-to-people interactions, and supporting collaboration amongst the business sector, civil society, academia, and other stakeholders.¹⁰ The ASEAN Infrastructure Fund, co-funded and administered by the Asian Development Bank (ADB), provides loans for infrastructure projects across the region, with the bank serving as the lender of record for the initiatives.¹¹

⁷ The first objective seeks to attain 'a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of Community'. The initiative focuses on strengthening physical, institutional, and people-to-people linkages, guided by the Master Plan on ASEAN Connectivity 2025, which encompasses five areas: sustainable infrastructure, digital innovation, seamless logistics, regulatory excellence, and people mobility.

⁸ No recent budget figures have been published by the Secretariat. One reason for the limited budget scale is ASEAN's commitment to equal financial contributions from all AMS (Article 30 of the ASEAN Charter), which differs from gross domestic product or trade-weighted contributions used in many other international organisations. However, differentiated contributions are applied in some ASEAN-related bodies, such as capital contributions to the ASEAN Infrastructure Fund (Menon and Fink, 2019).

⁹ In 2022, approximately US\$65 million was disbursed, with almost 80% allocated to socio-cultural and environment-related projects (ASEAN, 2023a).

¹⁰ The ASEAN Foundation had a budget of US\$2.6 million in 2022, mostly sourced from corporate contributions (some 70%) and external partners (20%).

¹¹ The fund includes an inclusive finance facility and an ASEAN catalytic green finance facility. To date, it has committed US\$520 million to nine projects, with a total portfolio of around US\$3 billion, including co-financing from ADB. For more information, see ASEAN (2024).

Several consultative mechanisms and associated entities complement ASEAN's core bodies. Created in 2009, the ASEAN Intergovernmental Commission on Human Rights serves as a consultative body tasked with promoting and protecting human rights and fundamental freedoms. The ASEAN Inter-Parliamentary Assembly offers a platform for parliamentarians from member states to interact on ASEAN-related matters, whilst the Council of ASEAN Chief Justices facilitates similar dialogue amongst judicial leaders. These bodies, however, are limited to consultation and dialogue, lacking any co-decision-making powers, and are officially designated as 'entities associated with ASEAN'. The Charter allows for the accreditation of associated entities, provided they adhere to ASEAN's purposes, principles, policies, and decisions.¹²

To help realise a more integrated economic community, AMS have negotiated several agreements, including the AFTA, which encompasses the ASEAN Trade in Goods Agreement, the ASEAN Framework Agreement on Services – transformed into the ASEAN Trade in Services Agreement in 2019 – and the ASEAN Comprehensive Investment Agreement. The agreements are binding and enforceable through arbitration and dispute settlement panels, as stipulated by the ASEAN Protocol on Enhanced Dispute Settlement Mechanism, the latest version of which came into force in June 2022. These agreements reflect ASEAN's gradual transition towards greater formalisation, or legalisation, in certain domains of economic policy. According to the ASEAN website, ASEAN has concluded 74 legal instruments, including agreements on trade liberalisation in goods and services, along with various associated protocols.¹³ The coverage of services liberalisation has gradually expanded with the addition of protocols – 12 to date. Other agreements include the ASEAN Services Facilitation Framework (2024), the ASEAN Agreement on the Movement of Natural Persons (2012, updated in 2022), and the 2019 ASEAN Agreement on Electronic Commerce. ASEAN has developed numerous mutual recognition arrangements (MRAs) for goods and services providers,¹⁴ including the recent 2023 ASEAN Authorised Economic Operator Mutual Recognition Arrangement (ASEAN, 2023b).¹⁵ Some of the MRAs emphasise good regulatory practices, including the use of international standards. For example, the 2024 ASEAN Food Safety Regulatory Framework Agreement references international standards and regulatory practices promoting consistency across member states.¹⁶

¹² The ASEAN Charter defines five types of entities: members of parliament and the judiciary, think tanks and academic institutions, civil society organisations, business associations, and other stakeholders. There are currently around 80 accredited entities, including 48 civil society organisations and 16 business organisations (ASEAN, 2024).

¹³ See ASEAN Legal Instruments. https://agreement.asean.org/search/by_pillar/2/12.html (accessed 27 April 2024).

¹⁴ For example, on engineering services, nursing services, architectural services, surveying qualifications, medical practitioners, dental practitioners, accountancy services, and tourism services, as well as good manufacturing practice inspection for manufacturers of medicinal products.

¹⁵ The goal is to ensure that an authorised economic operator (AEO) certified in one AMS is recognised by authorities in other AMS countries, allowing for faster cargo within ASEAN. The AEO MRA aligns with standards set by the World Customs Organization SAFE Framework, aimed at securing and facilitating global trade.

¹⁶ Research suggests that the various service MRAs have had limited effectiveness in promoting intra-ASEAN exchanges and temporary movement of professionals (ASEAN and World Bank, 2013; Fukunaga, 2015; Hamanaka and Jusoh, 2016; Intal, 2017; Menon et al., 2018).

ASEAN's numerous trade-related agreements are complemented by trade agreements with partner countries, including Australia, China, Hong Kong, India, Japan, New Zealand, and the Republic of Korea. Many of these agreements were complemented by the 2020 Regional Comprehensive Economic Partnership (RCEP), which includes ASEAN alongside Australia, China, Japan, New Zealand, and the Republic of Korea. Each free trade agreement established joint committees and subsidiary bodies to oversee the implementation and operation of the agreement, supervise and coordinate the work of these bodies, and consider issues pertinent to the operation of the agreement. Formal dispute settlement mechanisms in the more comprehensive agreements, including RCEP, follow the approach used in the 1947 General Agreement on Tariffs and Trade: single-stage binding arbitration by tribunals (panels) if consultations and mediation fail to resolve the matter.¹⁷

3. Mechanisms to Support Trade Integration: Beyond Monitoring

This brief overview of ASEAN's institutional framework illustrates the multifaceted and complex nature of ASEAN cooperation. Member states define broad goals, set specific targets, and implement actions through a mix of formal and informal mechanisms. Although ASEAN's trade agreements and national trade commitments are binding and enforceable, dispute settlement processes are rarely used. When AMS have sought arbitration for trade disputes, they have generally done so through the World Trade Organization (WTO). The underlying assumption is that implementing agreements is in each member's national interest, with the recognition that varying national priorities and capacity constraints call for gradual, differentiated implementation and the provision of technical and financial assistance. Notably, external parties – including multilateral development banks and non-ASEAN partner states – play an important role in providing such assistance.

ASEAN's success is conditional on national actions to achieve agreed targets and mutual support mechanisms to address political economy factors that affect the incentives of national interest groups to either support or oppose reforms (Das, 2017; Jones and Hameiri, 2020; Denney et al., 2024). ASEAN trade agreements have effectively removed tariffs on intra-ASEAN trade in goods. However, less progress has been achieved in reducing the trade barriers posed by non-tariff measures (NTMs), notwithstanding efforts to facilitate trade by reducing red tape at borders through initiatives such as single windows, authorised economic operator programmes, and other trade facilitation measures. Slow progress in reducing trade costs associated with NTMs and regulatory heterogeneity reflects political economy dynamics within ASEAN states, capacity constraints amongst lower-income members, and the lack of penalties for failing to implement good regulatory practices.

Realising and sustaining deeper market integration calls for institutional frameworks to define goals and guide concerted action amongst AMS. This is essential both in areas of formal commitments, such as trade liberalisation, and in areas of voluntary cooperation, where the focus is on identifying and adopting agreed good practices. So far, ASEAN's approach has centred on defining broad visions (the Blueprints),

¹⁷ There is no second-stage appeal process, such as the appellate body introduced by the WTO in 1995. Dispute settlement mechanisms generally do not apply to disputes concerning sanitary and phytosanitary measures, electronic commerce, economic cooperation, or competition.

strategic action plans, and monitoring national actions to implement commitments and meet agreed goals or targets. Monitoring contributes to reporting, dialogue, and mutual peer review amongst AMS, assessing both compliance with specific agreements and performance based on outcome indicators.

