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COMPLEX CHALLENGES AHEAD

THAM SIEW YEAN AND  
SANCHITA BASU DAS

**ISEAS** YUSOF ISHAK  
INSTITUTE

# Trends in Southeast Asia



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# FOREWORD

The economic, political, strategic and cultural dynamism in Southeast Asia has gained added relevance in recent years with the spectacular rise of giant economies in East and South Asia. This has drawn greater attention to the region and to the enhanced role it now plays in international relations and global economics.

The sustained effort made by Southeast Asian nations since 1967 towards a peaceful and gradual integration of their economies has had indubitable success, and perhaps as a consequence of this, most of these countries are undergoing deep political and social changes domestically and are constructing innovative solutions to meet new international challenges. Big Power tensions continue to be played out in the neighbourhood despite the tradition of neutrality exercised by the Association of Southeast Asian Nations (ASEAN).

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# Logistics Development in ASEAN: Complex Challenges Ahead

By Tham Siew Yean and Sanchita Basu Das

## EXECUTIVE SUMMARY

- Growing urbanization, increasing trade and investment due to integration, and emerging new business models like e-commerce are accelerating the demand for efficient logistics in each ASEAN country.
- The logistics sector is inherently complex due to its scope, ranging from physical infrastructure covering four modes of transport, customs, and services. Each of these sub-sectors is regulated by different government agencies, leading to complex challenges in each country's logistics sector.
- Policymaking has a tendency to be done piecemeal rather than integratively, while a more or less fragmented governance structure impedes implementation. ASEAN liberalization commitments focusses on raising the cap on foreign equity, while regulatory reform remains untouched. Also, flexibility offered in these commitments allows for non-compliance.
- Going forward, developing seamless logistics requires ASEAN countries to first overcome their domestic challenges. Each country needs to develop comprehensive plans, and effective implementation of these is essential. Liberalization commitments should complement domestic reforms in each country.





# Logistics Development in ASEAN: Complex Challenges Ahead

By Tham Siew Yean and Sanchita Basu Das<sup>1</sup>

## 1. INTRODUCTION

Logistics is a key enabler for economic growth and development. It enhances efficiencies in supply chain activities and lowers transaction cost and time between producers or between producers and consumers. A seamless logistics system improves connectivity both within and across countries. It links a country's centre of business activities to the peripheries and helps to distribute the benefits of economic growth regionally.

According to a market research report,<sup>2</sup> the global logistics industry is valued at US\$8.2 trillion in 2015, representing around 11 per cent of global Gross Domestic Product (GDP). This is expected to go up to US\$15.5 trillion by 2023 at a compound annual growth rate of 7.5 per cent. Globally, road is the most widely used transport network due to its flexibility in operation and availability of door-to-door services. It accounted for 45 per cent of share in total worldwide logistics revenue in 2015. The Asia-Pacific countries, especially China, India, Singapore, Indonesia, Japan and Malaysia, led the global logistics market with 47 per cent of global share in 2015, though the market size of the United States, the United Kingdom, Germany and France cannot be ignored. The global

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<sup>1</sup> Tham Siew Yean and Sanchita Basu Das are Senior Fellow and Fellow, respectively, at the ISEAS – Yusof Ishak Institute, Singapore. The authors would like to thank Gilbert Llanto for useful comments. The usual caveat applies.

<sup>2</sup> Transparency Market Research, “Logistics Market: Global Industry Analysis, Size, Share, Growth, Trends, and Forecast 2016–2024”, 19 October 2016 <<http://www.transparencymarketresearch.com/logistics-market.html>> (accessed 7 October 2017).

logistics market is highly fragmented with the top four players, Deutsche Post DHL, Ceva Logistics, UPS and FedEx, accounting for less than 15 per cent of the total market.<sup>3</sup>

With globalization, the logistics industry has come to play an increasing role in each country's economic activities. Multinational corporations (MNCs) are no longer producing their goods in one single country. Instead, they are slicing their production process across several countries based on the comparative advantages of each country. Some MNCs are outsourcing business activities such as logistics and distribution to other firms (or third party), freeing them to focus more on their core business. This functional fragmentation is making the logistics sector an integral part of the overall economic activities in a country.

However, the logistics sector suffers from the lack of a common definition across countries. The U.S. Coalition of Services Industries defines logistics services sector as “the process of planning, implementing, managing and controlling the flow and storage of goods, services and related information from the point of origin to the point of consumption.”<sup>4</sup> For the World Trade Organisation (WTO),<sup>5</sup> logistics services, also termed as transport services, covers supporting services tied to all modes of transport (such as cargo handling services, storage and warehouse services and freight transport agency services). Thus, in a narrow sense, logistics covers the handling, transportation and distribution of goods.

Broadly, logistics encompasses activities ranging from warehousing, storage, communication to “hard” and “soft” infrastructures. The nature of the logistics services provided in a country depends on a country's development stage. For a less developed country, logistics may include

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<sup>3</sup> Reported in *Supply Chain*, “Logistics industry to be worth \$15.5tn by 2023”, 3 November 2016 <<https://www.cips.org/supply-management/news/2016/november/logistics-industry-forecast-to-be-worth-155tn-by-2023/>> (accessed 7 October 2017).

<sup>4</sup> K. Sugie et al., “Services Trade Restrictiveness Index (STRI): Logistics Services”, OECD Trade Policy Papers no. 183, OECD Publishing, Paris, 2015.

<sup>5</sup> World Trade Organisation, Services Sectoral Classification List (MTN.GNS/W/120).

supply chain activities and transport management covering activities like storage and warehousing, cargo handling, transport agency services and customs brokerage. For a more developed economy, logistics may cover supply chain activities, transport management, freight transport services and all four modes of transport, i.e., road, rail, air and sea. With development, countries may extend its logistics sector to cover services like courier, rental of transport equipment, trade finance, telecommunication and computer-related services, transport insurance, packaging, sale and repair of transport equipment and vehicles and few others.<sup>6</sup>

The logistics sector assumes significance in Southeast Asia — basically the ten ASEAN countries — as they are active participants in the regional production networks.<sup>7</sup> It is the availability, reliability and cost effectiveness of transportation, distribution, financial intermediation, information and communication technology (ICT) and other services that are going to determine the competitiveness of these countries in an increasingly globalized world. The ASEAN countries have therefore identified cooperation in cross-border logistics services as a priority sector in its 2008 economic blueprint to deepen economic integration.

However, the development of logistics across ASEAN is challenged by pronounced differences in the member countries' geography. While it is relatively easy to build infrastructure for small-sized countries like Singapore and Brunei, the same can be difficult and expensive to achieve for archipelagic countries like Indonesia and the Philippines. The incentives and priority to develop efficient infrastructure also differ according to population size and neighbouring economies. For example, logistics in Indonesia, the Philippines and Vietnam — the three most

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<sup>6</sup> USITC [United States International Trade Commission], *Logistics Services: An Overview of the Global Market and Potential Effects of Removing Trade Impediments*. Investigation no. 332-463, USITC Publication 3770, Washington, D.C., 2005.

<sup>7</sup> Prema-Chandra Athukorala, "Global Production Sharing and Trade Patterns in East Asia". *Working Papers in Trade and Development*, Working Paper no. 2013/10, Arndt-Corden Department of Economics, Crawford School of Public Policy, ANU College of Asia and the Pacific, 2013.

populous countries in ASEAN — need to serve a much greater population than smaller countries like Brunei, Singapore and Laos. Countries like Malaysia and Thailand see more benefits from cross-border seamless logistics as they have land connectivity with big economies like China and India. Hence, a regionwide efficient logistics system that can support economic integration can be difficult to achieve because of the resulting differences in priorities.

In addition, ASEAN countries suffer from differences in their understanding of logistics. While for Cambodia, logistics is understood as a combination of transportation infrastructure, logistics service providers, institutional framework and logistics users, for Indonesia it covers business activities ranging from transport and storage, post and couriers and distribution. There is no official definition of logistics for most ASEAN countries.<sup>8</sup> This paper, thus, follows a broad definition of logistics as it deals with all ten Southeast Asian countries that are at different stages of development. While Singapore and Malaysia are the most advanced, Myanmar, Laos and Cambodia are the least developed.

