

# Promoting Services Trade in ASEAN

Trade in Maritime, Air, Rail and Road  
Transport Services

PAPER 6

FEBRUARY

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ASEAN-JAPAN  
CENTRE

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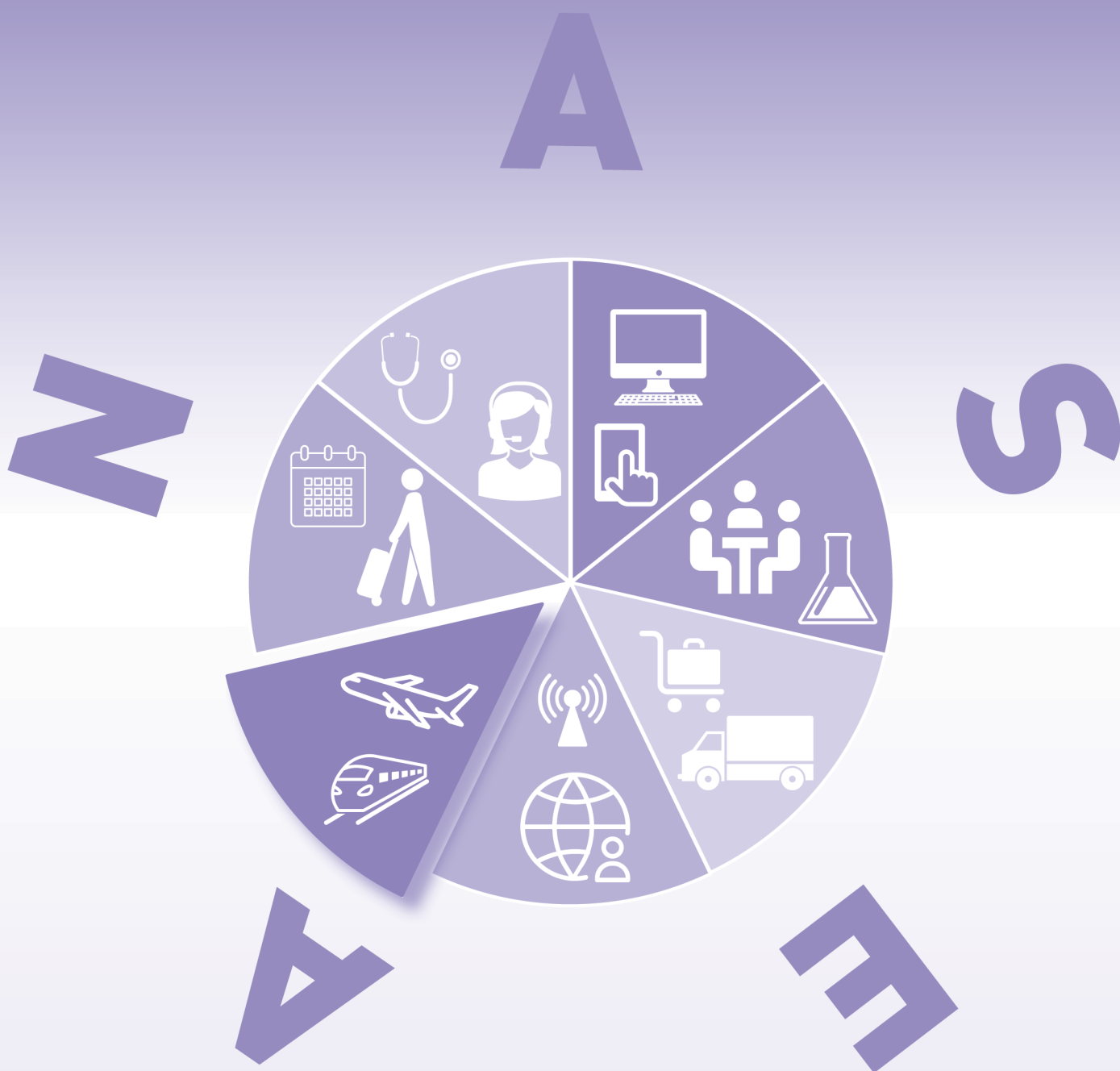
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## NOTES

The terms country and/or economy as used in this study also refer, as appropriate, to territories or areas; the designations employed and the presentation of the material do not imply the expression of any opinion whatsoever on the part of the ASEAN-Japan Centre concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The following symbols have been used in the tables:

- Two dots (..) indicate that data are not available or are not separately reported.
- A dash (-) indicates that the item is equal to zero or its value is negligible.
- Use of a dash (-) between dates representing years, e.g., 2015–2016, signifies the full period involved, including the beginning and end years.
- Reference to “dollars” (\$) means United States dollars, unless otherwise indicated.

There are seven papers in total. The other six papers cover professional services, R&D services, telecommunication services, computer and related services, courier services, and tourism.

Prepared by Hikari Ishido (Chiba University, Japan) and Masataka Fujita (ASEAN-Japan Centre). The authors wish to thank the staff members of the AJC and Richard Liang for their research and statistical assistance, and the ASEAN Government officials who participated in the third seminar for the Promotion of Services Trade in ASEAN, on 11–13 September 2017, in Kuala Lumpur, Malaysia, for their comments. Errors and omissions are only those of the authors and should not be attributed to their respective organizations.

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## I. INTRODUCTION

Transport – air, rail and road services – is an essential service sector, especially for manufacturing activities in ASEAN. The General Agreement on Trade in Services (GATS) administered by the World Trade Organization (WTO) lists<sup>1</sup> the following 21 job categories under “Maritime transport services”, “Air transport services”, “Rail transport services” and “Road transport services”, which this paper addresses. These four modes of transport are referred to in this paper as transport services. The WTO list also includes 11B, Internal waterways transport; 11D, Space transport; 11G, Pipeline transport; 11H, Services auxiliary to all modes of transport; and 11I, Other transport services. These five are not considered here except for storage and cargo handling services, to the extent to which they are included implicitly in transport services statistics. Among these transport services, air transport is a Priority Integration Sector under the ASEAN Economic Community.

### 11A Maritime Transport Services

|      |  |
|------|--|
| 11Aa | Passenger transportation                   |
| 11Ab | Freight transportation                     |
| 11Ac | Rental of vessels with crew                |
| 11Ad | Maintenance and repair of vessels          |
| 11Ae | Pushing and towing services                |
| 11Af | Supporting services for maritime transport |

### 11C Air Transport Services

|      |                                       |
|------|---------------------------------------|
| 11Ca | Passenger transportation              |
| 11Cb | Freight transportation                |
| 11Cc | Rental of aircraft with crew          |
| 11Cd | Maintenance and repair of aircraft    |
| 11Ce | Supporting services for air transport |

### 11E Rail Transport Services

|      |  |
|------|--|
| 11Ea | Passenger transportation                           |
| 11Eb | Freight transportation                             |
| 11Ec | Pushing and towing services                        |
| 11Ed | Maintenance and repair of rail transport equipment |
| 11Ee | Supporting services for rail transport services    |

### 11F Road Transport Services

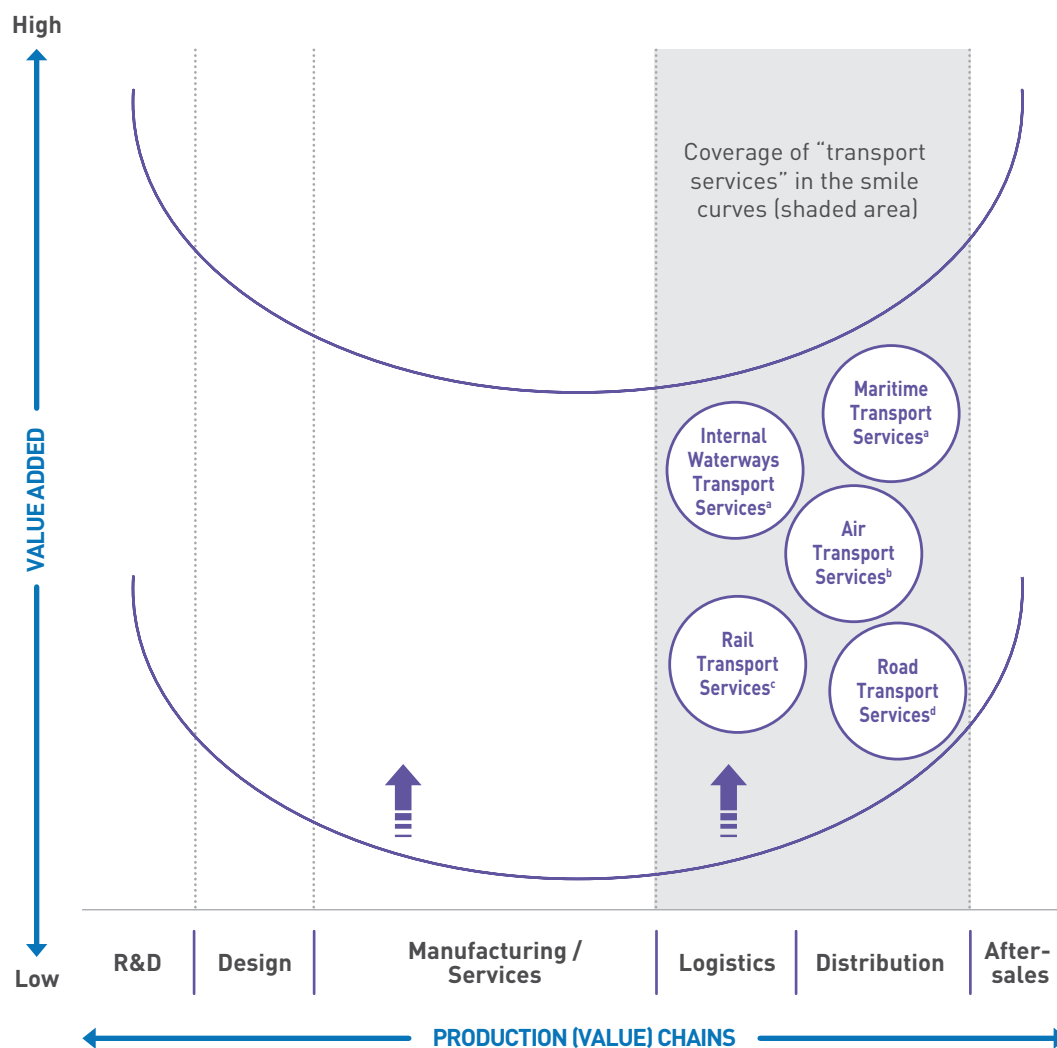
|      |  |
|------|--|
| 11Fa | Passenger transportation                           |
| 11Fb | Freight transportation                             |
| 11Fc | Rental of commercial vehicles with operator        |
| 11Fd | Maintenance and repair of road transport equipment |
| 11Fe | Supporting services for road transport services    |

Of the three sources of value added – i.e. provisions of (1) tangible products, (2) information and (3) amenities – transport services tend to fall under amenities. The provision of transport-related services tends to grow with economic development. In the ASEAN region, which records consistently vigorous economic advances and displays increasing physical connectivity, the role of transport services is becoming larger year after year.

<sup>1</sup> The title of the WTO document is “Services Sectoral Classification List” (MTN.GNS/W/120, released on 10 July 1991).

Figure 1 illustrates global value chain curves related to transport services. As shown, transport services are part of logistics and distribution (the shaded part in the figure), linking suppliers and consumers through transport facilities (i.e. maritime, air, rail and road facilities).

Figure 1. Value chains and transport services



Source: ASEAN-Japan Centre.

Note: For each type of transport services, includes passenger services, freight services and supporting services, pushing and towing (except air and road transport).

<sup>a</sup> Includes rental of vessel with crew services and maintenance and repair of vessels services.

<sup>b</sup> Includes rental of aircraft with crew services and maintenance and repair of aircraft services.

<sup>c</sup> Includes maintenance and repair of rail transport equipment services.

<sup>d</sup> Includes rental of commercial vehicles with operator services and maintenance and repair of road transport equipment services.



ASEAN's Kuala Lumpur Transport Strategic Plan (ASEAN Transport Strategic Plan) 2016–2025 states: "(T)ransport has been recognized by the ASEAN Leaders as the very basis of the ASEAN economic development and integration as it plays a crucial role in the movement of goods, services, capital and people. It also provides great support in binding ASEAN's economies closer together and in building the ASEAN Economic Community that is so vital for the future of ASEAN nations."

With reductions in transport costs from the development of transport infrastructure and the efficiencies of transport systems, people and firms do not need to stay in one location. This makes it possible for multiple cities to emerge, at distances from the capital area (annex H). When a population (or economic purchasing power) grows large enough, production and living costs eventually become prohibitively high. This enhances the market potential of other locations and hence encourages the emergence of new cities away from the capital area, fueled by greater mobility. ASEAN-wide policy should be formulated with such a decentralized, multiple-equilibria scenario in view.<sup>2</sup>

## II. CURRENT STATE OF TRANSPORT SERVICES IN MEMBER STATES

Table 1 shows logistics performance indices (LPIs) for the ASEAN member states and memorandum countries in 2016. The indices measure the degree of smooth customs clearance, infrastructural development, efficient international shipments, and logistics quality and competence, as well as timeliness of shipments.

Overall, there is a significant degree of variation among the ASEAN member states' LPI scores. Singapore ranks the highest (fifth in the world). The rank of the Lao People's Democratic Republic is the lowest (152<sup>nd</sup>), and hence an important focus (see case study in box 1).

For the ASEAN member states to become more integrated in terms of transport services, ASEAN-wide policy arrangements are necessary. What is needed is a concerted policy effort to redress gaps in logistics performance. Liberalization<sup>3</sup> of trade in services would be one effective policy area on which all the ASEAN member states could collaborate to narrow these logistical gaps.

Take, for instance, the case of maritime services. Trade liberalization in this sector offers exporters, importers and goods distributors in a country a competitive and cost-efficient alternative to domestic cargo operators. Furthermore, in some ASEAN member states, foreign international marine transporters can offer more efficient cargo transportation services than their domestic counterparts, which tend to use older, poorly managed shipping fleets. Also, the fewer taxes currently imposed on international cargo transport operators in some countries enables those operators to offer services at competitive prices. Thus, foreign international marine transport operators are likely to benefit from the liberalization of policies such as the cabotage<sup>4</sup> policy.

<sup>2</sup> APEC Policy Support Unit (2015) indicates that, in the context of global value chains, transportation services for procuring intermediate inputs make possible the geographic dispersion of value-creating operations.

<sup>3</sup> There are some concerns in relation to the liberalization of trade in transport services. One is the dominance of foreign suppliers, which might pose risks to national security (as transport services constitute an indispensable part of any nation's infrastructural base). Also, profitability gaps among suppliers of transport services might widen. At the other extreme (i.e. monopoly of a domestic transport supplier), however, the affordability of transport services tends to become somewhat marginalized. Liberalization is thus not always good; there should be a balance between the benefits and costs of liberalization.

<sup>4</sup> Cabotage refers to transport of goods or passengers between two places in the same country by foreign suppliers (for more on the concept of cabotage, see section IV).

Table 1. Logistics performance indices for the ASEAN member states and memorandum countries, 2016

| Country                          | LPI rank | LPI score | Customs |      | Infrastructure |      | International shipments |      | Logistics quality and competence |      | Timeliness |      |
|----------------------------------|----------|-----------|---------|------|----------------|------|-------------------------|------|----------------------------------|------|------------|------|
|                                  |          |           | Score   | Rank | Score          | Rank | Score                   | Rank | Score                            | Rank | Score      | Rank |
| <b>ASEAN members</b>             |          |           |         |      |                |      |                         |      |                                  |      |            |      |
| Brunei Darussalam                | 70       | 2.87      | 2.78    | 57   | 2.75           | 66   | 3                       | 62   | 2.57                             | 93   | 3.19       | 84   |
| Cambodia                         | 73       | 2.8       | 2.62    | 77   | 2.36           | 99   | 3.11                    | 52   | 2.6                              | 89   | 3.3        | 73   |
| Indonesia                        | 63       | 2.98      | 2.69    | 69   | 2.65           | 73   | 2.9                     | 71   | 3                                | 55   | 3.46       | 62   |
| Lao People's Democratic Republic | 152      | 2.07      | 1.85    | 155  | 1.76           | 155  | 2.18                    | 148  | 2.1                              | 144  | 2.68       | 133  |
| Malaysia                         | 32       | 3.43      | 3.17    | 40   | 3.45           | 33   | 3.48                    | 32   | 3.34                             | 35   | 3.65       | 47   |
| Myanmar                          | 113      | 2.46      | 2.43    | 96   | 2.33           | 105  | 2.23                    | 144  | 2.36                             | 119  | 2.85       | 112  |
| Philippines                      | 71       | 2.86      | 2.61    | 78   | 2.55           | 82   | 3.01                    | 60   | 2.7                              | 77   | 3.35       | 70   |
| Singapore                        | 5        | 4.14      | 4.18    | 1    | 4.2            | 6    | 3.96                    | 5    | 4.09                             | 5    | 4.4        | 6    |
| Thailand                         | 45       | 3.26      | 3.11    | 46   | 3.12           | 46   | 3.37                    | 38   | 3.14                             | 49   | 3.56       | 52   |
| Viet nam                         | 64       | 2.98      | 2.75    | 64   | 2.7            | 70   | 3.12                    | 50   | 2.88                             | 62   | 3.5        | 56   |
| <b>Memorandum</b>                |          |           |         |      |                |      |                         |      |                                  |      |            |      |
| Japan                            | 12       | 3.97      | 3.85    | 11   | 4.1            | 11   | 3.69                    | 13   | 3.99                             | 12   | 4.21       | 15   |
| China                            | 27       | 3.66      | 3.32    | 31   | 3.75           | 23   | 3.7                     | 12   | 3.62                             | 27   | 3.9        | 31   |
| Korea, Republic of               | 24       | 3.72      | 3.45    | 26   | 3.79           | 20   | 3.58                    | 27   | 3.69                             | 25   | 4.03       | 23   |

Source: World Bank (<http://lpi.worldbank.org/>).

Industry characteristics for transport-related sub-sectors are provided here by country.

## 1. Maritime transport services

**Brunei Darussalam.** As a result of the trend towards larger vessel sizes, container terminals in the country need to be expanded. The Ministry of Communication, which administers maritime transport services, plans to implement the expansion through its Strategic Plan (2008–2017).<sup>5</sup>

**Cambodia.**<sup>6</sup> The Ministry of Public Works and Transport has the following mission and functions: build, maintain and manage all transportation infrastructure, including bridges, ports and waterways; establish regulations for the development of ports and waterways infrastructure; establish regulations and control transport by waterway; and participate and cooperate to establish laws, regulations and diverse standards concerning the construction of transport infrastructure.

**Indonesia.**<sup>7</sup> The country's international marine transportation industry has been expanding rapidly, driven by the rise in seaborne exports to countries such as China, Japan and the Republic of Korea and by the growth in trade flows among ASEAN member states. Marine transportation services have gained significance because of Indonesia's archipelagic geography, which naturally leads to heavy reliance on maritime transport for both international and domestic trade. In addition, the Government's growing emphasis on developing shipping and port services as well as liberalizing and decentralizing the sector has been aiding growth in this industry. The Government has also implemented new regulatory policies that are likely to help increase the participation of foreign companies and facilitate greater competition among the players. The Government's determination to enhance port infrastructure across Indonesia and connect essential links in the country is likely to boost growth in marine transportation services. However, the international marine transportation industry faces a huge challenge in making inter-island transportation services in the country economical and efficient.

Indonesia's marine transportation industry undertakes international, inter-island and transshipment transportation services that cover shipping and port operations through cargo liners and tramp-trade shipments. The country's merchant fleet includes oil tankers, bulk carriers, container ships, cargo ships, passenger ships and sailing ships. The Government has been actively encouraging both foreign and domestic investors in the international marine transportation industry. Government regulations have made possible significant opportunities for foreign shipping companies to participate in Indonesia's shipping and marine transportation businesses, which consist of both Indonesian- and foreign-flagged vessels.

**Lao People's Democratic Republic.** Marine or waterway traffic is widely used. A 333 km navigation route on the Mekong River between the country and China has been improved to accommodate a 100 ton load limit in the dry season and a 350 ton limit in the rainy season. There are 25 ports along the Mekong River, 5 of which have standard logistics support systems; the others will be upgraded soon. For sea transport, the Vung Ang Port in Viet Nam is being upgraded so as to increase shipment services in the future. In 2014, goods exported from the Lao People's Democratic Republic through that port amounted to 739,000 tons, a 40 per cent growth over 2013. Between 2012 and 2014, the Lao Government received \$9.1 million in profits from this port alone. The amount of goods moved by marine transport is one third of the amount moved by road, but four times that moved by rail (table 2).

<sup>5</sup> Downloadable at <http://www.mincom.gov.bn/Resources/strategic%20plan%202008%20-%202017.pdf>.

<sup>6</sup> Information obtained from the website of Cambodia's The Ministry of Public Works and Transport (<https://www.mpwt.gov.kh/about-ministry/mission-and-function.html?lang=en>).

<sup>7</sup> Information obtained from the website of Indonesia's Ministry of Transportation (<http://www.dephub.go.id/>).

Table 2. Transport services in Lao People's Democratic Republic by mode, 2005–2015

| Content  | 2000      | 2005      | 2010      | 2011      | 2012      | 2013      | 2014      | 2015      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Land transport</b>                            |           |           |           |           |           |           |           |           |
| Amount of goods (1,000 tons)                     | 1 477     | 2 592     | 4 430     | 3 823     | 4 548     | 5 007     | 4 780     | 5 127     |
| Amount of goods traffic (1 000 ton-km)           | 130 300   | 259 000   | 383 015   | 319 400   | 362 500   | 388 300   | 394 666   | 434 714   |
| Number of passengers (1 000)                     | 24 993    | 34 887    | 38 272    | 37 617    | 41 210    | 48 532    | 48 959    | 59 106    |
| Amount of passenger traffic (1 000 passenger-km) | 1 470 800 | 1 675 908 | 2 555 992 | 2 113 416 | 2 618 875 | 2 827 156 | 2 979 525 | 3 205 017 |
| <b>Air transport</b>                             |           |           |           |           |           |           |           |           |
| Amount of goods (1 000 tons)                     | 1.5       | 0.3       | 0.7       | 0.4       | 0.5       | 1.6       | 1.4       | 1.1       |
| Amount of goods traffic (1 000 ton-km)           | 41 230    | 41 366    | 72 345    | 89 134    | 86 060    | 86 663    | 92 700    | 91 304    |
| Number of passengers (1 000)                     | 123       | 155       | 283       | 311       | 463       | 447       | 444       | 1 817     |
| Amount of passenger traffic (1 000 passenger-km) | 19 870    | 40 484    | 73 842    | 72 108    | 78 913    | 72 325    | 83 199    | 138 090   |
| <b>Rail transport</b>                            |           |           |           |           |           |           |           |           |
| Number of passengers (1 000)                     | -         | -         | 12        | 12        | 34        | 32        | 38        | 38        |
| Amount of passenger traffic (1 000 passenger-km) | -         | -         | 420       | 500       | 930       | 850       | 1 200     | 910       |
| <b>Water transport</b>                           |           |           |           |           |           |           |           |           |
| Amount of goods (1 000 tons)                     | 695       | 621       | 1 088     | 993       | 1 418     | 1 586     | 1 668     | 1 752     |
| Amount of goods traffic (1 000 ton-km)           | 27 600    | 41 100    | 69 710    | 70 000    | 79 200    | 82 180    | 94 700    | 98 593    |
| Number of passengers (1 000)                     | 1 786     | 1 570     | 2 053     | 1 811     | 2 178     | 2 707     | 2 968     | 2 966     |
| Amount of passenger traffic (1 000 passenger-km) | 51 600    | 40 268    | 65 485    | 48 890    | 71 822    | 73 142    | 80 096    | 86 064    |

Source: Lao People's Democratic Republic Ministry of Public Works and Transport.

**Malaysia.**<sup>8</sup> Malaysia's location – near one of the world's busiest shipping channels, the Strait of Malacca – facilitates extensive connectivity to major shipping lines between the Middle East and East Asia. Moreover, international marine transport forms a crucial part of the country's international trade, with 90 per cent of it conducted via waterways.

Malaysia's shipping fleet includes tankers, liners, cargo vessels, ferries, dredgers, trawlers, tugboats and other vessels. These vessels are either used by ship owners for international marine transport of cargo or chartered (rented) to shipping companies for the transport of third-party cargo. International marine shipping is undertaken either with cargo liners or on a tramp basis. Whereas cargo liners transport cargo from various shippers, tramp trade refers to the shipment of cargo only for specific shippers. This type of shipment is mainly undertaken to carry energy resources, such as petroleum and liquefied natural gas, that require special-purpose vessels.

**Myanmar.** The Department of Marine Administration and the Myanma Port Authority, both of which are under the Ministry of Transport and Communications, administer maritime transport services.

The Department of Marine Administration has 21 functions, with these objectives: to ensure national flagged ships conform to safety standards, safe practices and the standards of competence required of marine personnel; to promote the development of human resources, human resources planning and optimum utilization of human resources in the maritime sector; to improve the safety record of Myanmar-registered vessels; and to improve performance on the specific obligations to save lives in ships in distress at sea and to protect the marine environment.

The objectives of the Myanma Port Authority are to earn revenues for the State through the provision of services (loading, unloading, storage of cargoes, receipt and delivery of transit cargoes, etc.) to vessels calling at all the ports of Myanmar. There are eight coastal ports, known as outports. To cope with the growth in maritime trade volume after the adoption of a market-oriented economy, the Government laid out a plan to develop two deep-sea commercial ports: Dawei (Italian-Thai Development Co., Ltd.) and Kyaukpyu (CITIC Group, China).

Yangon Port is the premier port, the gateway for state exports and imports, and plays a vital role in economic development. It has two areas, Yangon Inner Harbour Area and Thilawa Area.

With the growth of maritime trade under the market-oriented policy allowing the participation of foreign and local private investment in the national economy, cargo throughput has increased considerably since 1988, to reach the optimal capacity limit of Yangon Port. The Thilawa area, located 16 km downstream, has been earmarked for expanding the port. For developing that port, 37 plots of waterfront land were allocated. These recent developments of commercial ports have been implemented by foreign investors on a build-own-transfer and joint-venture basis.

**Philippines.**<sup>9</sup> The former cabotage policy, in effect for 50 years, allowed international marine transport operators with foreign-flagged vessels (foreign international marine transporters) to make port calls only at a single international port of entry. This restricted their operations to a few international ports in the country. The cargo offloaded at these ports of entry was then transported by domestic shipping companies to the destination port, for which those companies charged very high fees. Such charges pushed up the cost of trade for exporters and importers as well as the cost of distribution of goods countrywide. This restriction resulted in a marked preference for Philippines-based international marine transporters (Philippines-flagged ships), which are not restricted to a single port of entry.

<sup>8</sup> Information obtained from the website of Malaysia's Ministry of Transport (<http://www.mot.gov.my/en>).

<sup>9</sup> Summary of information obtained from the website of the Philippines' Department of Transportation (<http://dotr.gov.ph/>).

In 2015, then-President Benigno Aquino III signed a law amending the Philippines' cabotage law, Republic Act 10668, "An Act Allowing Foreign Vessels to Transport and Co-Load Foreign Cargoes for Domestic Transshipment and for Other Purposes". Its Implementing Rules and Regulations were issued in 2016. Restrictions on port entry by foreign operators were largely alleviated.

**Singapore.**<sup>10</sup> As an island nation, Singapore is highly dependent on its maritime sector for the development of international trade and access to global markets. In 2014, the country's maritime industry accounted for approximately 7 per cent of GDP, employing 3.1 per cent of the population (170,000 people). Singapore's advanced port infrastructure and its position as a global transshipment hub have both spurred growth in its international marine transport industry.

Singapore's shipping fleet comprises tramp liners through oil tankers, bulk carriers, general cargo ships, offshore supply ships and cargo liners, and container ships. It is used to transport cargo and passengers. Some owners also charter their ships (through middlemen) to shipping companies, which adopt either the cargo liner or the tramp trade business model for shipment of third-party cargoes. This type of shipment is primarily undertaken to transport energy resources such as petroleum and liquefied natural gas, which require special-purpose vessels.

**Thailand.**<sup>11</sup> The Ministry of Transport released its Transport Investment Plan (2013–2020) in 2013. Expenditure under the Plan on restructuring the transport infrastructure was set at B 2.27 trillion or US\$66.7 billion. About 55 new projects are likely to be completed by 2020, with major developments in railway connectivity and water transport.

Thailand's logistics cost (measured as a percentage of GDP) is 14.1 per cent. In the overall transport cost of 7.3 per cent, maritime transport costs account for 1.5 per cent, and the share of cargo in international seaborne trade that is carried by Thai-flagged vessels is approximately 10 per cent. Most industrial and semi-industrial goods are carried by sea, to take advantage of the lower transport costs for carrying large volumes that result from economies of scale.

Ports in Thailand play a vital role in serving both domestic cargo transportation on inland waterways and coastal areas, and international maritime transport. The Port Authority of Thailand is responsible for the supervision of five public ports, namely, Bangkok, Laem Chabang, Chiang Saen, Chiang Khong and Ranong. There are also 192 private ports, piers and wharves scattered along major rivers in the central region and along the coastlines of the eastern and southern regions.

In 2017 the Thai merchant fleet (seagoing vessels of 500 tons gross registered tonnage and up) consists of 480 vessels, including 21 dry bulk carriers, 81 conventional vessels, 33 container ships, 24 refrigerated ships, and 315 oil and chemical tankers.

The main seaborne cargo in Thailand's international trade consists of dry bulk cargo such as agricultural products, iron ore, and rubber. In 2016, Thailand ranked 34<sup>th</sup> in the world in shipping tonnage, up from its 21<sup>st</sup> ranking in international trade in 2015.

**Viet Nam.**<sup>12</sup> International marine transport plays an instrumental role in Viet Nam's international trade, accounting for 90 per cent of import and export volumes. International trade is primarily driven by major trading partners, such as the United States, China and Europe. Seaborne trade is largely concentrated in Haiphong Quang Ninh and Ho Chi Minh City. Most ports are underutilized owing to excess port capacity and lack of cargo. Therefore, only a few major ports continue to grow

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<sup>10</sup> Summary of information obtained from the website of Singapore's Ministry of Transport (<https://www.mot.gov.sg/>).

<sup>11</sup> Information obtained from the website of Thailand's Ministry of Transport ([http://www.mot.go.th/about.html?dsfm\\_lang=EN](http://www.mot.go.th/about.html?dsfm_lang=EN)).

<sup>12</sup> Information obtained from the website of Viet Nam's Ministry of Transport (<http://mt.gov.vn/en/Pages/default.aspx>).

significantly. Inferior port infrastructure, inefficient logistics and high fuel costs remain key concerns for the industry.

International trade is set to increase as a result of the implementation of free trade agreements that Viet Nam has concluded. To develop Viet Nam as an important stop for international passenger ship operators, the Government is seeking to construct an international passenger-ship port on the southern island of Phu Quoc. The port will receive passenger ships of 225,282 tons gross registered tonnage (capable of carrying 4,000–6,000 passengers).

Big ports such as Hai Phong and Ho Chi Minh City are located far upstream on rivers, where limited depth at the mouths makes the entry of large vessels difficult. The seaport network consists of mostly small and medium-sized companies with inefficient distribution systems. A lack of good-quality vessels and managerial expertise has further limited the industry's development. In addition, a poor warehousing system, inadequate demand and high fuel prices have led to increased costs for shipping companies.

In terms of international cooperation, Japan and Viet Nam signed a memorandum of understanding on sea transport services in June 2017, for the purpose of Japan cooperating with Viet Nam in formulating a new national technical standard for the design of port facilities and port management.<sup>13</sup>

## 2. Air transport services

**Brunei Darussalam.**<sup>14</sup> In the last two decades, Brunei International Airport has expanded its infrastructure, facilities and services to cater to growth in passenger and cargo throughput and aircraft movements. The operations of low-cost carriers in neighbouring airports have made a large impact on air traffic in the country. To mitigate this impact, the Ministry continues to encourage low-cost carriers to operate at the airport.

**Cambodia.**<sup>15</sup> The Ministry of Public Works and Transport has the following mission and functions: participate and cooperate in establishing laws, regulations and diverse standards concerning the construction of transport infrastructure; implement other construction projects that the Government entrusts it with; and cooperate with the Secretariat of Civil Aviation concerning all airport construction works.