The 2007 ASEAN Charter assigns a monitoring function to the ASEAN Secretariat, although it does not specify the coverage or process. In 2008, the AEC Scorecard was introduced to monitor and assess progress towards market integration (ASEAN, 2010), measuring the implementation of the AEC Blueprint 2015 measures by AMS. The scorecard relied on a self-assessment system rather than standardised metrics. There were two versions of the AEC scorecard: an internal (confidential) version, reporting implementation details to ASEAN economic ministers and summit meetings, and a version intended to be published biannually (Rillo, 2017). The ASEAN and World Bank (2013) initiative, a joint venture to assess ASEAN economic integration achievements, expanded on the scorecard approach. Although originally intended as a regular report, it was only published once, as a decision was made to discontinue the scorecard exercise.¹⁸

Das (2012, 2017) and Sukma (2014) assess the implementation of the AEC Scorecard, highlighting a common criticism: the approach to measuring compliance involved a binary characterisation of commitment implementation (i.e. yes or no), without adequately examining the effects of implementation. In 2015, ASEAN reported that 93% of the Blueprint 2015 trade-related commitments had been attained (Das, 2017), yet there was no analysis of whether or to what extent this performance yielded tangible benefits for ASEAN stakeholders. The scorecard approach has since been replaced by the AEC Monitoring and Evaluation programme, which abandoned the simplistic binary characterisation of compliance in favour of monitoring sector work programmes and activities using specific key performance indicators, such as utilisation rates of zero-duty regimes and growth in the share of intra-ASEAN trade and investment flows (ASEAN, 2017), as well as reporting a range of socio-economic indicators. However, these broader indicators are not necessarily driven by ASEAN activities, and there is no assumed causal relationship between the outcome indicators and ASEAN programmes or projects. These general indicators are published in the ASEAN Community Progress Monitoring System reports, issued at 5-year intervals. The first report was issued in 2007, followed by reports in 2012 and 2017 (ASEAN, 2017).

It remains unclear what value these periodic reports add, given that many performance indicators are not directly associated with ASEAN agreement implementation or national commitments. Many indicators used in the monitoring reports are compiled and reported by international organisations such as the World Bank, the United Nations Economic and Social Commission for Asia and the Pacific, and the World Economic Forum. There is a need to focus on documenting extant policies pertinent to ASEAN's core programmes and projects, assessing their evolution over time – specifically, whether the policies align with the objectives and goals of the ASEAN Blueprints. The assessment includes evaluating whether there is convergence across ASEAN states in policy usage, a reduction in sector regulatory heterogeneity, and changes in the trade costs for firms in committed policy areas. It includes analysing the economic effects of policy changes along with the opportunity costs of not achieving agreed policy reforms across AMS. Such information is necessary for fostering informed dialogue, drawing lessons from past actions, and understanding what has worked, what has not, and why. These processes are critical for identifying reasons behind observed progress shortfalls and, perhaps even more importantly, recognising factors that have contributed to successful reforms. Such insights are key to designing approaches that address specific issues impeding progress within individual countries or groups of countries.

¹⁸ The ASEAN–World Bank report appears to have faded without impact. A subsequent think tank report assessing ASEAN integration, issued 5 years later by Menon, Todd, and Arujunan (2018), does not even reference it.

To establish an effective starting point, institutional mechanisms must be in place to generate and regularly update information on current and evolving applied policies, allowing for consistent tracking of changes over time. Whilst the scorecard approach focused narrowly on formal compliance – typically as reflected in legislative or regulatory adoption or amendments – assessing the implementation status of actions to achieve agreed goals is important. Rather than defining compliance in narrow legal terms, which may be of limited salience from an economic perspective and ASEAN's commitment to adopting growth-promoting and regionally stabilising good practices, the emphasis should shift towards tracking progress and outcomes. Consequently, monitoring activities should prioritise applied policies and their actual effects.

International organisations already collect data on many policies. Information on NTMs affecting trade in goods is collected by the United Nations Conference on Trade and Development (UNCTAD) and the International Trade Centre (ITC); services trade policies are compiled by the World Bank, the WTO, and the Organisation for Economic Co-operation and Development (OECD); and investment policies are tracked by UNCTAD. Independent academic initiatives, such as Global Trade Alert (GTA) (2024), further enhance these efforts by monitoring trade-related policies in real time. All these efforts cover ASEAN countries, enabling AMS and the Secretariat to use the data to assess policy trends, which is essential for realising ASEAN's economic integration goals. The process has been, and continues to be, utilised effectively. Examples include collaboration between the Economic Research Institute for ASEAN and East Asia (ERIA) and UNCTAD to collect NTM data, assess differences in product-specific NTMs across AMS, and track trends over time, as well as to estimate the tariff equivalents of NTMs (Ing, Fernandez de Cordoba, and Cadot, 2016; Ing and Cadot, 2017; Knebel and Peters, 2019). The ASEAN Secretariat has collaborated with the World Bank to assess progress in integrating ASEAN markets for goods, services, and investment (ASEAN and World Bank, 2013).

NTMs are often linked to domestic product regulation and thus apply equally to domestic and foreign products. From a trade facilitation perspective, the challenge lies in reducing unnecessary trade restrictions undercutting the regulatory objectives underlying specific NTMs, such as consumer health and safety or environmental protection. This can be done through harmonisation, which involves adopting common standards, or through mutual recognition of conformity assessments and certification regimes. In practice, however, NTM regimes may unnecessarily impede trade due to the way they are enforced at borders by government agencies or due to redundant requirements, such as duplicate paperwork or inspections that have already been undertaken by authorities in another ASEAN state. Reducing these trade-impeding effects of NTMs is particularly complex given that national authorities remain responsible for both setting and enforcing standards. A commitment to cooperation requires a problem-solving mindset, supported by a multi-track institutional framework that identifies approaches to reducing NTM-related trade and administrative costs.

In the ASEAN context, several proposals have been made to address these issues. Ing et al. (2016) and Ing and Cadot (2017) propose creating an institutional mechanism within the ASEAN Secretariat to foster NTM transparency through continuous NTM data collection and dissemination, coupled with a trade facilitation fund for training, infrastructure improvements, and related support. They propose creating or leveraging existing national NTM committees to review NTMs at the national level. Ing and Cadot (2017) note that the committees should be endowed with technical staff capable of performing analytical reviews and producing recommendations for regulatory reforms to be submitted to policymakers. Regulatory bodies in AMS have such capacity and could share staff training with assistance from the ASEAN Secretariat and development partners, providing soft regulatory convergence through shared methodologies and concepts. Findlay and Hoekman (2021) suggest leveraging national committees on trade facilitation (NCTFs), which bring together different government agencies responsible for border

regulations and include private sector representation (e.g. business associations or chambers of commerce).¹⁹ All AMS have NTFCs, as mandated by the WTO Trade Facilitation Agreement, and these can serve as focal points for convening representatives from line ministries. ASEAN governments could use NCTFs to solicit inputs from the private sector on NTM-related trade and investment barriers and to discuss options for policy reform and enhanced regulatory cooperation.

A similar approach can be applied to services trade and digital policies that affect trade. As with NTMs for goods, various international organisations and academic initiatives have engaged in compiling information on applied services trade policies and regulatory measures affecting trade and investment in services, including digital services and regulations on cross-border data flows. The World Bank and the WTO, alongside the OECD, have compiled services trade restrictiveness indices (STRIs) by collecting granular information on applied policies. Similar efforts are underway for digital trade. For example, the European University Institute, working with the UN Economic Commissions, has compiled a database on digital trade policies (Ferracane, 2022). As with NTMs affecting trade in goods, these data provide a basis for tracking changes in applied policies and analysing their impacts on trade and investment. Such analysis is important for identifying priority areas for reform and fostering cooperation amongst AMS, enabling them to better realise regulatory goals whilst facilitating greater trade in digital services. Such an analysis could be done by the Secretariat in collaboration with these organisations or ERIA. Recent progress includes a joint project between the ASEAN Coordinating Committee on Services and the OECD, aimed at compiling ASEAN-specific services trade restrictiveness indicators for logistics, telecommunications, construction, and computer services (OECD, 2022).