This paper examines the role of policies, governance and transportation infrastructure priorities in the development of the logistics sector in each ASEAN country. Policy considerations are vital since infrastructure needs such as roads, railways, ports and airports are large-scale investments often provided as public goods by governments. Although financial constraints on governments may encourage private participation in the providing of infrastructure needs, the decision and the planning are nevertheless made by the government.<sup>9</sup> The fragmented nature of the logistics sector requires the government at least to provide an enabling

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<sup>8</sup> Tham, Siew Yean and Sanchita Basu Das, “Introduction”, in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu Das, Ch. 1 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>9</sup> T. Henckel and W. Mckibbin, “The Economics of Infrastructure in a Globalized World: Issues, Lessons and Future Challenges”, Brookings, 4 June 2010 <<https://www.brookings.edu/research/the-economics-of-infrastructure-in-a-globalized-world-issues-lessons-and-future-challenges/>> (accessed 3 October 2017).

environment with appropriate institutions and regulatory support for its governance. Transportation infrastructure priorities are highlighted since transportation costs typically contribute to the bulk of total logistics costs.<sup>10</sup> The paper also examines whether the scheduled foreign direct investment (FDI) liberalization and facilitation measures taken under the ASEAN Economic Community Blueprint 2015 have assisted in the development of this sector since these involve policy commitments from the member countries. FDI liberalization can be used to develop a sector by providing the needed capital and technology. Liberalization is also sometimes used as external pressure to push a country towards internal reforms.

The paper first discusses the main factors driving logistics development in ASEAN (section 2). The logistics performance of the ASEAN-10 is presented in section 3, which also examines policies, governance and transportation infrastructure priorities found in each country, aimed at developing this sector. ASEAN's efforts towards FDI liberalization in this sector is discussed in section 4, and this is followed by the concluding discussion.

## **2. KEY DRIVERS OF ASEAN'S LOGISTICS SECTOR**

This section traces key trends that drive logistics development namely, economic growth, which fuels the purchasing power of consumers; increasing urbanization; participation in international trade and investment; the rise of e-commerce platforms, which allows customers and producers more choices in terms of suppliers; and the emergence of economic regional groupings such as ASEAN, which facilitate and enhance trade.<sup>11</sup>

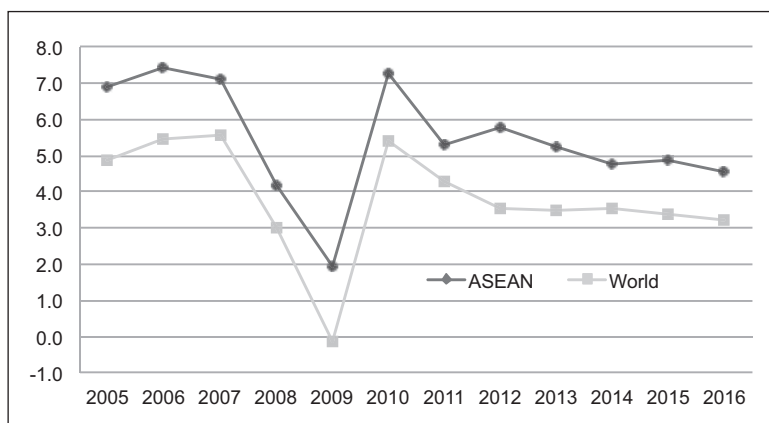
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<sup>10</sup> Hofstra University, "The Geography of Transport Systems: Logistics Costs Breakdown", n.d. <[https://people.hofstra.edu/geotrans/eng/ch5en/conc5en/logistic\\_costs\\_breakdown.html](https://people.hofstra.edu/geotrans/eng/ch5en/conc5en/logistic_costs_breakdown.html)> (accessed 3 October 2017).

<sup>11</sup> World Economic Forum 2016, "Seven trends driving change in logistics", <<http://reports.weforum.org/digital-transformation/digital-trends-in-logistics/>> (accessed 18 September 2017).

In 2016, the ASEAN economies together, representing a total GDP of US\$2.5 trillion, registered an annual growth rate of 4.5 per cent. Though this is lower than the 5.5 per cent growth rate achieved in 2012–13, it is nevertheless higher than the global growth rate of 3.1 per cent (Figure 1). In terms of Purchasing Power Parity (PPP), ASEAN was the fourth largest economy in the world in 2015–16, after China, the United States and India.<sup>12</sup> Despite legitimate criticisms about the development gap within ASEAN, the region showcases a fascinating macro-economic story. The region’s per capita GDP has gone up by 140 per cent from US\$1,606 in 2005 to US\$3,867 in 2015, though one needs to be mindful of First World per capita income levels of Singapore and Brunei (Table 1).

**Figure 1: GDP Growth Rate (%) of ASEAN and World**



Source: IMF-World Economic Outlook Database, April 2017.

<sup>12</sup> ASEAN Community in Figures 2016, The ASEAN Secretariat, Jakarta <<http://asean.org/storage/2012/05/25Content-ACIF.pdf>> (accessed 18 September 2017).

**Table 1: GDP Per Capita of ASEAN Countries (current prices, US\$)**

	2005	2007	2010	2014	2015	2016
Brunei	25,744	34,811	35,437	41,535	30,942	26,424
Cambodia	453	628	782	1,105	1,198	1,230
Indonesia	1,295	2,064	3,178	3,901	3,357	3,604
Laos	539	701	1,070	1,730	1,831	1,925
Malaysia	5,281	7,378	8,920	10,784	9,657	9,360
Myanmar	198	478	997	1,278	1,246	1,269
Philippines	1,158	1,684	2,155	2,816	2,850	2,924
Singapore	27,343	39,224	46,569	56,287	52,744	52,961
Thailand	2,707	3,978	5,065	5,436	5,737	5,899
Vietnam	637	920	1,297	2,053	2,109	2,173
ASEAN	1,606	2,341	3,259	4,135	3,867	—

Source: ASEAN Statistical Yearbook 2008; ASEAN Community in Figures 2015 and 2016; IMF-World Economic Outlook Database, April 2017.

ASEAN has the third largest population (630 million) in the world after China and India, underpinning its potential as a large consumer base. Also 50 per cent of its population is below 30 years of age, compared to 39 per cent and 34 per cent for East Asia and Europe respectively, indicating ASEAN's current and future workforce capacity.<sup>13</sup> These headline numbers *prima facie* reflect ASEAN's potential for increases in the demand for logistics services.

<sup>13</sup> ASEAN Economic Community 2015: Progress and Challenges, 2015, The ASEAN Secretariat <<http://www.asean.org/storage/images/2015/November/aec-page/AEC-2015-Progress-and-Key-Achievements.pdf>> (accessed 7 October 2017).



In the last ten years, almost all ASEAN countries have observed a growing share of urban population, as people left farming for better job opportunities in cities (Table 2). More than 50 per cent of the total population in Brunei, Indonesia, Malaysia, Singapore and Thailand currently lives in urban areas. Although this is lower than the average for North America (77 per cent) and Western Europe (63 per cent), the number is expected to increase further as more opportunities emerge in manufacturing and services.<sup>14</sup> Rising urbanization is often associated with increased demand for infrastructure and consumer goods. According to McKinsey,<sup>15</sup> while currently there are around 81 million households in

**Table 2: Urban Population in ASEAN Countries (% of total)**

	<b>2005</b>	<b>2007</b>	<b>2010</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Brunei	73.5	74.3	75.5	76.9	77.2	77.5
Cambodia	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indonesia	45.9	47.5	49.9	53.0	53.7	54.5
Laos	27.4	29.7	33.1	37.6	38.6	39.6
Malaysia	66.6	68.4	70.9	74.0	74.7	75.4
Myanmar	28.9	29.9	31.4	33.6	34.1	34.6
Philippines	46.6	46.1	45.3	44.5	44.4	44.3
Singapore	100	100	100	100	100	100
Thailand	37.5	40.1	44.1	49.2	50.4	51.5
Vietnam	27.3	28.5	30.4	32.9	33.6	34.2

*Source:* World Development Indicators, World Bank.

<sup>14</sup> On average, agriculture sector is around 11 per cent of total ASEAN GDP, manufacturing is 38 per cent and services is 50 per cent.

<sup>15</sup> *Southeast Asia at the crossroads: Three paths to prosperity*, McKinsey Global Institute, November 2014 <<https://www.mckinsey.com/global-themes/asia-pacific/three-paths-to-sustained-economic-growth-in-southeast-asia>> (accessed 7 October 2017).

