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Review of ASEAN Commitments in Maritime, Air, Rail and Road Transport Services Under AFAS 10 and RCEP

Notes

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The tables use the following symbols:

- Two dots (..) indicate that data are not available or are not separately reported.
- A dash (-) indicates that the item equals zero or its value is negligible.
- Use of an en-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.

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Contents

I. Introduction

Transport—maritime, 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[1] the following 21 job categories under "maritime transport services", "air transport services", "rail transport services" and "road transport services", which this paper addresses. This paper refers to these four modes of transport 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. This paper does not consider these five 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

[1] The WTO document is titled "Services Sectoral Classification List" (MTN.GNS/W/120, released on 10 July 1991).

11Fc Rental of commercial vehicles with operator

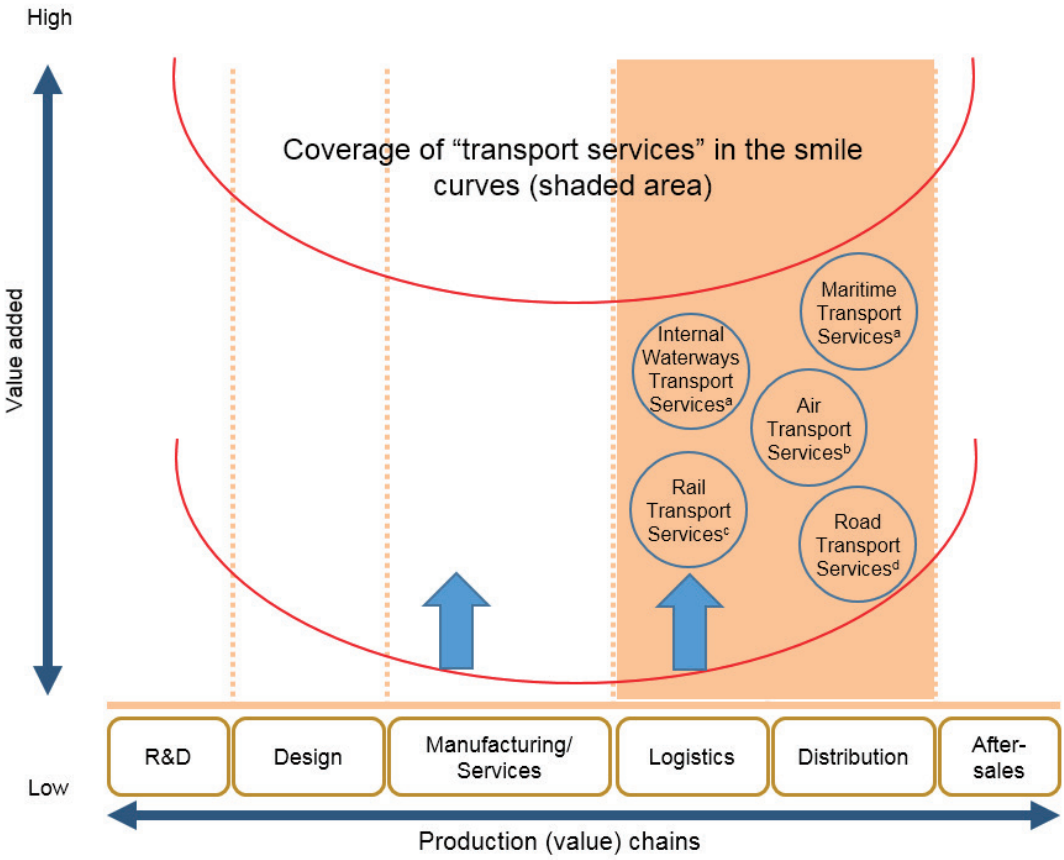
11Fd Maintenance and repair of road transport equipment

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 growing yearly.

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).

[a] Includes rental of vessel with crew services and maintenance and repair of vessels services
[b] Includes rental of aircraft with crew services and maintenance and repair of aircraft services
[c] Includes maintenance and repair of rail transport equipment services
[d] 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" (ASEAN Secretariat, 2015).

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 enables multiple cities to emerge at distances from the capital area. 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, fuelled by greater mobility. ASEAN-wide policy should be formulated with such a decentralized, multiple-equilibria scenario in view[2].

[2] APEC Policy Support Unit (2015) indicates that, in the context of global value chains, transportation services for procuring intermediate inputs enable the geographic dispersion of value-creating operations.

II. Logistics Performance Indices of ASEAN Member States

Table 1 shows logistics performance indices (LPIs) for ASEAN member states and memorandum countries in 2016 and 2018 (the latest year available). The indices measure the degree of smooth customs clearance, infrastructural development, efficient international shipments, logistics quality and competence and timeliness of shipments.

Overall, a significant degree of variation remains among ASEAN member states' LPI scores. In 2018, Singapore ranked highest (seventh in the world), while Myanmar ranked lowest (137th in the world). The Lao People's Democratic Republic was the ASEAN member state with the biggest improvement from 2016 to 2018, with an increase of 0.63 in the LPI score and a change from ASEAN's lowest position (152nd) in 2016 to ASEAN's antepenultimate position (82nd) in 2018. Table 1 shows that Indonesia, Philippines, Thailand and Viet Nam also increased their LPI scores between 2016 and 2018.

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

Country	LPI Rank (2016)	LPI Score (2016)	LPI Rank (2018)	LPI Score (2018)	Customs (2018)		Infrastructure (2018)		International Shipments (2018)		Logistics Quality and Competence (2018)		Timeliness (2018)	
					Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank
ASEAN Members														
Brunei Darussalam	70	2.87	80	2.71	2.62	73	2.46	89	2.51	113	2.71	77	3.17	80
Cambodia	73	2.8	98	2.58	2.37	109	2.14	130	2.79	71	2.41	111	3.16	84
Indonesia	63	2.98	46	3.15	2.67	62	2.90	54	3.23	42	3.10	44	3.67	41
Lao PDR	152	2.07	82	2.70	2.61	74	2.44	91	2.72	85	2.65	83	2.84	117
Malaysia	32	3.43	41	3.22	2.90	43	3.15	40	3.35	32	3.30	36	3.46	53
Myanmar	113	2.46	137	2.30	2.17	131	1.99	143	2.20	144	2.28	128	2.91	108
Philippines	71	2.86	60	2.90	2.53	85	2.73	67	3.29	37	2.78	69	2.98	100
Singapore	5	4.14	7	4.00	3.89	6	4.06	6	3.58	15	4.10	3	4.32	6
Thailand	45	3.26	32	3.41	3.14	36	3.14	41	3.46	25	3.41	32	3.81	28
Viet Nam	64	2.98	39	3.27	2.95	41	3.01	47	3.16	49	3.40	33	3.67	40
Memorandum														
China	12	3.97	26	3.61	3.29	31	3.75	20	3.54	18	3.59	27	3.84	27
Japan	27	3.66	5	4.03	3.99	3	4.25	2	3.59	14	4.09	4	4.25	10
Korea, Republic of	24	3.72	25	3.61	3.40	25	3.73	22	3.33	33	3.59	28	3.92	25

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

For 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[3] 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, lower 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[4] policy.

[3] The liberalization of trade in transport services poses some concerns. 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; the benefits and costs of liberalization should be balanced.

[4] 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).

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 2). Unlike other service 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.