Greater transparency and analysis of trade-related regulations can be complemented by adopting specific trade concern (STC) processes, akin to those used by the WTO, with an emphasis on addressing NTM-related trade costs through problem-solving. In the WTO committees on sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs), STCs facilitate discussions on new or modified technical product requirements under consideration or adoption by members. Similar trade concerns are also discussed in other WTO bodies.²⁰ Most STCs are resolved through dialogue amongst officials with expertise in both the technical and the legal or economic aspects of the given policies. The large number of STCs relative to formal dispute settlement cases, particularly regarding measures justified by national security, highlights the value of STC given the increasing invocation of national values and security concerns to justify trade measures (Hoekman, Mavroidis, and Nelson, 2023). In ASEAN, adopting an STC approach would not require notification processes as in the WTO. Instead, it could be based on data from the UNCTAD/ITC NTM database, STRIs, and digital trade restrictiveness measures, with the GTA providing a valuable source of information on recent policy measures and a basis for technical-level dialogue amongst member state officials.²¹ An STC process would benefit all members, including those receiving inquiries, by supporting ASEAN integration goals and serving as a platform for learning and understanding the effects and effectiveness of policies.²² Deliberations around STCs would provide an opportunity to discuss the policy objectives underlying specific measures and identify feasible

¹⁹ These committees are required by the WTO Agreement on Trade Facilitation. See Hoekman (2016) and Belastegui (2020).

²⁰ Since 1995, some 6,000 questions – similar to STCs – have been raised within the Committee on Agriculture (CoA) review process. From mid-October 2014 to mid-October 2019, over 1,150 concerns were raised in 129 formal meetings of 17 WTO committees and councils, excluding the SPS and TBT committees and the CoA (Wolfe, 2020).

²¹ The WTO Trade Policy Review Mechanism serves as a potential complementary source of data, although it covers fewer policy measures.

²² The activities suggested here can and should add value to existing policy compilations by evaluating the extent to which policies are applied differentially in intra-ASEAN transactions, an aspect that current databases only capture to a limited extent.

instruments to achieve these goals more efficiently and at a lower cost to international trade. Analysing the effectiveness and opportunity cost of policies could also serve as a counterbalance to the limited, if any, consideration often given in domestic policymaking to the possible consequences of policy choices on third parties. Allowing trade officials to raise questions in an ASEAN committee could stimulate domestic discussions on the trade effects of regulations that may not have been thoroughly considered during the policymaking process.

The community of national trade officials and regulators driving ASEAN's work can contribute to incorporating trade concerns into domestic policymaking, raising awareness of the opportunity cost associated with specific NTMs. An important benefit of an STC process and the resulting dialogue within ASEAN lies in the reluctance of members to use dispute settlement mechanisms. An STC approach is much less adversarial and fosters an understanding of national constraints and contexts. It offers a pathway for ASEAN-based cooperation to support AMS in addressing capacity or political economy challenges that impede the implementation of agreed good practices.

4. Supporting Regulatory Regionalism Through Experimentalist Governance Frameworks

Jones and Hameiri (2020) characterise ASEAN as an example of regulatory regionalism, where goals and agreed good practices (rules) are established for implementation by government agencies. Rather than empowering ASEAN institutions, such as the Secretariat, regulatory regionalism focuses on transforming member states to align with mutually agreed, regionally defined goals. This cooperative approach confronts two basic challenges: obtaining consensus on what constitutes good practice and ensuring the implementation of agreed good practices in specific policy areas. Whilst defining good practice is primarily a technical matter that can be addressed by national regulators and officials, implementation encounters both capacity limitations and political economy constraints. Interest groups that perceive reforms as contrary to their interest may oppose and block the adoption of new norms (Jones, 2015). Since implementation remains a national responsibility, interagency conflicts and bureaucratic competition can impede progress towards adopting better practices (Das, 2017). Karim, Irawan, and Mursitama (2021) analyse Indonesia's experience with the 2014 ASEAN Banking Integration Framework, showing how domestic political economy forces – particularly resistance from local banks more focused on protecting their home market than expanding into other ASEAN markets – led to the limited adoption of this ASEAN framework.

Institutional mechanisms that adopt multi-level, inclusive governance approaches can help address policy-related trade frictions by assessing whether regulatory measures pursue similar goals and whether enforcement systems are equivalent. Achieving such alignment requires a shared understanding of regulatory purposes (identifying the problem to be solved), the possible responses, and the best approach given local conditions. Progress in these areas can be made through a series of tasks (Findlay and Hoekman, 2021):

1. Improving transparency of applied policies through dialogue and learning.
2. Undertaking independent analysis of policies, their objectives, and their impacts.
3. Consulting and exchanging information on the objectives of regulatory policies and the regulatory regimes used in each country to implement national policies.
4. Identifying alternative options and defining good practices.
5. Identifying reform constraints, including political economy forces, and identifying practical responses based on experience.

Such a process can create a body of agreed technical knowledge and goodwill amongst national regulatory agencies. Haas (1992) refers to stakeholders and experts linked in this way as an epistemic community. Engaging with salient epistemic communities facilitates international cooperation in policy domains that require substantial technical knowledge as a foundation for cooperation. Haas defines such communities as groups of professionals who share the following:

- Normative and principled beliefs that provide a value-based rationale for the community's actions.
- Causal beliefs, derived from their analysis of practices to address problems in their domain, that serve as the basis for understanding linkages between possible policy actions and desired outcomes.
- Validity standards, including criteria for weighing and validating domain-specific knowledge.
- Common practices aimed at addressing problems to enhance social welfare.

The literature on experimentalist governance provides a framework for designing institutional mechanisms that support a bottom-up process to achieving integration goals (Marx et al., 2022). The experimentalist approach is characterised by four core features: (i) stakeholders commit to a non-hierarchical decision-making process; (ii) shared problems are identified and open-ended goals are agreed upon to address them; (iii) responsibility and discretion are delegated to lower-level actors with contextualised knowledge to implement these goals in their respective settings; and (iv) regular feedback is provided through monitoring, evaluation, and peer review, which informs policy and practice revisions (de Búrca et al., 2013). In this approach, state actors and relevant stakeholders jointly define goals and associated metrics (baselines and targets), delegate implementation to lower-level governance actors, and recognise that interventions must remain flexible and dynamic. Effective operational monitoring, performance analysis, and feedback are essential to support learning and adjust processes and joint actions to achieve common agreed objectives. This continuous feedback loop is a critical element, distinguishing this type of monitoring and evaluation (M&E) from traditional M&E, which typically serve as a retrospective accountability measure. Here, M&E function as a diagnostic tool for problem-solving, providing insights to refine and adapt policies over time as goals evolve (Kuznetsov and Sabel, 2017).²³ Building institutions capable of linking experimental efforts across countries could accelerate the design of regional regulations (Menon and Fink, 2019).

Experimentalist governance approaches require states to cooperate with stakeholders to define goals and approaches for achieving them. Whilst ASEAN has traditionally been reluctant about delegating functions, there are notable examples. One is the ASEAN Infrastructure Fund, which provides a platform for public-private partnerships for investments required under the ASEAN Connectivity Masterplan. ASEAN has delegated the fund's management and administration to ADB, entrusting ADB with operational responsibilities on ASEAN's behalf (Menon and Fink, 2019). Costoya (2022) provides an early

²³ The approach parallels the shift in development economics towards diagnostics and experimentation. See, for example, Rodrik (2010).

example of experimentalist governance within ASEAN: the Smart Cities Network, which involves city-to-city partnerships, bringing together city governments and local stakeholders to pool knowledge and coordinate actions around shared goals such as smart infrastructure and addressing climate action. Although this network addresses a common problem through open-ended goals, it involves multiple stakeholders in non-hierarchical decision-making. Although it delegates responsibility and discretion to lower-level actors, it lacks an institutionalised feedback and peer-review mechanism for continuous improvement of rules and practices. Cotoya argues that the Smart Cities Network should extend beyond mere reporting and monitoring and be backed by an ASEAN entity 'tasked with discovering across member states scalable and replicable real sector projects in the area of smart and sustainable urbanization'.