ASEAN countries, termed as “consuming class”, with income capacity for discretionary spending, the number could increase to 163 million households by 2030, as ASEAN countries urbanize further. This marked rise in urban population will further enhance economic activities in the region and contribute to growth in logistics in each country.

ASEAN countries are highly integrated into the global economy. Total merchandise trade of the region has gone up from US\$1.3 trillion in 2005 to US\$2.2 trillion in 2016. For most ASEAN countries, merchandise trade is an important component of GDP (Table 3). Exports for all ASEAN members (barring Brunei) have increased in absolute terms between 2005 and 2016. While exports for all ASEAN countries grew at a decent rate between 2005 and 2014, this has moderated in the last three years, reflecting in part the global slow-down in trade (Table 4). It should be noted that of ASEAN’s total trade, intra-ASEAN trade constitutes the lion’s share at around 25 per cent, followed by ASEAN’s trade with China, the EU, Japan and the United States (Figure 2).

**Table 3: ASEAN Countries Merchandise Trade (% of GDP)**

	<b>2005</b>	<b>2007</b>	<b>2010</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Brunei	73.1	72.0	83.5	82.5	74.1	72.0
Cambodia	111.6	110.4	106.3	111.6	118.9	116.7
Indonesia	52.4	44.9	38.9	39.8	34.0	30.0
Laos	52.8	47.2	55.6	58.5	63.7	56.1
Malaysia	172.7	161.1	142.4	131.0	126.6	120.7
Myanmar	41.2	40.9	27.1	42.2	47.6	41.6
Philippines	88.0	72.6	55.1	45.6	44.1	46.8
Singapore	337.2	312.5	280.3	251.7	216.7	206.3
Thailand	121.0	111.7	110.3	112.0	104.5	100.7
Vietnam	120.0	143.5	139.3	160.5	171.6	174.4

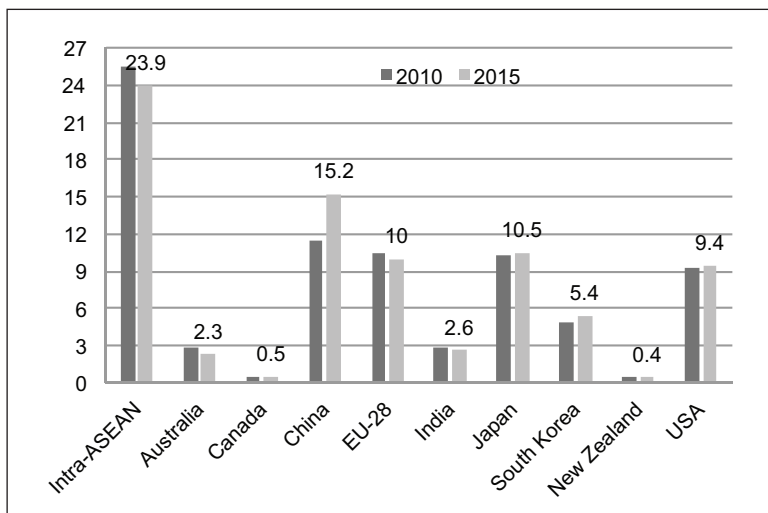
*Source:* World Trade Organisation; IMF-World Economic Outlook Database, April 2017; authors’ calculation.

**Table 4: ASEAN Countries Merchandise Export**

	Absolute value (US\$ billion)										Avg. annual growth rate (%)	
	2005	2007	2010	2014	2015	2016	2005-14	2014-16				
Brunei	6.25	7.67	8.91	10.51	6.35	4.96	5.9	-31.3				
Cambodia	3.09	4.09	5.14	6.84	8.54	10.04	9.2	21.1				
Indonesia	86.99	118.01	157.78	176.29	150.36	144.49	8.2	-9.5				
Laos	0.55	0.92	1.75	2.66	2.77	3.02	19.1	6.5				
Malaysia	141.63	175.97	198.61	233.93	199.16	189.41	5.7	-10.0				
Myanmar	3.77	6.25	8.66	11.45	11.43	11	13.1	-2.0				
Philippines	41.26	50.47	51.49	62.1	58.83	56.31	4.6	-4.8				
Singapore	229.65	299.31	351.87	409.30	346.64	329.77	6.6	-10.2				
Thailand	110.94	153.87	193.31	227.52	214.35	215.33	8.3	-2.7				
Vietnam	32.44	48.56	72.24	150.22	162.11	176.78	18.6	8.5				

Source: World Trade Organisation; IMF-World Economic Outlook Database, April 2017; authors' calculation.

**Figure 2: Percent Share of Total Trade with Key Partners**



Source: ASEAN Community in Figures, 2016, The ASEAN Secretariat.

Similarly, ASEAN has emerged as an attractive destination for FDI. Total FDI inflows increased from US\$39 billion in 2005 to US\$130 billion in 2014, before moderating to US\$101 billion in 2016. During 2005–16, therefore, the region’s share in global and developing economies FDI inflows increased modestly from 4 per cent and 12 per cent to 6 per cent and 16 per cent respectively. But, the shares peaked at 10 per cent and 19 per cent respectively in 2014 (Table 5). In fact, total FDI inflows into ASEAN surpassed inflows of FDI into China the same year. Regarding source countries, ASEAN became the largest region for FDI inflows in the region in 2015, followed by the EU and the United States (Figure 3).

The performance of the external sector was supported by ASEAN’s regional agenda of establishing the ASEAN Economic Community (AEC) by 2015. For ASEAN countries, economic cooperation among its members is as important as liberalizing and facilitating trade and investment in the bigger geography of Asia, as evidenced by the

**Table 5: FDI Inflows in ASEAN Countries (US\$ billion)**

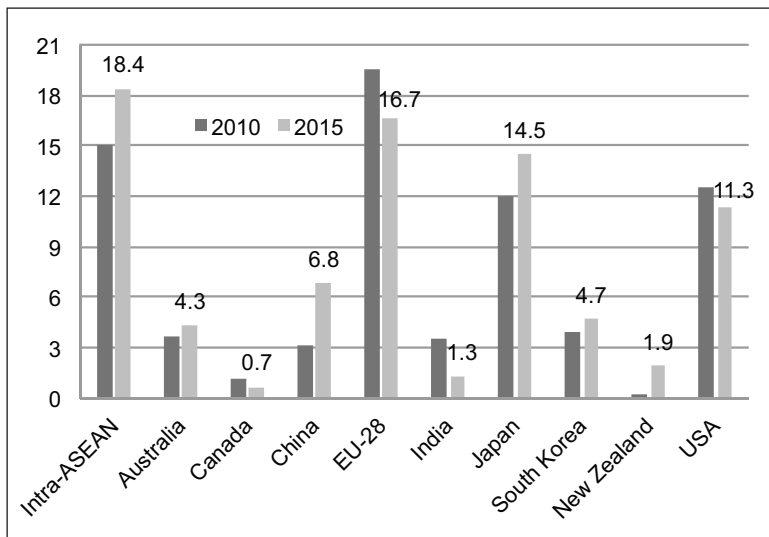
	2005	2007	2010	2014	2015	2016
Brunei	0.29	0.26	0.63	0.57	0.17	-0.15
Cambodia	0.38	0.87	0.78	1.72	1.70	1.92
Indonesia	8.34	6.93	13.77	21.81	16.64	2.66
Laos	0.03	0.32	0.28	0.72	1.12	0.89
Malaysia	3.97	8.59	9.06	10.88	11.12	9.93
Myanmar	0.24	0.72	1.28	0.94	2.82	2.19
Philippines	1.85	2.92	1.07	5.74	4.94	7.91
Singapore	13.93	46.93	55.07	73.99	70.58	61.60
Thailand	8.05	11.36	9.15	4.81	5.70	1.55
Vietnam	2.02	6.70	8.00	9.20	11.80	12.60
<i>ASEAN</i>	39.1	85.6	99.09	130.38	126.59	101.10
	*(4.1%)	*(4.3%)	*(6.9%)	*(9.8%)	*(7.1%)	*(5.8%)
	** (12.4%)	** (14.9%)	** (15.3%)	** (18.5%)	** (16.8%)	** (15.6%)
<i>China</i>	72.41	83.52	114.73	128.50	135.61	133.70
<i>Developing Economies</i>	316.4	574.31	648.21	703.78	752.33	646.03
<i>World</i>	959	1,975	1,422	1,324	1,774	1,746

Note: \*Share of ASEAN in world total FDI inflows.