**Indonesia.**<sup>16</sup> The rules and regulations for safety, security and service for the aviation sector are managed by the Directorate General of Civil Aviation. Of the airports, 269 adhere to the International Civil Aviation Organization (ICAO) code and 26 are monitored by two State-owned enterprises (SOEs). However, these measures and regulations have not been adequately developed to cope with the increasing air traffic.

To improve the safety of air transportation, for example, the country has adopted a regulation that establishes a semi-private corporation to manage air traffic services. In 2012, the president signed Government Regulation No. 77/2012 on Indonesian Flight Navigation Service Organizer Bodies. Under it, State-owned airport management authorities no longer manage air traffic controllers.

<sup>13</sup> Based on the website of Japan's Ministry of Land, Infrastructure, Transport and Tourism ([http://www.mlit.go.jp/page/kanbo01\\_hy\\_005586.html](http://www.mlit.go.jp/page/kanbo01_hy_005586.html)).

<sup>14</sup> Information obtained from the website of Brunei Darussalam's Ministry of Communications (<http://www.mincom.gov.bn/Resources/strategic%20plan%202008%20-%202017.pdf>).

<sup>15</sup> Summary of information obtained from the website of Cambodia's Ministry of Public Works and Transport (<https://www.mpwt.gov.kh/about-ministry/mission-and-function.html?lang=en>).

<sup>16</sup> Summary of information obtained from the website of Indonesia's Ministry of Transportation (<http://www.dephub.go.id/>).

The semi-private corporation, located in Jakarta, receives funding from the Ministry of Transportation. Regulation UU No. 1/2009 stipulates that all Indonesian airline companies need to operate at least 10 aircraft.

**Lao People's Democratic Republic.** The Ministry of Public Works and Transport administers air transport services. The domestic air travel industry is small, but it has grown rapidly, particularly since the late 2000s (table 2). Of the 12 airports, 4 are international: Wattay Airport, the largest, in Vientiane; Luang Prabang Airport; Pakse Airport; and Savannakhet Airport. There are 12 air routes for international flights (with one to Japan opening in the near future). An average of 650 flights are offered daily by more than 60 airlines. Eight airlines operate international flights; they include two Lao, one Chinese, three Thai, one Vietnamese, two Korean, and one Malaysian airline. Dramatic increases in transport by air were observed in 2015 when the number of passengers rose four times over that of the previous year.

**Malaysia.**<sup>17</sup> The air transport industry facilitates trade and boosts tourism. In 2016, of the 42 commercial airports, 6 served as international airports. Currently, 8 scheduled and 18 non-scheduled domestic carriers, as well as 78 foreign carriers, operate in the market. In 2016, they served 91.6 million passengers and carried approximately 873,434 tons of cargo. Malaysia plans to convert the empty land around the country's main airport into an aviation hub with air cargo, logistics and aerospace facilities.

The economic aspects of the air transport industry are regulated by the Malaysian Aviation Commission and the technical aspects of the industry by the Department of Civil Aviation, both of which are overseen by the Ministry of Transport. The Department is directly responsible for air traffic management and regulation of the aviation industry. Malaysia Airports Holding, a separate entity licensed by the Commission, is responsible for the management, development, operation and maintenance of 39 international, domestic, and business and general use airports.

As of 2016, Malaysia had air service agreements with 105 countries, including 20 "open skies" agreements. The country is also a party to ASEAN's open skies agreement, which took effect in 2015. Through this agreement, Malaysia is able to carry revenue traffic from its airports to any of the 72 international airports in the ASEAN region. The various open skies agreements and connectivity to major countries in the world may turn Malaysia into a vital hub in the Asia-Pacific region.

**Myanmar.** The Department of Civil Aviation, in the Ministry of Transport and Communications, administers air transport services. Its mission is to ensure a safe, efficient, reliable and secure civil aviation system in accordance with the Myanmar Aircraft Act, the Myanmar Aircraft Rules and the obligations of both the Convention on International Civil Aviation and the Standards and Recommended Practices of the Annexes to the Convention. The Department has three main functions: safety oversight, security oversight and economic oversight. It has a strategic plan to further expand the aviation sector with four objectives: pursue the liberalization of economic regulations in the aviation sector, strengthen air linkages, promote airline businesses and improve infrastructure.

Currently 11 local licensed airlines and 29 international airlines operate in Myanmar. The country has 69 airports: 3 international, 29 domestic and 37 for military, commercial freight and other uses. The Government has approved the construction of Hanthawadi International as a build-own-transfer project by a consortium of Changi Airport International and JGC Corporation. It is expected to be completed in 2020.

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<sup>17</sup> Information obtained from the website of Malaysia's Ministry of Transport (<http://www.mot.gov.my/en>).



**Philippines.**<sup>18</sup> The air transportation and aviation industry has been growing steadily since 2005, when low-cost carriers were introduced. Because the country is an archipelago of more than 7,100 islands, air travel is generally popular with customers (local and international) as it saves time as well as costs, especially with the presence of low-cost carriers. The industry has been a key enabler of tourism and has aided the economic development of the country.

The air transportation industry is highly regulated, with two government bodies overseeing the industry – the Civil Aviation Authority of the Philippines and the Civil Aeronautics Board. The Authority is a public registry for aircraft and mostly manages the safety, security, technical and operational aspects of the industry. The Board regulates the economic aspects of air transport, supervising and controlling cargo sales agents, air carriers, air-freight forwarders and general sales agents.

With strict regulations and a concentration of local airlines, the Government has initiated efforts to attract international air carriers to help diversify the industry. In 2011, the Government introduced a “pocket” open-skies policy, primarily targeting international carriers. The policy allowed foreign aircraft to land at a select few international airports other than the country’s busiest, the Ninoy Aquino International Airport in Manila. These few airports were designated as secondary airports and offered additional frequency route rights. Furthermore, the Government allowed international carriers to obtain route rights over and above the limit set for domestic carriers. The policy was implemented to attract more tourists to the country and to reduce passenger traffic at the Manila airport.

In 2016, then-President Benigno Aquino III signed the ASEAN Multilateral Agreement in Air Services. The signing of Protocols 5 and 6 allowed Philippine air carriers to fly an unlimited number of times to and beyond the capital cities of other ASEAN nations, which will lead to better and more efficient connectivity and translate to more competitive fares and services.<sup>19</sup>

**Singapore.**<sup>20</sup> Air transportation has played a vital role in furthering the country’s objective of becoming the transport hub of the Asia-Pacific region. Owing to its advantageous geographic location and high-quality airport infrastructure, Singapore has become a prominent transportation hub in Southeast Asia and a major stopover country on the flight routes that connect Europe and the Middle East with the Pacific. During 2010–15, international air passenger traffic in Singapore expanded at an annual rate of approximately 5.5 per cent, to reach 54.8 million passengers. As of March 2016, over 100 airlines operated in Singapore, connecting to over 330 cities in 80 countries, with about 6,800 scheduled services each week.

Singapore is a signatory to the ASEAN open skies agreement and various multilateral agreements for international air transportation and air freight services, which aim to liberalize international air transport for freight and passengers. These agreements have created a vibrant air transportation market in Singapore and also helped consolidate the country’s position as a major transport hub in the Asia-Pacific region.

**Thailand.**<sup>21</sup> The air transportation industry has been developing rapidly, mainly owing to the country’s status as a popular tourist destination. The country has received a high volume of international passenger traffic over the last few years, which has significantly boosted the industry. The surge in domestic and international air travel has driven the emergence of several low-cost carriers. Intense competition among them has led to cheaper ticket prices and easier accessibility to travel.

<sup>18</sup> Information obtained from the website of the Philippines’ Department of Transportation (<http://dotr.gov.ph/>).

<sup>19</sup> Source: SunStar CEBU’s site (<http://www.sunstar.com.ph/cebu/business/2016/02/10/pnoy-signs-asean-open-skies-456560>).

<sup>20</sup> Information obtained from the website of Singapore’s Ministry of Transport (<https://www.mot.gov.sg/>).

<sup>21</sup> Information obtained from the website of Thailand’s Ministry of Transport ([http://www.mot.go.th/about.html?dsfm\\_lang=EN](http://www.mot.go.th/about.html?dsfm_lang=EN)).

To develop the air transport industry, the Government has been investing in training personnel for the aviation industry and expanding the country's aircraft repair and maintenance sector. It has also been promoting the manufacture, repair and conversion of aircraft, as well as the manufacture of aircraft parts and equipment.

The Government has been proactively engaging in initiatives to promote the expansion of the air transportation industry. In 2013, the Tourism Authority of Thailand began collaborating with Airports of Thailand Pcl, which operates the country's major airports, to boost the number of international visitors to the country. Both organizations aim to do so through a variety of marketing, promotional, research and human resource development activities. The planned promotional events include the organization of joint seminars, research work, the exchange of information and feedback, and the promotion of travel and tourism news. This agreement is expected to boost the aviation industry and attract more airlines, including scheduled and chartered flights, from both short- and long-haul markets.

**Viet Nam.**<sup>22</sup> The air transportation industry has grown rapidly in the last few years due to the surge in demand for air travel from both domestic and international passenger markets as well as the growth in cargo traffic volume. In 2015, the total market reached 31.1 million passengers and 204,600 tons of cargo, up 1.8 times and 1.1 times, respectively, compared with 2013. This growth can be largely attributed to factors such as Viet Nam's favourable geographic location in the centre of the Asia-Pacific region, underserved domestic routes resulting from poor rail and road infrastructure, and demand for better transport from the growing middle class. Flexible government policies and liberalization in the industry, a growing number of inbound tourists and robust expansion plans signal strong growth prospects for the industry.

The Government has taken several steps to build and upgrade airport infrastructure. Under its aviation master plan for 2020, a number of construction and upgrade projects were completed in 2013, prioritizing locations with high population density and high annual volumes of passenger traffic. In addition, under this plan the Civil Aviation Authority of Vietnam, which regulates the industry, has proposed to build or upgrade 26 airports by 2020, which will require an investment of D 221 trillion.

In 2013, the ICAO set out recommendations for Viet Nam's airline industry in the Asia-Pacific Economic Co-operation (APEC) framework. They include lifting limitations on foreign capital in joint-venture agreements and also on the number of joint ventures in aircraft-related services such as repair and maintenance, and computer reservation systems.

### 3. Rail transport services

**Brunei Darussalam.** There are no rail transport services in the country.

**Cambodia.**<sup>23</sup> The Ministry of Public Works and Transport has the following mission and functions: build, maintain and manage all the transportation infrastructure including railways; establish regulations for the development of railways; establish regulations and control transport by railway; participate and cooperate to establish laws, regulations and diverse standards concerning the construction of transport infrastructure; and realize other construction works that the Government entrusts to it.

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<sup>22</sup> Information obtained from the website of Viet Nam's Ministry of Transport (<http://mt.gov.vn/en/Pages/default.aspx>).

<sup>23</sup> Summary of information obtained from the website of Cambodia's Ministry of Public Works and Transport (<https://www.mpwat.gov.kh/about-ministry/mission-and-function.html?lang=en>).

**Indonesia.**<sup>24</sup> Most railroads are used for the transportation of both passengers and freight. In 2014, the rail industry transported 278 million passengers and 33 million tons of freight. Networks of railway cover four main regions including South Sumatra, West Sumatra, North Sumatra and Java – the most populous island in the world, where about 57 per cent of the 255 million Indonesians live.

The three railway operators are (1) Kereta Api Indonesia (KAI), which is owned by the Government; (2) Kereta Commuter Jabodetabek (KCJ), a subsidiary of KAI and hence also owned by the Government; and (3) Mass Rapid Transit Jakarta (MRTJ), a new urban railway operator, established and owned by the Jakarta Provincial Government. In total, these three operators run an active track length of 5,162 km (KAI – 4,816 km, KCJ – 235 km, MRTJ – 111 km).

**Lao People's Democratic Republic.** The Ministry of Public Works and Transport administers rail transport services. Trains run across borders. A 4 km railway runs between the Thanaleng Station and the Lao–Thai Friendship Bridge 1. Another railway that runs 417 km between the Lao–China border (Borten) and Vientiane is under construction and will be completed by 2021 (for speeds of 90–120 km/h for cargo and 160–200 km/h for passengers). The first surveys have been completed for a 350 km railway between Vientiane and Thakhek; a 500 km railway between Thakhek and Savannakhet–Pakse, the border with Cambodia; and a 42 km railway between Pakse, Champasak and the Lao–Thai border, Vangtao–Chongmek. In 2015, 38,440 domestic and international passengers used rail transport services, which is only 0.06 percent of the number of passengers using land transport (table 2).

**Malaysia.** The Land Public Transport Commission has the role of regulating and planning policy, and is responsible for rail transport services, including light rail transit (LRT), mass rapid transit (MRT) and high-speed railway, guided by the Land Public Transport Master Plan. Rail transport service is operated by Keretapi Tanah Melayu Berhad over a total length of 2,262 km.

Two region-wide rail projects involve Malaysia: the Kuala Lumpur–Singapore high-speed rail project and the Singapore–Kunming rail link (SKRL). The former is an alternate mode of public transport connecting seven cities in Malaysia to Singapore along the coastal route. It will provide safe, efficient and optimal transportation and will be the solution for heavy congestion in these areas.

According to the Ministry of Transport, the latter railway project, the SKRL, running 6,618 km, connects eight countries – Cambodia, the Lao People's Democratic Republic, Malaysia, Myanmar, China, Singapore, Thailand and Viet Nam. This project is expected to promote and enhance trade, tourism and travel between the countries involved. Malaysia has been the permanent chairman of the Special Working Group Meeting of the SKRL since 2007.

**Myanmar.** Myanma Railways, an SOE under the Ministry of Transport and Communications, administers all rail transport services. It has been restructured since September 2011, moving towards more decentralized decision-making, more proactive forward planning and more focus on providing good service to users through improved market responsiveness.

The rail network has a route length of 6,111 km, with 705 km of double-track line. Myanma Railways transported 44,109 passengers and 1.7 million tons of freight in in 2016–2017. It also operates the Yangon Circular Railway, a 48 km, 39-station loop system that connects Yangon's downtown with satellite towns and suburban areas.

Myanmar has implemented two railway projects with Japanese official development assistance (ODA) loans: one is a Yangon–Mandalay railway improvement project and the other is the Yangon Circular Railway upgrading project.

<sup>24</sup> Summary of information obtained from the website of Indonesia's Ministry of Transportation (<http://www.dephub.go.id/>).

In June 2017, the Myanmar Investment Commission, a governmental body, announced prioritized investment activities in 10 areas, including logistics industries; among the industries, passenger and freight transport by railway is an important policy focus.<sup>25</sup>

**Philippines.**<sup>26</sup> Railway is the least developed mode of transport, with routes mostly restricted to the largest island of Luzon and heavily concentrated in Metro Manila. This limited rail coverage, with a total of 528 km in 2014, can be attributed to the country's archipelagic nature, which makes it relatively difficult to construct railway routes connecting the various island provinces. Furthermore, frequent typhoons and other natural calamities render the maintenance and operation of railway networks a challenge. The limited network and the people's preference for other modes of transport have restricted the use of railways. Filipinos prefer to use land transport such as jeepneys, tricycles and buses for intra-island travel and ships and planes for inter-island travel.

The Department of Transportation and Communications is the executive branch that oversees all transport activities and related agencies. It primarily awards contracts for rail operation and sanctions the extension and upgrading of railway networks. It also regulates fares, subsidizes rail operations and supervises rail operators to ensure passenger safety and the smooth functioning of rail networks.

The rail network includes the interregional railway system operated by the Philippines National Railway and the urban rapid transit railway systems – the LRT and the MRT – operated only in Metro Manila. The State-owned and operated national railway is the most extensive intra-island railway on Luzon. It runs commuter services in Metro Manila and the Bicol Region (currently under rehabilitation). The LRT system, comprising two lines, is operated by the Light Rail Transit Authority, a Government-owned and controlled corporation. Also noteworthy are the public-private partnership rail projects in the pipeline, e.g. LRT Line 6, a 19 km line along Aguinaldo Highway from Niyog, Bacoor (the terminus of the LRT Line 1 Cavite Extension Project) to Dasmariñas City in Cavite.<sup>27</sup>

**Singapore.**<sup>28</sup> Rail transportation includes MRT and LRT. The MRT is the rail network that connects various parts of the city-state, whereas the LRT is a localized rail network connecting suburban residential areas with key MRT stations.

Railway transportation systems require massive investments, and no private entity in Singapore is able to undertake such a huge project alone. Hence, the country's rail transportation system was initiated and funded by the Government.

Planning and investing for new lines is undertaken by the Land Transport Authority (LTA), the Government agency in charge of all three land-based modes of public transport (taxis, buses and trains). The LTA is the authority that calls for tenders to build new railway lines as well as monitors and supervises the construction. Upon completion, the LTA assigns a company to operate the new railway. Currently, there are only two railway operators, namely SMRT Trains Ltd., a subsidiary of SMRT Corporation Ltd., and SBS Transit Ltd., which is listed on the Singapore Stock Exchange. As for cross-border development of train services, Singapore and Malaysia aim to start high-speed rail services between Singapore and Kuala Lumpur by 31 December 2026.<sup>29</sup>

<sup>25</sup> Information obtained from the website for the Directorate of Investment and Company Administration (<http://www.dica.gov.mm/en/news/announcement-prioritized-investment-activities-myanmar-0>). This announcement is based on the April 2017 notification, in which the policy for "Supply and transport services" is prioritized.

<sup>26</sup> Information obtained from the website of the Philippines' Department of Transportation (<http://dotr.gov.ph/>).

<sup>27</sup> Information obtained from the website of the Public-Private Partnership Center ([http://ppp.gov.ph/?page\\_id=26075](http://ppp.gov.ph/?page_id=26075)).

<sup>28</sup> Information obtained from the website of Singapore's Ministry of Transport (<https://www.mot.gov.sg/>).

<sup>29</sup> Information obtained from Singapore's Land Transport Authority (<https://www.lta.gov.sg/content/ltaweb/en/featured-projects/hsr.html>).

**Thailand.**<sup>30</sup> The rail network consists primarily of main lines that radiate from Bangkok through northern, north-eastern, eastern, and southern corridors, serving 47 of the country's 76 provinces.

The Government has created infrastructure funds through which it can raise investments and return a steady yield to investors. The objective is to reduce Government spending on infrastructure development projects. The Government has invited private participation in fundraising. The Thai Securities and Exchange Commission is the regulatory office managing the infrastructure funds. As of September 2015, the Government had raised B 64 billion for the BTS Rail Mass Transit Growth Infrastructure Fund, and Thailand had five infrastructure funds with total net assets of B 221 billion (US\$6.6 billion).<sup>31</sup> In July 2016, the Cabinet approved earmarking B 10 billion as seed money for the B 100 billion Thailand Future Fund, which will invest in three road projects in its first stage.

In terms of international cooperation, Japan and Thailand signed a memorandum of understanding on rail services for development and safety in June 2017.<sup>32</sup> The memorandum mentions cooperation on the development of a high-speed railway project linking Bangkok and Chiang Mai (some 660 km), together with cooperation on the development of other train service in Thailand.

**Viet Nam.**<sup>33</sup> The railway network is in poor condition as a result of the major damages suffered during wars and the shortage of subsequent investment for maintaining and upgrading the infrastructure. Railways received just 2.5 per cent of all investments in transportation infrastructure during 2008–11, while roads accounted for the majority share (85 per cent). The Government's investments in rail infrastructure have primarily been spent on preventing the network from deteriorating further. Furthermore, private investors are not keen on investing in railways because of the high associated expenses and long payback period. Hence, the sector relies considerably on ODA loans from other countries and multinational development banks. This has led to significant delays in projects, given the difficulties in conforming to the regulations set by donors for access to loans.

The railway network has not developed in tandem with other modes of transport, especially roads. Therefore, there is significant potential for growth in the railway sector owing to its economic and social significance. The Government is working towards improving the railway network. The Ministry of Transport announced plans to begin a study focusing on improving the railway system, building several new dual-track lines with a gauge of 1,435 mm along the existing 1,726 km north–south railway line and adding new arterial routes and high-speed railways, a project set for commencement in 2020 and completion in 2030.

There are three railway operators: Vietnam Railway, Ho Chi Minh City Management Authority for Urban Railways (MAUR) and Hanoi Metropolitan Rail Transport Project Board (HRB). Of the three, only Vietnam Railway is operational, making it the sole supplier of railway-related services. It is an SOE, operating national passenger and freight railways, and will also be the operator of future high-speed trains and the Hanoi Metro Line 1. The MAUR is responsible for the planning and implementation of rail-based mass transit plans and will be the operator of the Ho Chi Minh Metro. The HRB manages Hanoi Metro projects and will operate the Hanoi Metro Lines 2, 2A and 3.

<sup>30</sup> Information obtained from the website of Thailand's Ministry of Transport ([http://www.mot.go.th/about.html?dsfm\\_lang=EN](http://www.mot.go.th/about.html?dsfm_lang=EN)).

<sup>31</sup> Using the exchange rate of US\$1 dollar = B 33.7 (average on 30 June 2015).

<sup>32</sup> [http://www.mlit.go.jp/page/kanbo01\\_hy\\_005598.html](http://www.mlit.go.jp/page/kanbo01_hy_005598.html).

<sup>33</sup> Information obtained from the website of Viet Nam's Ministry of Transport (<http://mt.gov.vn/en/Pages/default.aspx>).

## 4. Road transport services

**Brunei Darussalam.** The public road system is still considered inadequate. The recent development of road transportation infrastructure has been positive, with increasing road length and an increasing number of cars on the roads. Public-private partnerships have been implemented, and there is a need to further promote this line of national policy.

**Cambodia.**<sup>34</sup> The Ministry of Public Works and Transport has the following mission and functions: build, maintain and manage all transportation infrastructure including roads and bridges; establish regulations for the development of the roads infrastructure; establish regulations and control transport by road; participate and cooperate to establish laws, regulations and diverse standards concerning the construction of transport infrastructure; and realize other construction works that the Government entrusts to it.

**Indonesia.**<sup>35</sup> Road congestion and air pollution problems caused by the growth in ownership and usage of private motorcycles and cars affect both big cities and small cities. One way to overcome this challenge was for the Government to promote public transportation such as buses and trains by providing subsidies and by encouraging more people to use public transport. Furthermore, subsidies provided for public transport also helped vulnerable social groups to commute. These groups include low-income earners, the disabled and the elderly.

In line with the policy on national transport, the Government (national or local) provides subsidies by offering fares below market price for bus services that operate on socially sensitive routes (also known as pioneer routes) in remote areas. The purpose of these pioneer routes is to facilitate economic exchange between the deprived and the wealthy areas by linking them. Drawing on transportation studies done in 2013, a fleet of 340 buses is being utilized to serve 128 pioneer routes across 21 provinces.

The Bureau of Local Transport normally issues route permits for private bus operators so they can operate legally within a given time period. The Government sets the ticket price for economy class according to the operating costs of the bus fleet. The ticket price for business class is determined by market prices. In order to maximize profits, private operators typically overload buses, taking as many passengers they can in any given moment, and offer only very low-quality services to those passengers. Furthermore, most of the buses owned by these private operators are old and not maintained properly.

**Lao People's Democratic Republic.** The Ministry of Public Works and Transport administers road transport services. There has been some development of transportation services in the border area (box 1).

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<sup>34</sup> Information obtained from the website of Cambodia's Ministry of Public Works and Transport (<https://www.mpwat.gov.kh/about-ministry/mission-and-function.html?lang=en>).

<sup>35</sup> Information obtained from the website of Indonesia's Ministry of Transportation (<http://www.dephub.go.id/>).

**Box 1. Transportation services in the border area of the Lao People's Democratic Republic**

As a landlocked country, the Lao People's Democratic Republic has put emphasis on physical connectivity. Improved connectivity within the country and with other countries has provided a great deal of benefits for the economy, and FDI plays a role. The development of road transport opens the way to dispersed economic activity: for example, the establishment of special economic zones (SEZs) – such as the Pakse-Japan SME SEZ – is expected to further promote this dispersion trend, especially outside the centre of the country. Honda motorcycles are now being exported to Cambodia after the parts are imported from Thailand for assembly in the Lao People's Democratic Republic. Trucks move refined oil from Thailand to the Lao People's Democratic Republic.

Transport services promote value chains of agricultural activities, which are subject to dispersing forces because land cannot be concentrated in one location. The potential gains to the country from transport service trade liberalization lie in the establishment of a value chain of harvesting, processing and exporting agro-based products. Shiitake mushrooms grown as a test in the country by a Japanese firm make a good case for future promotion of agro-based products.

If road transport service is further liberalized for foreign suppliers, small-scale farmers in the country would benefit economically. This would alleviate the typical situation in which small-scale producers do not profit from trade liberalization as much as large-scale producers (Melitz 2003).

The Mekong River is not suitable for water transport because the part that runs through the country includes a large waterfall. Road transportation service therefore becomes all the more important, which makes good connectivity with the rest of the ASEAN region critical.

As physical infrastructure already exists (in particular, highway 1), the promotion of "institutional infrastructure" – namely, liberalization of trade in services in transport and other related service sectors – is indispensable, to make possible greater flows of international goods and tourists through the removal or reduction of border barriers.

Source: AJC, based on a field trip made in March 2017.

There are 12 national roads, with a total length of 10,000 km. Eight roads were designated as ASEAN highways, and six of those have already been approved. There are 1,764 bridges, with a total length of 52 km. There are eight bridges over the Mekong River, four linking to Thailand and one to Myanmar. Two bridges over the Mekong are under construction. There are 119 routes for domestic transport services and 67 routes for cross-border transport services.

According to the Ministry of Public Works and Transport, both the amount of goods and the number of passengers transported by land nearly or more than doubled from 2005 to 2015 (table 2). The volume of goods transported by land is larger than by any other mode.

**Malaysia.**<sup>36</sup> Buses play an important role in the public transportation system. They provide urban commute, intrastate and interstate connectivity. Given their importance in the public transportation system, the Government tightly regulates the industry in terms of fares and licensing of bus operators.

Bus operators, which use three types of buses – stage, express and tourist buses – comprise both private players and SOEs that operate on dedicated routes. The market for bus operators has experienced intense competition because of the growing number of players, resulting in unfavourable operating conditions. The increased number of bus operators has caused problems such as a dearth of skilled drivers and underutilization of bus capacity. As a result, bus operators have discontinued services on less lucrative routes. The Government is therefore implementing several initiatives to reduce the overcapacity situation and develop the country's bus services as a whole.

All bus operators are regulated by the Land Public Transport Commission. Bus operations in east Malaysia, comprising Sabah and Sarawak, are regulated by the Commercial Vehicles Licensing Board. These governmental entities perform various regulatory functions such as establishing licensing policies for buses; reviewing, issuing and renewing bus operating licenses or suspending or cancelling licenses; and determining fares and other charges to be collected from bus passengers.

**Myanmar.** The Road Transport Administration Department, under the Ministry of Transport and Communications, administers road transport services, with the main objective being road safety. The Department's responsibilities include vehicle inspection and registration, driving test administration and issuance of driving licenses, issuance of traffic regulations and road safety measures for road users, and levying of taxes and revenues for the State.

The Yangon Region Government also administers road transport services in the city of Yangon. Plans to upgrade Yangon's public transport networks are outlined in the Strategic Urban Development Plan of Greater Yangon, published by the Japan International Cooperation Agency in partnership with the Yangon Region Government and the Yangon City Development Committee. The Plan proposed a bus rapid transit (BRT) system, and in February 2016, the BRT Lite service was officially opened, offering service to 23 stops. In May 2016, the Government announced that the service had proved so popular that 20 new buses were being added. The system is expected to expand the BRT to full operation, comprising 100 buses covering 150 km of Yangon's roads.

Whereas the Road Transport Administration Department and the Yangon Region Government administer the road transport service, the Ministry of Construction takes charge of road construction. One of the most important highway upgrades under way is the Yangon–Mandalay Expressway project.

**Philippines.**<sup>37</sup> Road transportation services in the country involve a range of vehicles: public utility buses (PUBs), taxis, public utility jeepneys, Asian utility vehicles, trucks and cars. The types of buses available countrywide are PUBs, minibuses, tourist buses, company shuttles, schoolbuses and buses for hire (also used as PUBs). Whereas schoolbuses are used to ferry schoolchildren, other

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<sup>36</sup> Information obtained from the website of Malaysia's Ministry of Transport (<http://www.mot.gov.my/en>).

<sup>37</sup> Information obtained from the website of the Philippines' Department of Transportation (<http://dotr.gov.ph/>).



buses (PUBs, minibuses and those for hire) are mainly used for mass public transportation. PUBs are further classified on the basis of the areas they serve, that is provincial, city-wide and regional (both inter- and intra-).

With a growing number of buses, terminals and transport routes across the country, the bus transport industry is fairly developed. PUBs have become an integral part of the public transport system, mostly owing to their affordability and efficiency in accommodating more people than taxis or jeepneys. Users find it economical to commute by PUBs countrywide. The fares of PUBs have not been increased since 2008 owing to a decrease in ridership. Furthermore, the Government is considering cutting fares for PUBs, following a 0.50 cut in fares for public utility jeepneys in January 2016. In 2015, buses and jeepneys accounted for about 76 per cent of all public transport trips in Manila. Transportation by PUBs is mainly along the main thoroughfare – Epifanio Delos Santos Avenue – and centred in Manila, the capital city. Consequently, all PUBs are required to travel to and from the Manila bus terminal. However, this has led to traffic congestion and has severely affected the area in terms of delays in commuting, emission of greenhouse gases and ill health.

The transportation sector is regulated and governed by the Department of Transport and Communication and its line agencies – the Land Transportation Franchising and Regulatory Board and the Land Transportation Office. The two line agencies are responsible for managing and regulating public utility vehicles across the country. The Land Transportation Office issues licenses to drivers and registers motor vehicles. The Board monitors compliance with franchises, rules and regulations, and policies. A noteworthy new development in road transport is regulation of transport network vehicle services such as Grab and Uber.

**Singapore.**<sup>38</sup> The bus industry, the main road transport service, comprises both public and private bus services. Given the city-state's land limitations and growing population, it is inevitable that a large share of travel needs is met through public transportation. Compared with cars, buses are more efficient carriers of commuters, with a higher number of passengers per unit road space. A single-decker bus can carry 80 people.

The Ministry of Transport oversees the formulation of transport-related policies and facilitates the development of the civil aviation and air transport sector, the maritime and ports sector, and the land transport sector. The Land Transport Authority is a statutory board under the Ministry of Transport, responsible for planning, operating and maintaining the land transport infrastructure and systems. The Public Transport Council is an independent body that works closely with public agencies, e.g. the Authority and players in the public transport industry, to regulate bus services, bus service operators, ticket payment services, and fares for the bus and rapid transit system. The Public Transport Council Act provides for the licensing of public bus services, bus service operators and ticket payment services, regulating fares for the bus, taxi and rapid transit system and related matters.

**Thailand.**<sup>39</sup> As a convenient mode of public transportation, buses have overtaken the inadequate and sluggish rail network as the preferred form of public transport, connecting cities with the smallest villages.

The Department of Land Transport classifies buses into fixed-route buses (further classified by their area and the distance over which they provide services), non-fixed-route buses, and non-public buses. These buses are operated by SOEs (Bangkok Mass Transit Authority and the Transportation Company) and privately owned transport operators. Passenger buses can be classified into seven classes, the

<sup>38</sup> Summary of information obtained from the website of Singapore's Ministry of Transport (<https://www.mot.gov.sg/>).

<sup>39</sup> Information obtained from the website of Thailand's Ministry of Transport ([http://www.mot.go.th/about.html?dsfm\\_lang=EN](http://www.mot.go.th/about.html?dsfm_lang=EN)).

first four of which are most frequently used: Class 1, special-type bus with air-conditioning; Class 2, bus with air-conditioning; Class 3, bus without air-conditioning; and Class 4, double-decker bus.

Another type of bus used in specific areas only is a “songtaew”, a low-cost pick-up truck with a covered rear area for passengers. There are two types of long-distance buses: buses operated by the Transportation Company and private buses. Transportation Company buses have a terminal in every province.

For long routes, double-decker buses are also used in a two-class scheme (economy prices and VIP prices). These double-decker buses are mostly used for hire or reward service, as they offer entertainment facilities such as TVs, tables and karaoke machines.