Hoekman and Sabel (2019) discuss how experimentalist governance can be further implemented through open plurilateral agreements (OPAs) between states. This cooperative model is flexible, allowing varying levels of intra-ASEAN participation and the inclusion of non-ASEAN actors. OPAs can complement trade agreements and foster domain-specific integration. Plurilateral initiatives present a pragmatic, efficient path forward for like-minded states to pursue shared goals, especially in areas such as digital economy regulation, cross-border data flows, and climate change mitigation. OPAs enable countries to deepen cooperation beyond the scope of trade agreements such as RCEP. Embedding plurilateral initiatives in the WTO framework offers both participants and nonparticipants a means to uphold a multilateral, rules-based trade order, even as cooperation increasingly operates through variable geometry in a multipolar economy. AMS, such as Singapore, are already pursuing digital economy agreements. Expanding these to cover more ASEAN states and allowing non-ASEAN economies to participate would promote both intra- and extra-ASEAN trade and investment flows. Such efforts are already in train, reflected in the decision by ASEAN leaders in 2023 to launch negotiations on a Digital Economy Framework Agreement in support of an open, secure, interoperable, competitive, and inclusive regional digital economy (ASEAN, 2023c).

5. Platforms for Leveraging the Private Sector and Epistemic Communities

A central aspect of these recommendations is the compilation of information on applied policies, analysis of their effectiveness, and engagement with diverse stakeholders, including the private sector and civil society organisations. Such collaborative co-production has potential payoffs in terms of technical design and implementation of blueprints because of greater perceived legitimacy and ownership of ASEAN cooperation and associated national reforms.

Whilst ASEAN has progressively increased its engagement with civil society and business organisations, this interaction has mostly been limited to consultation and dissemination activities rather than collaborative efforts with civil society organisations (CSOs). Research indicates that CSOs perceive ASEAN as technocratic and dominated by state-to-state interactions, with limited inclusivity in decision-making processes. Gerard (2015) argues that ASEAN's inclusion of civil society functions more as a means to legitimise market-building reforms, with participatory mechanisms largely limited to supportive groups. Chandra, Abdulrahim, and Almuttaqi (2016) note that engagement processes, such as annual meetings between ASEAN bodies and CSOs, reflect the agenda and interests of AMS and lack sufficient diversity. To enhance these processes, ASEAN should move beyond viewing engagement as a one-way dissemination

channel for its programmes and projects. Instead, it should seek meaningful feedback and input from non-state stakeholders. This shift implies a need to relax the restrictive criteria for becoming an associated entity and to involve CSOs actively in tracking the progress of adopted recommendations.

The ASEAN Secretariat and the ASEAN–Business Advisory Council (BAC) have been pursuing such an approach that should be bolstered and widely adopted. Acting as a business consultative mechanism, the ASEAN–BAC reports annually to the AEC Ministerial meetings and the ASEAN Summit on its activities, including meetings and interactions with ASEAN governments, joint business councils (with counterpart business associations from ASEAN trading partners),²⁴ and the Secretariat. Each year, ASEAN–BAC launches legacy projects, which enable businesses to support the implementation of the AEC Blueprint and broader ASEAN objectives through concrete projects or programmes rather than limiting their contributions to government recommendations. However, Karim and Heryanto (2022) note that ASEAN–BAC suffers from understaffing and inadequate financing, as its regional secretariat is funded by the previous year’s chair country.

Menon and Fink (2019) argue that the imperatives of regional governance call for agile and flexible approaches that enable governments to respond rapidly to changing circumstances whilst still addressing market failures and attaining non-economic objectives. Essential to this approach is rapid learning and the integration of insights from businesses and other stakeholders into rule-making processes. They suggest that the ASEAN Secretariat evolve into a platform organisation supporting an ecosystem of multi-stakeholder expert groups. The Secretariat would convene and oversee the composition of working groups, guiding them in developing policy proposals for ASEAN endorsement, which, if approved, would be ratified by each AMS and adopted into domestic law. To fulfil this role effectively, the ASEAN Secretariat would need a larger budget and expanded staffing to operate the platform model effectively.

A valuable approach for bringing together an epistemic community is through a knowledge platform, a forum designed to foster substantive, evidence- and analysis-based discussions of the impacts of sector-specific regulatory policies. Such platforms involve businesses, officials (such as trade policy officials), and regulators, with analysts contributing value by interpreting policy information and helping to safeguard the public interest. The objectives of such platforms are consistent with approaches long employed by some inter-governmental organisations. The OECD, for example, already serves as an institutional hub for this type of engagement.

Business support and engagement are essential and set this model apart from existing government–stakeholder consultation mechanisms. Private sector actors bring direct, practical insights, which analysts can build on by evaluating the costs involved in businesses’ adjustment strategies and the potential benefits of reforms. For businesses, the value of such collaborative analytical engagement lies in the opportunity to address cost-raising issues. This benefit can be especially significant for smaller firms, which often face greater challenges adapting to NTMs. More generally, active business engagement allows consideration of the implications and needs arising from shifts in market conditions and technological innovation.

²⁴ There are about a dozen such ASEAN+1 councils, complemented by sector- or issue-specific associations, such as the ASEAN Youth Entrepreneurs Council and the ASEAN Women Entrepreneurs Council.

A potential response to these challenges, proposed in the trade policy literature, is the creation of supply chain partnerships. These partnerships bring together key actors in global value chains (GVCs) to identify trade frictions and determine whether policy changes could help reduce them (Hoekman, 2014). The concept is similar to public–private policy dialogue platforms, online knowledge portals, and regional or national roundtables established by international organisations to pursue objectives such as environmental sustainability and corporate social responsibility.²⁵ The concept is related to multi-stakeholder initiatives focused on private governance within value chains, fostering dialogue amongst private sector actors to establish voluntary production standards, certify producers, and monitor compliance.

Findlay and Hoekman (2021) suggest a variation on this idea: value chain platforms that focus on the impact of policies on the organisation and operation of value chains. The platforms aim to facilitate deliberation and cooperation amongst regulatory government agencies, the businesses operating within and impacted by GVCs, and the research community, with the goal of identifying ways to reduce value chain frictions. Unlike traditional national business–government dialogue mechanisms, a value chain approach takes a multi-sector, cross-cutting perspective, spanning all significant activities in a production network. It leverages the practical knowledge of suppliers and buyers within the chain, along with insights from experts across diverse academic and practical disciplines. This approach complements conventional informational lobbying, advocacy by companies, and corporate governance initiatives focused on sustainability and social responsibility, which are increasingly prominent in international business–government–CSO relations.²⁶ The framework can be grounded in economic policy theory, which provides a conceptual framework for deliberation and the ex-ante and ex-post assessments of policies, acknowledging their inherent complexities.

Elements of such deliberation already occur in ASEAN, but more could be done to bring in outside expertise, including that of regulators, international organisations, practitioners, and industry representatives, to discuss emerging issues that are pertinent to the overall integration goal. The discussions should not centre on compliance but on sharing experiences and learning about new developments and opportunities for potential cooperation, thus complementing the regular work of committees. There would appear to be significant scope to leverage extant epistemic communities and support such communities to engage with each other and with responsible government officials. An important contribution a platform can make to support deliberations is to provide independent objective empirical analyses of the likely economic impacts and incentive effects created by the policies pursued by a major state. ASEAN Secretariat staff, equipped with the necessary expertise and analytical capabilities, could deliver rigorous quantitative and qualitative assessments of policy effectiveness and spillover effects. This work could be further enhanced through collaboration with organisations such as ERIA, ADB, and other international organisations with relevant technical expertise, as well as with international business organisations that possess insights into pertinent value chains.