\*\*Share of ASEAN in developing economies total FDI flows.

Source: UNCTAD World Investment Report, 2008, 2012, 2014, 2017.

**Figure 3: Percent Share of FDI Inflows by Source Country**



Source: ASEAN Community in Figures, 2016, The ASEAN Secretariat.

ASEAN+1 Free Trade Agreements (FTAs) with Australia-New Zealand, China, India, South Korea and Japan. The production networks that have developed for many industries, including automotive and electronics, are spread across ASEAN countries and other economies such as China, Japan and South Korea. All these cross-border activities highlight the large role to be played by the logistics industry in the future. Logistics services are important for enhancing connectivity, raising efficiency in international commerce and increasing the confidence of investors in a region.

ASEAN countries are facing two major developments in their economies that have bearing on the logistics industry. The first is an evolving business model, called e-commerce, and the second is the “use” of technology in service delivery. In ASEAN, the e-commerce market has been estimated to be at US\$7.1 billion in 2013 and is said to have a

potential to rise to around US\$67–US\$89 billion<sup>16</sup> (Table 6). Unlike the traditional business model of physical stores, e-commerce is encouraged in the region as it creates multiple sources of delivery for big- and small-sized vendors, at a lower cost option. It also helps consumers access a variety of goods in distant locations. However, the e-commerce business model poses a unique challenge. Goods from vendors are distributed to warehouses, from whence it is dispersed to customers in small parcels. The process gets complicated as there are a large number of suppliers and warehouses, while customers are spread across multiple locations. Added to these is the question of payment and product return. Managing all these activities greatly require an efficient and credible logistics system. It also requires logistics companies to acquire technology to

**Table 6: Size of E-Commerce Market in ASEAN Economies (in US\$ billion)**

	<b>Retail E-commerce, 2013</b>	<b>Theoretical Potential</b>
Indonesia	1.3	25–30
Malaysia	1.3	10–15
Philippines	1.0	8–12
Singapore	1.7	7–10
Thailand	0.9	12–15
Vietnam	0.8	5–7

Source: AT Kearney and CIMB ASEAN Research Institute.

<sup>16</sup> The study covers only six ASEAN economies — Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. “Lifting the Barriers to E-Commerce in ASEAN”, AT Kearney and CIMB ASEAN Research Institute <<https://www.atkearney.com/documents/10192/5540871/Lifting+the+Barriers+to+ecommerce+in+ASEAN.pdf/d977df60-3a86-42a6-8d19-1efd92010d52>> (accessed 7 October 2017).

streamline the entire supply chain. Enterprise Resource Planning (ERP) systems and Software-as-a-Service (SaaS) companies are providing flexible technology solutions to these market forces. Automation or robotics are also increasingly being used in warehouses for activities like loading/unloading, labelling and sorting products in shelves. Moreover, the increasing use of Internet of Things (IoT) and Big Data Analytics are assisting companies with inventory and procurement management. Hence, going forward, the changing business model will put pressure on logistics companies to use technology to reduce inefficiencies and improve precision in final delivery.

Summarizing the section, much of the future demand for logistics will be determined by a combination of factors. Potential for demographic dividends coupled with steady economic growth will support increased manufacturing and services activities in ASEAN. This, when combined with growing urbanization and the increasing aspirational necessities of urban residents, will trigger further demand for infrastructure and supporting logistics. Moreover, as international trade and investment go up in the region, logistics will be an important component for saving time and transportation costs. Added to these is an evolving business model in ASEAN, i.e., e-commerce, the success of which depends largely on the efficiency of the logistics delivery system. The e-commerce market is growing fast and with it, the digitization and automation of business practices. For the logistics industry, it not only has to catch up with rising demand and support economic activities, it also has to adapt to the fast-changing technology to deliver efficient solutions.

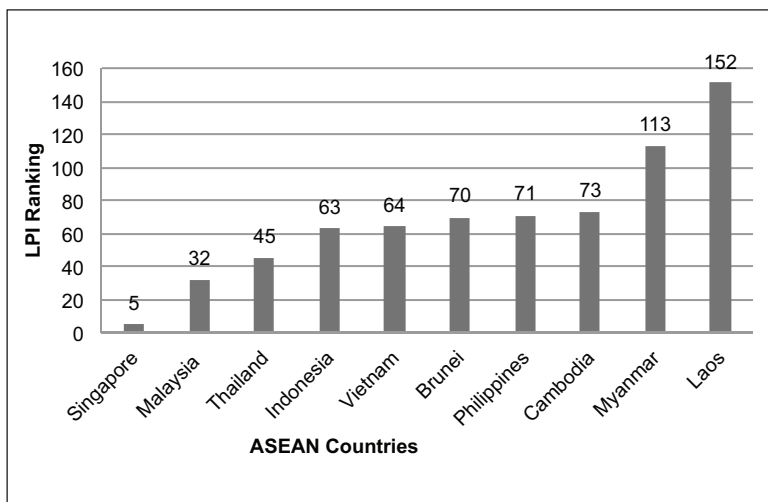
### **3. LOGISTICS DEVELOPMENT IN ASEAN-10**

#### *3.1 Logistics Performance in 2016*

Given the numerous factors pushing for better logistics mentioned above, the performance of this sector is examined using the World Bank's Logistics Performance Index (LPI). ASEAN countries show disparate performance in their logistics industry (Figure 4). Singapore is ranked fifth among 160 countries in terms of its logistics performance, followed



**Figure 4: Ranking in Logistics Performance of ASEAN Member Countries, 2016**



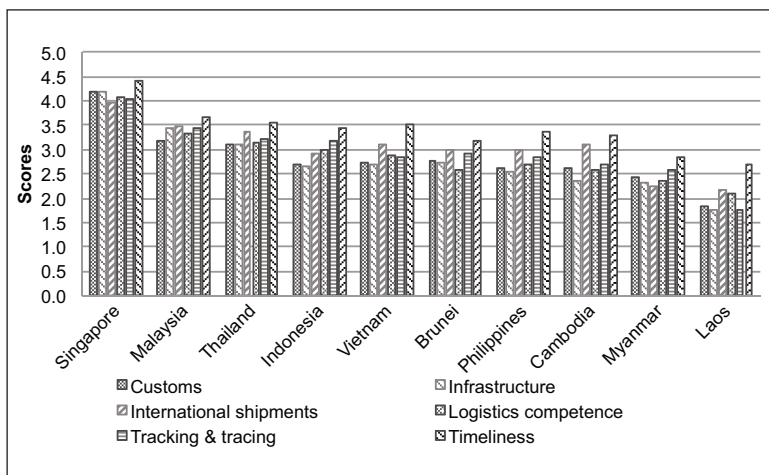
Source: World Bank, Logistics Performance Index 2016.

by Malaysia, Thailand and Indonesia. At the other end of the spectrum, Laos is ranked 152.

This disparate performance can be traced to great differences in all six components of the LPI, namely infrastructure; customs; international shipments, tracking and tracing, logistics quality and timeliness (Figure 5) among the ASEAN-10. Cambodia, Myanmar and Laos are weakest in terms of infrastructure and their performance is 55 per cent or less than the highest performer, i.e., Singapore.

With the exception of Brunei, Malaysia and Singapore, ASEAN countries appear to have better scores for operational services compared to their respective infrastructure. Regarding the state of customs and related services (timeliness, international shipment, tracking and tracing), performance again varies considerably across ASEAN countries. While Singapore performs consistently well for all cross-border customs facilities, Myanmar and Laos score the lowest for all. The rest of the

**Figure 5: Logistics Performance in ASEAN Member States, 2016**



Source: World Bank, Logistics Performance Index 2016.

ASEAN countries are in the middle, with Malaysia and Thailand closely following each other in second and third positions respectively. Although Indonesia ranks better than Vietnam in overall LPI ranking, Vietnam has better scores in customs, international shipments, and time predictability. It should be noted that efficient border processes are crucial to avoid delays and provide predictability. Coordination among government agencies and establishment of ICT-based services is essential to narrow the gaps among the ASEAN members.