**Viet Nam.**<sup>40</sup> Development of road infrastructure to accommodate rapid economic growth is a pressing issue, especially in the Greater Mekong Sub-region. Inadequate road infrastructure has become a constraint on doing business. Strategy and legislation related to road services and infrastructure is the responsibility of the Directorate for Roads of Vietnam, under the administration of the Ministry of Transport. In 2016, the Government approved a plan to expand the expressway network by 6,400 km by 2030, revising a plan to expand it by 2,500 km in 2020.

To address road infrastructure development, the Government is embarking on the development of expressway road networks, particularly with financial and technical support from Japanese official development assistance, the Asian Development Bank and other relevant organizations. The Government can secure only 30 per cent of the total budget of \$13 billion for the next five years, according to projections by the Ministry of Transportation.

### III. ASCENDANCY OF TRANSPORT SERVICES

Transport services can be delivered through all four supply modes, in theory. In practice, however, delivery through Mode 2 (consumption abroad) and Mode 4 (movement of natural persons) is limited. The former is largely limited to foreign travellers who use domestic transport services at their travel destinations. Delivery of transport services by the movement of professional people in transport services is unrealistic as delivery of such services requires immovable infrastructure. The only possibility is that foreign drivers, pilots and crew members might work in transport services owned by countries other than their own. Wages and benefits paid to them should be considered as payment and receipts related to Mode 4; however, the amount is small and difficult to estimate. Thus, in this paper, trade related to Mode 4 is assumed to be zero.

The bulk of transport services are delivered through Mode 1 (cross-border supply) and Mode 3 (commercial presence). Adding to these two modes is the use of domestic transport services by non-residents (Mode 2), which is part of travel expenditures by foreigners. Altogether, revenues from travel services by ASEAN (imports) were estimated to be at least \$130 billion in 2015, while the supply of travel services to the world by ASEAN (exports) was estimated at \$90 billion (table 3). Unlike other services industries, the transport services industry uses the cross-border supply mode more than the commercial presence mode. Less use of foreign services in transport is in part a result of limited liberalization in transport services, which restricts investment in transport services in ASEAN (see section IV). Limited availability of transport services by foreign companies lowers the value accordingly.

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<sup>40</sup> Summary of information from the online database SPEEDA.

**Table 3. Estimated value and share of transport services supply in ASEAN, by mode of supply, 2015 (Billions of dollars and per cent)**

| Mode of supply | Receipts from the world (imports) |            |                |            | Supply to the world (exports) |            |                |            |
|----------------|-----------------------------------|------------|----------------|------------|-------------------------------|------------|----------------|------------|
|                | Transport services                |            | Total services |            | Transport services            |            | Total services |            |
|                | Value                             | Share      | Value          | Share      | Value                         | Share      | Value          | Share      |
| Mode 1         | 74 <sup>a</sup>                   | 57         | 308            | 30         | 50 <sup>a</sup>               | 56         | 302            | 30         |
| Mode 2         | 9 <sup>b</sup>                    | 7          | 103            | 10         | 15 <sup>c</sup>               | 16         | 101            | 10         |
| Mode 3         | 47 <sup>d</sup>                   | 36         | 565            | 55         | 25 <sup>d</sup>               | 28         | 554            | 55         |
| Mode 4         | 0                                 | 0          | 51             | 5          | 0                             | 0          | 50             | 5          |
| <b>Total</b>   | <b>130</b>                        | <b>100</b> | <b>1 027</b>   | <b>100</b> | <b>90</b>                     | <b>100</b> | <b>1 007</b>   | <b>100</b> |

Source: AJC, based on own estimates, UNCTAD for total services and the WTO for the mode shares of total services.

Note: For total services, each mode share estimated by the WTO for the global supply is applied to ASEAN. The basic data for estimates by mode are cross-border services (Mode 1) from UNCTAD; the WTO data on shares have been applied to the UNCTAD data to calculate the value of each mode.

<sup>a</sup> See tables 4 and 5.

<sup>b</sup> Data on outbound domestic transport services in travel expenditures are not available.

<sup>c</sup> Data on the share of domestic transport in total travel expenditures for inbound tourism (13%) are obtained from national statistical offices from all countries except four (Brunei Darussalam, the Lao People's Democratic Republic, Myanmar and Malaysia), for which data are not available. The share of the six countries is applied to total travel expenditures of all 10 ASEAN countries available from the World Bank's World Development Indicators (\$69.4 billion for outbound tourism and \$115.2 billion for inbound tourism).

The supply value of Mode 2, consumption of transport services abroad, was estimated at \$15 billion in 2015. These are essentially travel expenditures by non-residents for the use of domestic transport in ASEAN. In contrast, the use of transport services abroad by ASEAN travellers (receipts from the world through Mode 2) was estimated at some \$9 billion in 2015.

This section focuses only on Mode 1 and Mode 3. The two modes are dealt with separately.

## 1. Mode 1: International trade

Trade in transport services in ASEAN reflects general economic transactions in which ASEAN tends to use more foreign transport services (imports) than ASEAN transport services (exports). Generally speaking, import businesses use more foreign services than ASEAN services because the imported products arrive from foreign countries. Export businesses use all transport services that are available, be they foreign owned or domestically owned. As ASEAN's trade has been growing dynamically in both exports and imports, it is expected that transport services trade is also growing in both directions.

However, ASEAN's statistics on transport services as measured in the balance of payments do not necessarily show such growth. Although transport services imports have been rising constantly, as expected (table 5), exports of transport services have been stagnating (table 4) as a result of the paucity of transport infrastructure and the low competitiveness of transport facilities. As indicated by the infrastructure component of the World Bank's LPIs (table 1), all ASEAN member states except Singapore rank low compared with China and the Republic of Korea. Although considerable efforts have been made to build and improve transport infrastructure to improve connectivity in ASEAN, there has been an absolute shortage of such infrastructure.

**Exports.** Transport services exports from ASEAN amounted to about \$50 billion in 2015, 8 per cent lower than in the previous year (table 4). Although the export value in 2015 had increased by 43 per

cent from the average level of 2005–2010, it remained almost the same throughout the decade. Furthermore, the only sizeable increases occurred in Singapore.

Indeed, that country controls three quarters of all ASEAN exports of transport services (table 4). The second largest exporter is Malaysia, but the value of its exports has declined over the years. Exports from Indonesia and Thailand have also declined somewhat. In contrast, those from the Philippines and Brunei Darussalam have increased gradually. The value of Myanmar's exports, though the second smallest in ASEAN, doubled in 2015, reflecting the opening of the country to international businesses.

The importance of transport services stands out especially for Brunei Darussalam, accounting for more than half of all services exports and rising over the years. This is partly because the country strategically promotes marine transport in particular. Because of Singapore's trade hub in ASEAN, that country has the second largest share of transport services in total services exports. Indonesia is another country that counts marine transport among its strategic industries; nonetheless, its share in total exports has been declining.

**Imports.** For all ASEAN countries except the landlocked Lao People's Democratic Republic, the share of transport services in total services imports has been large, ranging from 14 per cent in the Philippines to 57 per cent in Myanmar, with an average of 30 per cent in 2015 (table 5). This implies that ASEAN countries, other than the Lao People's Democratic Republic, tend to use foreign services in transport businesses in importing. Although the import value declined in 2015, the trend is upward over the past decade, particularly so for Myanmar and Singapore. The decline in imports could also have been caused by the improvement of domestic transport infrastructure as well as by slowing import business.

Unlike exports of transport services, which dominate in Singapore, imports of transport services (foreign services) are more used in all member states. Therefore, although Singapore is also the largest importer, member states such as Thailand, Indonesia, Malaysia and Viet Nam import this service in large quantities (table 5).

Although this paper looks at four transport modes (maritime, air, rail and road), ASEAN countries use different modes in trade, reflecting their geographic characteristics as well as accessibility to and availability of transport infrastructure. Data by transport mode are available for Cambodia, Lao People's Democratic Republic, Malaysia, Myanmar and the Philippines (tables 6 and 7). For both exports and imports, air transport is the majority mode used by traders in Cambodia and in the Philippines. Modes other than air are more frequently used in the Lao People's Democratic Republic. In Myanmar, air and other modes are almost equally used.

**Table 4. Exports of transport services and its share in total exports of services and goods and services, 2005–2015** (Millions of dollars and per cent)

| Country   | Annual average 2005-2010 | 2011          | 2012          | 2013          | 2014          | 2015          |
|---|--------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Transport services export</b>                    |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 273                      | 329           | 340           | 350           | 363           | 394           |
| Cambodia <sup>b</sup>                               | 146                      | 194           | 208           | 222           | 236           | 229           |
| Indonesia   | 2 037                    | 1 989         | 1 976         | 1 962         | 1 948         | 1 935         |
| Lao People's Democratic Republic                    | 6                        | 11            | 14            | 18            | 6             | 7             |
| Malaysia <sup>c</sup>                               | 4 415                    | 3 455         | 2 963         | 2 963         | 2 852         | 2 215         |
| Myanmar   | 51                       | 88            | 56            | 23            | 83            | 177           |
| Philippines   | 935                      | 1 238         | 1 366         | 1 430         | 1 615         | 1 652         |
| Singapore <sup>d</sup>                              | 21 755                   | 33 017        | 34 534        | 36 730        | 41 896        | 37 998        |
| Thailand  | 5 239                    | 5 526         | 5 601         | 5 764         | 5 343         | 5 318         |
| Viet Nam <sup>e</sup>                               | 1 258                    | 1 484         | 1 338         | 1 396         | 1 425         | 1 436         |
| <b>ASEAN total</b>                                  | <b>34 858</b>            | <b>45 848</b> | <b>47 058</b> | <b>49 461</b> | <b>54 342</b> | <b>49 923</b> |
| <b>Share in total exports of services</b>           |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 37.1                     | 45.9          | 47.9          | 49.7          | 52            | 56.9          |
| Cambodia <sup>b</sup>                               | 9.6                      | 9.3           | 9.3           | 9.3           | 9.2           | 9.2           |
| Indonesia   | 17.1                     | 15.4          | 15            | 14.5          | 14.1          | 13.8          |
| Lao People's Democratic Republic                    | 1.7                      | 2             | 2.5           | 2.4           | 0.8           | 0.8           |
| Malaysia <sup>c</sup>                               | 16.2                     | 8.9           | 7.3           | 7             | 6.8           | 6.4           |
| Myanmar   | 15.3                     | 11.6          | 4.5           | 0.8           | 2.6           | 4.6           |
| Philippines   | 7.2                      | 6.6           | 6.7           | 6.1           | 6.3           | 5.7           |
| Singapore <sup>d</sup>                              | 28.9                     | 27.7          | 27.1          | 26.3          | 27.3          | 25.6          |
| Thailand  | 18.2                     | 13.3          | 11.3          | 9.8           | 9.6           | 8.6           |
| Viet Nam <sup>e</sup>                               | 0                        | 0             | 0             | 0             | 0             | 0             |
| <b>ASEAN total</b>                                  | <b>15.1</b>              | <b>14.1</b>   | <b>13.2</b>   | <b>12.6</b>   | <b>12.9</b>   | <b>13.2</b>   |
| <b>Share in total exports of goods and services</b> |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 3.1                      | 3.2           | 3.2           | 3.2           | 3.2           | 3.3           |
| Cambodia <sup>b</sup>                               | 3                        | 3.5           | 3.7           | 3.8           | 3.9           | 3.8           |
| Indonesia   | 1.6                      | 1.3           | 1.2           | 1.1           | 0.1           | 1             |
| Lao People's Democratic Republic                    | 0.4                      | 0.5           | 0.5           | 0.6           | 0.2           | 0.2           |
| Malaysia <sup>c</sup>                               | 2.2                      | 1.4           | 1.2           | 1.2           | 1.1           | 1.1           |
| Myanmar   | 0.9                      | 1             | 0.6           | 0.2           | 0.6           | 1.3           |
| Philippines   | 2.1                      | 2.2           | 2             | 2.1           | 2.1           | 2.3           |
| Singapore <sup>d</sup>                              | 5.7                      | 5.9           | 6.1           | 6.3           | 7             | 7.2           |
| Thailand  | 2.9                      | 2.1           | 2             | 2             | 1.9           | 1.9           |
| Viet Nam <sup>e</sup>                               | 0                        | 0             | 0             | 0             | 0             | 0             |
| <b>ASEAN total</b>                                  | <b>2.2</b>               | <b>2.1</b>    | <b>2</b>      | <b>2</b>      | <b>2</b>      | <b>2.2</b>    |

Source: AJC, based on data from the IMF, the WTO, and the Department of Statistics Malaysia.

Note: Transport services are defined to include both passenger and freight services.

<sup>a</sup> As data are not available for passenger and freight services separately, the ratios of passenger and freight services together to transport services (which are available for other ASEAN Member States for respective years) are used to estimate the value of transport services. For 2010, transport services data were not available. Therefore, the averages of 2009 and 2011 data were used as estimates.

<sup>b</sup> Data for 2015 were not available. Therefore, the averages of 2013 and 2014 were used for estimates.

<sup>c</sup> Data from the IMF were used up to 2009. Data from the Department of Statistics Malaysia were used for 2010 onwards, converted into U.S. dollars by using the IMF's annual exchange rate.

<sup>d</sup> Data on passenger services are also included in "Other (including Postal and Courier)." Therefore the value of "Transport Services" for Singapore is underestimated.

<sup>e</sup> As data are not available for passenger and freight services separately, the ratios of passenger and freight services together to transport services (which are available for other ASEAN Member States for respective years) are used to estimate the value of transport services. Data for transport services are based on BPM5. For 2015, transport services data were not available. Therefore, the averages of 2013 and 2014 were used for estimates.

**Table 5. Imports of transport services and its share in total imports of services and goods and services, 2005–2015** (Millions of dollars and per cent)

| Country   | Annual average 2005-2010 | 2011          | 2012          | 2013          | 2014          | 2015          |
|---|--------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Transport services import</b>                    |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 342                      | 397           | 415           | 422           | 445           | 477           |
| Cambodia <sup>b</sup>                               | 406                      | 441           | 451           | 461           | 471           | 466           |
| Indonesia   | 9 005                    | 10 318        | 10 693        | 11 069        | 11 444        | 11 819        |
| Lao People's Democratic Republic <sup>c</sup>       | 8                        | 11            | 9             | 3             | 3             | 4             |
| Malaysia <sup>d</sup>                               | 9 071                    | 10 022        | 11 011        | 11 115        | 11 369        | 9 118         |
| Myanmar   | 351                      | 751           | 694           | 854           | 1 340         | 1 387         |
| Philippines   | 2 387                    | 2 755         | 3 032         | 2 866         | 3 234         | 3 229         |
| Singapore <sup>e</sup>                              | 16 848                   | 21 030        | 21 262        | 22 989        | 29 910        | 32 112        |
| Thailand  | 16 307                   | 20 201        | 20 998        | 20 535        | 18 286        | 14 935        |
| Viet Nam <sup>f</sup>                               | 3 664                    | 6 796         | 7 085         | 5 732         | 6 036         | 5 988         |
| <b>ASEAN total</b>                                  | <b>54 723</b>            | <b>65 924</b> | <b>68 565</b> | <b>70 313</b> | <b>76 501</b> | <b>73 547</b> |
| <b>Share in total imports of services</b>           |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 26.5                     | 27.5          | 27.9          | 27.5          | 28.2          | 29.4          |
| Cambodia <sup>b</sup>                               | 49.4                     | 44.6          | 43.5          | 42.6          | 41.7          | 42.1          |
| Indonesia   | 36.9                     | 37.5          | 37.7          | 37.8          | 37.9          | 38.1          |
| Lao People's Democratic Republic <sup>c</sup>       | 7.4                      | 3.2           | 2.7           | 0.5           | 0.6           | 0.7           |
| Malaysia <sup>d</sup>                               | 33.1                     | 26.1          | 25.4          | 24.6          | 25.1          | 22.8          |
| Myanmar   | 56.4                     | -             | 47.5          | 39            | 59.1          | 56.8          |
| Philippines   | 27.1                     | 22.4          | 21.3          | 17.6          | 15.5          | 13.7          |
| Singapore <sup>e</sup>                              | 21.3                     | 17.8          | 16.2          | 15.6          | 18.8          | 20.8          |
| Thailand  | 44.6                     | 43.8          | 46            | 43.3          | 40.4          | 35.1          |
| Viet Nam <sup>f</sup>                               | 51.8                     | 57.3          | 58.6          | 41.5          | 41.6          | 38.6          |
| <b>ASEAN total</b>                                  | <b>35.4</b>              | <b>28</b>     | <b>32.7</b>   | <b>29</b>     | <b>30.9</b>   | <b>29.8</b>   |
| <b>Share in total imports of goods and services</b> |                          |               |               |               |               |               |
| Brunei Darussalam <sup>a</sup>                      | 10                       | 9             | 8.8           | 8.4           | 8.4           | 8.5           |
| Cambodia <sup>b</sup>                               | 7.4                      | 7.1           | 7             | 6.9           | 6.8           | 6.9           |
| Indonesia   | 8.4                      | 7.5           | 7.4           | 7.2           | 7.1           | 6.9           |
| Lao People's Democratic Republic <sup>c</sup>       | 0.5                      | 0.4           | 0.3           | 0.1           | 0.1           | 0.1           |
| Malaysia <sup>d</sup>                               | 5.7                      | 4.8           | 5.1           | 5.1           | 5.2           | 4.9           |
| Myanmar   | 10.5                     | -             | 7.6           | 7.3           | 9.5           | 8.6           |
| Philippines   | 4.4                      | 3.9           | 3.8           | 3.7           | 3.7           | 3.6           |
| Singapore <sup>e</sup>                              | 5                        | 4.3           | 4.2           | 4.4           | 5.7           | 7.1           |
| Thailand  | 9.7                      | 7.9           | 7.7           | 7.5           | 7.2           | 6.5           |
| Viet Nam <sup>f</sup>                               | 5.5                      | 6.2           | 6.1           | 4.2           | 4             | 3.5           |
| <b>ASEAN total</b>                                  | <b>6.7</b>               | <b>5.1</b>    | <b>5.8</b>    | <b>5.5</b>    | <b>5.8</b>    | <b>5.7</b>    |

Source: AJC, based on data from the IMF, the WTO, and the Department of Statistics Malaysia.

Note: Transport services are defined to include both passenger and freight services.

a As data are not available for passenger and freight services separately, the ratios of passenger and freight services together to transport services (which are available for other ASEAN Member States for respective years) are used to estimate the value of transport services. For 2010, transport services data were not available. Therefore, the averages of 2009 and 2011 data were used as estimates.

b Data for 2015 were not available. Therefore, the averages of 2013 and 2014 were used for estimates.

c Data for freight services are unavailable.

d Data from the IMF were used up to 2009. Data from the Department of Statistics Malaysia were used for 2010 onwards, converted into U.S. dollars by using the IMF's annual exchange rate.

e Data on passenger services are also included in "Other (including Postal and Courier)." Therefore the value of "Transport Services" for Singapore is underestimated.

f As data are not available for passenger and freight services separately, the ratios of passenger and freight services together to transport services (which are available for other ASEAN Member States for respective years) are used to estimate the value of transport services. Data for transport services are based on BPM5. For 2015, transport services data were not available. Therefore, the averages of 2013 and 2014 were used for estimates.

Table 6. Exports of transport services by transport mode in selected ASEAN countries, 2010–2016 (Per cent)

| Country                                 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|------|------|------|------|------|------|------|
| <b>Cambodia</b>                         | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| Air transport                           | 76   | 76   | 79   | 85   | 81   | 81   | 78   |
| Sea transport                           | 9    | 8    | 10   | 9    | 10   | 10   | 10   |
| Other than sea and air                  | 4    | 7    | 5    | 2    | 3    | 3    | 2    |
| Postal and courier services             | 10   | 9    | 6    | 4    | 6    | 6    | 6    |
| <b>Lao People's Democratic Republic</b> | 100  | 100  | 100  | 100  | 100  | 100  | ..   |
| Air transport                           | 14   | 22   | 26   | 26   | 11   | 10   | ..   |
| Other modes of transport                | 74   | 69   | 65   | 68   | 82   | 90   | ..   |
| Postal and courier services             | 13   | 9    | 8    | 6    | 7    | ..   | ..   |
| <b>Malaysia<sup>a</sup></b>             | 100  | ..   | ..   | ..   | ..   | ..   | ..   |
| Air transport                           | 57   | ..   | ..   | ..   | ..   | ..   | ..   |
| Sea transport                           | 44   | ..   | ..   | ..   | ..   | ..   | ..   |
| Other than sea and air                  | 1    | ..   | ..   | ..   | ..   | ..   | ..   |
| <b>Myanmar</b>                          | ..   | ..   | ..   | 100  | 100  | 100  | ..   |
| Air transport                           | ..   | ..   | ..   | 25   | 51   | 53   | ..   |
| Sea transport                           | ..   | ..   | ..   | 74   | 24   | 30   | ..   |
| Other than sea and air                  | ..   | ..   | ..   | ..   | 24   | 16   | ..   |
| Postal and courier services             | ..   | ..   | ..   | 1    | 1    | 1    | ..   |
| <b>Philippines</b>                      | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| Air transport                           | 96   | 99   | 98   | 99   | 99   | 99   | 97   |
| Sea transport                           | 2    | 1    | 2    | 1    | 1    | 0    | 3    |
| Postal and courier services             | 1    | 0    | 0    | 0    | 0    | 0    | 1    |

Source: AJC based on statistics from the ITC, UNCTAD, the WTO trade in services database based on Eurostat, the IMF, the Organisation for Economic Co-operation and Development and relevant national statistical authorities.

Note: Lists only those countries which have data.

<sup>a</sup> Not necessarily throughout the period. Used only available years during this period.

Table 7. Imports of transport services by transport mode in selected ASEAN countries, 2010–2016 (Per cent)

| Country                                 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|------|------|------|------|------|------|------|
| <b>Cambodia</b>                         | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| Air transport                           | 76   | 81   | 81   | 80   | 75   | 78   | 82   |
| Sea transport                           | 19   | 17   | 17   | 17   | 19   | 19   | 18   |
| Other than sea and air                  | 1    | 1    | 1    | 2    | 2    | 1    | 2    |
| Postal and courier services             | 4    | 1    | 1    | 1    | 4    | 4    | 4    |
| <b>Lao People's Democratic Republic</b> | 100  | 100  | 100  | 100  | 100  | 100  | ..   |
| Air transport                           | 55   | 47   | 41   | 16   | 14   | 22   | ..   |
| Other modes of transport                | 22   | 29   | 37   | 55   | 69   | 78   | ..   |
| Postal and courier services             | 23   | 24   | 23   | 29   | 17   | 0    | ..   |
| <b>Malaysia<sup>a</sup></b>             | 100  | ..   | ..   | ..   | ..   | ..   | ..   |
| Air transport                           | 12   | ..   | ..   | ..   | ..   | ..   | ..   |
| Sea transport                           | 87   | ..   | ..   | ..   | ..   | ..   | ..   |
| Other than sea and air                  | 0    | ..   | ..   | ..   | ..   | ..   | ..   |
| <b>Myanmar</b>                          | ..   | ..   | ..   | 100  | 100  | 100  | ..   |
| Air transport                           | ..   | ..   | ..   | 2    | 7    | 9    | ..   |
| Sea transport                           | ..   | ..   | ..   | 98   | 92   | 90   | ..   |
| Other than sea and air                  | ..   | ..   | ..   | ..   | 1    | 1    | ..   |
| Postal and courier services             | ..   | ..   | ..   | 0    | 0    | 0    | ..   |
| <b>Philippines</b>                      | 100  | 100  | 100  | 100  | 100  | 100  | 100  |
| Air transport                           | 98   | 97   | 96   | 98   | 99   | 99   | 99   |
| Sea transport                           | 2    | 3    | 4    | 1    | 1    | 1    | 0    |
| Postal and courier services             | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Source: AJC, based on statistics from the ITC, UNCTAD, the WTO trade in services database based on Eurostat, the IMF, the Organisation for Economic Co-operation and Development (OECD) and relevant national statistical authorities.

Note: Lists only those countries which have data.

<sup>a</sup> Not necessarily throughout the period. Used only available years during this period.

## 2. Mode 3: Commercial presence

Provision of transport services requires massive investment in transport infrastructure. Therefore, both domestic and foreign investment, and both private and public investment are significant in transport infrastructure and services. According to UNCTAD's survey, about 80 per cent of total investment in transport infrastructure in Asia was financed through domestic funds, both private and public (UNCTAD 2007, p. 101). The foreign share in infrastructure investment in transport was less than one fifth.

In addition to bank lending and official development assistance, foreign funds include foreign direct investment (FDI), which has become an important component of infrastructure finance. For example, FDI stock in transport and storage services is largest in Singapore, with a value of \$37 billion in 2012, accounting for more than one third of total inward FDI stock in the country. Similarly, Singapore is the largest investor from ASEAN in the industry, investing \$26 billion abroad as of 2012, or one third of its total outward FDI stock.

Both inward FDI and outward FDI in transport services are concentrated in maritime transport, followed by air transport. The major investors in transport services are DHL from Germany; Mitsui OSK Lines, Nippon Yusen Kabushiki Kaisha, and Kintetsu World Express from Japan; TNT from the Netherlands; and Federal Express from the United States. The largest transport services companies owned by foreigners include air or marine transporters such as Thai Airways International Pcl and Evergreen Marine (Singapore) Pte. Ltd. (annex A). The largest transport services companies abroad owned by companies in ASEAN include Virgin Australia Holdings Ltd., owned by Singapore Airways, and Star Cruises Ltd. in Hong Kong, owned by CMY Capital (L) Ltd. in Malaysia (annex B).

Through FDI foreign companies establish affiliates and provide transport services in ASEAN. Similarly, ASEAN firms can provide transport services abroad through their FDI and commercial presence. More than 1,000 foreign companies provide transport services with a sales value estimated at \$47 billion (table 8). ASEAN firms have established more than 450 firms abroad that provide transport services abroad, with a sales value of \$25 billion (table 8). Singapore is by far the largest supplier to the world, and the largest host to foreign transport services companies. Although Singapore's outstanding performance in transport services reflects its unique characteristics, large economies such as Thailand and Malaysia also host a large number of foreign transport services companies. In this respect, Indonesia, the largest economy in ASEAN, does not host many foreign transport services companies nor generate many sales (table 8), when compared with the size of total outputs and value added of this industry (see section V).

With regard to the source country providing transport services in ASEAN, there are some interesting observations: Japan has established the largest number of transport services companies in ASEAN, but their sales are relatively low, only one tenth those of United States transport services companies and one twentieth those of European ones (table 9). This is because these Japanese companies are engaged in small-scale services (such as transport of goods), whereas European and United States companies are engaged in large-scale operations, including managing air and seaport facilities. ASEAN companies, particularly those from Singapore, also engage in large operations. In terms of estimated sales, those of ASEAN rank second after those of Europe. Another interesting finding is that estimated sales in "other" developing countries are also large, despite the relatively small number of companies in such countries. These countries are mainly those of flags of convenience and tax havens (Bermuda, Panama and the like).

ASEAN transport services companies also invest abroad, generating estimated sales of \$7–8 billion in both developing Asia and developed regions (mainly Australia and Europe), the two major host regions. The importance of Asia, in particular ASEAN, for ASEAN transport services companies reflects the facts that not only are ASEAN firms becoming more competitive, but also regional infrastructure connectivity is expanding.



**Table 8. Estimated sales of transport services through foreign presence, 2015**  
(Number and millions of dollars)

| Country                          | Receipts from abroad                    |                 | Supply to the world                          |                 |
|----------------------------------|---|-----------------|--|-----------------|
|                                  | Number of foreign entities <sup>a</sup> | Estimated sales | Number of ASEAN entities abroad <sup>a</sup> | Estimated sales |
| Brunei Darussalam                | 1                                       | 8               | 0  | -               |
| Cambodia                         | 8                                       | 97              | 0  | -               |
| Indonesia                        | 132                                     | 867             | 25   | 24              |
| Lao People's Democratic Republic | 5                                       | 15              | 0  | -               |
| Malaysia                         | 173                                     | 5 343           | 82   | 3 933           |
| Myanmar                          | 17                                      | 14              | 0  | -               |
| Philippines                      | 106                                     | 1 456           | 15   | 589             |
| Singapore                        | 267                                     | 29 592          | 305  | 19 604          |
| Thailand                         | 186                                     | 8 392           | 24   | 472             |
| Viet Nam                         | 118                                     | 967             | 3  | 10              |
| <b>ASEAN total</b>               | <b>1 013</b>                            | <b>46 752</b>   | <b>454</b>                                   | <b>24 632</b>   |

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and Orbis.

Note: For estimated sales, see the estimation procedure in the notes of annex A and annex B.

<sup>a</sup> Includes the affiliates whose sales cannot be estimated (23 for Indonesia, 12 for Malaysia, 1 for Myanmar, 1 for the Philippines, 6 for Singapore, 4 for Thailand, 11 for Viet Nam for receipts from abroad; and 2 for Indonesia, 12 for Malaysia, 2 for Philippines, 20 for Singapore, 1 for Thailand for supply to the world).

**Table 9. Foreign affiliates in ASEAN and ASEAN affiliates abroad in transport services, by source / destination country** (Number and millions of dollars)

| Country                     | Foreign affiliates in ASEAN       |                 | ASEAN affiliates abroad           |                 |       |
|-----------------------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-------|
|                             | Number of affiliates <sup>d</sup> | Estimated sales | Number of affiliates <sup>e</sup> | Estimated sales |       |
| Developed countries         | United States                     | 73              | 2 380                             | 1               | ..    |
|                             | Europe                            | 218             | 3 979                             | 32              | 3 038 |
|                             | Australia                         | 14              | 1 398                             | 18              | 5 019 |
|                             | Japan                             | 323             | 208                               | 11              | 102   |
|                             | Others <sup>a</sup>               | 10              | 274                               | 3               | 76    |
| <b>Subtotal</b>             | <b>638</b>                        | <b>8 239</b>    | <b>65</b>                         | <b>8 235</b>    |       |
| Developing countries        | ASEAN <sup>b</sup>                | 213             | 3 201                             | 50              | 3 917 |
|                             | China                             | 10              | 1 565                             | 14              | 345   |
|                             | Korea, Republic of                | 9               | 258                               | 3               | 32    |
|                             | India                             | 7               | 0                                 | 20              | 823   |
|                             | Hong Kong (China)                 | 22              | 514                               | 6               | 2 422 |
|                             | United Arab Emirates              | 11              | 834                               | 3               | 20    |
| Others <sup>c</sup>         | 22                                | 3 259           | 19                                | 1 812           |       |
| <b>Subtotal</b>             | <b>294</b>                        | <b>9 631</b>    | <b>115</b>                        | <b>9 371</b>    |       |
| Unspecified / Supernational | 23                                | 0               | 2                                 | 0               |       |
| <b>World</b>                | <b>955</b>                        | <b>17 870</b>   | <b>182</b>                        | <b>17 606</b>   |       |

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and Orbis.

Note: For estimated sales, see the estimation procedure in the notes of annex A and annex B.

<sup>a</sup> Foreign affiliates in ASEAN as well as ASEAN affiliates abroad includes Taiwan (China) and New Zealand only.

<sup>b</sup> The number of foreign affiliates in ASEAN and ASEAN affiliates abroad should balance. However, either the destination or the source country of some of these affiliates is not available. Therefore they do not match.

<sup>c</sup> Foreign affiliates in ASEAN include those in Bahrain, Bermuda, the Cayman Islands, Kuwait, Panama, Seychelles, South Africa and the Virgin Islands (British); ASEAN affiliates abroad include those in Bermuda, Brazil, Colombia, Egypt, Kenya, Mauritius, Mexico, Nigeria, Pakistan, South Africa, Sri Lanka, Turkey and the Virgin Islands (British).

<sup>d</sup> Includes the affiliates whose sales cannot be estimated (4 for the United States, 14 for Europe, 1 for Australia, 26 for Japan, 11 for ASEAN, 0 for China, the Republic of Korea, India, Hong Kong (China), the United Arab Emirates and unspecified/supernational.)

<sup>e</sup> Includes the affiliates whose sales cannot be estimated (1 for the United States, 2 for Europe, 18 for Australia, 2 for Japan, 7 for ASEAN, 4 for China, 6 for India, 0 for the Republic of Korea, Hong Kong (China) and unspecified/supernational.)

## IV. TRADE AGREEMENTS AND REGULATIONS AMONG AND IN THE ASEAN MEMBER STATES

The AFAS is the main and most open trade agreement concerning liberalization of trade in transport services. The Hoekman Index,<sup>41</sup> measuring the commitment to liberalization, for maritime, air, road and rail transport services respectively, under the AFAS (9<sup>th</sup> package) is shown in tables 10–13. Air transport is virtually closed, while marine, road, and rail are relatively open. Following are some observations by country.