²⁵ For example, the Food and Agriculture Organization of the United Nations Sustainable Food Value Chains Knowledge Platform; the OECD Initiative for Policy Dialogue on Global Value Chains, Production Transformation and Development; the World Bank's Global Partnership for Social Accountability Knowledge Platform; and the United Nations UN Global Compact on Supply Chain Sustainability.

²⁶ A project described by Gray et al. (2022) exemplifies many key features of a value chain platform. Its purpose was to examine the standards, laws, and regulations affecting various products exported from Indonesia to Australia. Participants included regulatory officials from both countries, businesses from relevant sectors (food, drugs, and herbal well-being products), and researchers who also organised the activities. The project adopted a value chain approach, linking efforts to regulatory reform cooperation. Participants shared insights on specific bilateral transactions and worked collaboratively to remove impediments encountered.

6. Conclusion

Over more than 50 years, ASEAN has demonstrated significant dynamism in pursuing its regional cooperation and integration objectives. This progress has been accompanied by increasing institutionalisation, all whilst maintaining a fundamental commitment to an intergovernmental, AMS-driven framework for cooperation. Whilst ASEAN has made substantial progress in market integration, achieving a fully unified single market remains a significant objective. The task includes addressing longstanding challenges related to political economy factors that impede the implementation of trade facilitation initiatives, notably in reducing the trade-impeding effects of NTMs. The agenda has grown as trade in services and the expansion of the digital economy bring to the fore new areas of domestic regulation that impact trade and investment flows. ASEAN faces a range of new challenges, from rapid technical change and rising geopolitical rivalries amongst major economic powers to the unilateral use of trade and investment policies motivated by non-economic objectives, such as environmental concerns and national security.

Regional cooperation offers a means for member countries to confront and manage the spillover effects of these external dynamics. The flexible structure of ASEAN provides opportunities for experimentation in collective responses to shared challenges, without requiring the delegation of sovereignty to central institutions. ASEAN's networked nature can be further harnessed by establishing multilevel, domain-specific platforms that engage key epistemic communities, providing a foundation for institutional innovation to advance regional integration objectives and address global challenges. Opening ASEAN processes to meaningful participation by these epistemic communities – who bring expertise, interest, and knowledge of specific policy domains – is a potential path forward to leverage the network dimension of cooperation in ASEAN.

References

- Association of Southeast Asian Nations Secretariat (2010), *ASEAN Economic Community Scorecard: Charting Progress Towards Regional Economic Integration*. Jakarta: ASEAN Secretariat.
- Association of Southeast Asian Nations Secretariat (2017), *ASEAN Community Progress Monitoring System (ACPMS) Report*. Jakarta: ASEAN Secretariat.
- Association of Southeast Asian Nations Secretariat (2020), *Ha Noi Declaration on the Adoption of the Initiative for ASEAN Integration (IAI) Work Plan IV (2021–2025)*. Jakarta: ASEAN Secretariat
- Association of Southeast Asian Nations Secretariat (2023a), *ASEAN Matters: Epicentrum of Growth*. Jakarta: ASEAN Secretariat.
- Association of Southeast Asian Nations Secretariat (2023b), *Arrangement Between the Customs Administrations of ASEAN Member States Regarding the Mutual Recognition of their Respective Authorised Economic Operator Programmes*. Jakarta: ASEAN Secretariat.

- Association of Southeast Asian Nations Secretariat (2023c), *Leaders Statement on the Development of the ASEAN Digital Economy Framework Agreement*. Jakarta: ASEAN Secretariat
- Association of Southeast Asian Nations Secretariat (2024), What We Do. <https://asean.org/what-we-do>
- Association of Southeast Asian Nations and World Bank (2013), *ASEAN Integration Monitoring Report*. Jakarta: ASEAN and Washington D.C: World Bank.
- Belastegui, A. (2020), 'National trade facilitation committees as coordinators of trade facilitation', *Transport and Trade Facilitation Series*, No 14. Geneva: United Nations Conference on Trade and Development.
- Börzel, T. and T. Risse (eds.) (2016), *The Oxford Handbook of Comparative Regionalism*. Oxford: Oxford University Press.
- Chandra, A., R. Abdulrahim, and A. Almuttaqi (2017), "Non-state actors' engagement with ASEAN: Current state of play and way forward", in A. Baviera and L. Marami (eds.), *Building ASEAN Community: Political-Security and Socio-cultural Reflections*. Jakarta: Economic Research Institute for ASEAN and East Asia, pp.221–46.
- Costoya, M. (2022), 'South–South cooperation and the promise of experimentalist governance: The ASEAN Smart Cities Network', *Politics and Governance*, 10(2), pp.116–27.
- Das, S. (2012), 'A critical look at the ASEAN economic community scorecard', East Asia Forum. (accessed 27 April 2024).
- Das, S. (2017), 'Mind the gap: Explaining implementation shortfalls in the ASEAN Economic Community', *ISEAS Economics Working Paper*, No. 2017-7.
- De Búrca, G., R. Keohane, and C. Sabel (2013), 'New modes of pluralist governance', *New York University School of Law Working Paper*, 2013/1.
- Denney, L., H. Alffram, P. Domingo, and S. Jespersen (2024), *ASEAN action on countering trafficking in persons and forced labour: Constraints and opportunities*. London: Overseas Development Institute.
- Elms, D. (2020), *Impact of the ASEAN Economic Community and Implications for Latin America*. Santiago: Economic Commission for Latin America and the Caribbean.
- Ferracane, M. F. (ed.), (2022), *Digital Trade Integration Database*. Florence: European University Institute.
- Findlay, C. and B. Hoekman (2021), 'Value chain approaches to reducing policy spillovers on international business', *Journal of International Business Policy*, 4(3), pp.390–409.
- Fukunaga, Y. (2015), 'Assessing the progress of ASEAN MRAs on professional services', *ERIA Discussion Paper* 2015-21.
- Gerard, K. (2015), 'Explaining ASEAN's engagement of civil society in policymaking: Smoke and mirrors', *Globalizations*, 12(3), pp.365–82.
- Global Trade Alert (2024), *G20 Trade Policy Factbook 2024*. St. Gallen: Endowment for Prosperity Through Trade.