### 3.2 Policies for Developing the Logistics Sector

Most countries in ASEAN do not have a comprehensive policy for the development of their logistics sector, which includes physical infrastructure, customs, and services. Instead, they tend to focus on transport infrastructure (Table 7). Brunei concentrates on land

**Table 7: Cross-country Comparisons on Policies for the Development of Logistics, as at September 2017**

Brunei	No Master Plan for logistics, but focus on transport
Indonesia	National Logistics Blueprint (SISLOGNAS), 2011–25
Malaysia	National Logistics and Facilitation Master Plan, 2015–20; currently being implemented
Philippines	National Logistics Masterplan, 2017–22, planned for launching in 2017
Thailand	National Logistics Development Strategic Plan (2007–11) endorsed by the Thai Cabinet in February 2007; Thailand's Logistics Development Strategy (2013–17): Trade Facilitation and Supply Chain Management for Competitiveness
Singapore	Productivity Roadmap of Transport and Logistics Industry; Land Transport Master Plan 2030; Air Transport Industry Transformation Map 2025; Maritime Plan; Smart Nation Initiative with Transport as one of the focus areas
Cambodia	None, focus on transport
Laos	None, focus on transport
Myanmar	None, but has launched a National Transport Master Plan
Vietnam	Government approved an action plan for improving the competitiveness of the logistics sector in 2017

*Source:* Compiled by authors from various sources.

transport,<sup>17</sup> while the Philippines focusses on increasing investment to modernize airports, seaports and a roll-on-roll-off (RORO) maritime transport system to increase connectivity between the many islands in this archipelagic state.<sup>18</sup>

There is a significant need for improvement in infrastructure connectivity, safety and quality across all ASEAN countries (except Singapore), though the situation is most acute for the less developed ASEAN members, namely Cambodia, Myanmar, Laos and Vietnam (CLMV) countries. Myanmar has launched a National Master Plan for Transport,<sup>19</sup> while Vietnam unveiled a Master Plan to restructure its transport sector by 2020 in 2014.<sup>20</sup> But the policies in other countries can be quite narrowly focussed even within transportation, such as a Transportation Master Plan for Phnom Penh (2016–35),<sup>21</sup> and a Master Plan on Comprehensive Urban Transport of Vientiane (2017–21).<sup>22</sup>

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<sup>17</sup> Policy Studies Centre for Strategic and (CSPS), “Land Transport Master Plan: Executive Summary”, 2014 <<http://www.mincom.gov.bn/resources/LAND%20TRANSPORT%20MASTER%20PLAN%20-%20Executive%20Summary.pdf>> (accessed 19 September 2017).

<sup>18</sup> G.M. Llanto, “Logistics services liberalization in the Philippines”, in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 4 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>19</sup> H. Min and R. Banomyong, “Facilitating FDI for the Logistics Sector in Myanmar: Agency, Incentives, and Institutions”, in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 11 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>20</sup> PortCalls, “Vietnam rolls out 2020 transportation master plan”, 2014 <<https://www.portcalls.com/vietnam-rolls-out-2020-transportation-master-plan/>> (accessed 19 September 2017).

<sup>21</sup> *Khmer Times*, “City’s Long-Term Transport Master Plan Up to 2035”, 22 March 2014 <<http://www.khmertimeskh.com/news/328/city-s-long-term-transport-----master-plan-up-to-2035/>> (accessed 19 September 2017).

<sup>22</sup> Transport NAMA database, “Master Plan on Comprehensive Urban Transport of Vientiane (Laos)”, n.d. <<http://www.transport-namadatabase.org/master-plan-on-comprehensive-urban-transport-of-vientiane-lao/>> (accessed 19 September 2017).

A Master Plan for the development of the logistics sector is used in some ASEAN countries to coordinate the development of the different sub-sectors involved as well as to set priorities. There are four countries in ASEAN, namely Indonesia, Malaysia, Thailand and Vietnam, which have used Master Plans to guide the development of their respective logistics sector (Table 7). Of these five countries, Thailand is the first to use a strategic plan, which it has done since 2007. It is in the midst of formulating a third plan when the second plan ends in 2017. This was followed by Indonesia in 2012 and Malaysia in 2015. In 2017, Vietnam<sup>23</sup> launched its Master Plan for the development of its logistics sector over the next eight years. The Philippines is also expected to launch its National Logistics Master Plan (2017–22) in 2017.<sup>24</sup> The latter is envisioned to advance the country's competitiveness through the establishment of an efficient transport and logistic sector, thereby enhancing the resilience of Philippines' economy.<sup>25</sup> A common goal in all these masterplans is the improvement in competitiveness through reducing logistics costs and enhancing the country's ranking in the World Bank's Annual Logistics Performance Index.

Singapore's success in developing the sector was in part facilitated by its relatively small size and city-state status.<sup>26</sup> The city-state's plan for the sector covers both economy-wide and mode-wise. For example,

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<sup>23</sup> Vietnamnet, "Vietnam's logistics sector plan launched", 2017 <<http://english.vietnamnet.vn/fms/business/176528/vietnam-s-logistics-sector-plan-launched.html>> (accessed 20 September 2017).

<sup>24</sup> Department of Trade and Industry, Philippines, "National Logistics Master Plan: 2017–2022", n.d. <[http://transportandclimatechange.org/wp-content/uploads/2017/03/Annex-6-STR-Launch-GF-FE-Gap-Analysis-Activity-DTISCLMD\\_LoPe\\_20170221.pdf](http://transportandclimatechange.org/wp-content/uploads/2017/03/Annex-6-STR-Launch-GF-FE-Gap-Analysis-Activity-DTISCLMD_LoPe_20170221.pdf)> (accessed 20 September 2017).

<sup>25</sup> Ibid., slide 7.

<sup>26</sup> S. Basu-Das and E.P. Ooi Widjaja, "Service Sector Liberalization in Singapore: Case of the Logistics Sector", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 5 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

the focus on the logistics sector in economy-wide plans was observed in the 2010 Economic Strategies Committee Report, 2017 Committee on the Future Economy and 2014 Smart Nation Initiative. For mode-wise plans, the Land Transport Master Plan covers road, rail network and other public amenities, while its seaport and airport are developed and regularly upgraded to maintain Singapore's role as an Asian hub. In addition, the city-state is fast incorporating digital innovation into its logistics and transportation services, to raise productivity and provide a better IT-enabled ecosystem.

While having a policy to develop the sector is helpful, actual implementation depends very much on the governance of the sector and the implementation capacity of the government.

### *3.3 Governance of the Logistics Sector*

Since the logistics sector is made up of numerous sub-sectors that are under the jurisdiction of different government authorities and agencies, typically the Ministry of Commerce (or Trade), Ministry of Transport, and Customs, coordination and information sharing can be an issue. Even within transportation, the different modes are divided into departments that require careful coordination for seamless transportation alone. The multiple number of authorities and agencies increases complexities in management and can lead to overlapping initiatives/activities. Since the regulation of each sub-sector is different, navigating through different regulations can be quite daunting for an investor. Even for Singapore, which has the most advanced transport and logistics services, management is spread across multiple agencies, namely the Maritime and Port Authority, Civil Aviation Authority of Singapore, Land Transport Authority, Info-Communications Media Development Authority, Economic Development Board and IE Singapore.

To improve the governance of this multi-sectoral, multi-agency and multi-regulated sector, some ASEAN countries have used a committee or special task force (Table 8). Indonesia for example has a National Logistics Team consisting of academics and practitioners, with a Secretary-General, and headed by the Deputy Minister for the Coordinating of Industry and Trade Policy Affairs for the implementation of the National Logistics

**Table 8: Governance of Logistics in ASEAN Countries**

Brunei	No central coordinating agency
Indonesia	National Logistics Team
Malaysia	National Logistics Task Force
Philippines	Cabinet-level Task Force reporting to the Office of the President
Thailand	National Logistics Committee
Singapore	No central coordinating agency (other than Prime Minister's Office for Smart Nation Initiative)
Cambodia	No central coordinating agency
Laos	No central coordinating agency
Myanmar	No central coordinating agency yet
Vietnam	No central coordinating agency yet

*Source:* Compiled by authors from various sources.

Blueprint.<sup>27</sup> Be that as it may, the country's logistics sector continues to be mired by coordination problems.<sup>28</sup>

For Malaysia, a Logistics Council was started in 2007 to lead the development of this sector.<sup>29</sup> But it failed to deliver and subsequently a National Logistics Taskforce was established in 2015 to oversee the implementation of the Logistics and Trade Facilitation Master Plan launched in 2015. This is chaired by the Ministry of Transport, which reports directly to the Economic Council for the Service Sector, which is chaired by the Prime Minister. While the Minister of Transport provides regular updates on the implementation of the Plan, it remains to be seen if all the targets can be met by 2020. Moreover, no independent assessment of the implementation has yet been carried out.