**Brunei Darussalam.** Reflecting the country's geographic location by the sea, maritime transport is rather open; air transport is closed except for supporting sub-sectors; rail transport is highly open; road transport is closed.

**Cambodia.** Maritime transport is highly open; air transport is closed; rail transport is closed; road transport is highly open.

**Indonesia.** The country has a rather open maritime policy, except for supporting-type services (a sensitive sector because of the labour-intensive nature of those services; domestic employment can be an issue); air transport is closed except for supporting sub-sectors; rail and road services are rather open.

**Lao People's Democratic Republic.** Even though landlocked, the country has fully open maritime transport services, reflecting its policy emphasis on connectivity to neighbouring countries' maritime services; air transport is closed except for supporting sub-sectors; rail and road services are highly open.

**Malaysia.** The country has a rather open policy in terms of passenger and freight transportation; supporting-type services are closed, owing mainly to the labour-intensive nature of those services; air transport is closed except for supporting sub-sectors; rail services as well as some road services are open.

**Myanmar.** The country has a rather open policy in terms of passenger and freight transportation; supporting-type services, in contrast, are closed; air transport is closed except for supporting sub-sectors; rail services are closed; some road services are open (while supporting type services are closed).

**Philippines.** The country has an open policy in terms of passenger and freight transportation; supporting services tend to be closed, possibly for consideration for domestic employment; air transport is closed except for supporting sub-sectors.

<sup>41</sup> Hoekman (1995) proposes an indexation method for measuring the GATS-style degree of commitment in the services sector. This method assigns values to each of eight cells (four modes and two aspects—market access [MA] or national treatment [NT]), as follows: first, assign the value 1 when the sector at issue is "fully liberalized"; 0.5 when "limited (but bound)"; 0 when unbound" (government has not committed to liberalize) by sub-sector, by mode and by aspect (market access or national treatment), and take the simple average for aggregation; then calculate the average value by services sector and by country. The higher the figure, the more liberal the country's services trade commitments are to the FTA members. Using the database constructed for this as well as other purposes, the "Hoekman Index" is derived for each of 155 sub-sectors. Then the simple average at the level of the 11 sectors is calculated. The Hoekman Index takes a value between 0 and 1, with 0 referring to the most restricted status, and 1 being the most open situation.

**Singapore.** As a port, the country has a highly open policy yet the rate of foreign equity participation is limited, because domestic economic activities must focus on maritime services; air transport is closed except for supporting sub-sectors; rail services are closed; some road services are open.

**Thailand.** The country has a highly open trade policy, reflecting its geopolitical situation as an important hub of the ASEAN region; air transport is closed except for supporting sub-sectors; rail and road services are partially open.

**Viet Nam.** The country has an open trade policy in terms of maritime services; some supporting sectors are closed; air transport is closed except for supporting sub-sectors; rail services are highly open; road services are partially open.

Table 10. Hoekman Index of trade liberalization for maritime transport services, by subsector and by mode, under AFAS 9<sup>th</sup> package

| Country                          | Mode   | 11A                      |                        |                             |                                   |                             | 11Ae                                       |      |  | 11Af |
|----------------------------------|--------|--------------------------|------------------------|-----------------------------|-----------------------------------|-----------------------------|--|------|--|------|
|                                  |        | Passenger transportation | Freight transportation | Rental of vessels with crew | Maintenance and repair of vessels | Pushing and towing services | Supporting services for maritime transport |      |  |      |
| Brunei Darussalam                | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0.75                        | 0.75                              | 0                           | 0  | 0    |  |      |
| Cambodia                         | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
| Indonesia                        | Mode 1 | 1                        | 1                      | 0                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 0                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0                           | 0.5                               | 0                           | 0  | 0    |  |      |
| Lao People's Democratic Republic | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
| Malaysia                         | Mode 1 | 1                        | 1                      | 1                           | 0                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 1                           | 0.25                              | 0                           | 0  | 0    |  |      |
| Myanmar                          | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
| Philippines                      | Mode 1 | 1                        | 1                      | 1                           | 0                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 0.75                              | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1                                 | 0.75                        | 1  | 1    |  |      |
| Singapore                        | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0.5                         | 0.75                              | 1                           | 1  | 1    |  |      |
| Thailand                         | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 1                           | 1  | 1    |  |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0.75                        | 0.75                              | 0.5                         | 0.75                                       | 0.75 |  |      |
| Viet Nam                         | Mode 1 | 1                        | 1                      | 1                           | 1                                 | 0                           | 0  | 0    |  |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1                                 | 0                           | 0  | 1    |  |      |
|                                  | Mode 3 | 0.75                     | 0.25                   | 0.5                         | 0.75                              | 0                           | 0  | 1    |  |      |

Source: AUC's calculation based on the ASEAN member states' specific commitment tables under the AFAS (9<sup>th</sup> package). See annex C for reproduction and categorization of the tables.

Table 11. Hoekman Index of trade liberalization for air transport services, by subsector and by mode, under AFAS 9<sup>th</sup> package

| Country                          | Mode   | 11Ca (package 6)         |                        |                             | 11Cb (package 6)                  |                                       |                          | 11Cc (package 6)       |                             |                                   | 11Cd (package 6)                      |                          |                        | 11Ce (package 6)            |                                   |                                       |
|----------------------------------|--------|--------------------------|------------------------|-----------------------------|-----------------------------------|---------------------------------------|--------------------------|------------------------|-----------------------------|-----------------------------------|---------------------------------------|--------------------------|------------------------|-----------------------------|-----------------------------------|---------------------------------------|
|                                  |        | Passenger transportation | Freight transportation | Rental of vessels with crew | Maintenance and repair of vessels | Supporting services for air transport | Passenger transportation | Freight transportation | Rental of vessels with crew | Maintenance and repair of vessels | Supporting services for air transport | Passenger transportation | Freight transportation | Rental of vessels with crew | Maintenance and repair of vessels | Supporting services for air transport |
| Brunei Darussalam                | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0.25                        | 0.25                              | 0                                     | 0                        | 0.25                   | 0.25                        | 0.25                              | 0                                     | 0                        | 0                      | 0.25                        | 0                                 | 0                                     |
| Cambodia                         | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0.5                         | 0.5                               | 0                                     | 0                        | 0.5                    | 0.5                         | 0.5                               | 0                                     | 0                        | 0                      | 0.5                         | 0                                 | 0                                     |
| Indonesia                        | Mode 1 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0.5                         | 0.5                               | 0                                     | 0                        | 0                      | 0.5                         | 0.5                               | 0.5                                   |
| Lao People's Democratic Republic | Mode 1 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0.5                         | 0.5                               | 0                                     | 0                        | 0                      | 0.5                         | 0.5                               | 0.5                                   |
| Malaysia                         | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0.5                         | 0.5                               | 0                                     | 0                        | 0.5                    | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     |
| Myanmar                          | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0.5                         | 0.5                               | 0                                     | 0                        | 0.5                    | 0.5                         | 0.5                               | 0.5                                   | 0                        | 0                      | 0.5                         | 0.5                               | 0.5                                   |
| Philippines                      | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
| Singapore                        | Mode 1 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0                           | 0                                 | 0                                     |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0                                 | 0                                     | 0                        | 0                      | 0.25                        | 0.25                              | 0.25                                  | 0                        | 0                      | 0.25                        | 0.25                              | 0.25                                  |
| Thailand                         | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 0.25                        | 0.25                              | 0                                     | 0                        | 0.25                   | 0.75                        | 0.75                              | 0.75                                  | 0                        | 0                      | 0.75                        | 0.75                              | 0.75                                  |
| Viet Nam                         | Mode 1 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 2 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |
|                                  | Mode 3 | 0                        | 0                      | 1                           | 1                                 | 0                                     | 0                        | 1                      | 1                           | 1                                 | 1                                     | 0                        | 0                      | 1                           | 1                                 | 1                                     |

Source: AJC's calculation based on the ASEAN member states' specific commitment tables under the AFAS (9<sup>th</sup> package). See annex D for reproduction and categorization of the tables.

Table 12. Hoekman Index of trade liberalization for rail transport services, by subsector and by mode, under AFAS 9<sup>th</sup> package

| Country                          | Mode   | 11Ea                     |                        |                             | 11Eb   |   |      | 11Ec |      |      | 11Ed |      | 11Ee |
|----------------------------------|--------|--------------------------|------------------------|-----------------------------|--|---|------|------|------|------|------|------|------|
|                                  |        | Passenger transportation | Freight transportation | Pushing and towing services | Maintenance and repair of rail transport equipment | Supporting services for rail transport services |      |      |      |      |      |      |      |
| Brunei Darussalam                | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 0    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0.75                        | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0    |      |
| Cambodia                         | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
| Indonesia                        | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0.5                         | 0.5  | 0.5   | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  | 0.5  |      |
| Lao People's Democratic Republic | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
| Malaysia                         | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 0    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0.75                        | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0    |      |
| Myanmar                          | Mode 1 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
| Philippines                      | Mode 1 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0.75                        | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.5  |      |
| Singapore                        | Mode 1 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
| Thailand                         | Mode 1 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0    | 0    | 1    |      |
|                                  | Mode 3 | 0                        | 0                      | 0                           | 0  | 0   | 0    | 0    | 0    | 0.75 | 0.75 | 0.75 |      |
| Viet Nam                         | Mode 1 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1                           | 1  | 1   | 1    | 1    | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0.75                        | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 1    |      |

Source: AUC's calculation based on the ASEAN member states' specific commitment tables under the AFAS (9<sup>th</sup> package). See annex E for reproduction and categorization of the tables.

Table 13. Hoekman Index of trade liberalization for road transport services, by subsector and by mode, under AFAS 9<sup>th</sup> package

| Country                          | Mode   | 11Fa                     |                        |   | 11Fb   |   | 11Fc |      | 11Fd |      | 11Fe |
|----------------------------------|--------|--------------------------|------------------------|---|--|---|------|------|------|------|------|
|                                  |        | Passenger transportation | Freight transportation | Rental of commercial vehicles with operator | Maintenance and repair of road transport equipment | Supporting services for road transport services |      |      |      |      |      |
| Brunei Darussalam                | Mode 1 | 0                        | 0                      | 0   | 0  | 0   | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 0                        | 0                      | 0   | 0  | 0   | 0    | 0    | 0    | 0    |      |
|                                  | Mode 3 | 0                        | 0                      | 0   | 0  | 0   | 0    | 0    | 0    | 0    |      |
| Cambodia                         | Mode 1 | 1                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 1                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
| Indonesia                        | Mode 1 | 1                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0   | 0.5  | 0   | 0.5  | 0.5  | 0.5  | 0.5  |      |
| Lao People's Democratic Republic | Mode 1 | 0                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 0                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0                        | 0.75                   | 0.75  | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 |      |
| Malaysia                         | Mode 1 | 0                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 0    |      |
|                                  | Mode 2 | 0                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 0    |      |
|                                  | Mode 3 | 0                        | 0.75                   | 0   | 0.75   | 0   | 0.75 | 0.75 | 0.75 | 0    |      |
| Myanmar                          | Mode 1 | 1                        | 1                      | 0   | 1  | 0   | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 0   | 1  | 0   | 0    | 0    | 0    | 0    |      |
|                                  | Mode 3 | 1                        | 1                      | 0   | 1  | 0   | 0    | 0    | 0    | 0    |      |
| Philippines                      | Mode 1 | 0                        | 0                      | 0   | 0  | 0   | 0    | 0    | 0    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.5                      | 0.5                    | 0.5   | 0.5  | 0.5   | 0.5  | 0.5  | 0.5  | 0.5  |      |
| Singapore                        | Mode 1 | 0                        | 0.75                   | 0.5   | 0.75   | 0.5   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 2 | 0                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
| Thailand                         | Mode 1 | 0                        | 0                      | 0   | 0  | 0   | 0    | 0    | 0    | 1    |      |
|                                  | Mode 2 | 1                        | 1                      | 1   | 1  | 1   | 1    | 1    | 1    | 1    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0.75  | 0.75   | 0.75  | 0.75 | 0.75 | 0.75 | 0.75 |      |
| Viet Nam                         | Mode 1 | 0                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 0    |      |
|                                  | Mode 2 | 1                        | 1                      | 0   | 1  | 0   | 1    | 1    | 1    | 0    |      |
|                                  | Mode 3 | 0.75                     | 0.75                   | 0   | 0.75   | 0   | 0.75 | 0.75 | 0.75 | 0    |      |

Source: AJC's calculation based on the ASEAN member states' specific commitment tables under the AFAS (9<sup>th</sup> package). See annex F for reproduction and categorization of the tables.

As shown in table 14, there is disparity across ASEAN member states in terms of the upper limit of foreign equity participation in transport services under the AFAS 9<sup>th</sup> package. Geographically smaller countries (with smaller populations) and economically emerging countries generally tend to have higher upper bounds.

The ASEAN Single Aviation Market (ASEAN-SAM) (see box 2) is expected to fully liberalize air travel services among member states in the region, allowing ASEAN countries and airlines operating in the region to directly benefit from the growth in air travel around the world, and also enhancing tourism, trade, investment, and service flows among the ASEAN member states. Since 1 December 2008, restrictions on the third and fourth freedoms of the air between capital cities of member states for air passenger services have been removed, and since 1 January 2009, full liberalization of air freight services in the region has taken effect. On 1 January 2011, full liberalization of fifth freedom traffic rights between all capital cities took effect.

Under the AFAS, however, air transport services are not committed in substantive part (passenger and freight transport), as the sector's liberalization is separately negotiated (because of its sensitivity), unlike other modes of transport services.<sup>42</sup>

Protocol 2 of the "Unlimited Third, Fourth And Fifth Freedom Traffic Rights among All points with International Airports in ASEAN" under the ASEAN Multilateral Agreement on the Full Liberalization of Air Freight Services went into force on 23 November 2009. Protocol 2 of the unlimited fifth freedom traffic rights between any ASEAN cities (also under the ASEAN Multilateral Agreement on the Full Liberalization of Passenger Air Services) went into force on 1 July 2011. These two protocols liberalized air freight and passenger transport, respectively, up to the fifth freedom only.

In the European Union, in contrast, the higher-level freedom of the air has already been achieved: the ninth freedom was already achieved in 1997. Although the ASEAN member states have mostly achieved the fifth freedom of the air, going beyond this level of freedom remains a rather challenging policy agenda for ASEAN. This is mainly because of the diversity in the size of domestic markets in ASEAN: larger member states possessing larger domestic air transport markets and smaller member states with smaller domestic markets find it difficult to reach an agreement on a "win-win" (mutually beneficial) basis.

**Table 14. Maximum foreign ownership allowed in transport services under AFAS 9<sup>th</sup> package (Per cent)**

| Country                          | Maritime transport | Air transport | Road transport | Rail transport |
|----------------------------------|--------------------|---------------|----------------|----------------|
| Brunei Darussalam                | 51                 | 80            | Not applied    | 51             |
| Cambodia                         | 100                | Not applied   | 100            | 100            |
| Indonesia                        | 49                 | 49            | 70             | 70             |
| Lao People's Democratic Republic | 100                | 100           | 49             | 100            |
| Malaysia                         | 51                 | 49            | 70             | 51             |
| Myanmar                          | 100                | Not applied   | 100            | Not applied    |
| Philippines                      | 70                 | 40            | 40             | 40             |
| Singapore                        | 70                 | 51            | 100            | Not applied    |
| Thailand                         | 49                 | Not applied   | 49             | Not applied    |
| Viet Nam                         | 51                 | Not applied   | 51             | 51             |

Source: Specific commitment tables of each ASEAN member state under the AFAS 9<sup>th</sup> package.

Note: Ownership under partial commitments is also counted.

<sup>42</sup> The Protocol to Implement the Ninth Package of Commitments on Air Transport Services under the ASEAN Framework Agreement on Services (AFAS) was signed in November 2015; there is, however, no publicly available information indicating that it has come into effect (as of October 2017).



### Box 2. Freedom of the air and ASEAN's open skies agreement

Concerning air transport services, the International Civil Aviation Organization (ICAO) defines the following nine freedoms of the air.

**First freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to fly across its territory without landing (also known as a first freedom right).

**Second freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State or States to land in its territory for non-traffic purposes (also known as a second freedom right).

**Third freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down, in the territory of the first State, traffic coming from the home State of the carrier (also known as a third freedom right).

**Fourth freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State to take on, in the territory of the first State, traffic destined for the home State of the carrier (also known as a fourth freedom right).

**Fifth freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State to put down and to take on, in the territory of the first State, traffic coming from or destined to a third State (also known as a fifth freedom right).

The ICAO characterizes all "freedoms" beyond the fifth as "so-called" because only the first five have been officially recognized as such by international treaty. The ASEAN member states have mostly achieved the fifth freedom of the air, but not beyond this level.

**Sixth freedom of the air:** the right or privilege, in respect of scheduled international air services, of transporting, via the home State of the carrier, traffic moving between two other States (also known as a sixth freedom right).

**Seventh freedom of the air:** the right or privilege, in respect of scheduled international air services, granted by one State to another State, of transporting traffic between the territory of the granting State and any third State with no requirement to include on such operation any point in the territory of the recipient State, i.e. the service need not connect to or be an extension of any service to/from the home State of the carrier.

**Eighth freedom of the air:** the right or privilege, in respect of scheduled international air services, of transporting cabotage traffic between two points in the territory of the granting State on a service which originates or terminates in the home country of the foreign carrier or (in connection with the so-called seventh freedom of the air) outside the territory of the granting State (also known as an eighth freedom right or "consecutive cabotage").

**Ninth freedom of the air:** the right or privilege of transporting cabotage traffic of the granting State on a service performed entirely within the territory of the granting State (also known as a ninth freedom right or "stand-alone" cabotage).

The ASEAN Single Aviation Market (ASEAN-SAM), known as the ASEAN open skies agreement, emphasizes the key role of air transport services: it targets the development of a unified and single aviation market among ASEAN members. The aviation policy was proposed by the ASEAN Air Transport Working Group, which was supported by the ASEAN Senior Transport Officials Meeting, and it was endorsed by ASEAN Transport Ministers. The creation of the ASEAN-SAM was a key component of the road map for the establishment of the ASEAN Economic Community.

Source: ICAO (<http://www.icao.int/Pages/freedomsAir.aspx>).

## V. IMPACTS OF LIBERALIZATION AND DEREGULATION OF TRANSPORT SERVICES ON ECONOMY

### 1. General impacts

According to Anderson and Wincoop (2014: 691–692), trade costs world-wide are estimated to be equivalent to a 170 per cent ad valorem tariff, counting transportation costs (21 per cent), policy barriers including tariffs and non-tariff barriers (44 per cent), and wholesale and retail costs (55 per cent) ( $1.7 = 1.21 * 1.44 * 1.55 - 1$ ). Transport costs constitute a significant portion of trade costs.

The data on average transport time and costs for transport services in table 15 show that there are, on average, significant intermodal differences in transport time and costs in ASEAN.<sup>43</sup> The intermodal difference in transport time and costs should be leveraged to bring in more benefits. For example, an enhanced degree of connectivity between maritime and road services in ASEAN would significantly reduce the costs to transport parts and components currently sent by (costly) air transport. Expanding and improving the efficiency of transport infrastructure, coupled with appropriately liberalizing trade in transport services, would usher in beneficial economic impacts on ASEAN's transport system at large.

**Table 15. Average transport time and costs in ASEAN, by sub-sector, 2008–2009**

|   | Maritime transport | Air transport | Road transport |
|---|--------------------|---------------|----------------|
| Transport cost per distance (\$/km)                     | 0.24               | 45.2          | 1              |
| Transport speed (km/hour)                               | 14.7               | 800           | 38.5           |
| Domestic transshipment time (hours)                     | 3.3                | 2.2           | 0              |
| International transshipment time (hours)                | 15                 | 12.8          | 13.2           |
| Domestic transshipment cost (\$/20-foot container)      | 190                | 690           | 0              |
| International transshipment cost (\$/20-foot container) | 491                | 1 276         | 500            |

Source: Kumagai, Isono, Gokan, Hayakawa, Tsubota and Souknilanh (2015).

Note: Figures are based on surveys undertaken during 2008–2009.

Once transport infrastructure is in place, transport services can be provided for a long period. In 2011, according to the OECD's input-output tables, ASEAN members provided \$201 billion in outputs of infrastructure services in 2011, of which \$74 billion was generated as value added. (These data exclude the Lao People's Democratic Republic and Myanmar, owing to the unavailability of data.) For each ASEAN member country, the size of output and value added in this sector reflects that of the whole economy. Thus, Indonesia is the largest, with \$71 billion in output and \$28 billion in

<sup>43</sup> The information in the table is the ASEAN average; no comparator data are available. Judging from the logistics performance indices (see table 1), some ASEAN member states could further reduce the time and costs associated with transport services.

value added, followed by Thailand and Malaysia (table 16). The industry characteristics dictate the nature of economic benefits: transport services do not bring in large profits but can guarantee stable profits over a number of years. Transport services account for only 4 per cent of total outputs in the ASEAN-wide economy. The value added to output ratio in this services industry (0.37) is lower than the average for all services industries (0.42).

**Table 16. Value added and output of transport services<sup>a</sup> compared with all industries, 2011** (Millions of dollars and ratio)

| Country            | Transport and storage |                |                                | All industries   |                  |                                |
|--------------------|-----------------------|----------------|--------------------------------|------------------|------------------|--------------------------------|
|                    | Value added           | Output         | Ratio of value added to output | Value added      | Output           | Ratio of value added to output |
| Brunei Darussalam  | 345                   | 482            | 0.72                           | 16 697           | 23 709           | 0.70                           |
| Cambodia           | 809                   | 1 720          | 0.47                           | 12 042           | 25 145           | 0.48                           |
| Indonesia          | 28 245                | 71 465         | 0.40                           | 815 181          | 1 606 973        | 0.51                           |
| Malaysia           | 9 031                 | 33 507         | 0.27                           | 280 687          | 829 419          | 0.34                           |
| Philippines        | 8 447                 | 19 111         | 0.44                           | 209 529          | 429 792          | 0.49                           |
| Singapore          | 4 730                 | 10 711         | 0.44                           | 254 808          | 711 535          | 0.36                           |
| Thailand           | 18 789                | 56 160         | 0.33                           | 343 407          | 893 396          | 0.38                           |
| Viet Nam           | 3 680                 | 7 484          | 0.49                           | 126 630          | 332 716          | 0.38                           |
| <b>ASEAN total</b> | <b>74 077</b>         | <b>200 639</b> | <b>0.37</b>                    | <b>2 058 981</b> | <b>4 852 685</b> | <b>0.42</b>                    |

Source: OECD Input-Output table database (<http://www.oecd.org/trade/input-outputtables.htm>).

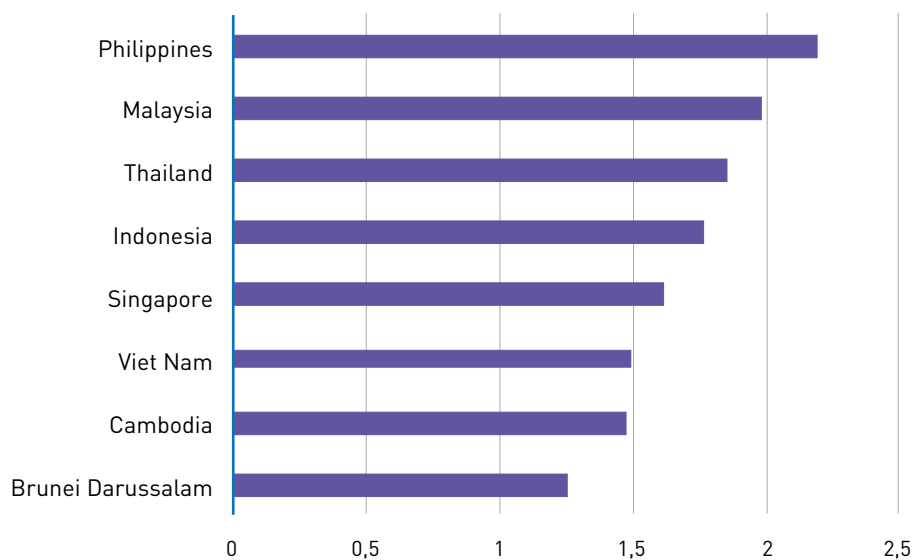
Note: The Lao People's Democratic Republic and Myanmar are not covered in the OECD database.

<sup>a</sup> Refers to transport and storage.

As transport services are required by other industries in the economy, they are related to other industries by a relatively high multiplier effect, as shown in figure 2. For example, the Philippines exhibits a multiplier of more than two. This means that one unit increase of output in transport infrastructure brings in more than two units of output in other industries. The current initiative of the Philippine Government to improve infrastructure, including transport, under the "Build, Build, Build" programme is thus beneficial for the whole economy (AJC 2017).

The availability and affordability of other services (such as wholesale and retail services, which require physical accessibility) will also increase significantly as a result of further trade liberalization for transport services by foreign suppliers. Also, reductions in transport time and costs will be brought about through attracting world-class foreign suppliers of transport services.<sup>44</sup>

<sup>44</sup> Of course, as already noted, competition created through liberalizing trade in transport services might lead to the dominance of foreign suppliers while marginalizing domestic suppliers. This imbalance could put the national security of the host country at a risk. Liberalization of trade in transport services should therefore be undertaken within the acceptable range between ensuring national security and ensuring fair competition.

Figure 2. **Multiplier effects of transport services in ASEAN<sup>a</sup>, 2011**

Source: AJC, based on OECD Input-Output table database.

Note: The Lao People's Democratic Republic and Myanmar are not covered in the OECD database.

<sup>a</sup> Refers to transport and storage.

## 2. Impact of China's One Belt, One Road initiative

The One Belt, One Road Initiative is a recent development with potentially significant implications for ASEAN (UNCTAD 2016). Launched in 2013 by China, this initiative aims to establish new trading routes by further connecting China to parts of Asia, Europe, Africa and countries with economies in transition. The initiative may help reduce transport costs, increase trade flows and open new markets for all countries involved, as well as promote the development of ASEAN member states. Table 17 lists the initiative's projected infrastructure investments in connection with transport services.

If the initiative is fully implemented, the expected benefits are likely to be broad based and to span a number of areas and various countries and regions. Both ASEAN and non-ASEAN transport services should benefit from this initiative.

**Table 17. One Belt, One Road Initiative: projected infrastructure investments by China connected with transport services in ASEAN**

| Country                   | Projected infrastructure investment   |
|---------------------------|---|
| <b>ASEAN members</b>      |   |
| Indonesia                 | Jakarta–Bandung high-speed railway; coal mining and transport infrastructure, Papua and Kalimantan (\$6 billion); road and port infrastructure, Kalimantan (\$1.1 billion)                                |
| Malaysia                  | Malaysia–China Kuantan Industrial Park, including deepwater container port, steel and aluminium plants and palm oil refinery (\$3.4 billion)  |
| Myanmar                   | Bangladesh–China–India–Myanmar transport network, including roads, railways, waterways and airports; Kyaukphyu–Kunming oil and gas pipelines; Myanmar–Yunnan optical cable                                |
| Thailand                  | Kra Isthmus Canal (\$28 billion); Kunming–Bangkok highway; railway between Nong Kahi, Bangkok and proposed China–Lao People’s Democratic Republic railway   |
| Viet Nam                  | Port upgrades, Haiphong; Lang Son–Hanoi highway   |
| <b>Memorandum</b>         |   |
| Bangladesh                | Studies for Bangladesh–China–India–Myanmar corridor; deepwater port, Payra  |
| Georgia                   | Deepwater port, Anaklia (\$5 billion)   |
| India                     | High-speed rail cooperation; industrial parks, Gujarat and Maharashtra  |
| Kyrgyzstan                | China–Kyrgyzstan–Uzbekistan highway; China–Uzbekistan railway (\$2 billion); transport and logistics cooperation  |
| Lithuania                 | Encouraging investment in joint railway and port projects; China Merchants Group letter of intent with port of Klaipeda   |
| Pakistan                  | China–Pakistan economic corridor, roads and railway (\$46 billion); Lahore–Karachi highway; port upgrades, including airport, power plant and roads, Gwadar   |
| Sri Lanka                 | Deepwater port in Hambantota (\$600 million); China Merchants Holdings International investment in Port of Colombo (\$500 million)  |
| Russian Federation        | Kazan–Moscow high-speed railway; Siberian gas pipelines to supply China   |
| Tajikistan                | Central Asia–China gas pipeline; 500 kV power substation reconstruction, Tursunzoda; Dushanbe–Chanak highway upgrades (\$280 million)   |
| Turkmenistan              | Islamic Republic of Iran–Kazakhstan–Turkmenistan road and rail network  |
| Uzbekistan                | Uzbekistan–China gas pipeline   |
| Africa                    | Agreement with African Union to help build railways, roads and airports; coastal road, Nigeria (\$13 billion); Nairobi–Mombasa railway, Kenya (\$3.8 billion); Addis Ababa–Djibouti railway (\$4 billion) |
| Central and South America | Pledged investment to region (\$250 billion); proposed transcontinental railway between coasts of Brazil and Peru (\$10 billion); highways and ports  |
| Europe                    | Upgrade of Port of Piraeus, Greece (\$260 million); Hungary–Serbia high-speed railway (\$3 billion); China–Spain cargo railway (12,875 km)  |

Source: Adapted from UNCTAD (2016), table 1.8.

### 3. Other social impacts

Congestion and environmental impacts might occur as a result of trade liberalization in transport services. Under the concept of “sustainable transport”, ASEAN looks at the environmental aspect of transport services development: the approach to increasing transport sustainability will focus on formulating a regional policy framework to support sustainable transport, which includes low-carbon modes of transport, energy efficiency and user-friendly transport initiatives, and the integration of transport and land use planning. As the transport sector is a main contributor to air pollution and climate emissions, ASEAN-wide policy coordination would be needed to ensure sustainable transport.

The United Nations Environment Programme (UNEP), which is a partner in several leading global transport programmes in areas such as fuel economy, small particulate pollution and infrastructure development through public-private partnerships, has a work programme that is aimed at separating increased mobility from higher emissions.<sup>45</sup> ASEAN member states could jointly work on enabling sustainable transport, possibly through introducing low-carbon physical infrastructure development as well as implementing further liberalization of trade in transport services for collaborating with efficient foreign suppliers of transport services.

Another anticipated social impact would be the emergence of a “straw effect” – larger capital areas benefiting more than smaller rural areas or the areas between two larger city areas, in terms of attracting companies, workers and visitors through the development of transportation services. Enhancing physical connectivity at the national and provincial levels would be indispensable to avoid this negative social impact. Enhancing intermodal connectivity, e.g. connecting air transport and rail transport services smoothly at the sub-national level, would also be needed.

## VI. CONCLUSIONS AND POLICY SUGGESTIONS

### 1. General policy suggestions

ASEAN has been opening its services sector; however, it needs more services liberalization to bring about more positive economic impacts on member countries. Of course, liberalization does not guarantee positive impacts. There is no automatic link. For example, in transport services industries, in certain cases, liberalization will lead to monopoly or quasi-monopoly markets. This counter-intuitive situation requires a remedy. In this respect, competition policy is of importance. Each member state should be cautious about the down-side effects of liberalization, and all policy recommendations should be made with due consideration to them. Having said this, some policy recommendations can be drawn.

First, ASEAN member states should be committed to promoting overall services liberalization (as long as national security is guaranteed), together with surrounding countries, especially China. Only with transport services can countries and regions be connected.

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<sup>45</sup> UNEP's site (<http://www.unep.org/newyork/sustainable-transport>).

Second, transport services liberalization should contribute to reducing costs and barriers in trading businesses and achieving higher economic efficiency directly<sup>46</sup> as well as indirectly, in the form of promoting transport-related supporting services such as maintenance, repair and overhaul.

Third, given that transport services depend highly on geographic connectivity, the AFAS should be expanded to form the services liberalization part of the ongoing negotiations for the Regional Comprehensive Economic Partnership (RCEP). ASEAN-centred expansion and harmonization of free trade agreements will lead to the expansion of transport services networks with ASEAN hubs.

As demonstrated above, services firms in general have an important supporting function for other business sectors. A narrowly defined benefit, most notably the surplus or deficit of the services trade account, might not be the top priority, since even a services trade deficit could attract manufacturing investment, thereby more than offsetting the negative figure of the services trade account. Policy makers of the ASEAN member states should bear this in mind clearly in formulating policy on services trade liberalization under ASEAN-related free trade agreements, most importantly the ongoing RCEP proposal.