Table 2. Estimated value and share of transport services supply in ASEAN, by mode of supply, 2015 (billions of dollars and per cent)

	Receipts from the world (imports)				Supply to the world (exports)			
	Transport Services		Total Services		Transport Services		Total Services	
Mode of supply	**Value**	**Share**	**Value**	**Share**	**Value**	**Share**	**Value**	**Share**
Mode 1	74[a]	57	308	30	50[a]	56	302	30
Mode 2	9[b]	7	103	10	15[c]	16	101	10
Mode 3	47	36	565	55	25	28	554	55
Mode 4	0	0	51	5	0	0	50	5
ASEAN total	**130**	**100**	**1,027**	**100**	**90**	**100**	**1,007**	**100**

Source: AJC, based on own estimates, UNCTAD for total services and WTO for the mode shares of total services.
Note: For total services, each mode share as estimated by the WTO for the global supply is applied to ASEAN. The basic data for estimates by mode is 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.
[a] See tables 3 and 4.
[b] Data on outbound domestic transport services in travel expenditures are not available.
[c] Data on the share of domestic transport in total travel expenditures for inbound tourism (13 per cent) are obtained from national statistical offices from all countries except Brunei Darussalam, Lao PDR, Myanmar and Malaysia for which data are not available. These six countries' share is applied to total travel expenditures of all 10 ASEAN countries available from World Bank's World Development indicators ($69.4 billion of outbound tourism and $115.2 billion of 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 available transport services, be they foreign owned or domestically owned. As ASEAN's trade has been growing dynamically in both exports and imports, transport services trade is also expected to grow in both directions.

However, ASEAN's statistics on transport services as measured in the balance of payments do not necessarily show such growth. Despite some years of oscillations, the transport services exports and imports have not been rising as expected (tables 3 and 4). As indicated by the infrastructure component of the World Bank's LPIs (table 1), all ASEAN member states, except for Singapore, rank low compared with China and the Republic of Korea. Although considerable efforts have been made to build and ameliorate transport infrastructure to improve connectivity in ASEAN, a shortage of such infrastructure persists.

Exports. Transport services exports from ASEAN amounted to almost $74 billion in 2019, achieving its highest level in the period analysed (table 3). Although the export value in 2019 had increased by almost 53 per cent from the average level of 2005–2010, in 2020 a sharp decrease occurred, with the value returning to a level like the 2016 one.

Table 3 also indicates that until 2019 most ASEAN countries increased their exports of transport services. The exceptions were Thailand, Malaysia and Brunei Darussalam, which presented a decrease in their exports of transport services. Furthermore, the only sizeable increase occurred in Singapore.

As expected, Singapore is the biggest exporter of transport services in ASEAN, controlling a share that oscillates around 70 per cent of all ASEAN exports of transport services. With the impact of the COVID-19 pandemic, Singapore's share increased to 80 per cent, despite a decrease in the values, revealing the importance and resiliency of the transport services exports in this country. The second and third largest exporters are Malaysia and Thailand, but the value of their exports has declined over the years. Exports from Brunei Darussalam have also declined somewhat. In contrast, the exports of the other countries increased gradually until 2019, the last year before the COVID-19 pandemic. The value of Lao People's Democratic Republic and Cambodia's exports, though among the smallest in ASEAN, more than tripled in the period.

The importance of transport services stands out especially for Brunei Darussalam, accounting for more than half of all services exports. This is partly because the country strategically promotes marine transport. 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. Interestingly, despite the negative impact of the COVID-19 pandemic in the transportation sector around the globe, the transport services exports share of five ASEAN countries increased in 2020 (box 1).

Table 3. Exports of transport services and their share in total exports of services and of total exports of goods and services, 2005–2020 (millions of dollars and per cent)

Country	Annual average 2005–2010	Annual average 2011–2015	2016	2017	2018	2019	2020
Transport services exports							
Brunei Darussalam	403	361	313	309	263	237	122
Cambodia	217	327	414	500	597	671	387
Indonesia	2,625	3,406	3,245	3,089	3,119	3,372	2,060
Lao PDR	45	57	74	74	92	142	-
Malaysia	5,458	4,353	3,779	3,989	4,417	4,461	2,698
Myanmar	134	264	258	124	297	325	300
Philippines	1,143	1,586	1,723	2,210	2,347	2,459	1,414
Singapore	30,351	43,223	37,530	42,893	53,172	53,280	44,757
Thailand	6,122	5,517	5,201	6,115	6,682	6,138	2,845
Viet Nam	1,957	2,154	2,297	2,320	2,857	2,820	-
ASEAN total	**48,453**	**61,249**	**54,835**	**61,624**	**73,844**	**73,905**	**54,583**
Share in total exports of services							
Brunei Darussalam	52.3	69.0	65.0	63.0	53.2	45.0	41.3
Cambodia	13.5	10.1	11.3	12.2	12.6	12.9	23.6
Indonesia	18.3	15.9	15.3	13.7	11.5	12.5	16.4
Lao PDR	12.9	8.5	9.7	10.7	10.7	14.2	-
Malaysia	19.3	11.7	11.7	12.1	12.6	12.8	14.6
Myanmar	38.3	10.5	7.5	3.7	7.3	5.7	8.0
Philippines	8.5	7.2	6.1	7.1	7.0	7.0	5.3
Singapore	39.2	33.0	27.2	28.2	29.6	28.8	28.3
Thailand	20.5	11.6	9.0	9.7	9.9	8.9	10.7
Viet Nam	31.3	22.4	12.0	12.4	13.3	12.0	-
ASEAN total	**28.1**	**22.3**	**18.0**	**18.7**	**19.8**	**19.1**	**22.0**
Share in total exports of goods and services							
Brunei Darussalam	4.4	3.9	6.4	5.7	4.2	3.6	2.1
Cambodia	3.7	3.2	3.2	3.5	3.8	3.8	2.4
Indonesia	1.9	1.8	2.1	1.8	1.7	2.0	1.4
Lao PDR	3.1	1.8	1.6	1.5	1.7	2.4	-
Malaysia	2.6	1.8	1.8	1.8	1.8	1.9	1.3
Myanmar	38.3	2.1	1.8	0.8	1.6	1.5	1.7
Philippines	1.8	2.1	2.1	2.4	2.5	2.6	1.8
Singapore	7.9	8.5	8.6	8.9	9.9	10.3	9.7
Thailand	3.2	2.1	2.1	2.2	2.3	2.2	1.3
Viet Nam	3.2	1.6	1.3	1.1	1.2	1.1	-
ASEAN total	**4.6**	**4.3**	**4.1**	**4.1**	**4.5**	**4.6**	**4.7**

Source: AJC based on own data from UNCTAD and ASEANstats.

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 13 per cent in Brunei Darussalam to 51 per cent in Cambodia, with an average of 30 per cent in 2019 (table 4). 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 oscillated throughout the last decade, the trend is upward over the past decade, particularly for Lao People's

Democratic Republic, Myanmar and Singapore.

In the case of exports of transport services, the prevalence of Singapore as the largest importer is clear. However, member states such as Thailand, Indonesia, Malaysia and Viet Nam also import this service in large quantities.