Likewise, there is a National Logistics Council (NLC) in Thailand, which is responsible for the implementation and further development of the logistics sector, besides acting as the chief advisory body to the government on matters pertaining to this sector. The NLC has a Steering Committee on Logistics Development, chaired by the Prime Minister, and also a Logistics Development Council.<sup>30</sup> Despite this, Banomyong<sup>31</sup>

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<sup>27</sup> UNESCAP, "Coordination mechanisms for logistics development", in *Guide to Key Issues in Development of Logistics Policy*, Ch. 5 (New York: UNESCAP, 2013) <<http://www.unescap.org/resources/guide-key-issues-development-logistics-policy>> (accessed 19 September 2017).

<sup>28</sup> Titik Anas and Nur Afni Panjaitan, "Reforming Indonesia's Logistics Sector", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 2 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>29</sup> Tham, S.Y., "FDI Liberalization in Malaysia's Logistics Services", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 3 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>30</sup> UNESCAP, "Coordination mechanisms for logistics development", p. 64.

<sup>31</sup> R. Banomyong, "Logistics Services Liberalization in Thailand", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 6 (Singapore: ISEAS – Yusof Ishak Institute, 2018).



asserts that there is still no unified understanding on the scope of the logistics sector, with agencies competing and duplicating efforts in the same area.

Although Vietnam does not as yet have a central coordinating agency, the World Bank, which is assisting the government, has already suggested the use of a National Committee on One-Stop-Shop Mechanism and Trade Facilitation to be in charge of logistics.<sup>32</sup> The Bank has also cautioned that the committee must include representatives from the private sector to be effective.

Hence, despite having developed plans and formed committees to oversee logistics, the sector's competitiveness in Indonesia and Thailand continues to lag behind that in Singapore and Malaysia. This is according to the logistics performance index of the World Bank in 2016. It is as yet too early to assess the impact of Malaysia's Master Plan, which was launched in 2015 (Figures 4 and 5).

The implementation of plans and policies thus remains a matter of concern in each economy.<sup>33</sup> In developing countries, where civil society may be weaker compared to that in developed countries, the policy reform champion has to typically come from the official ranks in government. A committee or a group of like-minded reform people from within the government is well placed to deliver the desired outcome. However, for some ASEAN countries, a coordinating agency in the form of a special task force or committee may not suffice to deliver the desired outcome due to the unwillingness of each sub-sectoral authority to surrender its power/influence to the task force, including its allocated budget. Instead,

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<sup>32</sup> *Nhan Dan* (online), "WB helps Vietnam in trade facilitation, logistics development", 2017 <<http://en.nhandan.com.vn/business/item/5301302-wb-helps-vietnam-in-trade-facilitation-logistics-development.html>> (accessed 20 September 2017).

<sup>33</sup> US Aid, "Policy Reform Lessons Learned: A Review of Economic Growth Related Policy Reform Activities in Developing Countries", 2007 <[http://www.publicprivatedialogue.org/papers/USAID\\_Policy%20Reform\\_Lessons\\_Learned.pdf](http://www.publicprivatedialogue.org/papers/USAID_Policy%20Reform_Lessons_Learned.pdf)> (accessed 26 September 2017).

the committee merely serves to provide regular updates on each sub-sectors' activities, without aligning these activities towards a coordinated outcome. Each sub-sectoral authority seeks to hold on to its position and allocated budget, and if possible to increase it on the basis of expanded activities. A coordinated outcome within each country may on the other hand, require weeding out overlapping and duplicating activities, which would, in turn, have fiscal implications for the sector's budget. Moreover, the lack of a unified understanding and/or definition of logistics in a country, also leads to agencies competing against each other in order to justify their role and spending.

Another reason is the lack of clear and appropriate measures on how to achieve the goals in the country's plan. In the case of Thailand where the internationalization of local logistics providers is measured in terms of events or activities such as exhibitions in neighbouring countries, thus showcasing local logistics providers rather than establishing a physical presence in other countries.<sup>34</sup> Malaysia, in turn, continues to use approved FDI to measure the outcome of its investment promotion activities even though the difference between approved and actual realized investment can be significant. Developing appropriate, measurable and contextualized outcomes is important as developing countries tend to copy systems and processes. As noted by Pritchett,<sup>35</sup> weak states may build a system that mimics successful states in terms of institutions, agencies and ministries, but unfortunately, the system does not have the same functionalities as those found in successful countries, resulting in isomorphic mimicry.

Needless to say, managing the development of this sector is quite an onerous task for the CLM countries. For example, the presence of multiple principals and multiple agents in Myanmar induces a

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<sup>34</sup> Banomyong, "Logistics Services Liberalization in Thailand", in *Services Liberalization in ASEAN*.

<sup>35</sup> Lant Pritchett quoted in L. MacDonald, "One Size Doesn't Fit All: Lant Pritchett on Mimicry in Development", Center for Global Development, 14 March 2011 <<https://www.cgdev.org/blog/one-size-doesn%E2%80%99t-fit-all-lant-pritchett-mimicry-development>> (accessed 26 September 2017).

fragmented policy space.<sup>36</sup> Likewise, Lao recognizes the need to improve linkages and coordination between the relevant ministries to facilitate goods distribution to the countries that it is connected to in the Greater Mekong Subregion.<sup>37</sup> For Cambodia, the logistics sector is an emerging financially lucrative sector that has attracted power competition among government ministries and agencies.<sup>38</sup>

### 3.4 Transport Infrastructure Development

Transport infrastructure plays an important role in each country and is accorded priority, usually as part of the country's overall economic development, rather than for the important role that it plays in logistics development (Table 9). However, the preferred transport infrastructure in each country differs. Brunei, for example, focusses on land transport for supporting socioeconomic development and in recognition of the need to improve on the current system.<sup>39</sup>

For Indonesia's President Joko Widodo, improving infrastructure is a key objective. His budget for improving transport infrastructure in roads, railways, and airports increased in 2016 by 8 per cent, thereby bringing

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<sup>36</sup> H. Min and R. Banomyong, "Facilitating FDI for the Logistics Sector in Myanmar: Agency, Incentives, and Institutions", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 11 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>37</sup> P. Onphanhdala and V. Philavong, "Services Liberalization in Lao PDR: FDI in Logistics Sector of a Land-linked Country", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 10 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>38</sup> V. Chheang, "FDI, Services Liberalization and Logistics Development in Cambodia", in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 9 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>39</sup> Ministry of Communication, Brunei Darussalam, "Land Transport White Paper", n.d. <<http://www.mincom.gov.bn/Documents/Land%20Transport%20White%20Paper/Land%20Transport%20White%20Paper%20for%20Brunei%20Darussalam%20-%20FINAL%20VERSION.pdf>> (accessed 20 September 2017).

**Table 9: Transport Infrastructure Development and Priorities in ASEAN Countries, 2017**

Brunei	Priority in land transport
Indonesia	Infrastructure development prioritized under President Joko Widodo, especially to support the Maritime Fulcrum. Increased spending on infrastructure
Malaysia	Upgrading and expanding infrastructure, especially via Chinese investment under the Belt and Road Initiative (BRI)
Philippines	Prioritized with increase in infrastructure spending
Thailand	Upgrading and expanding
Singapore	Upgrading and modernizing infrastructure, especially using ICT services
Cambodia	Prioritized, especially for improving connectivity between urban and rural areas
Laos	Focus on dry port development and land connectivity with neighbouring countries
Myanmar	Prioritized, especially road connectivity with China
Vietnam	Prioritized, especially improving connectivity with production centres and improving quality such as road safety and road quality

*Source:* Compiled by authors from various sources.

infrastructure spending up to 2.5 per cent of GDP.<sup>40</sup> It is hoped that this will lower the logistics costs to the economy from 26 per cent to a targeted 19 per cent of GDP. Port development is also prioritized in Indonesia's Global Maritime Fulcrum (GMF) vision.<sup>41</sup> But the massive spending needed for realizing this vision is beyond the current fiscal capabilities of Indonesia. Similarly, the Philippines also increased infrastructure outlays to 5 per cent of GDP in 2016 and will use alternative financing such as Public–Private Partnership (PPP) for supporting the development of better and modern transport infrastructure. Concurrently, it is taking measures to make infrastructure spending more effective by enhancing procurement procedures and using new public finance management laws.<sup>42</sup>

Both Malaysia and Thailand are upgrading and expanding their transport infrastructure (Table 9). Malaysia is tapping on China's Belt and Road Initiative to develop an alternative trade route linking Kuantan Port with Port Klang. A new port is also planned in Melaka, as is a high speed rail connecting Kuala Lumpur with Singapore. In Thailand, infrastructure projects worth some US\$50.8 billion will be underway before 2018, including the development of the Sino-Thai railway, covering a distance of 873 kilometres between Bangkok and Nong Khai on the Thai-Lao PDR border. It is also upgrading and modernizing its two main ports of Bangkok and Laem Chabang,<sup>43</sup> with the latter poised to become a gateway to the Greater Mekong Subregion.