## 2. Workable policy suggestions

The conventional input-output analysis does not have a spatial dimension in terms of the economic impacts of reductions in transport costs. However, the geographic simulation model of the Institute of Developing Economies (Kumagai et al. 2013; Kumagai et al. 2015) does have a geographic dimension: according to it, reduced transport costs would generally lead to a multiple-equilibria situation, in which the positive economic impact of customs facilitation together with physical infrastructure development can be spread across multiple countries in ASEAN (not concentrated in just one or two).

When transport costs are reduced because of liberalization and competition, multiple agglomerations emerge as producers and consumers can live in the same place or separate ones – or production and consumption can take place in the same location or separate places in multiple cities or areas. With this spatial impact in view, workable policy suggestions for promoting trade in services should be geared towards a more integrated and decentralized ASEAN Economic Community. To this end, spatial economic approaches could be utilized effectively.

Table 18 shows a categorization of strategic goals for transport services in connection with promoting positive factors conducive to multiple equilibria. Table 19 shows a categorization of ASEAN-wide strategic goals for transport services for mitigating negative factors that hinder multiple equilibria (for strategic goals by transport mode, see annex G).

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<sup>46</sup> As for recent developments in this connection, the Twenty-Third ASEAN Transport Ministers Meeting (held in October 2017 in Singapore) released a joint statement that mentions the signing of agreements to promote and facilitate intra-ASEAN transport services as well as strengthen transportation safety. Among the agreements signed were the Tenth Package of Commitments on Air Transport Services under the AFAS and the Protocol to facilitate its implementation to further liberalize ancillary services for air transport in the region. The Ministers also lauded the conclusion of the ASEAN Framework Agreement on the Facilitation of Cross-Border Transport of Passengers by Road Vehicles and signed it to facilitate seamless cross-border mobility of passengers between and among ASEAN Member States. Further, the Ministers adopted the ASEAN Air Traffic Management Master Plan, which will enhance the safety, efficiency, and capacity of air traffic management in the region, and advance the Seamless ASEAN Sky. All these agreements are expected to further promote ASEAN-wide liberalization of transportation services.

Table 18. Categorization of ASEAN-wide strategic goals for transport services for promoting positive factors conducive to multiple equilibria

| Mode                            | Consideration of global value chains   | Consideration of integrated domestic markets   | Consideration of knowledge spillovers  |
|---------------------------------|--|--|--|
| Maritime transport              | <p><b>MT-1</b> Realize the ASEAN Single Shipping Market through the implementation of the agreed strategies and measures</p> <p><b>MT-2</b> Realize the roll-on roll-off (RO-RO) shipping network operation in ASEAN</p> <p><b>MT-5</b> Formulate necessary policy initiatives and recommendations to develop strategic maritime transport logistics between ASEAN and Dialogue Partners</p> <p><b>MT-6</b> Intensify regional cooperation in improving transport safety</p> <p><b>MT-7</b> Strengthen ASEAN Search and Rescue (SAR) cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region</p>  | <p><b>MT-3</b> Develop an efficient and integrated inland waterway transport (IWT) network</p> <p><b>MT-4</b> Enhance navigation system and security measures in line with international standards</p> | <p>No match</p>  |
| Air transport                   | <p><b>AT-1</b> Work towards a more efficient and competitive air transport market and strengthen engagement with Dialogue Partners, thereby contributing to the economic growth, competitiveness and shared prosperity of ASEAN, while maintaining ASEAN Centrality</p> <p><b>AT-2</b> Advance safe skies in ASEAN</p> <p><b>AT-3</b> Enhance Aviation Security in ASEAN in accordance to ICAO Standards and Recommended Practices (SARPs)</p> <p><b>AT-4</b> Enhance air traffic management efficiency and capacity through a seamless ASEAN sky</p> <p><b>AT-5</b> Strengthen ASEAN Search and Rescue (SAR) cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region</p> | <p>No match</p>  | <p>No match</p>  |
| Rail transport / Road transport | <p><b>LT-1</b> Accomplish the implementation of the Singapore-Kunming Rail Link (SKRL) main lines and detailed designs for the spur lines</p> <p><b>LT-2</b> Completion of ASEAN Highway Network (AHN) project</p> <p><b>LT-4</b> Develop an effective network of ASEAN dry ports in accordance with existing ASEAN initiatives such as the ASEAN Highway Network (AHN) and Singapore-Kunming Rail Link (SKRL)</p>   | <p>No match</p>  | <p><b>LT-3</b> Enhance the use of "Intelligent Transport System" (ITS)</p> <p><b>LT-6</b> Develop a database of ASEAN land transport network</p> <p><b>LT-7</b> Intensify regional cooperation in improving transport safety</p> |

Source: AJC. See annex G for the full list of the goals.



**Table 19. Categorization of ASEAN-wide strategic goals for transport services for mitigating negative factors hindering multiple equilibria**

| Mode               | Consideration of immobile factors | Consideration of land rent and/or commuting | Consideration of congestion   |
|--------------------|-----------------------------------|---|---|
| Maritime transport | No match                          | No match                                    | No match  |
| Air transport      | No match                          | No match                                    | No match  |
| Rail transport     | No match                          | No match                                    | No match  |
| Road transport     | No match                          | No match                                    | <b>LT-5</b> Reduce the road fatalities by 50% in ASEAN Member States by 2020 and work towards further decreasing the forecast level of road fatalities in ASEAN by 2030 |

Source: AJC. See annex G for the full list of the goals.

As specific policy targets under the ASEAN-wide strategic goals focus on establishing global value chains, there is a need to formulate an ASEAN-wide policy that better considers integrated domestic markets, knowledge spillovers (table 18), immobile factors, land rent and/or commuting, and congestion (table 19), all of which should be made as separate policy arrangements.

As hard infrastructure requires a large amount of resources, international organizations, including the ASEAN-Japan Centre, could conceive a project to assess how multiple equilibria could develop throughout ASEAN through the liberalization of trade in transport services combined with other spatial economic factors (listed in tables 18 and 19).

With a view to formulating concrete policy proposals for trade in transport services, the Third Seminar on Promoting Services Trade in ASEAN Member States was held 11–13 September 2017 in Kuala Lumpur, Malaysia.<sup>47</sup> The policy evaluation exercise in the seminar identified the following points (for details of the exercise, see annex H): The “evaluation score” for national-level policy formulation is the highest, followed by that at the neighbouring country-level (sub-regional level). The score for ASEAN-wide policy formulation is the lowest. As a sector-specific observation, the scores for rail transport services tend to be the lowest across the ASEAN member states. Because infrastructural development for rail transport services takes time and costs a lot, policy formulation – which tends to be complex – tends to be put off. All in all, the results indicate that there is a serious need for consolidating ASEAN-wide policy coordination in terms of promoting trade in transport services (for concrete policy suggestions for each ASEAN member state, see annex H).

Multiple equilibria, or multiple prospering cities, would become feasible in ASEAN when further reduction of trade-related transport costs is achieved through concerted liberalization of trade in transport services. And this could be done in connection with the proposed RCEP, as ASEAN connectivity should expand across and beyond the ASEAN region, to cover its dialogue partners (including Japan<sup>48</sup>).

<sup>47</sup> The focus areas of the seminar, co-organized by the ASEAN-Japan Centre and the Malaysia External Trade Development Corporation, were courier and transport services.

<sup>48</sup> At the 10th Dialogue between Le Luong Minh, Secretary-General of ASEAN, and the Federation of Japanese Chambers of Commerce and Industry in ASEAN, the ASEAN Secretary-General referred to the importance of integrating services in ASEAN, including the liberalization of services under the AFAS. In a sense, the AFAS can be the basis for the RCEP.



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## Annex A. Fifty large foreign affiliates engaged in transport services in ASEAN, 2015 (continued)

|    | Name of foreign affiliates                     | Host country             | Estimated sales (\$ million) | Name of parent firms                                 | Home country             |
|----|--|--------------------------|------------------------------|--|--------------------------|
| 1  | Thai Airways International Pcl                 | Thailand                 | 3 365                        | Investors (Non-US)                                   | Supranational            |
| 2  | Evergreen Marine (Singapore) Pte Ltd           | Singapore                | 2 146                        | Evergreen International SA                           | Panama                   |
| 3  | STX OSV Holdings Ltd                           | Singapore                | 2 119                        | Och-Ziff Capital Management Group LLC                | United States            |
| 4  | STX OSV Holdings Ltd                           | Singapore                | 2 069                        | Fincantieri Oil & Gas SpA                            | Italy                    |
| 5  | Clearlake Shipping Pte Ltd                     | Singapore                | 1 856                        | Clearlake Invest Ltd                                 | Switzerland              |
| 6  | BHP Billiton Freight Singapore Pte Ltd         | Singapore                | 1 813                        | BHP Billiton Plc                                     | United Kingdom           |
| 7  | Hutchison Port Holdings Trust                  | Singapore <sup>a</sup>   | 1 544                        | Shareholders   | Singapore <sup>a</sup>   |
| 8  | UPS Asia Group Pte Ltd                         | Singapore                | 1 271                        | United Parcel Service Inc                            | United States            |
| 9  | Yantai Raffles Shipyard Ltd                    | Singapore                | 1 242                        | China International Marine Containers (Group )Co Ltd | China                    |
| 10 | MOL Bulk Carriers Pte Ltd                      | Singapore                | 845                          | Mitsui OSK Lines Ltd                                 | Japan                    |
| 11 | AirAsia Bhd                                    | Malaysia                 | 815                          | Genesis Smaller Cos SICAV                            | Luxembourg               |
| 12 | Airports of Thailand Pcl                       | Thailand                 | 793                          | Silchester International Investors Ltd               | United Kingdom           |
| 13 | SembCorp Logistics Ltd                         | Singapore                | 612                          | Toll Holdings Ltd                                    | Australia                |
| 14 | Labroy Marine Ltd                              | Singapore                | 605                          | Dubai Drydocks World LLC                             | United Arab Emirates     |
| 15 | Sony Supply Chain Solutions (Malaysia) Sdn Bhd | Malaysia                 | 539                          | Sony Corp  | Japan                    |
| 16 | Western Bulk Pte Ltd                           | Singapore                | 517                          | Kistefos Holding AS                                  | Norway                   |
| 17 | Jaya Holdings Ltd                              | Singapore <sup>a</sup>   | 478                          | Cathay Asset Management Co Ltd                       | Singapore <sup>a</sup>   |
| 18 | Tiger Energy Trading Pte Ltd                   | Singapore                | 431                          | PTT Pcl  | Thailand                 |
| 19 | Tasco Bhd (International Air Freight Division) | Malaysia                 | 409                          | Yusen Logistics Co, Ltd                              | Japan                    |
| 20 | Grindrod Shipping Pte Ltd                      | Singapore                | 395                          | Grindrod Ltd   | South Africa             |
| 21 | Sats Airport Services Pte Ltd                  | Singapore                | 380                          | Barcelona Port Investments, SL                       | Spain                    |
| 22 | Schenker Singapore (Pte) Ltd                   | Singapore                | 364                          | Deutsche Bahn AG                                     | Germany                  |
| 23 | APL Logistics Ltd                              | Singapore                | 344                          | Kintetsu World Express Inc                           | Japan                    |
| 24 | Nam Cheong Dockyard Sdn Bhd                    | Malaysia                 | 322                          | Eagle Brand Holdings Ltd                             | China                    |
| 25 | Miclyn Express Offshore Ltd                    | Singapore                | 268                          | Champ III Fund                                       | Australia                |
| 26 | Aboitiz Transport System (ATSC) Corp           | Philippines <sup>a</sup> | 266                          | Negros Navigation Co Inc                             | Philippines <sup>a</sup> |
| 27 | ST Logistics Pte Ltd                           | Singapore                | 262                          | Japan Post Holdings Co Ltd                           | Japan                    |
| 28 | Shell Tankers (Singapore) Pte Ltd              | Singapore                | 251                          | Royal Dutch Shell Plc                                | United Kingdom           |
| 29 | Kuehne + Nagel Pte Ltd                         | Singapore                | 250                          | Kühne + Nagel International AG                       | Switzerland              |

## Annex A. Fifty large foreign affiliates engaged in transport services in ASEAN, 2015 (concluded)

|    | Name of foreign affiliates                           | Host country           | Estimated sales (\$ million) | Name of parent firms                 | Home country           |
|----|--|------------------------|------------------------------|--------------------------------------|------------------------|
| 30 | Skywest Airlines Ltd                                 | Singapore              | 240                          | Virgin Australia Holdings Ltd        | Australia              |
| 31 | Jaya Holdings Ltd                                    | Singapore <sup>a</sup> | 239                          | Nautical Offshore Services           | Singapore <sup>a</sup> |
| 32 | Skywest Airlines Ltd                                 | Singapore              | 238                          | Air New Zealand Ltd                  | New Zealand            |
| 33 | Singapore Technologies Logistics Pte Ltd             | Singapore              | 230                          | Japan Post Holdings Co Ltd           | Japan                  |
| 34 | Pan-United Marine Ltd                                | Singapore              | 229                          | Dubai Drydocks World LLC             | United Arab Emirates   |
| 35 | Schneider Electric IT Logistics Asia Pacific Pte Ltd | Singapore              | 225                          | Schneider Electric SE                | France                 |
| 35 | Yantai Raffles Shipyard Ltd                          | Singapore              | 225                          | Sharp Vision Holdings Ltd            | Hong Kong              |
| 37 | Panalpina World Transport (Singapore) Pte Ltd        | Singapore              | 223                          | Panalpina Welttransport (Holding) AG | Switzerland            |
| 38 | Phoenix Tankers Pte Ltd                              | Singapore              | 222                          | Mitsui OSK Lines Ltd                 | Japan                  |
| 39 | Group Associated (C & L) Sdn Bhd                     | Malaysia               | 221                          | Daikin Industries Ltd                | Japan                  |
| 40 | Siva Bulk Ltd  | Singapore              | 217                          | Siva Industries & Holdings Ltd       | India                  |
| 41 | Tejana Trading & Management Services Sdn Bhd         | Malaysia               | 209                          | Mitsui & Co Ltd                      | Japan                  |
| 42 | Skywest Airlines Ltd                                 | Singapore              | 195                          | Virgin Australia Holdings Ltd        | Australia              |
| 43 | NYK Bulkship (Asia) Pte Ltd                          | Singapore              | 193                          | Nippon Yusen Kabushiki Kaisha        | Japan                  |
| 44 | Schenker Logistics (Malaysia) Sdn Bhd                | Malaysia               | 192                          | Deutsche Bahn AG                     | Germany                |
| 45 | Transmile Group Bhd                                  | Malaysia               | 181                          | Emerging Markets Growth Fund Inc     | United States          |
| 45 | Schenker (Thai) Ltd                                  | Thailand               | 181                          | Deutsche Bahn AG                     | Germany                |
| 47 | United-Seino Transportation (Malaysia) Sdn Bhd       | Malaysia               | 180                          | Seino Transportation Co, Ltd         | Japan                  |
| 47 | Asia Atrantic Airlines                               | Thailand               | 180                          | H.I.S. Co, Ltd                       | Japan                  |
| 49 | PTT Philippines Trading Corp                         | Philippines            | 179                          | PTT Pcl                              | Thailand               |
| 50 | Bollore Logistics Singapore Pte Ltd                  | Singapore              | 177                          | Bollore                              | France                 |

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and fDiMarkets.

Note: These 50 firms are not necessarily the largest. They are provided for illustrative purposes. Sales are estimated in the following manner: First the ratio of sales to size of foreign affiliates (investment value, capital size, employment size, etc.) is calculated for available foreign affiliates in each ASEAN host economy; second, the ratio is applied to the affiliates whose size is available from the sources given; and third, some adjustment was made to eliminate unreasonable estimates by searching information on the affiliates in question. Nevertheless there are likely to be some, sometimes large, errors, and readers should use these data with utmost caution.

<sup>a</sup> Immediate investing country is different.

## Annex B. Fifty large ASEAN affiliates abroad engaged in transport services, 2015 (continued)

|    | Name of ASEAN affiliate abroad   | Host country             | Estimated sales (\$ million) | Name of ASEAN investing company       | ASEAN home country       |
|----|--|--------------------------|------------------------------|---------------------------------------|--------------------------|
| 1  | Virgin Australia Holdings Ltd  | Australia                | 3 716                        | Singapore Airlines Ltd                | Singapore                |
| 2  | Star Cruises Ltd   | Hong Kong                | 2 386                        | CMY Capital (L) Ltd                   | Malaysia                 |
| 3  | Hutchison Port Holdings Trust  | Singapore <sup>a</sup>   | 1 544                        | Shareholders                          | Singapore <sup>a</sup>   |
| 4  | Generale Mobiliare Interesenze Azionarie SpA   | Italy                    | 818                          | Changi Airports International Pte Ltd | Singapore                |
| 5  | Genting Hong Kong Ltd  | Bermuda                  | 691                          | Genting Malaysia Bhd                  | Malaysia                 |
| 6  | Braddell Ltd   | United Kingdom           | 663                          | Comfortdelgro Corporation Ltd         | Singapore                |
| 7  | Jaya Holdings Ltd  | Singapore <sup>a</sup>   | 478                          | Cathay Asset Management Co Ltd        | Singapore <sup>a</sup>   |
| 8  | Schenker Australia Pty Ltd   | Australia                | 467                          | Schenker (Asia Pacific) Pte Ltd       | Singapore                |
| 9  | Istanbul Sabiha Gökçen Uluslararası Havalimani Yatırım Yapım Ve İşletme Anonim Şirketi | Turkey                   | 427                          | Malaysia Airports Holdings Bhd        | Malaysia                 |
| 10 | Expolanka Holdings Plc   | Sri Lanka                | 410                          | SG Holdings Global Pte Ltd            | Singapore                |
| 11 | Blue Dart Express Ltd  | India                    | 363                          | DHL Express (Singapore) Pte. Ltd      | Singapore                |
| 12 | PSA HNN  | Belgium                  | 325                          | PSA Corp Ltd                          | Singapore                |
| 13 | PSA Antwerp  | Belgium                  | 299                          | PSA International Pte Ltd             | Singapore                |
| 14 | Aboitiz Transport System (ATSC) Corp   | Philippines <sup>a</sup> | 266                          | Negros Navigation Co Inc              | Philippines <sup>a</sup> |
| 15 | Comfortdelgro Cabcharge Pty Ltd  | Australia                | 254                          | Comfortdelgro Corporation Ltd         | Singapore                |
| 16 | Jaya Holdings Ltd  | Singapore <sup>a</sup>   | 239                          | Nautical Offshore Services            | Singapore <sup>a</sup>   |
| 17 | Localiza Rent A Car SA   | Brazil                   | 232                          | Templeton Asset Management Ltd        | Singapore                |
| 18 | Malaysian Airline System Bhd   | Australia                | 219                          | Malaysian Airline System Bhd          | Malaysia                 |
| 19 | Sical Logistics Ltd  | India                    | 218                          | Investor Group                        | Singapore                |
| 20 | SPA Antwerp  | Belgium                  | 121                          | Port Authority of Singapore (PSA)     | Singapore                |
| 21 | Cardig Aero Services Tbk, Pt   | Indonesia                | 119                          | Sats Ltd                              | Singapore                |
| 22 | Fred Olsen Production ASA  | Norway                   | 114                          | Yinson Holdings Bhd                   | Malaysia                 |
| 23 | Virgin Australia Airlines Pty Ltd  | Australia                | 108                          | Singapore Airlines                    | Singapore                |
| 24 | Myanmar MJets  | Myanmar                  | 99                           | MJets                                 | Thailand                 |
| 25 | Cargo Community (Shanghai) Co., Ltd  | China                    | 96                           | Singapore Airlines                    | Singapore                |
| 26 | Cityfleet Networks Ltd   | United Kingdom           | 87                           | Comfortdelgro Corporation Ltd         | Singapore                |
| 27 | ABG Shipyard Ltd   | India                    | 86                           | Investor Group                        | Singapore                |
| 28 | APL Logistics Europe BV  | Netherlands              | 81                           | APL Logistics Ltd                     | Singapore                |
| 29 | Keppel Philippines Marine Inc  | Philippines              | 79                           | KS Investments Pte Ltd                | Singapore                |

## Annex B. Fifty large ASEAN affiliates abroad engaged in transport services, 2015 (concluded)

|    | Name of ASEAN affiliate abroad                  | Host country           | Estimated sales (\$ million) | Name of ASEAN investing company | ASEAN home country     |
|----|---|------------------------|------------------------------|---------------------------------|------------------------|
| 30 | Transmile Group Bhd                             | Malaysia               | 78                           | Kuok (Singapore) Ltd            | Singapore              |
| 30 | Aircraft Maintenance Services Australia Pty Ltd | Australia              | 78                           | Singapore Airlines              | Singapore              |
| 32 | PSA Sines - Terminais de Contentores, SA        | Portugal               | 73                           | PSA International Pte Ltd       | Singapore              |
| 32 | PSA Sines - Terminais de Contentores, SA        | Portugal               | 73                           | PSA Europe Pte Ltd              | Singapore              |
| 34 | Sembawang Kimtrans (S) Pte Ltd                  | Singapore <sup>a</sup> | 70                           | Toll Express (Asia) Pte Ltd     | Singapore <sup>a</sup> |
| 35 | --  | Russia                 | 62                           | Neptune Orient Lines (NOL)      | Singapore              |
| 35 | Eng Kong Holdings Ltd                           | Singapore <sup>a</sup> | 62                           | NEK Container Group Pte Ltd     | Singapore <sup>a</sup> |
| 37 | Jaya Holdings Ltd                               | Singapore <sup>a</sup> | 61                           | Sime Darby Eastern Ltd          | Singapore <sup>a</sup> |
| 37 | --  | China                  | 61                           | Regional Container Lines (RCL)  | Thailand               |
| 37 | Jasa Angkasa Semesta Tbk Pt                     | Indonesia              | 61                           | Sats Ltd                        | Singapore              |
| 40 | Keppel Philippines Marine Inc                   | Philippines            | 55                           | KS Investments Pte Ltd          | Singapore              |
| 40 | Skywest Ltd                                     | Australia              | 55                           | CaptiveVision Capital Ltd       | Singapore              |
| 42 | GD Express Carrier Bhd                          | Malaysia               | 52                           | Singapore Post Ltd              | Singapore              |
| 43 | Citra Marga Nusaphala Persada Tbk PT            | Indonesia              | 51                           | Julius Baer & Co Ltd            | Singapore              |
| 44 | Star Alliance Services GmbH                     | Germany                | 48                           | Singapore Airlines Ltd          | Singapore              |
| 44 | Star Alliance Services GmbH                     | Germany                | 48                           | Thai Airways International PCL  | Thailand               |
| 44 | Globelink WW India Pte Ltd                      | India                  | 48                           | CWT Globelink Pte Ltd           | Singapore              |
| 47 | Freight Management Holdings Bhd                 | Malaysia               | 46                           | Singapore Enterprises Pte Ltd   | Singapore              |
| 48 | Shinyei Shipping Co, Ltd                        | Japan                  | 41                           | Singapore Post Ltd              | Singapore              |
| 48 | --  | Viet Nam               | 41                           | Neptune Orient Lines (NOL)      | Singapore              |
| 50 | Nordic Tankers A/S                              | Denmark                | 40                           | Investor Group                  | Singapore              |
| 50 | YCH Logistics (Malaysia) Sdn Bhd                | Malaysia               | 40                           | YCH Group Pte Ltd               | Singapore              |

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and FDIMarkets.

Note: These 51 firms are not necessarily the largest. They are provided for illustrative purposes. Sales are estimated in the following manner: First the ratio of sales to size of ASEAN affiliates (investment value, capital size, employment size, etc.) is calculated for available ASEAN affiliates in each host economy; second, the ratio is applied to the affiliates whose size is available from the sources given; and third, some adjustment was made to eliminate unreasonable estimates by searching information on the affiliates in question. Nevertheless there are likely to be some, sometimes large, errors, and readers should use these data with utmost caution.

<sup>a</sup> Immediate investing country is different.

## ANNEX C.

### SPECIFIC SCHEDULE OF COMMITMENTS FOR “MARITIME TRANSPORTATION” BY ASEAN MEMBERS (9<sup>TH</sup> PACKAGE, SIGNED IN NOVEMBER 2015)

Legend for this annex:

(1) means Mode 1 (cross-border supply of services); (2) means Mode 2 (consumption abroad); (3) means Mode 3 (commercial presence); (4) means Mode 4 (movement of natural persons).

The meaning of the alphabetical classification in the right hand column of each specific commitment table is as follows.

N: none (no restriction)

U: unbound (no mention or no promise of liberalization)

A: limitations on the number of service suppliers whether in the form of numerical quotas, monopolies, exclusive service suppliers or the requirements of an economic needs test;

B: limitations on the total value of service transactions or assets in the form of numerical quotas or the requirement of an economic needs test;

C: limitations on the total number of service operations or on the total quantity of service output expressed in terms of designated numerical units in the form of quotas or the requirement of an economic needs test;<sup>49</sup>

D: limitations on the total number of natural persons that may be employed in a particular service sector or that a service supplier may employ and who are necessary for, and directly related to, the supply of a specific service in the form of numerical quotas or the requirement of an economic needs test;

E: measures which restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service; and

F: limitations on the participation of foreign capital in terms of maximum percentage limit on foreign shareholding or the total value of individual or aggregate foreign investment” (Part III: Specific Commitments, Article XVI: Market Access, subparagraph 2).

Under AFAS, the restriction types A, B and C are actually not used by the ASEAN Member States in the sector “Professional Services”. In addition to these six types of market-access restrictions, the following two restrictions are observed.

G: Government approval requirement; and

H: Tax or fee payment requirement.

<sup>49</sup> Subparagraph 2(c) does not cover measures of a Member which limit inputs for the supply of services.



## Brunei Darussalam

| Sector or Subsector                           | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment  | A-H classification of NT | Additional Commitments   |
|---|---|----------------------------|---|--------------------------|--|
| <b>A. Maritime Transport Services</b>         |   |                            |   |                          |  |
| Passenger transportation (CPC7211)            | (1) None<br>(2) None<br>(3) Foreign equity participation shall not exceed 51%   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None, except as indicated in the horizontal section | (1) N<br>(2) N<br>(3) N  | The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:   |
| Freight transportation (CPC7212)              | (1) None<br>(2) None<br>(3) a) The supply of international maritime transport, excluding vessels for the carriage and transportation of energy goods, foreign equity participation shall not exceed 51%<br>b) The supply of international maritime transport of energy goods: unbound | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None, except as indicated in the horizontal section | (1) N<br>(2) N<br>(3) N  | 1. Pilotage<br>2. Towing and the tug assistance<br>3. Provisioning and watering<br>4. Garbage collecting<br>5. Navigation aids<br>6. Shore-based operational services essential to ship operations including communications, water and electrical supplies<br>7. Emergency repair facilities<br>8. Anchorage, berth, and berthing services |
| Rental of Vessels with Crew (CPC7213)         | (1) None<br>(2) None<br>(3) Foreign equity participation shall not exceed 51%   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |  |
| Maintenance and Repair of Vessels (CPC8868**) | (1) None<br>(2) None<br>(3) Foreign equity participation shall not exceed 51%   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |  |
| Maritime Agency Services CPC7454*             | (1) None<br>(2) None<br>(3) Foreign equity participation shall not exceed 51%.  | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |  |

## Cambodia

| Sector or Subsector   | Limitation on Market Access      | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments   |
|---|----------------------------------|--------------------------|----------------------------------|--------------------------|--|
| International transport (Freight and passengers) (CPC7211 and 7212), excluding cabotage | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | Where not otherwise made available to the international maritime transport suppliers pursuant to Article XXVIII (c) (ii), no measures shall be applied which deny reasonable and non-discriminatory access to the following services:<br>1. Towing and tug assistance;<br>2. Provisioning, fuelling and watering;<br>3. Garbage collecting and ballast waste disposal;<br>4. Emergency repair facilities;<br>5. Lightering and water taxi services;<br>6. Ship agencies;<br>7. Custom brokers;<br>8. Stevedoring and terminal services;<br>9. Surveying and classification services. |
| Rental Vessels with crew (CPC 7213)   | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |  |
| Maintenance and repair of vessels (CPC 8868**)  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |  |
| Pushing and towing Services (CPC 7214)  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |  |
| Supporting services for maritime transport (CPC 745**)                                  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |  |

## Indonesia

| Sector or Subsector   | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment                                   | A-H classification of NT   | Additional Commitments  |
|---|---|----------------------------|--|----------------------------|---|
| <b>A. Maritime Transport Services</b><br>International Passenger Transport Excluding Cabotage (pillar 1) (CPC 7211)<br>International Freight Transport excluded Cabotage (CPC 7212) | (1) None<br>(2) None<br>(3) Joint venture with foreign equity participation up to 60 per cent or owner's representative**.  | (1) N<br>(2) N<br>(3) EF60 | (1) None<br>(2) None<br>(3) As indicated in the Horizontal Section | (1) N<br>(2) N<br>(3) EF60 | The following services at ports are made available to international maritime transport supplier on reasonable and non-discriminatory terms and conditions:<br>1. Pilotage;<br>2. Towing and tug assistance;<br>3. Provisioning and water supply;<br>4. Garbage collection and ballast waste disposal;<br>5. Port captain's services;<br>6. Navigation aids;<br>7. Shore-based operational services essential to ship operation, including communication, water and electrical supply;<br>8. Emergency repair facilities; and<br>9. Anchorage and berthing services. |
| Maintenance and repair of Vessels (CPC 8868)  | (1) None<br>(2) None<br>(3) Joint venture with foreign equity participation up to 51%, for Eastern part of Java and eastern part of Indonesia, with vessels classification 500 DWT above.<br>For other area and capacity, as indicated in the Horizontal Commitment | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) As indicated in the horizontal section | (1) N<br>(2) N<br>(3) EF51 |   |
| Pushing and Towing Services for Maritime Transport (CPC 7214) (Excluding Cabotage)  | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 51%   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) As indicated in the Horizontal Section | (1) N<br>(2) N<br>(3) EF51 |   |
| Vessel Salvage and Refloating Services (CPC 7454)   | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 49%   | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal section | (1) N<br>(2) N<br>(3) EF49 |   |

## Lao People's Democratic Republic

| Sector or Subsector   | Limitation on Market Access      | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|---|----------------------------------|--------------------------|----------------------------------|--------------------------|------------------------|
| <b>A. Maritime Transport Services</b><br>Passenger transportation (CPC 7211)<br>Freight transportation (CPC 7212)<br>Rental of vessels with crew (CPC 7213)<br>Pushing and towing services (CPC 7214)<br>Maintenance and repair of vessels (CPC 8868)<br>Vessels salvage and re-floating services (not applicable in harbor) (CPC 7454) | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