Table 4. Imports of transport services and their share in total imports of services and in total imports of goods and services, 2005–2020 (millions of dollars and per cent)

Country	Annual average 2005–2010	Annual average 2011–2015	2016	2017	2018	2019	2020
Transport services imports							
Brunei Darussalam	370	279	194	232	196	200	192
Cambodia	485	914	1,179	1,282	1,290	1,436	1,120
Indonesia	9,422	11,050	8,282	9,195	10,794	9,928	6,167
Lao PDR	14	34	63	77	121	124	-
Malaysia	10,396	10,986	8,915	10,121	10,376	9,793	8,225
Myanmar	365	945	1,230	1,344	1,335	1,370	1,286
Philippines	2,803	3,370	3,941	4,464	4,651	4,404	3,395
Singapore	26,709	37,768	39,381	45,296	54,195	55,105	44,326
Thailand	18,298	18,613	13,685	14,971	16,443	16,113	15,493
Viet Nam	4,461	7,067	7,389	7,081	6,831	7,105	-
ASEAN total	**73,322**	**91,025**	**84,260**	**94,063**	**106,232**	**105,579**	**80,202**
Share in total imports of services							
Brunei Darussalam	27.5	13.3	13.0	20.8	14.3	13.0	18.9
Cambodia	55.6	53.7	53.4	52.5	48.6	51.4	64.3
Indonesia	37.0	35.6	30.0	31.6	33.0	29.6	29.9
Lao PDR	13.5	4.2	6.7	7.7	11.2	11.7	-
Malaysia	36.4	27.6	24.4	26.8	26.8	26.3	29.3
Myanmar	56.3	49.3	53.9	52.4	44.5	43.8	44.1
Philippines	30.7	20.6	18.0	19.2	20.0	18.3	22.0
Singapore	32.9	27.7	27.4	28.1	31.2	31.0	30.5
Thailand	48.1	43.6	34.6	36.1	34.5	33.2	39.2
Viet Nam	60.4	55.7	48.5	46.5	43.7	44.4	-
ASEAN total	**38.1**	**31.9**	**28.9**	**29.8**	**31.2**	**30.6**	**31.5**
Share in total imports of goods and services							
Brunei Darussalam	10.4	5.1	4.9	6.0	3.9	3.4	3.7
Cambodia	7.3	7.7	8.8	8.5	7.2	7.1	6.3
Indonesia	7.2	5.6	5.5	5.5	5.5	5.5	4.4
Lao PDR	1.0	0.8	1.1	1.3	1.8	1.9	-
Malaysia	6.0	4.9	4.7	4.8	4.6	4.6	4.4
Myanmar	56.3	6.5	7.4	6.8	6.7	7.2	7.1
Philippines	4.2	4.2	3.8	3.9	3.7	3.5	3.7
Singapore	7.5	8.0	9.8	10.0	10.9	11.4	10.5
Thailand	9.6	7.1	6.3	6.3	6.2	6.4	7.2
Viet Nam	6.1	5.1	4.2	3.5	3.1	3.1	-
ASEAN total	**7.3**	**6.5**	**6.6**	**6.6**	**6.7**	**6.9**	**7.3**

Source: AJC based on own data from UNCTAD and ASEANstats.

Box 1. The impact of COVID-19 on transport services trade

The COVID-19 pandemic led to measures of social distancing and lockdown in many countries, including ASEAN member states. The imposition of such strict measures aimed to decrease the movement of the population and consequently slow the spread of the virus. The decrease of the movement of the population is already expected to adversely affect transport services. Another expected result of adopting the aforementioned measures is an economic slowdown. Disruptions in the global value chains, given the lack of components to be traded, and/or disruptions in trade, given the closing of borders, are expected. Such events would represent a decrease in the values of transport services trade. To grasp the real impact in the transport services sector, we observe the trade data from tables 3 and 4 for year 2020. The available exports data reveal a strong decline in the values of transport services of all ASEAN member states. Interestingly, despite the negative impact of COVID-19 on the transportation sector export values, for most ASEAN countries the share of transport services in total services increased in 2020. As expected, the available transport services import values also decreased without exceptions. However, once again the share of transport services in total services increased. As a matter of fact, the share of transport services in total trade of goods and services also increased, revealing the importance and resiliency of the transport services sectors.

Although this paper considers four transport modes (maritime, air, rail and road), ASEAN countries use different modes in trade, reflecting their geographic characteristics and accessibility to and availability of transport infrastructure. Tables 5 and 6 provide data by transport mode. Observing the share of each mode, we can conclude that in the case of exports air transport is more used in most ASEAN member states. Only in Myanmar and Singapore is sea transport more frequently used than air transport.

Interestingly, for the case of imports sea transport is more frequently used. Philippines relied more on air transport until 2016 and then switched to sea transport after a law was passed allowing foreign vessels to transport and co-load foreign cargoes for domestic transhipment. Lao People's Democratic Republic relied more on other types of transport services, given that it lacks access to the sea.

Table 5. Exports of transport services by transport mode in selected ASEAN countries, 2010-2020 (per cent)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	..	..	..	..	..	..	..	..	72	40
Sea transport	..	..	..	..	..	..	..	..	..	27	60
Other than sea and air	..	..	..	..	..	..	..	..	..	0	1
Postal and courier services	..	..	..	..	..	..	..	..	..	..	..
Cambodia	100	100	100	100	100	100	100	100	100	100	100
Air transport	83	83	84	89	86	87	88	88	88	87	76
Sea transport	10	9	11	9	10	11	11	11	10	10	18
Other than sea and air	8	8	5	2	4	2	1	1	2	3	6
Postal and courier services	0	0	..	..	..	..	..	0	0	0	0
Lao PDR	100	100	100	100	100	100	100	100	100	100	100
Air transport	12	22	76	87	79	83	82	85	90	84	..
Sea transport	0	0	0	0	0	0	0	0	0	0	..
Other than sea and air	80	69	16	7	14	17	18	15	10	16	..
Postal and courier services	9	9	8	6	7	0	0	0	0	0	..
Malaysia	100	100	100	100	100	100	100	100	100	100	100
Air transport	45	47	47	51	51	50	50	57	57	59	26
Sea transport	50	46	44	40	40	41	41	34	33	33	56
Other than sea and air	5	7	8	9	8	9	9	9	10	9	18
Postal and courier services	..	..	..	..	..	..	..	..	..	..	..
Myanmar	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	..	..	25	51	42	47	25	23	31	24
Sea transport	..	..	..	74	24	37	49	65	59	50	64
Other than sea and air	..	..	..	0	24	20	3	9	18	18	11
Postal and courier services	..	..	0	1	1	1	1	1	0	0	1
Philippines	100	100	100	100	100	100	100	100	100	100	100
Air transport	98	99	98	99	99	99	98	76	76	76	64
Sea transport	2	1	2	1	1	0	2	23	24	24	36
Other than sea and air	..	..	..	..	0	..	0	0	0	0	0
Postal and courier services	0	0	0	0	0	0	1	0	0	1	0
Singapore	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	16	16	14	14	13	16	16	14	13	5
Sea transport	..	83	83	85	85	86	83	82	84	85	94
Other than sea and air	..	0	0	0	0	0	1	1	0	0	0
Postal and courier services	..	1	1	1	1	1	1	1	1	1	1
Vietnam	100	100	100	100	100	100	100	100	100	100	100
Air transport	52	60	70	65	64	65	65	65	72	71	..
Sea transport	47	40	29	33	32	31	31	31	25	25	..
Other than sea and air	..	..	..	..	..	..	..	..	..	..	..
Postal and courier services	1	0	1	1	4	3	4	4	3	3	..

Source: AJC based on own data from UNCTAD.