In recognition of increasing competition from its neighbours, Singapore is also investing heavily in its infrastructure capacity. The

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<sup>40</sup> ASEAN Secretariat, "Investing in ASEAN 2017", 2017 <<http://asean.org/storage/2017/01/Investing-in-ASEAN-2017-.pdf>> (accessed 20 September 2017).

<sup>41</sup> President Jokowi envisaged Indonesia as a GMF between the Indian and Pacific Oceans. This vision includes increasing connectivity within the archipelago state for advancing economic prosperity as well as enhancing maritime security by developing a more capable navy to defend Indonesia's sovereignty.

<sup>42</sup> ASEAN Secretariat, 2017. "Investing in ASEAN 2017".

<sup>43</sup> *Ibid.*, p. 37.

city-state's Land Transport Master Plan (LTMP), launched in 2013, aims to double the rail network to 360 kilometres by 2030, while the plan for Changi Airport targets doubling its current capacity. Singapore is building a new fully automated seaport on the western side of the island that is expected to handle up to 65 million twenty-foot equivalent units of cargo a year, which is more than double of what it handled in 2016. In addition, the government has integrated information technology in all modes of transport under its smart nation initiatives, thereby deploying the Internet of Things in the logistics sector as well.

Given the development gap between the older ASEAN-6 and the CLMV countries, financing transport infrastructure development in the CLMV countries is a key issue, as these countries, especially the CLM, are very much dependent on international assistance rather than on fiscal funding from the government. Promoting PPP for financing transport infrastructure development will require the development of a legal framework. Vietnam, for example, has brought in a new legal framework on PPP investment in 2015. Improving internal connectivity is prioritized, such as urban–rural connectivity in Cambodia,<sup>44</sup> and enhanced internal connectivity with production centres in Vietnam.<sup>45</sup> Likewise, Lao is working towards raising the traffic capacity of its dual lane highway to serve as the main north-south connection in the country.<sup>46</sup> Myanmar is scheduled to improve its rail links from Yangon to Mandalay, with Japanese financial assistance.<sup>47</sup>

Port development is another important goal in the CLMV countries. Even Lao, which is land-locked, is pushing for the development of dry

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<sup>44</sup> Chheang, “FDI, Services Liberalization and Logistics Development in Cambodia”, in *Services Liberalization in ASEAN*.

<sup>45</sup> N.A. Thu, V.T. Houg and N.T.M. Phoung, “Services Liberalization in Vietnam: The Case of FDI in Vietnam’s Logistics Sector”, in *Services Liberalization in ASEAN: Foreign Direct Investment in Logistics*, edited by Tham, S.Y. and S. Basu-Das, Ch. 7 (Singapore: ISEAS – Yusof Ishak Institute, 2018).

<sup>46</sup> ASEAN Secretariat, 2017. “Investing in ASEAN 2017”.

<sup>47</sup> *Ibid.*, p. 39.

ports in its drive to shift towards being a land-linked country.<sup>48</sup> Cambodia is also developing dry ports. Investments from the Japan International Cooperation Agency (JICA) for overseas development assistance (ODA) reach up to 23.5 billion yen to develop the Sihanoukville Port New Container Terminal Development Project.<sup>49</sup> JICA is also providing US\$781 million in loans for the development of a major deep-sea port at Lach Huyen to the east of Haiphong, while plans have been approved for the development of another deep-water port for transshipment, on Hon Khai island, in the southern province of Ca Mau, using PPP.<sup>50</sup> Myanmar too, is competing to improve its maritime connectivity with China, India and the Indochina region through FDI in port development. For example, Thai investment is used to develop deep-sea ports and industrial complexes at Dawei as an alternative international trade route and gateway to the GMS, while Chinese investment is tapped for the development of deep-sea ports at Kyauk Phyu for a new logistics route to supply energy to Yunnan.<sup>51</sup> India is investing in the port of Sittwe and the Kaladan Multimodal Transport project as a gateway to the northeastern part of India.

All these port developments imply that competition among ports in ASEAN will heighten and adversely affect the traffic of smaller gateway ports, with Chinese and Japanese funding playing important roles in the newer developments.

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<sup>48</sup> Onphanhdala and Philavong, “Services Liberalization in Lao PDR: FDI in Logistics Sector of a Land-linked Country”, in *Services Liberalization in ASEAN*.

<sup>49</sup> JICA 2017, “Signing of Japanese ODA Loan Agreement with Cambodia: Expanding Sihanoukville Port New Container Terminal Development Project”, Press Releases, 8 August 2017 <[https://www.jica.go.jp/english/news/press/2017/170808\\_01.html](https://www.jica.go.jp/english/news/press/2017/170808_01.html)> (accessed 26 September 2017).

<sup>50</sup> ASEAN Secretariat, 2017. “Investing in ASEAN 2017”, p. 37.

<sup>51</sup> Aung Khin Myint, “Spotlight on Myanmar”, presentation at the Container Supply Chain Conference on Spotlight on Regional Ports and Terminal Development, Marina Bay Sands Hotel, Singapore, 25–26 April 2017 <<http://www.captaung.com/2017/05/12/myanmar-ports-and-terminal-development-2017/>> (accessed 26 September 2017).

## 4. FDI LIBERALIZATION AND FACILITATION IN ASEAN INTEGRATION

The logistics sector was declared a priority sector in 2004 and a Roadmap for the Integration of Logistics (RILS) was drawn in 2008 to liberalize and facilitate the development of this sector. The creation of an integrated ASEAN logistics environment is to support the establishment and enhancement of a competitiveness ASEAN production base. The Roadmap targeted on the liberalization of nine logistics service sub-sectors,<sup>52</sup> and facilitating the development of these sectors through four key measures: document simplification; improvements in the capabilities of ASEAN logistics service providers; human resource development; and multimodal transport infrastructure and investment.<sup>53</sup>

Liberalization measures focus on no limitations in the movement of cross-border supply (Mode 1), consumption abroad (Mode 2) and allowing foreign equity of up to 70 per cent in commercial presence (Mode 3), with no limitations in national treatment. These were drawn from the commitments made by each ASEAN member country in the ASEAN Framework Agreement on Services (AFAS), meant to be implemented by the end of 2015. The deadline was not met, with the exception of Cambodia and Singapore. This reflects the difficulties encountered in negotiating commitments in services, as targets were originally intended to be achieved through ten packages of progressive liberalization by 2015. However, only eight packages were negotiated by 2015 and the ninth package was completed only in 2016 while the tenth package has not yet been released. The main problem encountered in liberalization measures is in Mode 3, which is also the most important mode of trade in services. The target of 70 per cent foreign equity has not been achieved for most countries because the liberalization targets were couched

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<sup>52</sup> Railway transport, road transport, maritime transport, cargo handling, storage and warehousing, transport agency, postal and courier and packaging.