- Gray, N., J. Laukkala, and C. Findlay (2022), 'Regulatory Reform and the Contribution of Cooperation Chapters in Trade Agreements', Case study linked to IA-CEPA, *Journal of Southeast Asian Economies*, 39(2), pp.211–20.
- Hamanaka, S. and S. Jusoh (2016), 'The Emerging ASEAN Approach to Mutual Recognition: A Comparison with Europe, Trans-Tasman and North America', *IDE Discussion Paper*, 618.
- Haas, P. (1992), 'Introduction: Epistemic Communities and International Policy Coordination', *International Organization*, 46(1), pp.1–35.
- Hoekman, B. (2014), 'Supply chains, mega-regionals and multilateralism', *EUI Research Paper RSCAS*, 2014/27.
- Hoekman, B. (2016), 'The Bali Trade Facilitation Agreement and rulemaking in the WTO: milestone, mistake or mirage?', in J. Bhagwati, P. Krishna, and A. Panagariya (eds.), *The World Trade System: Trends and Challenges*. Cambridge: MIT Press, pp.149–92.
- Hoekman, B. and C. Sabel (2019), 'Open plurilateral agreements, international regulatory cooperation and the WTO', *Global Policy*, 10(3), pp.297–312.
- Hoekman, B., P.C. Mavroidis, and D. Nelson (2023), *Non-economic Objectives, Globalisation and Multilateral Trade Cooperation*. London: Centre for Economic Policy Research.
- Ing, L.Y. and O. Cadot (2017), 'A More Integrated ASEAN: Facilitating Trade in Goods', in R.S.M.S. Urata, and J.P.S. Intal (eds.), *The ASEAN Economic Community into 2025 and Beyond*. Jakarta: ERIA.
- Ing, L., S. Fernandez de Cordoba, and O. Cadot (eds.) (2016), *Non-tariff Measures in ASEAN*. Jakarta: ERIA and Geneva: UNCTAD.
- Ing, L.Y., O. Cadot, R. Anandhika, and S. Urata (2016), 'Non-tariff Measures in ASEAN: A Simple Proposal', *Non-Tariff Measures in ASEAN*. ERIA Research Project Report, pp. 13–36.
- Intal, P. (2017), 'Building the ASEAN economic community: Progression and progress', in P. Intal and L. Chen (eds.), *ASEAN and Member States: Transformation and Integration*. Jakarta: ERIA, pp.34–61.
- Jones, L. (2016), 'Explaining the failure of the ASEAN economic community: The primacy of domestic political economy', *The Pacific Review*, 29(5), pp.647–70.
- Jones, L. and S. Hameiri (2020), 'Southeast Asian Regional Governance: Political Economy, Regulatory Regionalism and ASEAN Integration', in T. Carroll, S. Hameiri, and L. Jones (eds.) *The Political Economy of Southeast Asia*, 4th edition. London: Palgrave.
- Karim, M. and T. Heryanto (2022), 'Regional integration and business interest: understanding the role of the ASEAN business advisory council', *Asian Journal of Political Science*, 30(2), pp.140–59.
- Karim, M., A. Irawan, and T. Mursitama (2021), 'Regulatory regionalism and the limits of ASEAN banking integration: The case of Indonesia', *Politics*, 02633957211061233.
- Knebel, C. and R. Peters (2019), 'Non-Tariff Measures and The Impact of Regulatory Convergence in ASEAN', in L. Ing, R. Peters, and O. Cadot (eds.), *Regional Integration and Non-Tariff Measures in ASEAN*. Jakarta: ERIA, pp.65–89.

- Kuznetsov, Y. and C. Sabel (2017), 'Managing self-discovery: Diagnostic monitoring of a portfolio of projects and programs', in S. Radosevic, A. Curaj, R. Gheorghiu, L. Andreescu, and I. Wade (eds.), *Advances in the Theory and Practice of Smart Specialization*. Academic Press, pp.51–71.
- Maria, R. S., S. Urata, and P. Intal (eds.) (2017), *The ASEAN Economic Community into 2025 and Beyond*. Jakarta: ERIA.
- Marx, A., S. Pertiwi, C. Depoorter, M. Hoornick, T. Mursitama, K. Otteburn, and L. Arnakim (2021), 'What role for regional organizations in goal-setting global governance? An analysis of the role of the European Union and ASEAN in the Sustainable Development Goals', *Global Public Policy and Governance*, 1, pp.421–45.
- Menon, J. and A. Fink (2019), 'The fourth industrial revolution and its implications for regional economic integration in ASEAN', *Journal of Asian Economic Integration*, 1(1), pp.32–47.
- Menon, J., L. Todd, and D. Arujunan (2018), *ASEAN Integration Report*. ASEAN Prosperity Initiative.
- Nair, D. (2016), 'A strong secretariat, a strong ASEAN? A re-evaluation', *ISEAS Perspective*, 8, pp.1–12.
- Organisation for Economic Co-operation and Development (OECD) (2022), *Developing the OECD Services Trade Restrictiveness Index for ASEAN. Report to the ASEAN Coordinating Committee on Services*. Paris: OECD.
- Pelkmans, J. (2024), 'Common markets', *Handbook of Regional Cooperation and Integration*. Cheltenham: Edward Elgar Publishing, pp.63–107.
- Pitakdumrongkit, K. (2017), 'Beyond the secretariat: addressing governance issues in ASEAN economic community', *The Singapore Economic Review*, 62(3), pp.741–59.
- Rillo, A. (2017), 'Monitoring the ASEAN Economic Community', in P. De Lombaerde and E. Saucedo Acosta (eds.), *Indicator-Based Monitoring of Regional Economic Integration*. New York City: Springer.
- Rodrik, D. (2010), 'The New Development Economics: We Shall Experiment, but How Shall We Learn?', in J. Cohen and W. Easterly (eds.), *What Works in Development? Thinking Big and Thinking Small*. Lanham: Rowman & Littlefield.
- Sbragia, A. (2008), 'Comparative regionalism: What might it be', *Journal of Common Market Studies*, 46, pp.29–49.
- Snidal, D. and F. Vabulas (2021), *ASEAN Way, No Way: Informality and Regional Organizations*. https://www.peio.me/wp-content/uploads/PEIO14/PEIO14_paper_135.pdf (accessed 27 April 2024).
- Sukma, R. (2014), 'ASEAN beyond 2015: The imperatives for further institutional changes', *ERIA Discussion Paper*, 2014-01.
- Vabulas, F. and D. Snidal (2013), 'Organization without delegation: Informal intergovernmental organizations (IIGOs) and the spectrum of intergovernmental arrangements', *The Review of International Organizations*, 8, pp.193–220.
- Wolfe, R. (2020), 'Reforming WTO conflict management: Why and how to improve the use of 'specific trade concerns'', *Journal of International Economic Law*, 23(4), pp.817–39.
- Young, O.R. (2017), 'Conceptualization: goal setting as a strategy for earth system governance', in N. Kanie and F. Biermann (eds.), *Governing through Goals: Sustainable Development Goals as Governance Innovation*. Boston: MIT Press.

21.

Making the Post-2025 AEC Agenda Work: Conclusion and Policy Implications

Aladdin D. Rillo and Ben Shepherd

1. Introduction

Since its establishment in 1967, the Association for Southeast Asian Nations (ASEAN) has worked towards the goal of bringing about a more integrated region, both in terms of intraregional connections and extraregional linkages. Its economic policy is framed by the ASEAN Economic Community (AEC), which envisions ASEAN as a single market and production base, a highly competitive region, with equitable economic development, and fully integrated into the global economy. It has been striving for this vision guided by the AEC Blueprint 2025, but its time frame is rapidly ending. It is now time for a broader agenda of economic, environmental, and social factors to be considered for future ASEAN integration.

The chapters assembled here have asked two primary questions about the AEC. First, what does the present show about ASEAN success in promoting a more integrated region, and where has such progress lagged? Second, how can a post-2025 AEC policy agenda complete the outstanding work of the AEC Blueprint 2025?

This conclusion aims to tie together the chapters' findings; four threads have emerged from the findings and proposals. First, the development gap amongst ASEAN Member States (AMS) is a cross-cutting issue that remains both crucial and relevant; it must be narrowed. Second, economic integration must be deepened. Third, various key issues are emerging – including sustainability, inclusion, and digital integration – that must be acknowledged and addressed. Lastly, it is important to consider the types of enabling structures required to support a deeper, broader, and stronger AEC post-2025.

2. Narrowing the Development Gap

In his chapter, David Feeny showed that the development gap between the CLMV countries (i.e. Cambodia, Lao People's Democratic Republic, Myanmar, and Viet Nam) and the other AMS will remain a defining issue for the region – although evidence does show that the gap is narrowing in some areas. From a policy standpoint, movement forwards for the region must be ensured whilst enabling lagging AMS to catch up to their peers. This ability will largely be a function of their national policies, but experience in the European Union (EU) and United States, for example, suggests that a persistent development gap needs a broader strategy to close it within a reasonable time frame.

Towards this objective, structures are already in place within ASEAN to facilitate financial transfers to help narrow the development gap, although the scope is limited. The chapter on trade facilitation by Ben Shepherd discusses one such mechanism centred on the Asian Development Bank (ADB). Leveraging support from such external partners is crucial, as the highest-income AMS – Singapore – has a small population and therefore cannot be expected to shoulder this significant transfer burden on its own. Indeed, ASEAN has a solid history of working with regional partners to mobilise financing for development, and the need is arguably becoming more acute as the agendas of regional integration and development are broadening and increasing in complexity.