Table 6. Imports of transport services by transport mode in selected ASEAN countries, 2010-2020 (per cent)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	..	..	..	..	..	..	..	..	13	3
Sea transport	..	..	..	..	..	..	..	..	..	86	96
Other than sea and air	..	..	..	..	..	..	..	..	..	0	0
Postal and courier services	..	..	..	..	..	..	..	..	..	..	..
Cambodia	100	100	100	100	100	100	100	100	100	100	100
Air transport	16	17	17	17	16	16	17	19	22	22	15
Sea transport	82	82	82	82	82	83	81	80	76	76	81
Other than sea and air	2	1	1	2	2	1	2	1	2	2	4
Postal and courier services	0	0	..	..	..	..	..	0	0	0	0
Lao PDR	100	100	100	100	100	100	100	100	100	100	100
Air transport	54	47	25	21	12	12	0	9	10	13	..
Sea transport	0	0	0	0	0	0	0	0	6	0	..
Other than sea and air	20	29	66	68	78	88	100	91	84	86	..
Postal and courier services	26	24	9	12	10	0	0	0	0	0	..
Malaysia	100	100	100	100	100	100	100	100	100	100	100
Air transport	31	29	27	29	31	30	31	33	31	32	27
Sea transport	56	59	61	60	58	58	58	57	59	58	62
Other than sea and air	13	12	12	11	10	11	11	11	10	10	11
Postal and courier services	..	..	..	..	..	..	..	..	..	..	..
Myanmar	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	..	..	2	7	9	8	2	3	5	3
Sea transport	..	..	..	98	92	90	86	97	96	93	96
Other than sea and air	..	..	..	0	1	1	5	0	1	1	1
Postal and courier services	..	..	0	0	0	0	0	0	1	0	0
Philippines	100	100	100	100	100	100	100	100	100	100	100
Air transport	98	97	96	98	99	99	100	22	21	25	13
Sea transport	2	3	4	1	1	1	0	78	79	75	87
Other than sea and air	..	..	..	..	0		0	0	0	0	0
Postal and courier services	0	0	0	0	0	0	0	0	0	0	0
Singapore	100	100	100	100	100	100	100	100	100	100	100
Air transport	..	22	19	19	18	19	20	21	20	18	14
Sea transport	..	75	78	78	79	78	78	77	80	80	84
Other than sea and air	..	2	2	2	2	2	1	1	0	1	1
Postal and courier services	..	1	1	1	1	1	1	1	1	1	1
Vietnam	100	100	100	100	100	100	100	100	100	100	100
Air transport	14	15	15	12	13	13	13	13	13	13	..
Sea transport	86	85	85	87	87	87	87	86	86	86	..
Other than sea and air	..	..	..	..	..	..	..	..	..	..	..
Postal and courier services	0	0	0	1	1	1	1	1	1	1	..

Source: AJC based on own data from UNCTAD.

2. Mode 3: Commercial presence

Provision of transport services requires massive investment in transport infrastructure. Therefore, both domestic and foreign investments and private and public investments 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 in Singapore had a value of $35.7 billion in 2019. Singapore is also an investor in transport and storage services, investing $18.3 billion abroad as of 2019.

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. 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.

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 a thousand foreign companies provide transport services with a sales value estimated at $47 billion (table 7). ASEAN firms have established more than 450 firms abroad that provide transport services abroad, with a sales value of $25 billion (table 7). 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 many foreign transport services companies. In this respect, Indonesia, the largest economy in ASEAN, does not host as many foreign transport services companies nor generate as many sales (table 7), when compared with the size of total outputs and value added of this industry (see section V).

Table 7. 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[a]	Estimated sales	Number of ASEAN entities abroad[a]	Estimated sales
Brunei Darussalam	1	8	0	-
Cambodia	8	97	0	-
Indonesia	132	867	25	24
Lao PDR	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
ASEAN Total	1,013	46,752	454	24,632

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and Orbis.
Notes: a 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 and 11 for Viet Nam for receipts from abroad; and 2 for Indonesia, 12 for Malaysia, 2 for Philippines, 20 for Singapore and 1 for Thailand for supply to the world).

Regarding 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 U.S. transport services companies and one twentieth those of European ones (table 8). This is because these Japanese companies are engaged in small-scale services (such as transport of goods), whereas European and U.S. 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).

Table 8. 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[d]	Estimated sales	Number of affiliates[e]	Estimated sales
Developed economies	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[a]	10	274	3	76
	Subtotal	**638**	**8,239**	**65**	**8,235**
Developing economies	ASEAN[b]	213	3,201	50	3,917
	China	10	1,565	14	345
	Korea, Rep. 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[c]	22	3,259	19	1,812
	Subtotal	**294**	**9,631**	**115**	**9,371**
Unspecified / Supernational		23	0	2	0
World		**955**	**17,870**	**182**	**17,606**

Source: AJC, based on data from Toyo Keizai Shimposha, UNCTAD, Thomson Reuters and Orbis.
Notes:
[a] Foreign affiliates in ASEAN and ASEAN affiliates abroad include Taiwan (China) and New Zealand only.
[b] 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.
[c] 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).
[d] 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 and 0 for China, the Republic of Korea, India, Hong Kong (China), the United Arab Emirates and unspecified/supernational.)
[e] 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 and 0 for the Republic of Korea, Hong Kong (China) and unspecified/supernational.)

ASEAN transport services companies also invest abroad, generating estimated sales of $8–9 billion in developed regions (mainly Australia and Europe, the two major host regions) and developing economies. The importance of Asia, in particular ASEAN, for ASEAN transport services companies reflects that not only are ASEAN firms becoming more competitive, but also that regional infrastructure connectivity is expanding.

IV. Trade Agreements and Regulations among and in ASEAN Member States

The ASEAN Framework Agreement on Services (AFAS) is the main and most open trade agreement concerning liberalization of trade in transport services.[5] Another important trade agreement for ASEAN is the Regional Comprehensive Economic Partnership (RCEP), which was signed in 2020. Under this agreement, the combination of positive listing and negative listing is used. As Hoekman index calculation is possible only for positive listing (adopted by Cambodia, Lao People's Democratic Republic, Myanmar, Philippines, Thailand and Viet Nam), following are some comparisons of AFAS and RCEP where possible.

Tables 9–13 show the Hoekman index,[6] which measures the commitment to liberalization for maritime, air, rail and road transport services, respectively, under AFAS (10th package).[7] While information on air transport services is not publicly available (because the sector's specific commitments by country are separately negotiate[8]), marine, rail and road are relatively open. Following are some observations by country.

Brunei Darussalam. Under AFAS, maritime transport is rather open, reflecting the country's geographic location by the sea; rail transport is highly open and road transport is closed. Under RCEP, negative listing is used.

Cambodia. Under AFAS, maritime, rail and road transport are highly open. Under RCEP, maritime, air and rail transports are closed and road transport is fully open.

Indonesia. Under AFAS, 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), and rail and road services are rather open. Under RCEP, negative listing is used.

Lao People's Democratic Republic. Under AFAS, the country has fully open maritime transport services even though landlocked, reflecting its policy emphasis on connectivity to neighbouring countries' maritime services, and rail and road services are highly open. Under RCEP, maritime transport is rather open (except for Mode 3); as for air services, supporting-type sectors alone

5 Under the ASEAN Trade in Services Agreement, which is based on negative listing (with relevant negotiations still going on, for specifying the negative lists by ASEAN members), is a sequel policy effort building on AFAS. Transportation services are much emphasized under the ASEAN Trade in Services Agreement because of their importance relative to global value chains.

6 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 or national treatment), as follows: first, assign the value 1 when the sector at issue is "fully liberalized", 0.5 when "limited (but bound)" and 0 when "unbound" (government has not committed to liberalize) by subsector, by mode and by aspect (market access or national treatment); take the simple average for aggregation and then calculate the average value by service sector and by country. The higher the figure, the more liberal the country's services trade commitments are to the free trade agreement members. Using the database constructed for this and for other purposes, the "Hoekman index" is derived for each of 155 subsectors. 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.

7 Due to lack of publicly available latest information under AFAS, indexation for air transportation services is not possible.

8 The Protocol to Implement the Eleventh Package of Commitments on Air Transport Services under the ASEAN Framework Agreement on Services (AFAS) was signed in November 2019; there is, however, no publicly available information indicating that it has come into effect (as of March 2022) .

are open; rail transport is rather open especially in Modes 1 and 2 and road transport is closed.