## Malaysia

| Sector or Subsector   | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment | A-H classification of NT | Additional Commitments  |
|---|--|----------------------------|----------------------------------|--------------------------|---|
| <b>A. Maritime Transport Services</b><br>International maritime transportation services, excludes cabotage (CPC 7211) | (1) None<br>(2) None<br>(3) Only through a representative office, regional office or locally-incorporated joint-venture corporation with Malaysian individuals or Malaysian- controlled corporations or both and aggregate foreign shareholding in the joint-venture corporation shall not exceed 51 per cent. Malaysian registered vessels<br>To register a vessel in Malaysia, the following conditions must be met:<br>a) Owner of that vessel must be a Malaysian citizen or corporation incorporated in Malaysia;<br>b) Majority shareholding to be held by Malaysians;<br>c) Majority of the board of directors to be Malaysians; and<br>d) Principal place of business to be in Malaysia. | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:<br>1) Pilotage<br>2) Towing and tug assistance<br>3) Provisioning, fuelling and watering<br>4) Garbage collection and ballast waste disposal<br>5) Port Captain's services<br>6) Navigation aids<br>7) Shore-based operational services essential to ship operations, including communications, water and electrical supplies<br>8) Emergency repair facilities<br>9) Anchorage, berth and berthing services |

|   |  |                            |   |                         |   |
|---|--|----------------------------|---|-------------------------|---|
| International maritime transportation services, excludes cabotage (CPC 7212)  | (1) None<br>(2) None<br>(3) Only through a representative office, regional office or locally-incorporated joint-venture corporation with Malaysian individuals or Malaysian- controlled corporations or both and aggregate foreign shareholding in the joint-venture corporation shall not exceed 70 per cent. Malaysian registered vessels<br>To register a vessel in Malaysia, the following conditions must be met:<br>a) Owner of that vessel must be a Malaysian citizen or corporation incorporated in Malaysia;<br>b) Majority shareholding to be held by Malaysians;<br>c) Majority of the board of directors to be Malaysians; and<br>d) Principal place of business to be in Malaysia. | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None        | (1) N<br>(2) N<br>(3) N | The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:<br>1) Pilotage<br>2) Towing and tug assistance<br>3) Provisioning, fuelling and watering<br>4) Garbage collection and ballast waste disposal<br>5) Port Captain's services<br>6) Navigation aids<br>7) Shore-based operational services essential to ship operations, including communications, water and electrical supplies<br>8) Emergency repair facilities<br>9) Anchorage, berth and berthing services |
| Rental of cargo vessels with crew for international shipping (CPC 7213)<br>Rental and leasing services of all types of self-propelled seagoing vessels with operator, such as passenger vessels (except pleasure bath), tankers, bulk dry cargo vessels, cargo and freight vessels.)<br>* These are limited to services of hiring of a vessel with crew under charter party terms for voyage or period of time. | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None        | (1) N<br>(2) N<br>(3) N |   |
| Maintenance and repair vessels (CPC 8868**) [these are limited to businesses related to maintenance and repair of ocean going vessels at anchor or alongside and maintenance and repair of local vessels]   | (1) Unbound*<br>(2) None<br>(3) Only through a representative office, regional office or locally incorporated joint venture corporation with Malaysian individuals or Malaysian controlled corporations or both. Foreign equity allowable up to maximum of 51 per cent.  | (1) U<br>(2) N<br>(3) EF51 | (1) Unbound*<br>(2) None<br>(3) Unbound | (1) U<br>(2) N<br>(3) U |   |

## Myanmar

| Sector or Sub-sector   | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment  | A-H classification of NT | Additional Commitments            |
|--|---|----------------------------|-----------------------------------|--------------------------|-----------------------------------|
| <b>A. Maritime Transport Services</b><br>International passenger transport (excluding cabotage) (CPC 7211) | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |                                   |
| International freight transport (excluding cabotage) (CPC 7212)  | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None. | (1) N<br>(2) N<br>(3) N  |                                   |
| Rental of cargo vessels with crew for international shipping (CPC 7213/72130)                              | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  | Subject to Horizontal Commitments |
| Maintenance and repair of Vessels (CPC 8868**)   | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  | Subject to Horizontal Commitments |
| Pushing and towing services (CPC 7214)   | (1) None<br>(2) None<br>(3) Joint Venture with a Myanmar Citizen or enterprise up to 70% equity is permitted. | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  | Subject to Horizontal Commitments |

## Philippines

| Sector or Subsector   | Limitation on Market Access   | A-H classification of MA     | Limitation on National Treatment   | A-H classification of NT | Additional Commitments |
|---|---|------------------------------|--|--------------------------|------------------------|
| International transport passenger, except cabotage transport, and government own cargoes. | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N      | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |                        |
| International transport (freight),except cabotage transport and government own cargoes    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N      | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |                        |
| Maritime cargo freight services by foreign registered shipping companies (CPC 7212**)     | (1) None<br>(2) None<br>(3) None. Except that up to 70% foreign equity participation is allowed   | (1) N<br>(2) N<br>(3) N,EF70 | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |                        |
| Leasing/Rental of vessel without crew   | (1) None<br>(2) None<br>(3) Bareboat charter or lease contract subject to approval by the Maritime Industry Authority (MARINA)  | (1) N<br>(2) N<br>(3) G      | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |                        |
| Maintenance of vessels  | (1) Unbound due to lack of technical feasibility<br>(2) Any repairs, conversion or drydocking of Philippine-owned or registered vessels are required to be done at domestic repair yards registered with the Maritime Industry Authority (MARINA)<br>(3) None   | (1) U<br>(2) G<br>(3) N      | (1) Unbound due to lack of technical feasibility<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  |                        |
| Repair of vessels   | (1) Unbound due to lack of technical feasibility<br>(2) Any repairs, conversion or drydocking of Philippine-owned or registered vessels are required to be done at domestic repair yards registered with the Maritime Industry Authority (MARINA)<br>(3) None except that up to 70% foreign equity participation is allowed | (1) U<br>(2) G<br>(3) EF70   | (1) Unbound due to lack of technical feasibility<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  |                        |
| Pushing and towing services (CPC 72140)   | (1) Unbound*<br>(2) None<br>(3) Up to 40% foreign equity participation is allowed.  | (1) U<br>(2) N<br>(3) EF40   | (1) Unbound*<br>(2) None<br>(3) None                                     | (1) U<br>(2) N<br>(3) N  |                        |

|  |   |                            |   |                         |  |
|--|---|----------------------------|---|-------------------------|--|
| Supporting services for maritime transport (CPC 745**) Container yard and depot services | (1) Unbound*<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N    | (1) Unbound*<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N |  |
| Port and waterway operation services (CPC 74510)   | (1) Unbound*<br>(2) None<br>(3) Up to 40% foreign equity participation is allowed.      | (1) U<br>(2) N<br>(3) EF40 | (1) Unbound*<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N |  |
| Maritime agency services (CPC 7454)  | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N |  |
| Other supporting services for water transport (CPC 74590)                                | (1) Unbound*<br>(2) None<br>(3) Up to 40% foreign equity participation is allowed.      | (1) U<br>(2) N<br>(3) EF40 | (1) Unbound*<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N |  |
| Classification societies   | (1) None<br>(2) None<br>(3) Unbound, except up to 40 per cent foreign equity is allowed | (1) N<br>(2) N<br>(3) U    | (1) None<br>(2) None<br>(3) Unbound   | (1) N<br>(2) N<br>(3) U |  |
| Vessel and salvage refloating services provided in oceans and seas (CPC 745**) )         | (1) None<br>(2) None<br>(3) Up to 70% foreign equity participation is allowed           | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) Subject to issuance of permits and supervision by the Philippine Coast Guard for the salvage of vessels and marine salvage operation, respectively, within the maritime jurisdiction of the Philippines | (1) N<br>(2) N<br>(3) G |  |



## Singapore

| Sector or Subsector  | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment   | A-H classification of NT | Additional Commitments   |
|--|--|----------------------------|--|--------------------------|--|
| International Maritime Passenger and Freight Transport excluding cabotage transport (CPC 7211 ** and CPC 7212 **)          | (1) None<br>(2) None<br>(3) None, except on the registration of Singapore flag ships as specified in the Merchant Shipping Act | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None, except on the registration of Singapore flag ships as specified in the Merchant Shipping Act | (1) N<br>(2) N<br>(3) N  | In accordance with the decisions made at the WTO Negotiating Group on Maritime Transport Services, where the following services are not otherwise covered by the obligation enshrined in (ii) of sub-paragraph (c) of Article XXVIII of the General Agreement on Trade in Services in Annex 1B to the WTO Agreement, they are made to international maritime transport operators on reasonable and non discriminatory terms and conditions: <ul style="list-style-type: none"> <li>- pilotage;</li> <li>- towing and tug assistance;</li> <li>- provisioning, fuelling and watering;</li> <li>- garbage collection and ballast waste disposal;</li> <li>- port captain's services;</li> <li>- navigation aids;</li> <li>- emergency repair facilities;</li> <li>- anchorage; and</li> <li>- other shore-based operational services essential to ship operations, including communications, water and electrical supplies.</li> </ul> |
| Rental of vessels with crew (CPC 7213)   | (1) None<br>(2) None<br>(3) Foreign equity allowable up to a maximum of 70%  | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |  |
| Maintenance and repair of vessels (CPC 8868 **)  | (1) Unbound*<br>(2) None<br>(3) Foreign equity allowable up to a maximum of 70%  | (1) U<br>(2) N<br>(3) EF70 | (1) Unbound*<br>(2) None<br>(3) None   | (1) U<br>(2) N<br>(3) N  |  |
| International Towing   | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |  |
| Maritime Auxiliary Service: Classification societies <sup>5</sup> , except for statutory services for Singapore flag ships | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |  |
| Vessels salvage and re-floating services (not applicable in harbour) (CPC 7454)  | (1) None<br>(2) None<br>(3) Foreign equity allowable up to a maximum of 70%  | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N  |  |

## Thailand

| Sector or Subsector  | Limitation on Market Access   | A-H classification of MA | Limitation on National Treatment                  | A-H classification of NT    | Additional Commitments   |
|--|---|--------------------------|---|-----------------------------|--|
| (a) Passenger transportation (CPC 7211 excluding cabotage transport: as defined below - 3.1)   | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section<br>a) Unbound for establishment of Juridical Person for the purpose of operating a fleet under the national flag of Thailand<br>b) Other forms of commercial presence for the supply of international maritime transport services except branch offices: As indicated in the horizontal section | (1) N<br>(2) N<br>(3) U  | (1) None<br>(2) None<br>(3) a) Unbound<br>b) None | (1) N<br>(2) N<br>(3) U & N | The following services at the port provided by the government enterprises are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:<br>1. Pilotage<br>2. Towing and tug assistance<br>3. Provisioning, fuelling and watering<br>4. Garbage collecting and ballast waste disposal<br>5. Port captain's service<br>6. Navigation aids<br>7. Shore-based operational services essential to ship operations, water and electrical supplies<br>8. Emergency repair facilities<br>9. Anchorage, berth and berthing services<br>10. Inland transports services (internal waterways transport services, rail transport services and road transport services) |
| (a) Passenger transportation (excluding cabotage transport: as defined below - 3.1): International sea cruises (cruise carrier with more than 200,000 DWT capacity) (CPC Version 1.1: part of 65119)<br>This subclass does not include transportation of passengers on coastal route between domestic port | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section   | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None                  | (1) N<br>(2) N<br>(3) N     |  |

|   |  |                                  |   |                                  |  |
|---|--|----------------------------------|---|----------------------------------|--|
| <p>(b) Freight transportation (CPC 7212 excluding cabotage transport: as defined below - 3.1)</p>   | <p>(1) None<br/>(2) None<br/>(3) As indicated in 3.3 of the horizontal section<br/>a) Unbound for establishment of Juridical Person for the purpose of operating a fleet under the national flag of Thailand<br/>b) Other forms of commercial presence for the supply of international maritime transport services (as defined below- 3.2) except branch offices: As indicated in the horizontal section</p> | <p>(1) N<br/>(2) N<br/>(3) U</p> | <p>(1) None<br/>(2) None<br/>(3) a) Unbound<br/>b) None other than:<br/>- Shareholders of Thai maritime transport companies with ownership of Thai flag vessels may be granted exemption or reduced rates of income tax leviable on dividends paid by such companies<br/>- Exporters or importers of goods shipped from or to Thailand by Thai flag vessel may be entitled to special deduction of not more than 50 per cent of the freight values or other expenses paid in the ordinary courses of carriage of such goods from their net income for the purposes of calculation of income tax</p> | <p>(1) N<br/>(2) N<br/>(3) U</p> |  |
| <p>(b) Freight transportation (excluding cabotage transport: as defined below - 3.1); Transoceanic water transport services of refrigerated freight by refrigerator vessels (CPC Version 1.1: part of 65121)<br/>This subclass does not include coastal and transoceanic water transportation of chemical, liquid gas, any form of gases or any form of liquids cf. 65122</p> | <p>(1) None<br/>(2) None<br/>(3) As indicated in 3.1 of the horizontal section</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> | <p>(1) None<br/>(2) None<br/>(3) None</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> |  |
| <p>(c) Rental of non-Thai flag vessels with crew (CPC 7213)</p>   | <p>(1) None<br/>(2) None<br/>(3) As indicated in 3.1 of the horizontal section</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> | <p>(1) None<br/>(2) None<br/>(3) None</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> |  |
| <p>(d) Maintenance and repair of vessels exceeding 100,000 DWT (Part of CPC 8868)</p>   | <p>(1) None<br/>(2) None<br/>(3) As indicated in 3.1 of the horizontal section</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> | <p>(1) None<br/>(2) None<br/>(3) None</p>   | <p>(1) N<br/>(2) N<br/>(3) N</p> |  |

|   |  |                         |  |                             |  |
|---|--|-------------------------|--|-----------------------------|--|
| (e) International towing (CPC 7214)   | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section<br>a) Unbound for establishment of juridical person for the purpose of operating a fleet under the national flag of Thailand<br>b) Other forms of commercial presence for the supply of international towing service (as defined below - 3.2) except branch office: As indicated in the horizontal section | (1) N<br>(2) N<br>(3) U | (1) None<br>(2) None<br>(3)<br>a) Unbound<br>b) None | (1) N<br>(2) N<br>(3) U & N |  |
| Towing and pushing services on transoceanic waters (CPC Version 1.1: part of 65140) (excluding cabotage transport: as defined below - 3.1)  | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section  | (1) N<br>(2) N<br>(3) N | (1) None<br>(2) None<br>(3) None                     | (1) N<br>(2) N<br>(3) N     |  |
| (f) Supporting Services for maritime transport<br>- Shore reception facilities (collection of waste/oily water from ships)<br>- Port captain's services attached to specific foreign vessels<br>- Classification Societies<br>- Vessels salvage and refloating services – not applicable in harbour   | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section  | (1) N<br>(2) N<br>(3) N | (1) None<br>(2) None<br>(3) None                     | (1) N<br>(2) N<br>(3) N     |  |
| - Vessels salvage and refloating services (CPC 1.1 67630)<br>This subclass does not include:<br>- towing services supplied to distressed vessels:<br>- on coastal waters or on open sea, cf. 65140<br>- on inland waters, cf. 65240<br>- lifeboat services, marine fireboat services and other marine search and rescue services:<br>- police services, cf. 91260<br>- marine fireboat services, cf. 91260<br>- other public order and safety affairs related services, cf. 91290 | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section  | (1) N<br>(2) N<br>(3) N | (1) None<br>(2) None<br>(3) None                     | (1) N<br>(2) N<br>(3) N     |  |

|   |  |                         |  |                         |  |
|---|--|-------------------------|--|-------------------------|--|
| Custom clearance services<br>(as indicated below-3.5) | (1) Unbound<br>(2) None<br>(3) As indicated in<br>3.3 of the horizontal<br>section<br>A customs broker must<br>be natural person of<br>Thai nationality and<br>must obtain a license<br>from the Customs<br>Department | (1) U<br>(2) N<br>(3) D | (1) Unbound<br>(2) None<br>(3) A customs broker<br>must be natural<br>person of Thai<br>nationality and must<br>obtain a license<br>from the Customs<br>Department | (1) U<br>(2) N<br>(3) D |  |
|---|--|-------------------------|--|-------------------------|--|

## Viet Nam

| Sector or Subsector  | Limitation on Market Access  |
|--|--|
| <b>A. Maritime Transport Services</b><br>Passenger<br>Transportation less<br>Cabotage (CPC 7211) | (1) None<br>(2) None<br>(3) a) Establishment of registered companies for the purpose of operating a fleet under the national flag of Viet Nam: foreign service suppliers are permitted to establish joint- ventures with foreign capital contribution not exceeding 49% of total legal capital. Foreign seafarers may be permitted to work in ships under the national flag of Viet Nam (or registered in Viet Nam) owned by joint- ventures in Viet Nam but not exceeding 1/3 of total employees of the ships. The Master or first chief executive must be Vietnamese citizen.<br>b) Other forms of commercial presence for the supply of international maritime transport services <sup>24</sup> :<br>Since 11 January 2007, foreign shipping companies can establish joint ventures with 51% foreign ownership.<br>Since 11 January 2012, foreign shipping companies can establish 100% foreign-invested enterprises.<br>Since 11 January 2007, foreign- invested enterprises are only permitted to carry out activities from (1) to (5) as indicated below:<br>1. Marketing and sales maritime transport services through direct contact with customers, from quotation to invoicing;<br>2. Acting on behalf of the cargo owners;<br>3. Provision of required business information;<br>4. Preparation of documentation concerning transport documents including customs documents, or other documents related to the origin and character of the goods transported; and<br>5. Provision of maritime transport services including cabotage services by Vietnamese flagged vessels for the supply of integrated transport services. Since 11 January 2012, activities from (6) to (7) shall be allowed.<br>6. Acting on behalf of the company, organising the call of the ship or taking over cargoes when required;<br>7. Negotiate and sign contracts for road, rail, inland waterways transportation related to cargoes transported by the company. The number of joint ventures by foreign shipping companies will be limited to 5 companies since 11 January 2007. Three additional companies will be allowed every two years thereafter. Since 11 January 2012, no limitation on the number of joint ventures. |
| Freight transportation<br>less cabotage (CPC<br>7212)  | (1) None<br>(2) None<br>(3) a) Establishment of registered companies for the purpose of operating a fleet under the national flag of Viet Nam: foreign service suppliers are permitted to establish joint- ventures with foreign capital contribution not exceeding 70% of total legal capital. Foreign seafarers may be permitted to work in ships under the national flag of Viet Nam (or registered in Viet Nam) owned by joint- ventures in Viet Nam but not exceeding 1/3 of total employees of the ships. The Master or first chief executive must be Vietnamese citizen.<br>b) Other forms of commercial presence for the supply of international maritime transport services <sup>26</sup> :<br>Since 11 January 2007, foreign shipping companies can establish joint ventures with 51% foreign ownership.<br>Since 11 January 2012, foreign shipping companies can establish 100% foreign-invested enterprises.<br>Since 11 January 2007, foreign- invested enterprises are only permitted to carry out activities from (1) to (5) as indicated below:<br>1. Marketing and sales maritime transport services through direct contact with customers, from quotation to invoicing;<br>2. Acting on behalf of the cargo owners;<br>3. Provision of required business information;<br>4. Preparation of documentation concerning transport documents including customs documents, or other documents related to the origin and character of the goods transported; and<br>5. Provision of maritime transport services including cabotage services by Vietnamese flagged vessels for the supply of integrated transport services. Since 11 January 2012, activities from (6) to (7) shall be allowed.<br>6. Acting on behalf of the company, organizing the call of the ship or taking over cargoes when required;<br>7. Negotiate and sign contracts for road, rail, inland waterways transportation related to cargoes transported by the company. The number of joint ventures by foreign shipping companies will be limited to 5 companies since 11 January 2007. Three additional companies will be allowed every two years thereafter. Since 11 January 2012, no limitation on the number of joint ventures. |
| Rental of vessels with<br>crew (CPC 7213)  | (1) None<br>(2) None<br>(3) None, except joint venture with the foreign capital contribution not exceeding 70% shall be permitted  |
| Maintenance and repair<br>of vessels (CPC 8868*)   | (1) None<br>(2) None<br>(3) Commercial presence may be in the form of joint venture. Maximum share of foreign equity in the joint venture company allowable up to 70%  |

| A-H classification of MA     | Limitation on National Treatment  | A-H classification of NT | Additional Commitments  |
|------------------------------|---|--------------------------|---|
| (1) N<br>(2) N<br>(3) EF49   | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  | The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:<br>1. Pilotage;<br>2. Towing and tug assistance;<br>3. Provisioning, fuelling and watering<br>4. Garbage collecting and ballast waste disposal;<br>5. Port Captain's/Harbour Master's services;<br>6. Navigation aids;<br>7. Shore-based operational services essential to ship operations, including communications, water and electrical supplies;<br>8. Emergency repair facilities;<br>9. Anchorage, berth and berthing services;<br>10. Access to maritime agency services.23 |
| (1) N<br>(2) N<br>(3) EF70   | (1) None<br>(2) None<br>(3)   | (1) N<br>(2) N<br>(3)    | The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions:<br>1. Pilotage;<br>2. Towing and tug assistance;<br>3. Provisioning, fuelling and watering<br>4. Garbage collecting and ballast waste disposal;<br>5. Port Captain's/Harbour Master's services;<br>6. Navigation aids;<br>7. Shore-based operational services essential to ship operations, including communications, water and electrical supplies;<br>8. Emergency repair facilities;<br>9. Anchorage, berth and berthing services;<br>10. Access to maritime agency services.25 |
| (1) N<br>(2) N<br>(3) N,EF70 | (1) None<br>(2) None<br>(3) None, except as indicated in the market access column | (1) N<br>(2) N<br>(3) N  |   |
| (1) N<br>(2) N<br>(3) EF70   | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |   |

## ANNEX D.

### SPECIFIC SCHEDULE OF COMMITMENTS FOR “AIR TRANSPORTATION” BY ASEAN MEMBERS (9<sup>TH</sup> PACKAGE, SIGNED IN NOVEMBER 2015)

(Note: Commitments are not listed as part of the main AFAS commitment tables; nor have they come into force. This is because the 9<sup>th</sup> package for Air Transportation has been negotiated separately from the other sectors in a rather confidential manner. Therefore this paper does not reproduce the specific commitment tables as an annex.)

## ANNEX E.

### SPECIFIC SCHEDULE OF COMMITMENTS FOR “RAIL TRANSPORTATION” BY ASEAN MEMBERS (9<sup>TH</sup> PACKAGE, SIGNED IN NOVEMBER 2015)

#### Brunei Darussalam

| Sector or Subsector   | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|---|--|----------------------------|----------------------------------|--------------------------|------------------------|
| <b>E. Rail Transport Services</b><br>Passenger transportation<br>(CPC 7111) | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 51% | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Freight transportation<br>(CPC 7112)  | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 51% | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Pushing and towing services<br>(CPC 7113)                                   | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 51% | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Maintenance and repair of rail transport equipment<br>(CPC 8868)            | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 51% | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |



**Cambodia**

| Sector or Subsector   | Limitation on Market Access      | A-H classification of MA | Limitation on National Treatment | A-H classification of NT         | Additional Commitments |
|---|----------------------------------|--------------------------|----------------------------------|----------------------------------|------------------------|
| Passenger Transportation (CPC 7111);<br>Exclude cabotage        | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) None<br>(2) None<br>(3) None |                        |
| Freight Transportation (CPC 7112);<br>Exclude cabotage          | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) None<br>(2) None<br>(3) None |                        |
| Pushing and towing Services (CPC 7113)                          | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) None<br>(2) None<br>(3) None |                        |
| Maintenance and repair of Rail transport equipment (CPC 8868**) | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) None<br>(2) None<br>(3) None |                        |
| Supporting Services for rail transport services                 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) None<br>(2) None<br>(3) None |                        |

**Indonesia**

| Sector or Subsector   | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment                                       | A-H classification of NT | Additional Commitments |
|---|---|----------------------------|--|--------------------------|------------------------|
| <b>E. Rail Transport Services</b><br>Passenger Transportation (CPC7111)                                 | (1) None<br>(2) None<br>(3) a) Commercial presence is only possible by establishing joint venture company<br>b) Maximum share of foreign equity participation (FEP) in the joint venture railway company could be 49% | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section     | (1) N<br>(2) N<br>(3) E  |                        |
| Passenger Transportation (CPC7111) limited to Interurban Passenger Transportation (CPC 71111)           | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 51%   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) Shall not operate on the existing railways | (1) N<br>(2) N<br>(3) A  |                        |
| Freight Transportation (CPC 7112)   | (1) None<br>(2) None<br>(3) a) Commercial presence is only possible by establishing joint venture company<br>b) Maximum share of foreign equity participation (FEP) in the joint venture railway company could be 49% | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section     | (1) N<br>(2) N<br>(3) E  |                        |
| Freight Transportation (CPC 7112) limited to Transportation of Frozen or Refrigerated Goods (CPC 71121) | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 70%   | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) As indicated in the Horizontal Section     | (1) N<br>(2) N<br>(3) E  |                        |

|   |  |                            |  |                         |  |
|---|--|----------------------------|--|-------------------------|--|
| Pushing and Towing Services (CPC 7113)<br>Supporting Services for Rail Transport Services (CPC 743) | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 51%  | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section | (1) N<br>(2) N<br>(3) E |  |
| Maintenance and repair of rail transport equipment (CPC 8868)                                       | (1) None<br>(2) None<br>(3) a. Commercial presence is only possible by establishing joint venture company<br>b. Maximum share of foreign equity participation (FEP) in the joint venture company is 49%<br>c. Maximum share of foreign equity participation (FEP) is allowed up to 51% if the joint venture is established with PT. INKA (state owned company) | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) As indicated in the horizontal section | (1) N<br>(2) N<br>(3) E |  |

### Lao People's Democratic Republic

| Sector or Subsector   | Limitation on Market Access      | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|---|----------------------------------|--------------------------|----------------------------------|--------------------------|------------------------|
| <b>E. Rail Transport Services</b><br>Passenger transportation (CPC 7111)<br>Freight transportation (CPC 7112)<br>Pushing and towing services (CPC 7113)<br>Maintenance and repair of rail transport equipment (CPC 8868**)<br>Supporting services for rail transport services (CPC 743) | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

### Malaysia

| Sector or Subsector  | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|--|---|----------------------------|----------------------------------|--------------------------|------------------------|
| <b>E. Rail Transport Services</b><br>Maintenance and repair of rail transport equipment (CPC 8868**) | (1) None<br>(2) None<br>(3) Aggregate foreign equity shall not exceed 51 per cent | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Passenger transportation (CPC 7111)  | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 70%    | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

|                                       |   |                            |                                  |                         |  |
|---------------------------------------|---|----------------------------|----------------------------------|-------------------------|--|
| Freight transportation (CPC 7112)     | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 70%. | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N |  |
| Pushing or towing services (CPC 7113) | (1) None<br>(2) None<br>(3) Foreign equity participation should not exceed 70%. | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N |  |

### Philippines

| Sector or Subsector  | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment      | A-H classification of NT | Additional Commitments |
|--|--|----------------------------|---------------------------------------|--------------------------|------------------------|
| a. Passenger transportation (CPC 7111)<br>b. Freight transportation (CPC 7112)<br>e. Supporting services (CPC 743)<br>Railroad, street railway, traction railway | (1) Unbound*<br>(2) None<br>(3) Up to 40% foreign equity participation is allowed. | (1) U<br>(2) N<br>(3) EF40 | (1) Unbound*<br>(2) None<br>(3) None. | (1) U<br>(2) N<br>(3) N  |                        |
| d. Maintenance and repair of rail transport equipment (CPC 8868**)   | (1) Unbound*<br>(2) None<br>(3) None   | (1) U<br>(2) N<br>(3) N    | (1) Unbound*<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N  |                        |

### Singapore

| Sector or Subsector   | Limitation on Market Access             | A-H classification of MA | Limitation on National Treatment        | A-H classification of NT | Additional Commitments |
|---|---|--------------------------|---|--------------------------|------------------------|
| Pushing and towing services (CPC 7113)  | (1) Unbound*<br>(2) None<br>(3) Unbound | (1) U<br>(2) N<br>(3) U  | (1) Unbound*<br>(2) None<br>(3) Unbound | (1) U<br>(2) N<br>(3) U  |                        |
| Maintenance and repair of urban and suburban rail transport equipment (CPC 8868 **) | (1) Unbound*<br>(2) None<br>(3) None    | (1) U<br>(2) N<br>(3) N  | (1) Unbound*<br>(2) None<br>(3) None    | (1) U<br>(2) N<br>(3) N  |                        |

### Thailand

| Sector or Subsector  | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|--|---|----------------------------|----------------------------------|--------------------------|------------------------|
| (d) Maintenance and repair of rail transport equipment on a fee or contract basis (CPC 8868) | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

|  |   |                            |                                  |                         |  |
|--|---|----------------------------|----------------------------------|-------------------------|--|
| (e) Supporting services for rail transport services:<br>- Security services at railway station | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N |  |
| - Railway car cleaning services under the service contract of railway authority                | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N |  |

### Viet Nam

| Sector or Subsector  | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment  | A-H classification of NT | Additional Commitments |
|--|--|----------------------------|---|--------------------------|------------------------|
| <b>E. Rail Transport Services</b><br>Passenger transportation (CPC 7111) | (1) None<br>(2) None<br>(3) Unbound except: Foreign suppliers are permitted to provide freight transport services through the establishment of joint ventures with Vietnamese partners in which the capital contribution of foreign side not exceeding 51% of the total legal capital. | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |                        |
| Freight transportation (CPC 7112)  | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |                        |
| Pushing and towing services (CPC 7113)                                   | (1) None.<br>(2) None<br>(3) None, except that joint ventures with foreign capital contribution not exceeding 51% can be established.  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None, except as indicated in the market access column | (1) N<br>(2) N<br>(3) N  |                        |
| Maintenance and repair of rail transport equipment (CPC 8868)            | (1) None<br>(2) None<br>(3) Foreign service suppliers are permitted to provide services only through the establishment of joint ventures with Vietnamese partners in which the capital contribution of foreign side not exceeding 51% of total legal capital.                          | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None  | (1) N<br>(2) N<br>(3) N  |                        |
| Supporting services for rail transport services (CPC 743)                | (1) None.<br>(2) None<br>(3) None, except that joint ventures with foreign capital contribution not exceeding 51% can be established.  | (1) N<br>(2) N<br>(3) N    | (1) None<br>(2) None<br>(3) None, except as indicated in the market access column | (1) N<br>(2) N<br>(3) N  |                        |

## ANNEX F.

### SPECIFIC SCHEDULE OF COMMITMENTS FOR “ROAD TRANSPORTATION” BY ASEAN MEMBERS (9<sup>TH</sup> PACKAGE, SIGNED IN NOVEMBER 2015)

#### Cambodia

| Sector or Subsector  | Limitation on Market Access | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|--|-----------------------------|--------------------------|----------------------------------|--------------------------|------------------------|
| Passenger transportation (CPC 7121 + 7122)                         | (1) None                    | (1) N                    | (1) None                         | (1) N                    |                        |
| Freight transportation (CPC 7123)                                  | (2) None                    | (2) N                    | (2) None                         | (2) N                    |                        |
| Rental of commercial vehicles with operator (CPC 7124)             | (3) None                    | (3) N                    | (3) None                         | (3) N                    |                        |
| Maintenance and repair of road transport equipment (CPC 6112+8867) |                             |                          |                                  |                          |                        |
| Supporting services for road transport services (CPC 744)          |                             |                          |                                  |                          |                        |

#### Indonesia

| Sector or Subsector  | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment   | A-H classification of NT | Additional Commitments |
|--|--|----------------------------|--|--------------------------|------------------------|
| Passenger transportation by man-or animal-drawn vehicles (CPC 71224) | (1) None<br>(2) None<br>(3) Maximum share of foreign equity participation (FEP) in the joint venture company is 70 % | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) As indicated in the Horizontal Section<br>In suburbs of the island of Sulawesi, Moluccas, and Papua. | (1) N<br>(2) N<br>(3) E  |                        |
| Freight Transportation (CPC 7123)                                    | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 49%                        | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section   | (1) N<br>(2) N<br>(3) E  |                        |
| Freight Transportation by man or animal drawn vehicle (CPC 71236)    | (1) None<br>(2) None<br>(3) Maximum share of foreign equity participation (FEP) in the joint venture company is 70 % | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section   | (1) N<br>(2) N<br>(3) E  |                        |
| Supporting Services for Road Transport Terminal (CPC 744)            | (1) None<br>(2) None<br>(3) Joint venture company with foreign equity participation up to 49%                        | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section   | (1) N<br>(2) N<br>(3) E  |                        |

|   |   |                            |  |                         |  |
|---|---|----------------------------|--|-------------------------|--|
| Parking Services (CPC 74430)                                  | (1) None<br>(2) None<br>(3) Maximum share of foreign equity participation (FEP) in the joint venture company is 70 %  | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) As indicated in the Horizontal Section Only in suburbs in Sulawesi, Moluccas and Papua | (1) N<br>(2) N<br>(3) E |  |
| Maintenance and repair of road transport equipment (CPC 8867) | (1) None<br>(2) None<br>(3) a. Commercial presence is only possible by establishing joint venture company<br>b. Maximum share of reign equity participation (FEP) in the joint venture company is 49% | (1) N<br>(2) N<br>(3) EF49 | (1) None<br>(2) None<br>(3) As indicated in the horizontal Section   | (1) N<br>(2) N<br>(3) E |  |