<sup>53</sup> Tham and Basu-Das, "Introduction", in *Services Liberalization in ASEAN*.



in terms of best endeavour efforts rather than binding commitments. Second, services liberalization provides 15 per cent flexibility for sub-sectors that may be of national sensitivity and/or that may not comply with agreed parameters. Finally, the ASEAN Minus X Formula provides additional flexibility in terms of offers made for liberalization. Likewise, the loose arrangements for logistics facilitation in terms of time lines and the non-committal language used in the Roadmap inevitably mean that many measures remain as work-in-progress (WIP) (see Table 10).<sup>54</sup>

However, FDI liberalization in services, while necessary, is not sufficient to attract FDI in a sector that requires technology and capital for its development, especially in the much-needed transport infrastructure. The services sector is heavily regulated due to information asymmetries that require the government to protect consumers through prudential regulations that may unintentionally deter the entry of both domestic as well as foreign suppliers. Excessive regulations impose compliance costs that increases the cost of doing business as well as open doors for corruption, especially when regulations are non-transparent. Consequently, regulatory reform constitutes an important component for facilitating a conducive FDI environment in services. This need is also recognized in all the ASEAN countries, although the focus of regulatory reform may differ from one country to another.

Singapore takes pride in being one of the top performers in the World Bank's ranking of Ease of Doing Business as it has undertaken regulatory reform both economy-wise and mode-wise. Likewise, in Brunei, improving the ease of doing business is prioritized by the government. Legislative reforms are targeted by countries such as Indonesia, the Philippines, Malaysia, Thailand and Vietnam. There are, however, different approaches involved. Countries may take a piecemeal approach

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<sup>54</sup> Tham, S.Y. and S. Basu-Das, "Logistics Integration in ASEAN Faces Serious Challenges", *ISEAS Perspective*, no. 55/2016, ISEAS – Yusof Ishak Institute, Singapore, 3 October 2016 <[https://www.iseas.edu.sg/images/pdf/ISEAS\\_Perspective\\_2016\\_55.pdf](https://www.iseas.edu.sg/images/pdf/ISEAS_Perspective_2016_55.pdf)> (accessed 28 September 2017).

**Table 10: FDI Liberalization and Facilitation in ASEAN Countries, 2017**

Brunei	Liberalization is work-in-progress (WIP); FDI facilitation by improving ease of doing business
Indonesia	Liberalization is WIP; FDI facilitation is mainly through legislative reforms to allow private sector participation
Malaysia	Liberalization is WIP; FDI facilitation focus on improving ease of doing business and regulatory reforms; Bumiputeras equity holdings required in some sub-sectors
Philippines	Liberalization is WIP; Regulatory reforms but limited by constitutional provision, which limits foreign equity participation to 40 per cent
Thailand	Liberalization is WIP; Regulatory reforms but limited by Foreign Business Act, which limits foreign equity share to 49 per cent
Singapore	No restrictions on most sub-sectors; FDI facilitation is in terms of ease of doing business. Challenges exist due to lack of skilled labour and competition from neighbours
Cambodia	No limitations on foreign equity ownership; FDI facilitation is weak in terms of both hard and soft infrastructures
Laos	Liberalization is WIP; FDI facilitation is weak in terms of both hard and soft infrastructures
Myanmar	Liberalization is WIP; New Investment Law, to be implemented, but weak governance and implementation capacity
Vietnam	Liberalization is WIP; Revisions of investment laws but there are still outdated, conflicting and overlapping regulations that increase bureaucratic red tape

*Source:* Compiled by authors from various sources.

as in the case of Indonesia and Vietnam or a “regulatory guillotine” approach<sup>55</sup> as in the case of Thailand or a comprehensive “whole-of-government” approach towards regulatory reform by establishing good regulatory practices as in the case of Malaysia and Singapore and as targeted by the Philippines.<sup>56</sup> Although Cambodia has no limitations on foreign equity shares, it has an investment licensing system, weak rule of law and regulatory weakness and poor infrastructure that deter foreign investment. Lao and Myanmar also share the same weaknesses, although Myanmar is in the process of implementing its new investment law, which was drafted with the assistance of the World Bank.

The FDI-enabling environment in each country thus reflects the relative success its reform process. In this regard, Singapore continues to have the most FDI-facilitating environment in ASEAN based on actual inflows of FDI in 2016 (see Table 5).

## 5. CONCLUSION

The demand for logistics services is going to increase in ASEAN countries due to growing urbanization and the rising aspirations of urban dwellers. In addition, the success of their emerging e-commerce business depends heavily on an efficient logistics delivery system.

Each country aims for seamless logistics and some also aspire to be a logistics hub for the region. These goals do not take into consideration the geographical differences across ASEAN countries and the very

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<sup>55</sup> This approach aims at rapidly reviewing a large number of regulations and eliminating those that are no longer needed without the need for lengthy and costly legal action for each regulation. It is considered to be a systematic and transparent approach to reviewing, eliminating and streamlining business regulations. Thailand announced the use of this approach in 2016, see Achara Deboonme, “Stage set for ‘regulatory guillotine’”, *The Nation*, 4 April 2016 <<http://www.nationmultimedia.com/business/Stage-set-for-regulatory-guillotine-30283191.html>> (accessed 26 September 2017).

<sup>56</sup> See Tham, “FDI Liberalization in Malaysia’s Logistics Services”, and Llanto, “Logistics services liberalization in the Philippines”, in *Services Liberalization in ASEAN*.

nature of this sector, which is inherently complex in each country and for the region. Both comprehensive and integrative policies, together with a strong governance structure and implementation capacity, are needed to achieve the seamless logistics that they seek. These are found to be lacking in most of the ASEAN countries. The Singapore logistics sector, though governed by multiple agencies, benefits from the city-state's small size and better implementation capacities. To a large extent, this explains the difference between the sterling performance of the logistics sector in Singapore compared with the rest of ASEAN.

In principle, liberalization can help to address the complex challenges if it targets improving the FDI-enabling environment through regulatory reforms. This would provide external pressure for domestic reforms.<sup>57</sup> Moreover, investment in transportation infrastructure is quite beyond the financial capabilities of most developing countries. Hence, improving the FDI-enabling environment can assist in bringing in foreign capital and technology.<sup>58</sup> Some MNCs that are leading the production networks in the region do have an incentive to either partake in such investments themselves or convince their affiliates to participate as they see such investments as complementary to their manufacturing ventures. A case in point are Japanese MNCs, such as Sumitomo Mitsui Construction, Tokyo Corporation and Takenaka Corporation, which already have an ASEAN presence.

In ASEAN, liberalization is not only narrowly focussed on increasing the foreign equity cap but its implementation is often left to national authorities that are able to bypass their commitments in this sector. Regulatory reform is left to each country to initiate at its own pace.

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<sup>57</sup> B. Hoekman and A. Mattoo, "Liberalizing Trade in Services: Lessons from Regional and WTO Negotiations", 2012 <[http://globalgovernanceprogramme.eu.eu/wp-content/uploads/2012/11/Hoekman-Mattoo-Services-Cooperation-International\\_Negotiation\\_final.pdf](http://globalgovernanceprogramme.eu.eu/wp-content/uploads/2012/11/Hoekman-Mattoo-Services-Cooperation-International_Negotiation_final.pdf)> (accessed 28 September 2017).

<sup>58</sup> UNESCAP, "Appendix: Calculating national logistics costs", n.d. <[http://www.unescap.org/sites/default/files/pub\\_2194\\_Appendix.pdf](http://www.unescap.org/sites/default/files/pub_2194_Appendix.pdf)> (accessed 28 September 2017).

At the country level, there are domestic barriers towards the development of this sector with sub-sectoral authorities guarding their turf jealously and resisting coordination and the reduction of overlapping activities. Thus, instead of working towards seamless harmonization, functional silos continue to impede matters. This can happen even when there is a Master Plan and an overarching committee for coordinating the development of each logistics sub-sector.

Therefore, logistics integration in ASEAN requires each country to first overcome inherent domestic challenges. Each country needs a comprehensive policy, rather than just a transportation policy and functional reforms that focus on implementation, and not just mimicking the institutions of developed states. At the same time, liberalization can assist the internal process if and only if ASEAN seeks to make commitments binding. This will require ASEAN to shift towards an ASEAN Minus X formulation but with binding commitments. Unfortunately, the AEC 2025 Consolidated Strategic Action Plan continues to use the language of best endeavour, thereby reducing the likelihood of proper implementation of its goals. Since the ASEAN Trade in Services (ATISA) agreement<sup>59</sup> is still being negotiated, it remains to be seen if it can serve to reduce the complex challenges in the logistics sector of ASEAN countries.

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<sup>59</sup> As ASEAN has upgraded its agreement on ASEAN Free Trade Area in 1993 to ASEAN Trade in Goods Agreement in 2010, it is working to upgrade its services sector agreement, i.e., ASEAN Framework Agreement of Services, to ATISA.

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