Malaysia. Under AFAS, 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 and rail transport is closed while some road services are open. Under RCEP, negative listing is used.

Myanmar. Under AFAS, maritime service is rather open, rail services are closed and some road services are open (while rental service is closed). Under RCEP, the maritime sector is also rather open (except for pushing and towing services), and air transport is open for rental of aircraft with crew and maintenance and repair of aircraft and supporting services.

Philippines. Under AFAS, maritime service is rather open and rail and road services in Modes 2 and 3 are rather open (yet Mode 1 is not committed due mainly to technical infeasibility). Under RCEP, the commitments in maritime, rail and road services are rather like that under AFAS; as for air service, passenger and freight transportation are closed, yet the other subsectors are open.

Singapore. Under AFAS, 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, rail services are closed and some road services are open. Under RCEP, negative listing is used.

Thailand. Under AFAS, the country has a highly open trade policy, reflecting its geopolitical situation as an important hub of the ASEAN region; rail and road services are partially open. Under RCEP, the commitment is a bit lower than that under AFAS overall: Air transport is committed for supporting-type services only.

Viet Nam. Under AFAS, the country has an open trade policy in terms of maritime services, some supporting sectors are closed, rail services are highly open and road services are partially open. Under RCEP, the degree of openness is lower than that under AFAS overall: Air service is committed only for supporting-type services.

Table 9. Hoekman index of trade liberalization for maritime transport services, by subsector and by mode, under AFAS 10th package (left figures) and RCEP (right figures)

		11Aa	11Ab	11Ac	11Ad	11Ae	11Af
Country	Mode	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 | negative	1 |negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode 2	1 | negative	1 |negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode 3	0.75 | negative	0.75 |negative	0.75 | negative	0.75 | negative	0.75 | negative	0.75 | negative
Cambodia	Mode 1	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
	Mode 2	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
	Mode 3	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
Indonesia	Mode 1	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode 2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode 3	0.5 | negative	0.5 | negative	0.5 | negative	0.5 | negative	0.5 | negative	0.5 | negative
Lao PDR	Mode 1	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 | 1
	Mode 3	1 | 0	1 | 0	1 | 0	1 | 1	1 | 1	1 | 1
Malaysia	Mode 1	1 | negative	1 | negative	1 | negative	0 | negative	0 | negative	0 | negative
	Mode 2	1 | negative	1 | negative	1 | negative	1 | negative	0 | negative	0 | negative
	Mode 3	0.75 | negative	0.75 | negative	1 | negative	0.75 | negative	0 | negative	0 | negative
Myanmar	Mode 1	1 | 1	1 | 1	1 | 1	1 | 1	1 | 0	1 | 1
	Mode 2	1 | 1	1 | 1	1 | 1	1 | 1	1 | 0	1 | 1
	Mode 3	0.75 | 0.75	0.75 | 0.75	0.75 | 1	0.75 | 0.75	0.75 | 0	0.5 | 0.75
Philippines	Mode 1	1 | 1	1 | 1	1 | 1	0 | 0	0 | 1	0 | 0
	Mode 2	1 | 1	1 | 1	1 | 1	0.75 | 1	1 | 1	1 | 0
	Mode 3	1 | 1	0.75 | 1	0.75 | 0.5	0.75 | 0.75	0.75 | 0.5	0.25 | 0
Singapore	Mode 1	1 | negative	1 | negative	1 | negative	0 | negative	1 | negative	1 | negative
	Mode 2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode 3	0.5 | negative	0.5 | negative	0.75 | negative	0.75 | negative	1 | negative	0.75 | negative
Thailand	Mode 1	1 | 1	1 | 1	1 | 0	1 | 0.5	1 | 1	1 | 0
	Mode 2	1 | 1	1 | 1	1 | 0	1 | 1	1 | 1	1 | 1
	Mode 3	0.75 | 0	0.5 | 0	0.75 | 0	0.75 | 0.75	0.75 | 0	0.75 | 0.75
Viet Nam	Mode 1	1 | 0	1 | 0	1 | 0	1 | 0	0 | 0	1 | 0
	Mode 2	1 | 1	1 | 1	1 | 0	1 | 0	0 | 0	1 | 0
	Mode 3	0.75 | 0.75	0.75 | 0.75	0.75 | 0	0.75 | 0	0 | 0	0.25 | 0

Source: AJC's calculation based on ASEAN member states' specific commitment tables under AFAS (10th package). See annex A for reproduction and categorization of the tables.

Table 10. Hoekman index of trade liberalization for air transport services, by subsector and by mode, under RCEP

		11Ca	11Cb	11Cc	11Cd	11Ce
Country	Mode	Passenger transportation	Freight transportation	Rental of aircraft with crew	Maintenance and repair of aircraft	Supporting services for air transport
Brunei Darussalam	Mode1	negative	negative	negative	negative	negative
	Mode2	negative	negative	negative	negative	negative
	Mode3	negative	negative	negative	negative	negative
Cambodia	Mode1	0	0	0	1	1
	Mode2	0	0	0	1	1
	Mode3	0	0	0	1	1
Indonesia	Mode1	negative	negative	negative	negative	negative
	Mode2	negative	negative	negative	negative	negative
	Mode3	negative	negative	negative	negative	negative
Lao PDR	Mode1	0	0	0	1	1
	Mode2	0	0	0	1	1
	Mode3	0	0	0	0.75	1
Malaysia	Mode1	negative	negative	negative	negative	negative
	Mode2	negative	negative	negative	negative	negative
	Mode3	negative	negative	negative	negative	negative
Myanmar	Mode1	0	0	1	1	1
	Mode2	0	0	1	1	1
	Mode3	0	0	1	1	1
Philippines	Mode1	0	0	1	1	0.5
	Mode2	0	0	1	1	0.75
	Mode3	0	0	0.75	1	0.75
Singapore	Mode1	negative	negative	negative	negative	negative
	Mode2	negative	negative	negative	negative	negative
	Mode3	negative	negative	negative	negative	negative
Thailand	Mode1	0	0	0	0	0
	Mode2	0	0	0	1	1
	Mode3	0	0	0	0.75	0.75
Viet Nam	Mode1	0	0	0	1	0.75
	Mode2	0	0	0	1	0.75
	Mode3	0	0	0	0.75	0.75

Source: AJC's calculation based on ASEAN member states' specific commitment tables under RCEP.
Note: Points are given where the specific commitments are clearly indicated.