### Lao People's Democratic Republic

| Sector or Subsector   | Limitation on Market Access   | A-H classification of MA         | Limitation on National Treatment   | A-H classification of NT         | Additional Commitments |
|---|---|----------------------------------|--|----------------------------------|------------------------|
| <b>F. Road Transport Services</b><br>Freight transportation (CPC 7123)  | (1) None<br>(2) None<br>(3) Foreign equity participation is 100% for domestic transportation<br>For Cross border transportation: joint venture with local service provider(s) is required, with foreign equity limited to 49% | (1) N<br>(2) N<br>(3) EF49       | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N          |                        |
| Rental of commercial vehicles with operator (CPC 7124)<br>Supporting services for road transport services (CPC 744) | (1) None<br>(2) None<br>(3) Joint venture with LAO services providers is required. Foreign equity participation is limited to 70%.  | (1) N<br>(2) N<br>(3) EF70       | (1) None<br>(2) None<br>(3) None   | (1) N<br>(2) N<br>(3) N          |                        |
| Maintenance and repair of road transport equipment (CPC 6112+8867)  | (1) None<br>(2) None<br>(3) None<br>(4) Unbound, except as indicated in the Horizontal Section  | (1) N<br>(2) N<br>(3) N<br>(4) N | (1) None<br>(2) None<br>(3) None<br>(4) Unbound, except as indicated in the Horizontal Section | (1) N<br>(2) N<br>(3) N<br>(4) N |                        |

**Malaysia**

| Sector or Subsector   | Limitation on Market Access  | A-H classification of MA  | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|---|--|---------------------------|----------------------------------|--------------------------|------------------------|
| F. Road transport services Freight Transportation<br>Covering private carriers (Class C Licence)<br>(CPC 7123)                    | (1) None<br>(2) None<br>(3) Foreign equity shall not exceed 70 per cent. | (1) N<br>(2) N<br>(3) F70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Maintenance and repair services not elsewhere classified of trailers and semi trailers on a fee or contract basis<br>(CPC 88670*) | (1) None<br>(2) None<br>(3) Foreign equity shall not exceed 51 per cent  | (1) N<br>(2) N<br>(3) F51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Private services provided by car parks, parking lots and parking garages, whether or not roofed<br>(CPC 74430)                    | (1) None<br>(2) None<br>(3) Foreign equity shall not exceed 51 per cent  | (1) N<br>(2) N<br>(3) F51 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

**Myanmar**

| Sector or Sub-sector   | Limitation on Market Access      | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments            |
|--|----------------------------------|--------------------------|----------------------------------|--------------------------|-----------------------------------|
| <b>F. Road Transport Services</b><br>Passenger transportation (excluding Cabotage) | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | Subject to Horizontal Commitments |
| Freight transportation (excluding Cabotage)  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  | Subject to Horizontal Commitments |

**Philippines**

| Sector or Subsector  | Limitation on Market Access  | A-H classification of MA   | Limitation on National Treatment             | A-H classification of NT | Additional Commitments |
|--|--|----------------------------|--|--------------------------|------------------------|
| a. Passenger transportation<br>(CPC 7121+ CPC 7122)<br>b. Freight transportation<br>(CPC 7123)<br>c. Rental of commercial vehicles with operator(CPC 7124) | (1) Unbound*<br>(2) None<br>(3) Up to 40% foreign equity participation is allowed.         | (1) U<br>(2) N<br>(3) F40  | (1) Unbound*<br>(2) None<br>(3) None         | (1) U<br>(2) N<br>(3) N  |                        |
| d. Maintenance and repair of road transport equipment (CPC 8867)   | (1) Unbound*<br>(2) None<br>(3) None   | (1) U<br>(2) N<br>(3) N    | (1) Unbound*<br>(2) None<br>(3) None         | (1) U<br>(2) N<br>(3) N  |                        |
| Routine cleaning and maintenance services limited to vehicle laundry and car-wash services<br>(CPC 6112**)   | (1) Unbound*<br>(2) None<br>(3) Up to 70% foreign equity participation is allowed          | (1) U<br>(2) N<br>(3) EF70 | (1) Unbound*<br>(2) None<br>(3) None         | (1) U<br>(2) N<br>(3) N  |                        |
| e. Supporting services for road transport services<br>Parking services (CPC 7443)  | (1) Unbound*<br>(2) None<br>(3) Up to 70 per cent foreign equity participation is allowed. | (1) U<br>(2) N<br>(3) EF70 | (1) Unbound*<br>(2) None<br>(3) None, except | (1) U<br>(2) N<br>(3) N  |                        |

## Singapore

| Sector or Subsector  | Limitation on Market Access          | A-H classification of MA | Limitation on National Treatment | A-H classification of NT | Additional Commitments |
|--|--------------------------------------|--------------------------|----------------------------------|--------------------------|------------------------|
| - Rental services of cars with operators [CPC 71222]<br>- Rental services of buses and coaches with operators [CPC 71223]<br>- Rental services of commercial freight vehicles with operators [CPC 71240] | (1) Unbound*<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Freight (Road) transportation of:<br>a) refrigerated goods [CPC 71231]<br>b) liquids or gases [CPC 71232]<br>c) containerized freight [CPC 71233]<br>d) furniture [CPC 71234]                            | (1) Unbound*<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| - Maintenance and repair services of motor vehicles [CPC 61120]<br>- Maintenance and repair services of parts of motor vehicles [CPC 88 **]  | (1) None<br>(2) None<br>(3) None     | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |
| Parking services [CPC 74430]   | (1) None<br>(2) None<br>(3) None     | (1) N<br>(2) N<br>(3) N  | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N  |                        |

## Thailand

| Sector or Subsector  | Limitation on Market Access   | A-H classification of MA  | Limitation on National Treatment    | A-H classification of NT | Additional Commitments |
|--|---|---------------------------|-------------------------------------|--------------------------|------------------------|
| (a) Passenger transportation:<br>- Rental services of passenger cars with operator [CPC 71222]<br>- Rental services of buses and coaches with operator [CPC 71223] | (1) Unbound<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section and not less than half of the board of directors of the company must have Thai nationality | (1) U<br>(2) N<br>(3) F70 | (1) Unbound<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  |                        |
| (b) Freight transportation only for frozen or refrigerated goods, bulk liquids or gases and containerised freight [CPC 71231 to 71233]                             | (1) Unbound<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section<br>Not less than half of the board of directors of the company must have Thai nationality  | (1) U<br>(2) N<br>(3) F70 | (1) Unbound<br>(2) None<br>(3) None | (1) U<br>(2) N<br>(3) N  |                        |
| (d) Maintenance and repair of road transport equipment:<br>Automobile emergency road services  | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section   | (1) N<br>(2) N<br>(3) F70 | (1) None<br>(2) None<br>(3) None    | (1) N<br>(2) N<br>(3) N  |                        |
| Car valeting services (part of CPC Version 1.1: 87141)   | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section   | (1) N<br>(2) N<br>(3) F70 | (1) None<br>(2) None<br>(3) None    | (1) N<br>(2) N<br>(3) N  |                        |
| (e) Supporting services for road transport services:<br>Parking services [CPC 7443]  | (1) None<br>(2) None<br>(3) As indicated in 3.3 of the horizontal section   | (1) N<br>(2) N<br>(3) F70 | (1) None<br>(2) None<br>(3) None    | (1) N<br>(2) N<br>(3) N  |                        |



|   |   |                           |                                  |                         |  |
|---|---|---------------------------|----------------------------------|-------------------------|--|
| Parking services for motor vehicles, motorcycles and bicycles provided by car parks, parking lots and parking garages, whether or not roofed (part of CPC Version 1.1: 67530) | (1) None<br>(2) None<br>(3) As indicated in 3.1 of the horizontal section | (1) N<br>(2) N<br>(3) F70 | (1) None<br>(2) None<br>(3) None | (1) N<br>(2) N<br>(3) N |  |
|---|---|---------------------------|----------------------------------|-------------------------|--|

## Viet Nam

| Sector or Subsector   | Limitation on Market Access   | A-H classification of MA   | Limitation on National Treatment  | A-H classification of NT | Additional Commitments |
|---|---|----------------------------|---|--------------------------|------------------------|
| <b>F. Road Transport Services</b><br>Passenger transportation (CPC 7121+7122) | (1) Unbound.<br>(2) None<br>(3) Since 11 January 2007, foreign service suppliers are permitted to provide passenger and freight transport services through business cooperation contracts or joint-ventures with the capital contribution of foreign side not exceeding 49%. Since 11 January 2014, subject to the needs of the market, joint-ventures with foreign capital contribution not exceeding <b>51%</b> may be established to provide freight transport services.<br>100% of joint-venture's drivers shall be Vietnamese citizen. | (1) U<br>(2) N<br>(3) EF49 | (1) Unbound.<br>(2) None<br>(3) None  | (1) U<br>(2) N<br>(3) N  |                        |
| Freight transportation (CPC 7123)   | (1) None.<br>(2) None<br>(3) Foreign service suppliers are permitted to provide freight transport services only through the establishment of joint ventures with Vietnamese partners in which the capital contribution of foreign side not exceeding 70% of total legal capital. 100% of joint-venture's drivers shall be Vietnamese citizen.   | (1) N<br>(2) N<br>(3) EF70 | (1) None<br>(2) None<br>(3) None, except as indicated in the market access column | (1) N<br>(2) N<br>(3) N  |                        |
| Maintenance and repair of road transport equipment (CPC 6112 + 8867)          | (1) None.<br>(2) None<br>(3) None, except that joint ventures with foreign capital contribution not exceeding 51% can be established.   | (1) N<br>(2) N<br>(3) EF51 | (1) None<br>(2) None<br>(3) None, except as indicated in the market access column | (1) N<br>(2) N<br>(3) N  |                        |

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## ANNEX G. STRATEGIC GOALS FOR TRANSPORT SERVICES BY MODE

### Maritime transport (MT)

As about 80 per cent of global merchandise trade by volume is carried by sea and handled by ports worldwide, ASEAN Member States continue to commit to strengthening maritime connectivity through the establishment of the ASEAN Single Shipping Market (ASSM), regional maritime transport cooperation and effective implementation of the International Maritime Organization (IMO) conventions towards realizing an integrated, efficient and competitive maritime transport including fostering a culture of maritime safety within ASEAN. Another new initiative to be pursued post-2015 is the development of strategic maritime logistic corridors. The specific goals and actions for maritime transport for 2016-2025 are as follows:

- MT-1 Realize the ASEAN Single Shipping Market through the implementation of the agreed strategies and measures
  - MT-1.1 Develop and monitor Key Performance Indicator (KPI) on port efficiency e.g. cargo handling and ship turnaround time
    - MT-1.1.1 Monitor and, when necessary, review the KPIs to improve efficiency of ASEAN ports
  - MT-1.2 Conduct a pilot project on the operationalization of ASSM including in-depth cost and benefit studies
    - MT-1.2.1 Complete and adopt the recommendations of the pilot project
  - MT-1.3 Identify a mechanism to mutually recognize the certificates of competency for Near Coastal Voyages (NCV) issued by ASEAN Member States
    - MT-1.3.1 Adopt the mechanism to mutually recognize the certificates of competency for NCV issued by ASEAN Member States
  - MT-1.4 Enhance the implementation of Electronic Data Interchange (EDI) in ASEAN ports
    - MT-1.4.1 Support and enhance EDI in ASEAN, and study the possibility for harmonization
  - MT-1.5 Establish a national coordinating body, where applicable, to oversee the port and land transport infrastructure development which will work on a national master plan for port and land transport development for better port access
    - MT-1.5.1 Include projects to improve accessibility of ASEAN's ports into relevant master plans developed by ASEAN Member States
  - MT-1.6 Enhance the capacity of the 47 designated ports
    - MT-1.6.1 Review designated ports and implement projects to enhance their capacities
  - MT-1.7 Improve reliability of technical standards of ASEAN ports
    - MT-1.7.1 Exchange information on technical standards through seminars
  - MT-1.8 Establish cruise corridors
    - MT-1.8.1 Develop cruise promotion policies and institutional policies
    - MT-1.8.2 Develop cruise tourist attractions and cruise and onshore itinerary
    - MT-1.8.3 Improve cruise infrastructure
    - MT-1.8.4 Enhance quality of cruise tourism through training and education programs and better coordination with tourism agencies
    - MT-1.8.5 Establish data collation and common methodology of cruise
    - MT-1.8.6 Conduct cruise marketing promotion
- MT-2 Realize the RO-RO shipping network operation in ASEAN
  - MT-2.1 Conduct dialogue among the concerned ASEAN Member States for the preparation of RO-RO routes operation
    - MT-2.1.1 Improve institutional arrangements (e.g. CIQ, road administrations) to enable smooth operationalization of the RO-RO route

- MT-2.1.2 Improve port infrastructure and facilities at the implementing countries to increase efficiency in serving the RO-RO routes
- MT-2.2 Operationalization of RO-RO shipping network operation in ASEAN
  - MT-2.2.1 Facilitate trade and tourist movements among the concerned countries
  - MT-2.2.2 Initial run of the ASEAN-RO RO
- MT-3 Develop an efficient and integrated inland waterway transport (IWT) network
  - MT-3.1 Conduct a study and formulate a regional plan for developing IWT in ASEAN
    - MT-3.1.1 Complete the Development Study for Inland Improvement project in Thailand and CLMV Countries
  - MT-3.2 Further improve linkage among countries in the Mekong region
    - MT-3.2.1 Conduct relevant researches and workshops
  - MT-3.3 Implement the suggestions/projects proposed by the above Development Study
    - MT-3.3.1 Implement the priority infrastructure improvement projects
- MT-4 Enhance navigation system and security measures in line with international standards
  - MT-4.1 Strengthen human resource base for port and shipping operations including navigation safety and maritime security
    - MT-4.1.1 Convene regional workshops / seminars to support implementation or ratification of IMO Conventions by ASEAN Member States
    - MT-4.1.2 Develop Guidelines for ASEAN Member States on maritime navigational and passenger safety
    - MT-4.1.3 Improve port security in ASEAN Member States through implementation of programs of the Port Security Group
  - MT-4.2 Development of VTS operators capacity
    - MT-4.2.1 Establish ASEAN regional training centers for VTS operators
    - MT-4.2.2 Conduct trainings for VTS operators
  - MT-4.3 Improve the quality and efficiency of the Safety, Health and Environmental management for selected ports
    - MT-4.3.1 Compile the Best Practices on the improvement of the quality and efficiency of the Safety, Health and Environmental management for selected ports
    - MT-4.3.2 Improve the quality and efficiency of the Safety, Health and Environmental management for selected ports
- MT-5 Formulate necessary policy initiatives and recommendations to develop strategic maritime transport logistics between ASEAN and Dialogue Partners
  - MT-5.1 Conduct development studies and collaborative practical researches to develop strategic maritime transport logistics between ASEAN and Dialogue Partners
    - MT-5.1.1 Conduct studies with ASEAN Dialogue Partners on maritime transport logistics
  - MT-5.2 Promote the development of port technology through Port Technology Group
    - MT-5.2.1 Compile guidelines to develop port technology
  - MT-5.3 Continue to engage Dialogue Partners and other partners to conclude maritime transport agreements
    - MT-5.3.1 Implement ASEAN-China Maritime Transport Agreement
    - MT-5.3.2 Explore the possibilities of concluding maritime transport agreements with other ASEAN Dialogue Partners
- MT-6 Intensify regional cooperation in improving transport safety
  - MT-6.1 Review existing statistics, policies and programs at regional and national level
    - MT-6.1.1 Gap Analysis
  - MT-6.2 Identify training needs to further improve transport safety in the region
    - MT-6.2.1 Conduct training on transport safety at regional and national level
- MT-7 Strengthen ASEAN Search and Rescue (SAR) cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region

MT-7.1 Improve capacity and capability on SAR

MT-7.1.1 Develop the ASEAN SAR Standard Operating Procedures

MT-7.1.2 Familiarize ASEAN Member States with ASEAN SAR Standard Operating Procedures

MT-7.1.3 Improve skill and knowledge of SAR Personnel

## **Air transport (AT)**

In order to achieve the air transport goal, it is significant for ASEAN Member States to work towards advancing safer and more secure skies in ASEAN, enhancing air traffic management efficiency and capacity through a seamless ASEAN sky, and fostering greater connectivity, including the conclusion of aviation agreements with dialogue partners.

In this context and taking into account the status of air transport measures, ASEAN Member States need to undertake continued discussion on the way forward and identify concrete steps to establish the ASAM. Efforts in some areas such as full ratification and implementation of the Roadmap for Integration of Air Travel Sector (RIATS) agreements and the Multilateral Agreement for the Full Liberalization of Passenger Air Services (MAFLPAS) under the ASEAN Single Aviation Market (ASAM) need to be redoubled. Air connectivity expansion with the EU, Japan, India and the Republic of Korea should be pursued and enhanced. Other initiatives under the ASAM Roadmap, such as air traffic management and aviation safety and security co-operation need to be strengthened. In this regard, the specific goals and actions for the air transport sector for the period 2016–2025 are as follows:

AT-1 Work towards a more efficient and competitive air transport market and strengthen engagement with Dialogue Partners, thereby contributing to the economic growth, competitiveness and shared prosperity of ASEAN, while maintaining ASEAN Centrality

AT-1.1 Review the Multilateral Agreement on Air Services (MAAS), the ASEAN Multilateral Agreement on the Full Liberalization of Air Freight Services (MAFLAFS), the Multilateral Agreement for the Full Liberalization of Passenger Air Services (MAFLPAS), and their respective protocols and implementation as well as discuss further liberalization of key economic elements, where necessary, under the ASEAN Single Aviation Market (ASAM) Implementation Framework

AT-1.1.1 Complete the review

AT-1.1.2 Establish the mechanism, where necessary, to implement the agreed recommendations of the review

AT-1.1.3 Implement the approved recommendations

AT-1.2 Pursue further liberalization of air transport ancillary services

AT-1.2.1 Conclude the packages of commitments covering all 13 subsectors to be phased-in

AT-1.3 Continue to engage Dialogue Partners and other partners to conclude more liberal and mutually beneficial air transport agreements, including 3rd, 4th and 5th freedom traffic rights

AT-1.3.1 Conclude and expand exchange of 5th freedom traffic rights with China through conclusion of protocols

AT-1.3.2 Conclude a Comprehensive Air Transport Agreement with the EU

AT-1.3.3 Conclude Air Transport Agreement with India

AT-1.3.4 Conclude Air Transport Agreement with Japan

AT-1.3.5 Conclude Air Transport Agreement with ROK

AT-1.3.6 Consider concluding Air Transport Agreements with other partners

AT-2 Advance safe skies in ASEAN

AT-2.1 Continue with initiatives to improve regulatory capability and safety standards

AT-2.1.1 Continue with implementation of ASEAN Aviation Regulatory Monitoring System

AT-2.1.2 Establish a framework to share (foreign operators) ramp inspection information among ASEAN Member States (i.e., ASEAN Foreign Operator Safety Assessment)

- AT-2.1.3 Implement ASEAN Foreign Operator Safety Assessment initiative
- AT-2.2 Establish a mechanism to facilitate mutual recognition of approvals, certificates and licenses
  - AT-2.2.1 Conclude a framework agreement to support future mutual recognition of approvals, certificates and licenses
  - AT-2.2.2 Establish procedures to achieve mutual recognition for air operator certification, aircraft airworthiness (approved maintenance organization certification), and flight crew / engineer licensing
  - AT-2.2.3 Identify other areas such as approved trainings organization and establish procedures to achieve mutual recognition
- AT-3 Enhance Aviation Security in ASEAN in accordance to ICAO Standards and Recommended Practices (SARPs)
  - AT-3.1 Promote capacity building and align aviation security measures with ICAO Standards and Recommended Practices
    - AT-3.1.1 Conduct the Points of Contact (POC) network exercise on yearly basis
    - AT-3.1.2 Leverage existing capacity building mechanisms such as those offered by the ICAO Asia and Pacific Regional Office, as well as other mechanisms to promote capacity building with a view towards increasing compliance with ICAO SARPs
    - AT-3.1.3 Develop practical, harmonized and cost effective measures in key areas of aviation security such as in screening technologies and processes for liquids, aerosols and gels, passenger pre-board screening and air cargo and supply chain security
    - AT-3.1.4 Share information on latest trends on aviation security
    - AT-3.1.5 Conduct ASEAN Joint Assessment on Aviation Security to work towards compliance with ICAO SARPs
- AT-4 Enhance air traffic management efficiency and capacity through a seamless ASEAN sky
  - AT-4.1 Continue to support ICAO's efforts and implementation plan for air traffic management in the Asia Pacific Region
    - AT-4.1.1 Support ICAO's efforts and implementation plan for air traffic management in the Asia Pacific Region
  - AT-4.2 Develop and implement the ASEAN Air Traffic Management (ATM) Master Plan in accordance with ICAO's Asia Pacific Seamless ATM Plan and the Global Air Navigation Plan's ASBU Framework
    - AT-4.2.1 Adopt the ASEAN Air Traffic Management Master Plan
    - AT-4.2.2 Implement the ASEAN Air Traffic Management Master Plan
    - AT-4.2.3 Develop and implement performance measurement framework
  - AT-4.3 Exchange information on ASEAN air navigation infrastructure and services
    - AT-4.3.1 Establish database and information sharing system of ASEAN air navigation infrastructure and services
  - AT-4.4 Strengthen the region's modelling and simulation capability to analyses air traffic flows in support of the ASEAN ATM Masterplan
    - AT-4.4.1 Establish capability to provide annual ASEAN air traffic baseline to support air traffic flow analysis
- AT-5 Strengthen ASEAN Search and Rescue (SAR) cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region.
  - AT-5.1 Improve capacity and capability on SAR
    - AT-5.1.1 Develop the ASEAN SAR Standard Operating Procedures
    - AT-5.1.2 Familiarize ASEAN Member States with ASEAN SAR Standard Operating Procedures
    - AT-5.1.3 Improve skill and knowledge of SAR Personnel

## Land transport (LT)

Recognizing that transport infrastructure is a key determinant of performance in the transport sector, ASEAN Member States shall continue to achieve land transport infrastructure (road and railway) integration and intermodal interconnectivity, with principal airports, ports, and inland waterway and ferry links. ASEAN Member States shall also promote concerted and coordinated efforts at the policy and operation levels to develop ASEAN land transport trade corridors.

With regard to road safety, the 2015 World Health Organization Global Status Report on Road Safety states that each year 1.25 million people are killed on the roads, of which 45,189 are from ASEAN Member States (excluding Brunei Darussalam for which there are no data). This major threat to public health and development around the globe and the rapid growth of motorization in the region underscores the need for ASEAN Member States to undertake a collective effort to reduce the risk of road crashes, especially among vulnerable road users.

Considering the above, the specific goals and actions for land transport for the period of 2016–2025 are

LT-1 Accomplish the implementation of the SKRL main lines and detailed designs for the spur lines

LT-1.1 Complete construction of the missing link sections of SKRL main lines

LT-1.1.1 Cambodia: Phnom Penh-Tra Peang Sre (Cambodia/Viet Nam border) (255 km)

LT-1.1.2 Viet Nam: Loc Ninh (Cambodia/Viet Nam border)-Ho Chi Minh City (129 km)

LT-1.2 Complete the Feasibility Study and/or detailed designs for the spur lines of SKRL

LT-1.2.1 Viet Nam: Mu Gia - Tan Ap - Vung Ang (119 km)

LT-1.2.2 Lao P.D.R.: Vientiane - Thakhaek - Mu Gia (466 km)

LT-1.2.3 Myanmar: Dawei-Htiki/Ban Phu Nam Ron

LT-1.2.4 Thailand: Htiki/Ban Phu Nam Ron - Kanchanaburi

LT-1.3 Complete supplementary upgradation work in ASEAN Member States to support SKRL

LT-1.3.1 Cambodia: Bat Deoung - Sisophon (306 km)

LT-1.3.2 Cambodia: Track reconstruction Bat Deoung to km 9 (22.6 km)

LT-1.3.3 Cambodia: Track reconstruction of Phnom Penh to Green Trade Warehouse (6 km)

LT-1.3.4 Lao P.D.R.: Savannakhet - Laobao (220 km)

LT-1.3.5 Malaysia: Double track construction of Gemas-Johor Bahru section (197 km)

LT-1.3.6 Thailand: Double track construction of northeastern line, Mab Kabao - Thanon Jira Junction (132 km)

LT-1.3.7 Thailand: Double track construction of northeastern line, Thanon Jira Junction - Khon Kae (185 km)

LT-1.3.8 Thailand: Double track construction of northeastern line, Khon Kae - Nong Khai (174 km)

LT-1.3.9 Thailand: Double track construction of southern line, Nakhon Phathom - Huahin (165 km)

LT-1.3.10 Thailand: Double track construction of southern line, Huahin - Prachuab Khiri Khan (90 km)

LT-1.3.11 Thailand: Double track construction of southern line, Prachuab Khiri Khan - Chumphon (167 km)

LT-1.3.12 Thailand: Double track construction of southern line, Chumphon - Surat Thani (167 km)

LT-1.3.13 Thailand: Double track construction of southern line, Surat Thani - Hat Yai (295 km)

LT-1.3.14 Thailand: Double track construction of southern line, Hat Yai - Padang Besar (45 km)

LT-1.3.15 Viet Nam: Ha Noi - Lao Cai (connected to China)

LT-1.3.16 Viet Nam: Ha Noi - Ho Chi Minh City (Ha Noi - Vinh section 319 km, Nha Trang - Ho Chi Minh City section 412 km, Hai Van tunnel and Khe Net tunnel)

- LT-1.3.17 Track gauge conversion works between Lao Kao Border Station (Viet Nam) and Ha Khau Border Station (China)
- LT-1.4 Develop implementation framework for seamless operation of SKRL
  - LT-1.4.1 Identify and collect data for seamless operations of SKRL
  - LT-1.4.2 Adopt the Implementation Framework for seamless operation of SKRL
- LT-1.5 Conduct study on the possibility of extending the SKRL to Surabaya, Indonesia
  - LT-1.5.1 Develop an Action Plan on the Implementation of the Project, where possible
- LT-2 Completion of ASEAN Highway Network project
  - LT-2.1 Upgrade "below Class III" roads on Transit Transport Routes (TTRs)
    - LT-2.1.1 Lao P.D.R.: AH12 Nateuy - Oudomxai - Luang Prabang - Vientiane (293 of 682 km)
    - LT-2.1.2 Lao P.D.R.: AH15 Banlao - Nam Phao (98 km of 132 km)
    - LT-2.1.3 Myanmar: AH1 Tamu - Mandalay - Meiktila - Yangon - Bago - Payagyi - Thaton - Myawadi (229 of 1,656 km)
    - LT-2.1.4 Myanmar: AH2 Meiktila - Loilem - Kyaing Tong - Tachilek (307 of 807 km)
    - LT-2.1.5 Indonesia: AH150 Pontianak - Entikong (273.28 km)
  - LT-2.2 Upgrade other "below Class III" roads
    - LT-2.2.1 Lao P.D.R.: AH 13 Oudomxai - Pakbeng (133 km)
    - LT-2.2.2 Lao P.D.R.: AH131 Thakhek - Na Phao (96 km of 146 km)
    - LT-2.2.3 Lao P.D.R.: AH 132 Phia Fay - Phoukeua/Bo Y (109 of 221 km)
    - LT-2.2.4 Myanmar: AH111 Thibaw-Loilem (223 of 239 km)
    - LT-2.2.5 Myanmar: AH112 Mawlamyaing - Ye - Mahwal Taung (44.06 km)
    - LT-2.2.6 Myanmar: AH112 Dawei - Myeik (145 km)
    - LT-2.2.7 Myanmar: AH112 Myeik - Tanintharyi (64 km)
    - LT-2.2.8 Myanmar: AH112 Tanintharyi - Bokepyin (156 km)
    - LT-2.2.9 Myanmar: AH112 Bokepyin - Kau Thaug (87.94 km)
    - LT-2.2.10 Myanmar: AH112 Lanya - Khlongloi (60 km)
    - LT-2.2.11 Myanmar: AH123 Myittar - Thai Border (85 km)
    - LT-2.2.12 Myanmar: AH123 Dawei - Myittar (56 km)
    - LT-2.2.13 Viet Nam: AH13 Dien Bien - Tay Trang (18 km) LT-2.2.14 Viet Nam: AH132 Bo Y - Kon Tum (73 km)
  - LT-2.3 Upgrade "Class II or III" sections with high traffic volume
    - LT-2.3.1 Cambodia: AH1 Battambang-Serei Sophorn (84.74 km) into four lanes, including: one bypass in Battambang (23.1 km) and one bypass in Serei Sophorn (13.4 km)
    - LT-2.3.2 Cambodia: AH1 Poipet - Aranyaprathet New Road with Cross - Border Facilities (Cambodia Part)
    - LT-2.3.3 Cambodia: AH1 four lane expansion, Thlea Ma'am Battambang and Serei Sophorn - Poipet City including Pursat bypass (157.5 km)
    - LT-2.3.4 Cambodia: AH1 four lane expansion, Prek Kdam - Thlea Ma'am (135.4 km) including 2 bypasses
    - LT-2.3.5 Cambodia: AH1 four lane expansion, Phnom Penh - Prek Kdam (30 km)
    - LT-2.3.6 Cambodia: AH11 four lane expansion, Phnom Penh - Skun district (75 km) including 2 bypasses
    - LT-2.3.7 Cambodia: AH1 four lane expansion, (National Road 1) Phnom Penh-Kdei Ta Koy (4 km)
    - LT-2.3.8 Cambodia: AH1 four lane expansion, (National Road 1) Kdei Ta Koy to Bavet (Cambodia - Viet Nam border) (161 km)
    - LT-2.3.9 Cambodia: AH11 four lane expansion, (National Road 4) Phnom Penh - Kampong Speu Province (60 km)
    - LT-2.3.10 Cambodia: AH11 four lane expansion, (National Road 4) Kampong Speu - Sihanoukville Province (166 km)

- LT-2.3.11 Cambodia: AH123 Sre Ambel - Cham Yeam/Hatlek (Cambodia - Thailand) (161 km)
- LT-2.3.12 Indonesia: AH150 Tayan-Sanggau - Entikong Border (300.34 km)
- LT-2.3.13 Lao P.D.R.: AH11 four lane highway project Vientiane - Ban Hay section (63 km)
- LT-2.3.14 Lao P.D.R.: AH12 four lane highway project from Vientiane - Phon Hong section (73 km)
- LT-2.3.15 Thailand: AH1 four lane highway widening project Tak Mae Sot (52 km)
- LT-2.3.16 Thailand: AH1 second Thailand-Myanmar Friendship Bridge crossing Moei/Thaungyin River and approaching roads (21.4 km)
- LT-2.3.17 Thailand: AH3 four lane highway widening project, Chiang Rai - Khun Tan (48 km)
- LT-2.3.18 Thailand: AH16 New alignment road project, Kalasin - Ban Na Kai (80 km)
- LT-2.3.19 Thailand: AH19 Motorway Pattaya - Map Ta Phut project (32 km)
- LT-2.3.20 Thailand: AH123 four lane highway widening project, Trat-Hat Lek (70 km)
- LT-2.4 Build the highway between Kanchanaburi and Dawei
  - LT-2.4.1 Myanmar: Dawei/Htiki - Ban Phu Nam Ron (141 km)
  - LT-2.4.2 Thailand: Htiki/Ban Phu Nam Ron - Kanchanaburi (78 km)
- LT-2.5 Complete stocktaking of AHN inventory data
  - LT-2.5.1 Update on AHN inventory data
- LT-2.6 Improve the quality of transportation on TTRs
  - LT-2.6.1 Compile technical standards, manuals and best practices of road paving for large-sized vehicle transportation
  - LT-2.6.2 Promote the enforcement of vehicle weight regulations including establish a regional platform for discussion
- LT-2.7 Complete the installation of common road signs and the route numbering system on all TTRs
  - LT-2.7.1 Indonesia: AH 25 Dumai - Pekanbaru - Jambi - Palembang - Lampung - Bakauheni
  - LT-2.7.2 Indonesia: AH 25 Dumai - Medan - Banda Aceh
  - LT-2.7.3 Indonesia: AH2 Semarang - Cikampek - Jakarta - Merak
  - LT-2.7.4 Indonesia: AH 2 Gilimanuk - Tabanan - Denpasar - Tuban
  - LT-2.7.5 Indonesia: AH2 Semarang - Surabaya - Banyuwangi
  - LT-2.7.6 Indonesia: AH150 Pontianak - Sosok - Tayan - Entikong
  - LT-2.7.7 Lao P.D.R.: AH11 and AH12
  - LT-2.7.8 Malaysia: AH2 Bukit Kayuhitam - Butterworth - Kuala Lumpur - Seremban - Senai Utara
  - LT-2.7.9 Malaysia: AH150 Sematan - Kuching - Sibiu - Miri - Kota Kinabalu - Sandakan - Lahad Datu - Tawau
- LT-3 Enhance the use of "Intelligent Transport System" (ITS)
  - LT-3.1 Formulate and Implement the "ITS Master Plan"
    - LT-3.1.1 Formulate the "ITS Master Plan for ASEAN", addressing the goals, design of ITS architecture, determination of standards for ASEAN and developing implementation and monitoring mechanism
    - LT-3.1.2 Formulate the national ITS policy and master plans for AMSs addressing the policy, standards, ITS development, operation & maintenance, and monitoring mechanism
    - LT-3.1.3 Implement the "ITS Master Plan for ASEAN" and the national ITS policy and master plans
  - LT-3.2 Implement the ITS Capacity Building Programs
    - LT-3.2.1 Identify and conduct necessary seminars and trainings on ITS
- LT-4 Develop an effective network of ASEAN dry ports in accordance with existing ASEAN initiatives such as the ASEAN Highway Network (AHN) and Singapore-Kunming Rail Link (SKRL)
  - LT-4.1 Conduct study and formulate regional network plan for the development of dry port