In addition to financial transfers, capacity building and knowledge transfer are needed for lagging AMS. Again, the involvement of external partners like ADB will be key to mobilising the necessary substantive expertise. Putting in place additional structures to facilitate learning from within and outside of the region – as well as developing skills, knowledge, and capacity in both the public and private sectors – will help ASEAN ensure a more equitable distribution of the gains from increased integration both within the region itself and with external partners.

The development gap is prominently featured in many of this book's chapters. Whether focussed on trade facilitation, digital trade, or trade in services, there is often a clear demarcation between leading and lagging AMS. As such, the approach to closing the development gap needs to be holistic, with the aim of moving forwards – together – across a wide range of issues. Promoting faster growth in lagging AMS is crucial, but a truly regional approach also needs to be cognizant of the wide range of social and environmental concerns throughout ASEAN.

3. Deepening and Strengthening the Economic Integration

Traditional economic issues for a region looking to promote integration include trade in goods, trade in services, movement of capital (i.e. foreign direct investment [FDI]), and movement of people (e.g. visa rules, temporary service provisions, and migration). In terms of trade in goods, non-tariff measures often become the focus. Economists conceptualise trade costs as the set of frictions that hold back bilateral trade (i.e. any measure – policy-related or otherwise – that drives a wedge between producer prices in an exporting country and consumer prices in an importing country). The chapters by Ruth Banomyong and Ben Shepherd showed that whilst ASEAN has made major progress in integrating its trade in goods markets, it still must consider issues like infrastructure connectivity and trade facilitation. As suggested by the development gap discussion above, there are very different experiences in these areas within ASEAN, ranging from AMS that are at or near global best practices to those where considerable performance deficits remain.

Trade in goods provides an interesting nuance of the development gap as well. Many analyses of the development gap split ASEAN into two groups, the CLMV countries and the other AMS. However, regarding trade in goods, Viet Nam – a CLMV country – has stood out over recent years. In the chapter by Kimura and Narjoko, they noted how Viet Nam has become a key player in the new global value chain development model. Its trade–gross domestic product ratio has rapidly increased, it is an active participant in various trade agreements, and it has taken important steps forwards on trade facilitation and connectivity. The other CLMV countries should take note of Viet Nam’s progress in this arena, especially its work on non-tariff trade costs that has enabled it to become more integrated into global and regional economies.

ASEAN recognises the importance of trade in goods – especially manufacturing – and this is reflected in the development strategies of individual AMS. The chapter by Martin Roy and Pierre Sauvé demonstrated that whilst trade in services integration has been growing in ASEAN, its volume and success still do not reach those of its trade in goods. Yet services are a vital part of the regional economy, both in their own terms and as inputs into the production of other goods, particularly manufacturing. It is impossible to envisage growth in global value chain trade, for example, without access to high-quality, reasonably priced services inputs in sectors like business services, transport, and information and communications technology. ASEAN needs to rebalance the economic dimensions of the AEC to take greater account of the central role of services in today’s economy; whilst the sector’s size differs across AMS, its importance will undoubtedly increase over time. The AEC must anticipate this change, with a renewed focus on facilitating services trade integration both intraregionally and within the global economy.

Roy and Sauvé also noted that the leading services traders in ASEAN tend to be relatively reliant on external – rather than regional – markets. From a policy perspective, this finding has two implications. First, the ASEAN Secretariat should commission research on applied services trade policies that affect intra-ASEAN trade. Existing data are based on most-favoured nation policy settings and thus do not capture the extent of intraregional liberalisation. Such research has been undertaken by the Organisation for Economic Co-operation and Development (OECD) for the EU, however, demonstrating that the

difference between most-favoured nation and preferential policies can be substantial. Undertaking this work for ASEAN would not be a one-off exercise; it will be important to repeat it at intervals, perhaps every 2 years, as an exercise in policy monitoring and transparency. There is a clear need to learn about intraregional trade policy settings in services as the first step towards identifying policies and regulations that continue to hold back trade integration.

Second, ASEAN's free trade agreement (FTA) strategy needs to focus more on trade in services, beyond the tariffs and traditional non-tariff measures that it now tends to encompass. Soo Yeon Kim's chapter highlighted the limitations of ASEAN's existing FTA strategy, which is readily apparent regarding services, where trade with external partners is relatively important. Existing agreements of each AMS should be examined with the potential of transposing them to the regional arena; doing so should pay particular attention to services. In addition, as Kim suggested, emerging issues like digital trade – in large part, a services issue – need emphasis within ASEAN's FTA strategy. From a policy perspective, the directive is clear – deeper trade agreements with significant trading partners, both in services and in goods, can be beneficial for the region.

Deepening integration with external partners is not straightforward in the ASEAN context. Given that ASEAN is not a customs union, individual AMS retain the right to form their own agreements with third parties. ASEAN's strategy as a region has been to identify certain key partners with whom to conclude trade agreements, and the Regional Comprehensive Economic Partnership agreement (RCEP) is bringing a degree of harmonisation to that process. It remains to be seen whether the depth of the RCEP is sufficient for all AMS, and if India's decision to remain outside of the agreement will have substantial negative impacts for ASEAN.

FDI has also been crucial to deepening integration. Hafiz Mirza noted that ASEAN accounts for a significant share of global inwards FDI; thus, intra-ASEAN flows are important. As with trade in services, there is a case to better align the ASEAN FTA strategy with AEC economic imperatives and to deepen them so that they are more detailed regarding investment-related issues. Although FDI is often acknowledged in deep FTAs, it is important for ASEAN to develop a consolidated approach to dealing with FDI from both policy and regulatory perspectives. FDI is particularly important in the services sector, as it is often a way to contest markets. Sales by foreign affiliates are covered by the General Agreement on Trade in Services Mode 3, as noted in the chapter by Roy and Sauv  . There is a rationale for considering services and investment together, both in terms of broadening and deepening the AEC and developing an AEC-based FTA strategy.

Services and investment are hardly new issues in the trade policy agenda. They have been discussed internationally in the context of trade agreements and trade law for decades. ASEAN has made important progress on integrating trade in goods but less so regarding trade in services and FDI. Moving forwards, it is critical for both the ASEAN Secretariat and individual AMS to focus on these issues by assessing progress under the AEC and identifying remaining barriers to integration.

4. Emerging Issues

In addition to the well-established trade policy areas discussed, international integration efforts have increasingly turned to a range of newer areas. These issues are being incorporated into trade agreements and are also receiving consideration at the multilateral level. ASEAN needs to develop its own approach to them, and, if appropriate, integrate them fully into the regional regulatory and institutional infrastructure. Emerging issues addressed in this book include resilience (the chapter by Tijaja and Park), gender (Mia Mikic), energy (Youngho Chang), data (Lili Yan Ing et al.; Burri and Vásquez Callo-Müller), sustainability (Venkatachalam Anbumozhi, et al.), and competition (Susan Stone). Globally, there is no single template on how to address these issues, as many of them depend on preferences. Yet emerging practices in trade agreements can be identified – including some involving ASEAN's key partners. Moreover, individual AMS have been leaders in some areas (e.g. Singapore in the digital economy), so there is scope for ASEAN as a region to exchange experience.

One difficulty for ASEAN in terms of moving forwards on emerging trade policy issues is, again, the persistence of the development gap. In this context, the issue centres on capacity – both the extent and depth of technical knowledge as well as governmental resources and technical staff. Furthermore, heterogeneity must be addressed in dealing with this expanded trade policy agenda. The region has demonstrated its capacity to manage heterogeneity, but tension is constant between the desirability of minimum standards or agreed frameworks and the recognition that individual AMS can have very different regulatory preferences. This tension intensifies in the context of ASEAN's integration with key partners, where the mechanics of region-wide FTAs mean that agreed baselines for the region as a whole are needed. The alternative to agreeing to baselines at the regional level is moving forwards only with relatively shallow FTAs, which may have costs in terms of the pace and extent of economic integration and the capacity for rapid outwards-oriented growth.