Table 11. Hoekman index of trade liberalization for rail transport services, by subsector and by mode, under AFAS 10th package (left figures) and RCEP (right figures)

		11Ea	11Eb	11Ec	11Ed	11Ee
Country	Mode	Passenger transportation	Freight transportation	Pushing and towing services	Maintenance and repair of rail transport equipment	Supporting services for rail transport services
Brunei Darussalam	Mode1	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode3	0.75 | negative	0.75 | negative	0.75 | negative	0.75 | negative	0.75 | negative
Cambodia	Mode1	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
	Mode2	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
	Mode3	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
Indonesia	Mode1	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode3	0.5 | negative	0.5 | negative	0.5 | negative	0.5 | negative	0.5 | negative
Lao PDR	Mode1	1 | 1	1 | 1	1 | 1	1 | 1	1 | 0
	Mode2	1 | 1	1 | 1	1 | 1	1 | 1	1 | 0
	Mode3	1 | 0.75	1 | 0.75	1 | 0.75	1 | 0.75	1 | 0
Malaysia	Mode1	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
	Mode2	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
	Mode3	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
Myanmar	Mode1	0 | 0	0 | 0	0 | 0	1 | 0	0 | 0
	Mode2	0 | 0	0 | 0	0 | 0	1 | 0	0 | 0
	Mode3	0 | 0	0 | 0	0 | 0	0 | 0	0 | 0
Philippines	Mode1	0 | 0	0 | 0	0 | 0	0 | 0	0 | 0
	Mode2	1 | 1	1 | 1	1 | 0	1 | 1	1 | 0
	Mode3	0.75 | 1	0.75 | 1	0.75 | 0	0.75 | 1	0.75 | 0
Singapore	Mode1	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
	Mode2	1 | negative	1 | negative	1 | negative	1 | negative	0 | negative
	Mode3	0 | negative	0 | negative	0 | negative	1 | negative	0 | negative
Thailand	Mode1	0 | 0	0 | 0	0 | 0	1 | 0	1 | 1
	Mode2	0 | 0	0 | 0	0 | 0	1 | 1	1 | 1
	Mode3	0 | 0	0 | 0	0 | 0	0.75 | 0.75	0.75 | 0.75
Viet Nam	Mode1	1 | 0	1 | 0	1 | 0	1 | 0	1 | 0
	Mode2	1 | 1	1 | 1	1 | 0	1 | 0	1 | 0
	Mode3	0.75 | 0	1 | 0	0.75 | 0	0.75 | 0	0.75 | 0

Source: AJC's calculation based on ASEAN member states' specific commitment tables under AFAS (10th package). See annex C for reproduction and categorization of the tables.

Table 12. Hoekman index of trade liberalization for road transport services, by subsector and by mode, under AFAS 10th package (left figures) and RCEP (right figures)

		11Fa	11Fb	11Fc	11Fd	11Fe
Country	Mode	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	Mode1	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
	Mode2	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
	Mode3	0 | negative	0 | negative	0 | negative	0 | negative	0 | negative
Cambodia	Mode1	1 | 1	1 | 1	1 | 1	1 | 1	1 | 1
	Mode2	1 | 1	1 | 1	1 | 1	1 | 1	1 | 1
	Mode3	1 | 1	1 | 1	1 | 1	1 | 1	1 | 1
Indonesia	Mode1	1 | negative	1 | negative	0 | negative	1 | negative	1 | negative
	Mode2	1 | negative	1 | negative	0 | negative	1 | negative	1 | negative
	Mode3	0.5 | negative	0.5 | negative	0 | negative	0.5 | negative	0.5 | negative
Lao PDR	Mode1	1 | 0	1 | 1	1 | 0	1 | 0	1 | 0
	Mode2	1 | 0	1 | 1	1 | 0	1 | 0	1 | 0
	Mode3	0.75 | 0	0.75 | 0.75	0.75 | 0	1 | 0	1 | 0
Malaysia	Mode1	0 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode3	0.75 | negative	0.75 | negative	0 | negative	0.75 | negative	0.75 | negative
Myanmar	Mode1	1 | 0	1 | 0	0 | 0	1 | 0	1 | 0
	Mode2	1 | 0	1 | 0	0 | 0	1 | 0	1 | 0
	Mode3	0.75 | 0	0.75 | 0	0 | 0	0.75 | 0	0.75 | 0
Philippines	Mode1	0 | 0	0 | 0	0 | 0.5	0 | 0	0 | 0
	Mode2	1 | 1	1 | 1	1 | 1	1 | 1	1 | 1
	Mode3	0.75 | 0.75	0.75 | 0.75	0.75 | 0.75	1 | 1	0.75 | 0.5
Singapore	Mode1	0.5 | negative	0.5 | negative	0.5 | negative	1 | negative	1 | negative
	Mode2	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
	Mode3	1 | negative	1 | negative	1 | negative	1 | negative	1 | negative
Thailand	Mode1	0 | 0	0 | 0	0 | 0	1 | 1	1 | 0
	Mode2	1 | 0	1 | 1	1 | 1	1 | 1	1 | 0
	Mode3	0.75 | 0	0.75 | 0.75	0.75 | 0.75	0.75 | 0.75	0.75 | 0
Viet Nam	Mode1	0 | 0	1 | 0	0 | 0	1 | 0	0 | 0
	Mode2	1 | 1	1 | 0	0 | 0	1 | 0	0 | 0
	Mode3	1 | 0.75	0.75 | 0	0 | 0	0.75 | 0	0 | 0

Source: AJC's calculation based on ASEAN member states' specific commitment tables under AFAS (10th package).

Table 13 shows the maximum foreign ownership allowed in transport services under AFAS (10th package) and RCEP. Overall, some degree of convergence exists across ASEAN member states in terms of the upper limit of foreign equity participation in transport services under the AFAS 10th package. Under AFAS, 70 per cent foreign equity upper bound is widespread in maritime, rail and road services; as for air transport, no updated information is available. Under RCEP also a 70 per cent upper bound is common for maritime, rail and road transport services. Some of the upper bounds are lower under RCEP, possibly reflecting the rather conservative stance of ASEAN members towards their dialogue partners.

Table 13. Maximum foreign ownership allowed in transport services under AFAS 10th package (left figures) and RCEP (right figures)

(per centage)

Country	Maritime transport	Air transport	Rail transport	Road transport
Brunei Darussalam	70 | negative	- | negative	70 | negative	not applied | negative
Cambodia	not applied | not applied	- | not applied	not applied | not applied	not applied | not applied
Indonesia	70 | negative	- | negative	70 | negative	70 | negative
Lao PDR	not applied | not applied	- | 51	not applied | not applied	100 | 100
Malaysia	70 | negative	- | negative	70 | negative	70 | negative
Myanmar	70 | 70	- | not applied	not applied | not applied	70 | not applied
Philippines	70 | 70	- | 40	100 | not applied	100 | 51
Singapore	70 | negative	- | negative	not applied | negative	not applied | negative
Thailand	70 | 50	- | not applied	70 | not applied	70 | not applied
Viet Nam	70 | 100	- | 100	70 | 49	70 | 51

Source: Specific commitment tables of each ASEAN member state under AFAS 10th package and RCEP.
Note: Ownership under partial commitments is also counted.

Table 14 shows the use of restrictions in each transport service under AFAS (10th package). The four figures in the cell are for maritime transport | air transport | rail transport | road transport services (from left to right).

Overall, maritime transport services tend to have fewer restrictions (more of "N"), presumably because of the network-based and central role of maritime transport services for global value chains.

Table 14. Use of restrictions in transport services under AFAS (10th package)

	N = none/no limitation	A or B or C = economic needs test	D = limitations on the total number of natural persons	E = measures that restrict or require specific type of legal entity	F = limitations on the participation of foreign capital	G = government approval	U = Unbound (no commitment)
Brunei Darussalam	30|-|25|0	0|-|0|0	0|-|0|0	1|-|0|0	6|-|5|0	0|-|0|0	1|-|0|30
Cambodia	36|-|30|30	0|-|0|0	0|-|0|0	0|-|0|0	0|-|0|0	0|-|0|0	0|-|0|0
Indonesia	24|-|20|16	0|-|0|0	6|-|5|4	11|-|10|8	6|-|5|4	0|-|0|0	0|-|0|6
Lao PDR	36|-|30|27	0|-|0|0	0|-|0|0	0|-|0|3	0|-|0|2	0|-|0|0	0|-|0|0
Malaysia	19|-|0|22	0|-|0|0	3|-|0|3	3|-|0|3	3|-|0|4	0|-|0|0	14|-|30|4
Myanmar	29|-|4|20	0|-|0|0	6|-|0|4	7|-|0|4	1|-|0|0	0|-|0|0	0|-|26|6
Philippines	23|-|15|16	0|-|0|0	0|-|0|0	1|-|0|0	4|-|5|4	2|-|0|0	7|-|10|10
Singapore	27|-|10|27	0|-|0|0	0|-|0|0	0|-|0|0	3|-|0|0	4|-|0|0	2|-|20|3
Thailand	29|-|10|19	0|-|0|0	5|-|2|5	7|-|2|5	5|-|2|5	0|-|0|0	4|-|18|6
Viet Nam	24|-|26|14	0|-|0|0	2|-|0|0	5|-|4|2	5|-|4|2	0|-|0|0	7|-|0|14

Notes: The way commitments are recorded differs across ASEAN members, hence the diversity in the number of Ns (no limitation); only those commitments defined under the GATS are counted; as for A, B and C (which all relate to economic needs test) are jointly counted because they occur at the same time.
(-) Not available.
Source: Calculated from each country's specific commitment table under AFAS (10th package).