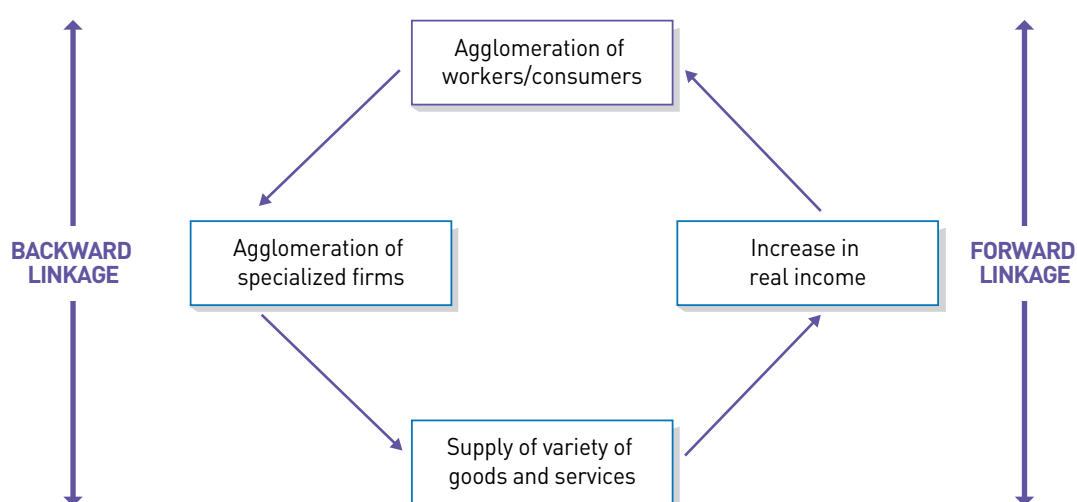
- LT-4.1.1 Formulate a Regional network plan
- LT-4.2 Finalize the list of dry port in ASEAN and identify key measures to improve the effectiveness of the agreed ASEAN dry port network
  - LT-4.2.1 Identify feasible list of dry ports in ASEAN
  - LT-4.2.2 Adopt the list of dry port in ASEAN and agree on the key measures to improve the effectiveness of the network
  - LT-4.2.3 Implement the agreed key measures
- LT-5 Reduce the road fatalities by 50% in ASEAN Member States by 2020 and work towards further decreasing the forecast level of road fatalities in ASEAN by 2030
  - LT-5.1 Align and implement road safety initiatives in accordance with the 5 strategic pillars (Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users & Post Crash Response) of UN's Decade of Action for Road Safety
    - LT-5.1.1 Develop guidelines for improving the standard procedure for reporting road crashes based on UN standards
    - LT-5.1.2 Adopt data collection template on road crashes in accordance to global standards
    - LT-5.1.3 Share knowledge and experiences on the implementation of safer roads and mobility pillar
    - LT-5.1.4 Exchange of information, experiences and best practices with regard to the implementation of safety standard of all vehicles on the road
    - LT-5.1.5 Sharing of knowledge and best practices on road safety, which include awareness, education and law enforcement programs
    - LT-5.1.6 Compile best practices on post-crash responses
  - LT-5.2 Strengthen institutional capacity for enhanced cooperation in road safety
    - LT-5.2.1 Convene seminars/workshops/training programs on road safety
  - LT-5.3 Continued improvement of road safety policy and program to further enhance the road safety in ASEAN region
    - LT-5.3.1 Reduce road traffic injuries and fatalities by another 25% from 2021 to 2030
  - LT-5.4 Harmonize safety regulation with the UN regulation based on accident analysis in ASEAN and work towards mutual recognition to improve safety
    - LT-5.4.1 Conduct study on existing measures and policies regarding the road safety
- LT-6 Develop a database of ASEAN land transport network
  - LT-6.1 Develop a map of ASEAN land transport network including all relevant information on the AHN, SKRL, and dry ports
    - LT-6.1.1 Publish a map of ASEAN land transport network
- LT-7 Intensify regional cooperation in improving transport safety
  - LT-7.1 Review existing statistics, policies and programs at regional and national level
    - LT-7.1.1 Gap analysis
  - LT-7.2 Identify training needs to further improve transport safety in the region
    - LT-7.2.1 Conduct training on transport safety at regional and national level

## ANNEX H.

### POLICY EVALUATION EXERCISE: HOW TRANSPORT SERVICES AND COURIER SERVICES ATTAIN A “MULTIPLE EQUILIBRIA” SITUATION IN A COUNTRY AND IN THE REGION

Figure H1 shows how agglomeration (concentration) emerges with the reduction of transport and courier services costs.

Figure H1. **Basic spatial economic mechanism of agglomeration (under low transport and courier services costs)**



Source: Adapted from Fujita, Krugman and Venables (1999).

#### (1) Under high transport and courier services costs

When transport costs (costs associated with transporting people and goods) for the transfer goods and services are prohibitively high, all the production has to take place locally (as shown in figure H2), generating decentralized economic activities (this is a two-equilibrium situation). In ASEAN, before full-fledged marketization in the latter part of the 20<sup>th</sup> century, multiple cities and multiple small villages co-existed as “major cities”.

Figure H2. **Multiple small cities and villages**



## (2) Under middle transport and courier services costs

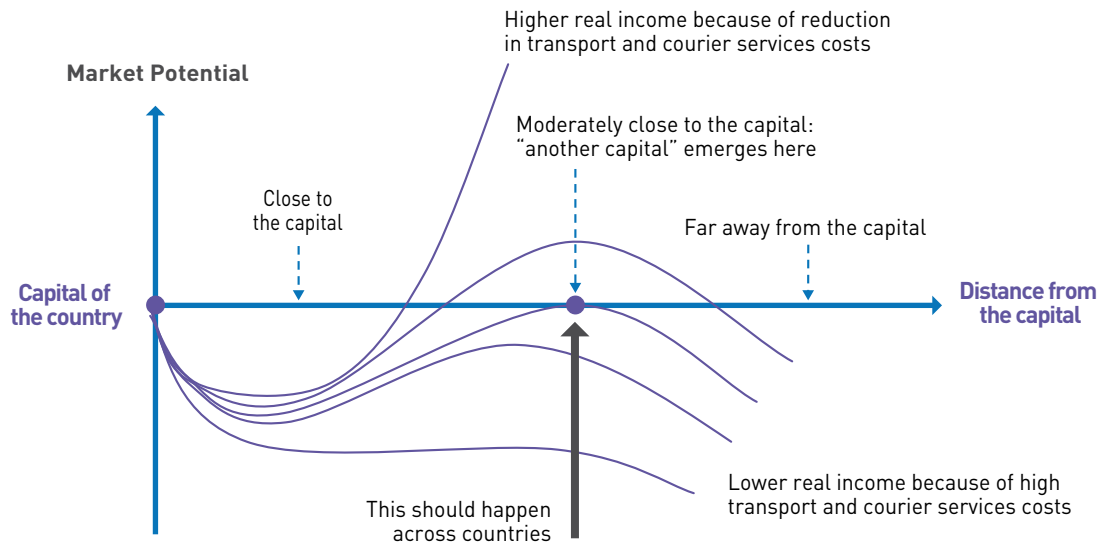
When transport costs are reduced from the high stage, the equilibrium tends towards agglomeration in one location (as illustrated in figure H3), in a single-equilibrium situation. In the process, the “centre” prospers economically (i.e. production and consumption increase significantly); at the same time, though, the costs of production and living also increase significantly. This is what is happening in most of the capital cities of the ASEAN member states.

Figure H3. **One capital and multiple small cities and villages**



## (3) Under low transport and courier services costs

When transport costs are further reduced, the two- or multi-equilibrium situation is again realized, this time with affordable transport and courier costs and hence no need to live in the expensive capital area (figure H5). This is what the ASEAN member states should aim for, with further liberalization of various forms of transport services. In connection with this multiple-equilibria situation, figure H4 shows the spatial economic interaction of locations and “market potential”, which is the potential usefulness of particular locations for production activities as well as for living. The usefulness increases when transport and courier costs are low enough.

Figure H4. **Spatial economic interaction of locations and market potential**

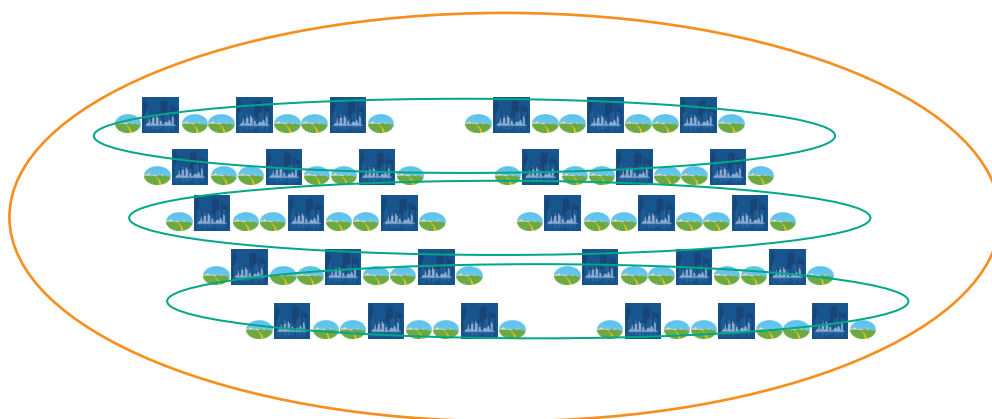
Source: Adapted from Fujita, Krugman and Venables (1999).

Note: Higher real income with a reduction of transport and courier costs leads to a rise in the market potential of other locations and hence the emergence of other "capitals" away from the capital.

Figure H5. **Multiple capitals among cities and villages**

At this stage, when economic integration is taking place, the multi-equilibrium situation can be extended to the region (ASEAN), sub-region (i.e. Mekong) or neighbouring countries (e.g. Thailand and the Lao People's Democratic Republic). As illustrated in figure H6, multiple capitals among cities and villages spread beyond a single country to the neighbouring countries, the sub-region and the region.

Figure H6. ASEAN-level “multiple equilibria” situation



Note: Smaller ovals indicate neighbouring-country-level transport networks.  
Large oval indicates an ASEAN-level transport network.

The seminar participants worked on a policy evaluation exercise that examined how transport services and courier services attain the “multiple equilibria” situation. The exercises, however subjective, provide an analysis, looking at the status quo of accessibility to “capitals” within the country, in neighbouring countries, and in the ASEAN region as well as policy evaluation for realizing a multiple-equilibria situation. The results are shown in tables H1–H3.

These results show that the average score is getting lower (less agreeable) in descending order at the in-country level (6.7), neighbouring-country level (5.8) and ASEAN level (5.35). There is a clear need to consider coordination at the ASEAN level to achieve region-wide economic impacts.

Tables H4 and H5 show the evaluation for realization of a multiple-equilibria situation at the national and ASEAN levels, respectively. At both levels, in regard to infrastructural development for rail transport services, which takes time and costs a lot, policy formulation tends to be ignored. All in all, the results indicate that there is a serious need for consolidating ASEAN-wide policy coordination in terms of promoting trade in transport services.

Table H1. Evaluation of accessibility to “capitals”

| Country              | In-country Level   |  |  |   |  |   |  |   |   |   | Total score<br>[ /100 ] |
|----------------------|--|--|--|---|--|---|--|---|---|---|-------------------------|
|                      | 1. Public transportation services to the “capital” exist nation-wide | 2. Public transportation services or own cars for commuting to the “capital” exist nation-wide | 3. Public transportation services or own cars for commuting to the “capital” is affordable | 4. [Maritime] Fully developed to enable multiple equilibria situation | 5. [Air] Fully developed to enable multiple equilibria situation | 6. [Rail] Fully developed to enable multiple equilibria situation | 7. [Public road] Fully developed to enable multiple equilibria situation | 8. Interconnection among different transport services is smooth | 9. Policies for multiple-city development and transport services development are well coordinated | 10. Policies for multiple-city development and promoting trade in transport services are well coordinated |                         |
| Brunei Darussalam    | 10   | 10   | 9  | 4.5   | 1  | 8   | 8  | 4   | 2   | 8   | 64.5                    |
| Cambodia             | 8  | 8  | 8  | 5   | 6  | 4   | 5  | 5   | 5   | 5   | 59                      |
| Indonesia            | 8  | 7  | 7  | 7   | 8  | 8   | 8  | 6   | 8   | 8   | 75                      |
| Lao P.D.R.           | 5  | 6  | 4  | 3   | 4  | 1   | 6  | 1   | 6   | 5   | 41                      |
| Malaysia             | 10   | 10   | 9  | 5   | 7  | 6   | 8  | 9   | 6   | 6   | 76                      |
| Myanmar              | 10   | 10   | 10   | 3   | 4  | 5   | 7  | 3   | 5   | 3   | 60                      |
| Philippines          | 10   | 8  | 8  | 6   | 7  | 6   | 7  | 5   | 5   | 5   | 67                      |
| Singapore            | 10   | 10   | 8  | n.a.  | n.a.   | 10 <sup>a</sup>   | 10   | 10  | 10  | 9   | 67                      |
| Thailand             | 9  | 9  | 9  | 6   | 8  | 8   | 9  | 7   | 9   | 5   | 79                      |
| Viet Nam             | 8  | 6  | 6  | 7   | 6  | 5   | 6  | 7   | 6   | 5   | 62                      |
| <b>Average</b>       | <b>8.8</b>   | <b>8.4</b>   | <b>7.8</b>   | <b>5.2</b>  | <b>5.7</b>   | <b>5.7</b>  | <b>7.4</b>   | <b>5.7</b>  | <b>6.2</b>  | <b>5.9</b>  | <b>65.1</b>             |
| Average of (1)–(10): |  |  |  |   |  |   |  |   |   | <b>6.7</b>  |                         |

<sup>a</sup> commuter rail like MRT/LRT

Table H2. Evaluation of accessibility to “capitals”

| Country                     | Neighbouring-country Level   |  |  |   |  |   |  |   |   |   | Total score<br>[ /100 ] |
|-----------------------------|--|--|--|---|--|---|--|---|---|---|-------------------------|
|                             | 1. Public transportation services to the “capital” exist nation-wide | 2. Public transportation services or own cars for commuting to the “capital” exist nation-wide | 3. Public transportation services or own cars for commuting to the “capital” is affordable | 4. [Maritime] Fully developed to enable multiple equilibria situation | 5. [Air] Fully developed to enable multiple equilibria situation | 6. [Rail] Fully developed to enable multiple equilibria situation | 7. [Public road] Fully developed to enable multiple equilibria situation | 8. Interconnection among different transport services is smooth | 9. Policies for multiple-city development and transport services development are well coordinated | 10. Policies for multiple-city development and promoting trade in transport services are well coordinated |                         |
| Brunei Darussalam           | 8  | 10   | 5  | 2   | 5  | 1   | 5  | 4   | 4   | 2   | 46                      |
| Cambodia                    | 9  | 9  | 9  | 8   | 9  | 8   | 8  | 7   | 7   | 7   | 81                      |
| Indonesia                   | 8  | 7  | 7  | 7   | 8  | 1   | 1  | 1   | 8   | 8   | 56                      |
| Lao P.D.R.                  | 4  | 5  | 4  | 2   | 3  | 2   | 6  | 1   | 4   | 4   | 35                      |
| Malaysia                    | 10   | 9  | 8  | 7   | 7  | 6   | 8  | 9   | 5   | 5   | 74                      |
| Myanmar                     | 3  | 3  | 3  | 3   | 5  | 1   | 4  | 1   | 1   | 3   | 27                      |
| Philippines                 | 10   | 8  | 8  | 5   | 7  | 1   | 1  | 5   | 5   | 5   | 55                      |
| Singapore                   | 10   | 10   | 8  | 8   | 10   | 6   | 8  | 8   | 6   | 6   | 80                      |
| Thailand                    | 7  | 8  | 7  | 5   | 8  | 5   | 8  | 6   | 6   | 5   | 65                      |
| Viet Nam                    | 8  | 5  | 6  | 7   | 6  | 5   | 6  | 7   | 6   | 5   | 61                      |
| <b>Average</b>              | <b>7.7</b>   | <b>7.4</b>   | <b>6.5</b>   | <b>5.4</b>  | <b>6.8</b>   | <b>3.6</b>  | <b>5.5</b>   | <b>4.9</b>  | <b>5.2</b>  | <b>5</b>  | <b>58</b>               |
| <b>Average of [1]–[10]:</b> |  |  |  |   |  |   |  |   |   | <b>5.8</b>  |                         |

Table H3. Evaluation of accessibility to "capitals"

| Country                     | ASEAN Level  |  |  |   |  |   |  |   |   |   | Total score<br>[ /100 ] |
|-----------------------------|--|--|--|---|--|---|--|---|---|---|-------------------------|
|                             | 1. Public transportation services to the "capital" exist nation-wide | 2. Public transportation services or own cars for commuting to the "capital" exist nation-wide | 3. Public transportation services or own cars for commuting to the "capital" is affordable | 4. [Maritime] Fully developed to enable multiple equilibria situation | 5. [Air] Fully developed to enable multiple equilibria situation | 6. [Rail] Fully developed to enable multiple equilibria situation | 7. [Public road] Fully developed to enable multiple equilibria situation | 8. Interconnection among different transport services is smooth | 9. Policies for multiple-city development and transport services development are well coordinated | 10. Policies for multiple-city development and promoting trade in transport services are well coordinated |                         |
| Brunei Darussalam           | 2  | 3  | 5  | 2   | 4  | 1   | 2  | 2   | 2   | 2   | 25                      |
| Cambodia                    | 9  | 9  | 9  | 9   | 9  | 8   | 9  | 8   | 8   | 8   | 86                      |
| Indonesia                   | 8  | 7  | 7  | 6   | 8  | 1   | 1  | 1   | 8   | 8   | 55                      |
| Lao P.D.R.                  | 4  | 4  | 3  | 1   | 2  | 1   | 5  | 1   | 4   | 3   | 28                      |
| Malaysia                    | 10   | 9  | 8  | 7   | 7  | 6   | 8  | 9   | 5   | 5   | 74                      |
| Myanmar                     | 1  | 3  | 2  | 3   | 5  | 1   | 2  | 1   | 1   | 4   | 23                      |
| Philippines                 | 10   | 8  | 8  | 5   | 7  | 1   | 1  | 5   | 5   | 5   | 55                      |
| Singapore                   | 10   | 10   | 8  | 6   | 8  | 5   | 6  | 6   | 6   | 6   | 71                      |
| Thailand                    | 6  | 7  | 6  | 5   | 8  | 5   | 7  | 4   | 6   | 5   | 59                      |
| Viet Nam                    | 7  | 5  | 6  | 6   | 6  | 5   | 6  | 7   | 6   | 5   | 59                      |
| <b>Average</b>              | <b>6.7</b>   | <b>6.5</b>   | <b>6.2</b>   | <b>5</b>  | <b>6.4</b>   | <b>3.4</b>  | <b>4.7</b>   | <b>4.4</b>  | <b>5.1</b>  | <b>5.1</b>  | <b>53.5</b>             |
| <b>Average of (1)-(10):</b> |  |  |  |   |  |   |  |   |   | <b>5.4</b>  |                         |



Table H4. Evaluation for realization of a “multiple equilibria” situation: National level

Scale: 1 (least agreeable)–10 (most agreeable)

| Country           | 1.<br>Trade in maritime<br>transport services | 2.<br>Trade in air transport<br>services | 3.<br>Trade in rail transport<br>services | 4.<br>Trade in road<br>transport services | Total score<br>[ /40 ] |
|-------------------|---|--|---|---|------------------------|
| Brunei Darussalam | 5   | 6  | 1   | 8   | 20                     |
| Cambodia          | 5   | 6  | 4   | 7   | 22                     |
| Indonesia         | 8   | 8  | 8   | 8   | 32                     |
| Lao P.D.R.        | 3   | 4  | 1   | 7   | 15                     |
| Malaysia          | 9   | 9  | 7   | 9   | 34                     |
| Myanmar           | 7   | 7  | 2   | 5   | 21                     |
| Philippines       | 9   | 8  | 7   | 9   | 33                     |
| Singapore         | 10  | 10                                       | 8   | 9   | 37                     |
| Thailand          | 7   | 8  | 8   | 9   | 32                     |
| Viet Nam          | 6   | 6  | 5   | 6   | 23                     |
| <b>Average</b>    | <b>6.9</b>                                    | <b>7.2</b>                               | <b>5.1</b>                                | <b>7.7</b>                                | <b>26.9</b>            |
|                   |   |  |   | <b>Average of (1)–(4):</b>                | <b>6.7</b>             |

Table H5. Evaluation for realization of a “multiple equilibria” situation: ASEAN wide

Scale: 1 (least agreeable)–10 (most agreeable)

| Country           | 1.<br>Trade in maritime<br>transport services | 2.<br>Trade in air transport<br>services | 3.<br>Trade in rail transport<br>services | 4.<br>Trade in road<br>transport services | Total score<br>[ /40 ] |
|-------------------|---|--|---|---|------------------------|
| Brunei Darussalam | 5   | 6  | 1   | 5   | 23                     |
| Cambodia          | 7   | 9  | 9   | 9   | 43                     |
| Indonesia         | 8   | 8  | 8   | 8   | 40                     |
| Lao P.D.R.        | 3   | 4  | 1   | 7   | 19                     |
| Malaysia          | 7   | 9  | 7   | 9   | 41                     |
| Myanmar           | 0   | 0  | 3   | 0   | 3                      |
| Philippines       | 9   | 9  | 7   | 7   | 41                     |
| Singapore         | 6   | 7  | 5   | 4   | 30                     |
| Thailand          | 8   | 8  | 6   | 8   | 36                     |
| Viet Nam          | 6   | 6  | 5   | 6   | 29                     |
| <b>Average</b>    | <b>5.9</b>                                    | <b>6.6</b>                               | <b>5.2</b>                                | <b>6.3</b>                                | <b>30.5</b>            |
|                   |   |  |   | <b>Average of (1)–(4):</b>                | <b>6.0</b>             |

Tables H6–H9 show the results of policy evaluation for maritime, air, rail and road transport services.

| Table H6. Policy evaluation: Trade in maritime transport services |   |
|---|---|
| Country   | Further Policy Options (in-country level / neighbour-country level / ASEAN level)   |
| Brunei Darussalam   | ..  |
| Cambodia  | [in-country level] Need introduction of policies to facilitate and nurture investments in maritime transports both from foreign country and local investment.<br>[neighbouring-country level] Need more coordination with our neighbouring countries for better maritime transport services connection.<br>[ASEAN-wide] Need more policy coordination and cooperation in designing and building ASEAN Maritime Transport Network.   |
| Indonesia   | Policy between central and local government/cross border cooperation/maximize ASEAN Forum   |
| Lao P.D.R.  | [in-country level] It is very difficult to improve water transport due to a lot of rocks along the river. So, first of all, we need to promote how to use this service safely.<br>[neighbouring-country level] It's just small volume, because people prefer to use land transport services.  |
| Malaysia  | ..  |
| Myanmar   | [in-country level] There is Myanmar maritime policy which covers in implementation of national, sub-regional and international transport network.<br>[neighbouring-country level] There is no maritime policy in neighbouring country level.<br>[ASEAN-wide] There is no ASEAN-level maritime transport services policy.  |
| Philippines   | [in-country level] Liberalization of foreign ownership to increase industry players and promote competition.<br>[neighbouring-country & ASEAN-wide] Maximize use of ASEAN RORO by increasing volume of trade  |
| Singapore   | [neighbouring-country level] Increase frequency of ferry services between Singapore and neighbouring areas (e.g. with Indonesian islands south of Singapore and with Johor State, Malaysia)<br>[ASEAN-wide] Improve trade facilitation by harmonizing customs clearance procedures.   |
| Thailand  | [in-country level] Increase capacity and improve capability and quality of maritime transport services to ensure sufficient, timely and affordable services which meet international standards.<br>[neighbouring-country level] Promote quality and reliable maritime transport services to connect major ports among neighbouring countries.<br>[ASEAN-wide] Promote quality and reliable maritime transport services to connect major ports among neighbouring countries with effective facilitating measures at such ports. Promote joint venture and FDI (supported by appropriate promotional schemes) among ASEAN operators and partners to provide efficient maritime transport services, subject to national laws and regulations of the respective ASEAN Member countries. |
| Viet Nam  | - Restructuring maritime transport toward the main direction of transport sector including bulk cargo, super-long-cargo, super-weight transport.<br>- Continue to support agriculture and rural areas; Increase market share of maritime transport, container transport on main corridors transport.<br>- Improve the quality of maritime transport in direction of capacity building to raise competition, development of modern transport vehicles with reasonable structure, appropriate with provided condition.<br>- Prioritize the development of container fleet; Enhance handling capacity, warehouse service especially for container cargo.   |

Source: Survey results at the Third Seminar on Promoting Services Trade in ASEAN Member States was held 11–13 September 2017 in Kuala Lumpur, Malaysia.

Note: Original memorandum style (as reported in the survey) is retained.

Table H7. Policy evaluation: Trade in air transport services

| Country           | Further Policy Options (in-country level / neighbour-country level / ASEAN level)   |
|-------------------|---|
| Brunei Darussalam | ..  |
| Cambodia          | [in-country level] Cambodia needs more investment in air transport services including building and expanding airport and providing efficient logistic services to both passengers and cargos.<br>[neighbouring-country level] Need more cooperation with neighbouring countries in terms of sharing flight information and flight connection and improving other air transport related services.<br>[ASEAN-wide] Need to improve networking and coordination ASEAN wide in terms of sharing flight information, air safety and anti-terrorism.  |
| Indonesia         | Policy for security, safety, licenses for Maintenance Repair and Operation (MRO)/Policy for security, safety/policy for security, safety.   |
| Lao P.D.R.        | [in-country level] The ticket price must be improved.<br>[neighbouring-country level] The airplane must be upgraded.<br>[ASEAN-wide] The main airport capacity should be expanded.  |
| Malaysia          | Efficient custom clearance and cargos management to reduce the time   |
| Myanmar           | ..  |
| Philippines       | ..  |
| Singapore         | [neighbouring-country level] Increase the number of flights and timeslots between Singapore and non-capital cities.<br>[ASEAN-wide] Go for full open skies agreement (e.g. 7th Freedom).  |
| Thailand          | ..  |
| Viet Nam          | <ul style="list-style-type: none"> <li>- Restructure air transport to become popular and convenient type of transport, undertake passengers transportation on international mid- and long-range routes.</li> <li>- Consider as key means of transport to important economic zones, remote area or island.</li> <li>- Create a favourable and competitive environment for the operation of the airlines.</li> <li>- Improve the competitive capacity of Vietnamese airlines by modernizing fleets, expand air routes.</li> <li>- Enhance quality and quantity of services, absolutely ensure security and safety of aviation.</li> </ul> |

Source: Survey results at the Third Seminar on Promoting Services Trade in ASEAN Member States was held 11–13 September 2017 in Kuala Lumpur, Malaysia.

Note: Original memorandum style (as reported in the survey) is retained.

Table H8. Policy evaluation: trade in rail transport services

| Country           | Further Policy Options (in-country level / neighbour-country level / ASEAN level)   |
|-------------------|---|
| Brunei Darussalam | ..  |
| Cambodia          | [in-country level] Cambodia needs to pay more attention to the improvement of railroads, expanding railroad to cover the whole country to facilitate the movement of people (foreign and local tourist) and goods.<br>[neighbouring-country level] There should be more coordination and cooperation with neighbouring countries in connecting the railroads for better connectivity.<br>[ASEAN-wide] The initiative of Singapore-Kunming Railways Networks should be accomplished as soon as possible. Other initiatives to link ASEAN by railroads should also be considered. |
| Indonesia         | Policy for R&D/sharing knowledge/policy for sharing knowledge and R&D   |
| Lao P.D.R.        | [in-country level] No services because it's still under construction<br>[neighbouring-country level] Human resource must be upgraded to ensure the service of new railways (Lao-China)  |
| Malaysia          | Create last-mile link from cargo hub to port. Create spur line from main trunk.   |
| Myanmar           | ..  |
| Philippines       | ..  |
| Singapore         | [in-country level] Improve reliability of commuter rail systems (e.g. MRT & LRT systems)<br>[neighbouring-country level] Invest in high-speed rail connectivity<br>[ASEAN-wide] Invest in high-speed rail connectivity.   |
| Thailand          | ..  |
| Viet Nam          | - Developing railways in the direction of modernization, rational capacity, fuel saving and efficiency.<br>- Reducing fees, rail transport costs, improving the quality of transport services to compete with other types of transport.<br>- Restructuring railway transport in direction of developing large and medium-sized cargo on long or medium journeys; medium-distance passenger transport and public transport in major cities.  |

Source: Survey results at the Third Seminar on Promoting Services Trade in ASEAN Member States was held 11–13 September 2017 in Kuala Lumpur, Malaysia.

Note: Original memorandum style (as reported in the survey) is retained.

Table H9. Policy evaluation: trade in road transport services

| Country           | Further Policy Options (in-country level / neighbour-country level / ASEAN level)   |
|-------------------|---|
| Brunei Darussalam | ..  |
| Cambodia          | [in-country level] Road transport needs more investment, expand and widen countrywide. Build new roads, maintenance and safety of the roads should be a priority.<br>[neighbouring-country level] Need more coordination and cooperation with neighbouring countries for better road network connection.[ASEAN-wide] ASEAN cooperation on roads transport should work harder and be more practical to reflect the needs of individual Members and the needs of ASEAN connectivity as a whole.   |
| Indonesia         | Policy for R&D/sharing knowledge/policy for sharing knowledge and R&D   |
| Lao P.D.R.        | [in-country level] Need to issue some transport legislation to manage its service<br>[neighbouring-country level] Need to build Inland Container Depot (ICD) along bordering crossing point for transshipment<br>[ASEAN-wide] -Both truck and bus including drivers should be upgraded<br>- Infrastructure, such as road capacity and lanes of road, must expanded  |
| Malaysia          | Create hub for distribution of cargos from all over the country   |
| Myanmar           | ..  |
| Philippines       | ..  |
| Singapore         | [in-country level] Explore autonomous driving solutions and improve ride-sharing applications.<br>[neighbouring-country level] Improve capacity for customs clearance at road CIQ facilities (Causeway and Second Link). Mutual recognition of commercial vehicles to facilitate cross-boarder trade.<br>[ASEAN-wide] Improve rural-urban road connectivity in ASEAN. Improve driving conditions at night with lighting solutions.  |
| Thailand          | Road transport of Thailand. Thailand has road infrastructure and transport service covering the whole country. It can support the transport of passengers and goods across the country and effectively connects with neighbouring countries.<br>The ASEAN regional transport system requires substantial cooperation from ASEAN Member States to facilitate the movement of passengers and cargo across the region. Focus on enhancing ASEAN's competitiveness as a global leader.<br>Thailand Shipping The transport operator has developed a service model. And the investment of multinational companies specializing in transportation. The competition is higher. More diversified forms of service Modern technology is used to improve management. |
| Viet Nam          | - Restructuring means of transport in favour of public transportation development, high quality facilities; protective and friendly to the environment.<br>- Taking advantage of road transport capacity focusing on short and average distance transportation.<br>- Applying high technologies to the transportation business, enhancing quality of transportation services in accordance with reducing costs and encouraging medium and large transport enterprises establishment.  |

Source: Survey results at the Third Seminar on Promoting Services Trade in ASEAN Member States was held 11-13 September 2017 in Kuala Lumpur, Malaysia.

Note: Original memorandum style (as reported in the survey) is retained.





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