The Sustainable Development Goals have created an ambitious range of development-related goals and challenges for 2030. Their combination of economic and non-economic objectives is reflected in the emerging trade policy issues now confronting ASEAN. As such, the region needs to have a broad consultative process whereby policymakers can obtain the information necessary to make informed decisions on the trade-offs that can exist across these issue areas. Some, like gender equity, are both economically and socially positive, whilst others, such as energy transition or conservation of natural resources, can have more mixed outcomes from an economic perspective. AMS may not have the same views regarding the balance amongst these competing objectives, yet a process should be in place so that the region can identify those areas in which concerted action is necessary or desirable and those in which individual AMS can pursue their own preferences.

It is also important to identify which emerging issues should be included in plans for the AEC as well as in FTA negotiations with key partners. There is a strong economic rationale for prioritising digital trade and competition policy, as they present the fewest trade-offs between economic and social effects and are most frequently included in actionable language in FTAs outside of the region. From the remaining issues, there is a stronger rationale for including them within the ambit of AEC discussions rather than immediately in FTAs. Some FTAs include chapters on gender, for example, but their actionability is questionable. Thus, it is recommended that environmental sustainability, energy security, resilience, and social inclusion (including gender) be discussed at the ASEAN level, and there may be instances in which concerted action is appealing.

The transition into emerging policy areas – particularly those that touch on environmental and social issues – highlights the evolving discourse outside of the region in which policymakers and analysts are looking for synergies between different aspects of integration. Even at the multilateral level, environmental and social considerations are becoming more of a focus relative to the purely economic objectives of the 1990s and early 2000s. ASEAN cannot stand apart from this process, although decision making will differ from issue to issue and from region to region. It must craft a position on these issues – not least because some key partners are examining the use of unilateral policy measures to help promote global minimum standards in some areas (e.g. the EU's Carbon Border Adjustment Mechanism). It is preferable to agree on an ASEAN-wide approach and to work in a concerted way for all AMS rather than be subject to unilateral tariffs or other active trade policy measures from key partners.

ASEAN has held discussions on many of the issues identified above. The impetus, however, is to deepen them; examine ways of making the discussions more inclusive of AMS at all income levels; and identify options for actionable, incremental change. ASEAN's heterogeneity is both a challenge and a strength in this regard. Individual AMS have different levels of experience with each of these issue areas, so there is substantial scope for experience sharing and learning within the region. There is no guarantee that preferences will always coincide – or even overlap – which makes it challenging to develop actionable policy measures that can be monitored for their effectiveness over time and across countries. Nonetheless, whilst the rationale for devoting resources to individual questions differs, there is a case for broadening the scope of the AEC to enable economic integration discussions to cover a wider range of issues, both those that are primarily economic in scope and those that go beyond the economic to environmental and social aspects of regional integration and development.

5. Enabling Structures for a Post-2025 AEC

There is no single institutional template for deep economic integration that covers the wide range of policy areas discussed above. The EU is one approach, but it is more focussed on institutions and political integration than most in ASEAN would consider appropriate. Yet learning from this experience can help design institutions and mechanisms that can facilitate deep and broad regional integration in ASEAN.

A key priority for AMS should be to develop monitoring and evaluation mechanisms (Rillo, De Lombaerde, and Waskitho). Policymakers need to know which approaches actually work to foster deeper integration. In addition, they need to know the relative costs and benefits of different regulatory approaches in their own contexts. Thus, identifying cases for detailed monitoring and rigorous impact evaluation should be a priority for ASEAN.

Moving in that direction entails data collection ranging from economic (e.g. applied services trade policies) to social (e.g. gender-disaggregated statistics). There is a capacity element as well as real resource costs. Whilst it may not be necessary to have an EU-like institutional structure, there is no doubt that the ASEAN Secretariat should be better resourced, both in terms of its finances and access to skilled technical staff.

A key touchstone for ASEAN as it moves towards deeper and broader integration should be good regulatory practices (GRPs). The objective of GRPs is to facilitate regulation that is both effective (i.e. achieves its objective) and efficient (i.e. does so at minimum economic costs). Most AMS are familiar with GRPs in part due to overlapping membership with the Asia-Pacific Economic Cooperation (APEC), which has been active in this area. GRPs are well-suited to the ASEAN context as they do not require uniformity – or even homogeneity – but rather a similar process of learning and policy development. They provide a natural framework for thinking through the consequences of regulatory differences and smoothing them over in cases that have a clear economic payoff, usually through cross-border spillover effects.

Only part of the integration agenda can be rightly understood as a region-level set of initiatives, however. An important design feature of the AEC is that it defines broad, overall goals but leaves room for individual AMS to design implementation modalities. Whilst regional policy processes should sometimes be bolstered, the key objective is national in scope; individual AMS must develop regulatory capacity in the full range of traditional and emerging policy areas. Yet the development gap is a key constraint in terms of capacity in lower-income AMS; thus, experience sharing and capacity development must be fostered based on the accumulated knowledge in higher-income AMS. Regional examples can play a facilitating role in this process, even if they are not directly involved in the mechanics.

In addition, GRPs involve developing the ability to weigh the external consequences of domestic policy changes. This dimension is key within the scope of the AEC, because individual AMS need to take account of their actions on other AMS through trade and investment linkages – as well as on external partners. Historically, ASEAN has struck a productive balance between intra- and inter-regional integration initiatives, albeit with the latter focussed on its broader geographical neighbourhood. As the policy agenda of the AEC expands, this balancing act will become more difficult to maintain, however. Similarly, the expanding agenda for FTAs with key partners will create more tension between internal and external trade and investment facilitation efforts. Developing regional mechanisms to analyse and to contend with these tensions will be an important part of the post-2025 agenda.

Another important part of the mechanism design for the AEC will be to facilitate information flow from the private sector to policymakers. Businesses and consumers are knowledgeable about the trade and investment barriers that affect them, covering both traditional policy areas and emerging issue areas. Developing information and consultation mechanisms is part of GRPs, which are particularly fruitful in terms of identifying trade and investment barriers in a context where much work has already been done to eliminate them. ASEAN policymakers have been effective in identifying and dealing with many of the most prominent impediments to closer economic integration, but to move further requires information that may not be at their disposal. Reporting mechanisms, coupled with the capacity to investigate claims of impediments or barriers, can help power a process of continual improvement in the regional trade and investment environment. In the context of new trade policy areas, trade frictions tend to be related to regulatory measures that may not constitute intentional trade barriers. There is scope for win-win outcomes in this kind of monitoring framework – businesses or consumers report measures that pose problems, policymakers learn that their regulatory approach is unintentionally suboptimal, and then actions are taken to improve the situation.

Regional institutions do not have to be heavy in political terms or even have independent investigation or enforcement capacity. Part of the post-2025 agenda should be to design light, nimble institutional mechanisms, based on GRPs and with the aim of facilitating information exchange. Doing so could help AMS at all income levels better tailor their economic and non-economic policies to support the objective of deeper and broader regional integration.

6. Conclusion

Regional integration is a constantly evolving process. ASEAN policymakers, businesses, and citizens have made great progress towards creating a more integrated region and regional economy. Yet as this book demonstrates, much remains to be done. In part, there is a built-in agenda post-2025 in terms of existing initiatives that are either incomplete or have been imperfectly implemented. There is also an ever-broadening range of emerging issues being added to the agenda in light of economic integration, development, and political objectives globally.

Given progress towards the AEC over recent years, ASEAN is well placed to move into the next period. Each chapter of this book has made detailed, actionable policy proposals; policymakers and analysts can use them as a resource to track performance in broadening and deepening the regional integration agenda from an AEC perspective.

ASEAN stands at a crossroads. It has performed relatively well in dealing with a range of traditional economic policy areas, focussed on trade in goods. At the same time, it faces a persistent development gap and an ever-widening range of policy demands in a complex global environment. Revamping the AEC Blueprint for the post-2025 period should therefore be an imperative both for regional institutions and individual AMS.