Table 15 lists the use of restrictions in transport services under RCEP. As shown, no limitations for some ASEAN members are notable (albeit smaller than under AFAS in number), while "Unbound" is still dominant; the use of E (measures that restrict or require specific type of legal entity) and F (limitations on the participation of foreign capital) can be observed for some members. As compared with AFAS (10th package), the number of restrictions A–G is larger under RCEP.

Table 15. Use of restrictions in transport services under RCEP

	N = none/no limitation	A or B or C = economic needs test	D = limitations on the total number of natural persons	E = measures that restrict or require specific type of legal entity	F = limitations on the participation of foreign capital	G = government approval	U = Unbound (no commitment)
Brunei Darussalam	-	-	-	-	-	-	-
Cambodia	0|12|0|30	0|0|0|0	0|0|0|0	0|0|0|0	0|0|0|0	0|0|0|0	36|18|30|0
Indonesia	-	-	-	-	-	-	-
Lao PDR	24|11|20|5	0|0|4|0	0|0|0|0	0|0|0|1	0|1|0|1	0|0|4|0	12|18|6|24
Malaysia	-	-	-	-	-	-	-
Myanmar	26|18|0|0	0|0|0|0	0|0|0|0	4|0|0|0	4|0|0|0	0|0|0|0	6|12|30|30
Philippines	23|13|12|16	0|0|0|2	1|0|0|0	2|4|0|0	3|0|0|3	2|1|0|2	8|12|18|9
Singapore	-	-	-	-	-	-	-
Thailand	19|6|8|11	0|0|0|0	0|0|0|2	0|0|0|0	2|2|2|3	0|0|0|0	15|22|20|16
Viet Nam	6|8|4|3	0|0|0|1	2|0|0|1	2|4|0|1	2|1|0|1	0|0|0|0	28|18|26|26

Notes: The way commitments are recorded differs across ASEAN members, hence the diversity in the number of Ns (no limitation); only those commitments defined under the GATS are counted. The four figures in the cell are for maritime transport | air transport | rail transport | road transport services (from left to right).
Source: Calculated from each country's specific commitment table under RCEP.

The ASEAN Single Aviation Market (ASAM) (see box 2) is also expected to liberalize air travel services from the first to the fifth freedom of the air among member states, allowing ASEAN countries and airlines operating in the region to directly benefit from the global growth in air travel and enhancing tourism, trade, investment and service flows among 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. ASAM is supposed to supersede existing unilateral, bilateral and multilateral air-transport-related agreements among member states that are inconsistent with its provisions.

As another important ASEAN-wide agreement, 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, higher-level freedom of the air has already been achieved: The ninth freedom was achieved in 1997. Although 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 struggle to reach an agreement on a "win-win" (mutually beneficial) basis.

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. 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 that 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).

ASAM, also known as the ASEAN open skies agreement/policy, 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 endorsed by ASEAN Transport Ministers. The creation of ASAM 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 the Economy

Liberalization of trade in transport services can have a large impact on the ASEAN economy in general (as discussed in the following section 1). Also, China's One Belt One Road (or Belt and Road) Initiative has a unique impact on the ASEAN region (hence a discussion in section 2); social impacts are also considered (in section 3).

1. General impacts

Anderson and Wincoop (2014, pp. 691–692) report that trade costs worldwide 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 16 show, on average, significant intermodal differences in transport time and costs in ASEAN.[9] 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.

9 The information in table 16 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.

Table 16. Average transport time and costs in ASEAN, by subsector, 2008–2009

	Maritime transport	Air transport	Road transport
Transport cost per distance ($/km)	0.24	45.2	1
Transport speed (km/hour)	14.7	800	38.5
Domestic transshipment time (hours)	3.301	2.245	0
International transshipment time (hours)	14.972	12.813	13.224
Domestic transshipment cost ($)	190	690	0
International transshipment cost ($)	491	1,276	500

Source: Kumagai *et al.* (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. According to Organisation for Economic Co-operation and Development's (OECD's) input-output tables, ASEAN members provided $296.7 billion in outputs of infrastructure services in 2015, of which $107.8 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 $90.9 billion in output and $42.8 billion in value added, followed by Singapore and Thailand (table 17). The industry characteristics dictate the nature of economic benefits: Transport services do not bring in large profits but can guarantee stable profits over several years. Transport services account for only 5.6 per cent of total outputs in the ASEAN-wide economy. The value added to output ratio in this services industry (0.36) is lower than the average for all services industries (0.43).

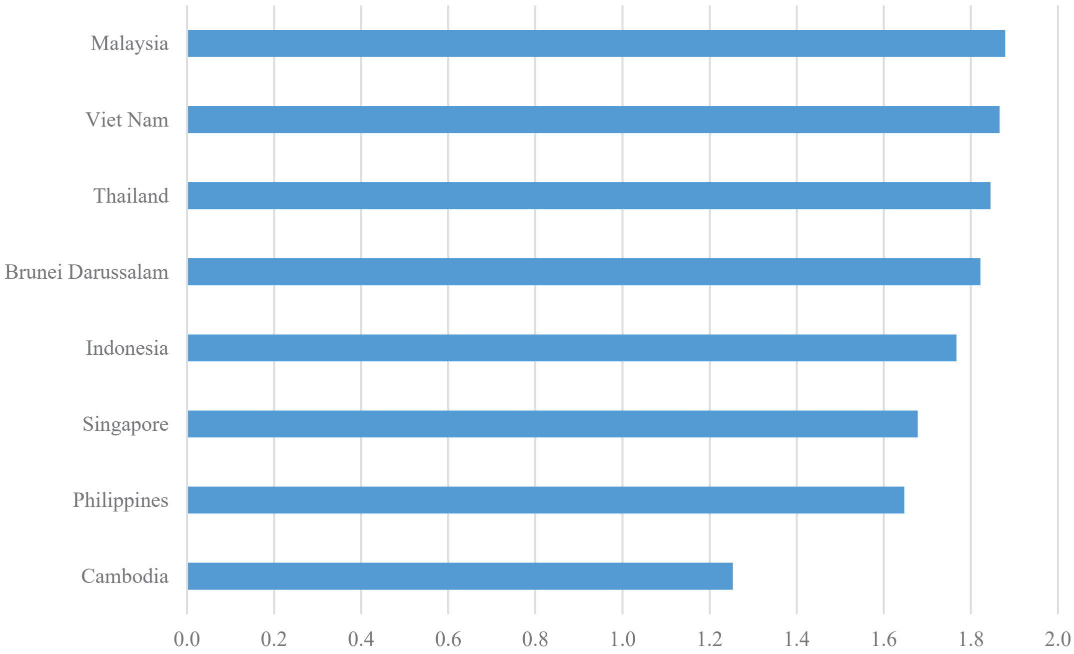
Table 17. Value added and output of transport services[a] compared with all industries, 2015 (millions of dollars and ratio)

	Transportation and storage			All industries		
Country	**Value added**	**Output**	**Ratio of value added to output**	**Value added**	**Output**	**Ratio of value added to output**
Brunei Darussalam	324	730	0.44	13,174	22,921	0.57
Cambodia	855	1,612	0.53	16,984	30,075	0.56
Indonesia	42,884	90,909	0.47	833,734	1,635,254	0.51
Malaysia	10,512	32,422	0.32	292,523	763,255	0.38
Philippines	11,397	22,749	0.50	286,120	555,126	0.52
Singapore	20,281	82,869	0.24	275,238	770,936	0.36
Thailand	15,157	45,607	0.33	378,162	917,981	0.41
Viet Nam	6,453	19,802	0.33	175,692	570,060	0.31
ASEAN total	**107,863**	**296,699**	**0.36**	**2,271,628**	**5,265,607**	**0.43**

Source: AJC, based on OECD Input-Output table database.
Note: The OECD database does not cover Lao PDR and Myanmar.
[a] Refers to transportation and storage.

As other industries in the economy require transport services, they are related to other industries by a relatively high multiplier effect, as shown in figure 2. For example, Malaysia, Viet Nam, Thailand and Brunei Darussalam exhibit a multiplier of about two. This means that one unit increase of output in transport infrastructure brings in more than two units of output in other industries.

Figure 2. Multiplier effects of transport services[a] in ASEAN, 2015



Source: AJC, based on OECD input-output table database.
Note: The OECD database does not cover Lao PDR and Myanmar.
[a] Refers to transportation and storage.

The availability and affordability of other services (such as wholesale and retail services, which require physical accessibility) will also increase significantly because of further trade liberalization for transport services by foreign suppliers. Also, reductions in transport time and costs will be brought about by attracting world-class foreign suppliers of transport services.[10]

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, and promote the development of ASEAN member states. Table 18 lists the initiative's projected infrastructure investments in connection with transport services.

[10] 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.

Table 18. One Belt, One Road Initiative: projected infrastructure investments by China connected with transport services in ASEAN

Country	Projected infrastructure investment
ASEAN members	
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 aluminum 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
Memorandum	
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.

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

3. Other social impacts

Congestion and environmental impacts might occur due to 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, 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 aimed at separating increased mobility from higher emissions.[11]. ASEAN member states could jointly work on enabling sustainable transport, possibly through introducing low-carbon physical infrastructure development and 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 benefitting 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 subnational level, would also be needed.

[11] United Nations Environment Programme's site, http://www.unep.org/newyork/sustainable-transport.

VI. Conclusions and Policy Suggestions

This section makes general policy suggestions, based on the preceding empirical observation of trade in transport services and the degree of trade liberalization (in section 1); then a set of workable policy suggestions are made in line with ASEAN's existing policy frameworks.

1. General policy suggestions

ASEAN has been opening its services sector; however, it needs more services liberalization to foster more positive economic impacts for 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 counterintuitive situation requires a remedy. In this respect, competition policy is important. Each member state should be cautious about the down-side effects of liberalization, and all policy recommendations should be made with due consideration. 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.

Second, transport services liberalization should contribute to reducing costs and barriers in trading businesses and achieving higher economic efficiency directly12 and 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, AFAS should be expanded to form the services liberalization part of RCEP. ASEAN-centred expansion and harmonization of free trade agreements will lead to the expansion of transport services networks with ASEAN hubs.

As demonstrated previously, 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, because even a services trade deficit could attract manufacturing investment, thereby more than offsetting the negative figure of the services trade account. Policymakers of ASEAN member states should bear this in mind clearly in formulating policy on services trade liberalization under ASEAN-related free trade agreements.

[12] 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 and strengthen transportation safety. Among the agreements signed were the Tenth Package of Commitments on Air Transport Services under 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.

2. Workable policy suggestions

The conventional input-output analysis lacks 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 just concentrated in one or two).

When transport costs decrease 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 19 categorizes strategic goals for transport services in connection with promoting positive factors conducive to multiple equilibria. Table 20 categorizes ASEAN-wide strategic goals for transport services for mitigating negative factors that hinder multiple equilibria (for strategic goals by transport mode, see annex E).

Table 19. Categorization of ASEAN-wide strategic goals for transport services to promote positive factors conducive to multiple equilibria

Mode	Consideration of global value chains	Consideration of integrated domestic markets	Consideration of knowledge spillovers
Maritime transport	**MT-1** Realize the ASEAN Single Shipping Market through the implementation of the agreed strategies and measures	**MT-3** Develop an efficient and integrated inland waterway transport network	No match
	MT-2 Realize the roll-on/roll-off shipping network operation in ASEAN	**MT-4** Enhance navigation system and security measures in line with international standards	
	MT-5 Formulate necessary policy initiatives and recommendations to develop strategic maritime transport logistics between ASEAN and dialogue partners		
	MT-6 Intensify regional cooperation in improving transport safety		
	MT-7 Strengthen ASEAN search and rescue (SAR) cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region		

Air transport	**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-2** Advance safe skies in ASEAN **AT-3** Enhance aviation security in ASEAN in accordance with ICAO Standards and Recommended Practices **AT-4** Enhance air traffic management efficiency and capacity through a seamless ASEAN sky **AT-5** Strengthen ASEAN SAR cooperation to ensure effective and coordinated aeronautical and maritime SAR operations in the region	No match	No match
Rail transport / Road transport	**LT-1** Accomplish the implementation of the Singapore–Kunming Rail Link main lines and detailed designs for the spur lines **LT-2** Completion of the ASEAN Highway Network project **LT-4** Develop an effective network of ASEAN dry ports in accordance with existing ASEAN initiatives such as the ASEAN Highway Network and Singapore–Kunming Rail Link	No match	**LT-3** Enhance the use of "Intelligent Transport System" **LT-6** Develop a database of ASEAN land transport network **LT-7** Intensify regional cooperation in improving transport safety

Source: AJC. See annex E for the full list of the goals.
Notes: MT denotes maritime transport, AT signifies air transport and LT signifies land transport. The figures indicate numbering of specific strategic goals.

Table 20. 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	**LT-5** Reduce 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 E for the full list of the goals.

As specific policy targets under the ASEAN-wide strategic goals focus on establishing global value chains, a need exists to formulate an ASEAN-wide policy that better considers integrated domestic markets, knowledge spillovers (table 19), immobile factors, land rent and/or commuting and congestion (table 20), all of which should be made as separate policy arrangements.

As hard infrastructure requires significant 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 19 and 20).

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.[13] The policy evaluation exercise in the seminar identified the following points (for details of the exercise, see annex F): The "evaluation score" for national-level policy formulation is the highest, followed by that at the neighbouring country-level (subregional 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 is often complex—tends to be put off. All in all, the results indicate that a serious need exists 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 E).

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 RCEP (signed in November 2020, and to take effect accordingly), as ASEAN connectivity should expand across and beyond the ASEAN region, to cover its dialogue partners (including Japan). As the outbreak of COVID-19 in 2019 revealed the essentiality of transport services for ASEAN's enhanced participation in global value chains, regulatory efforts (through free trade agreements including AFAS and RCEP) and technological advancement (*e.g.*, more digitalization of transport-related facilities and services) are needed for more seamless and traceable transport services.[14] ASEAN member states and their dialogue partners including Japan could continue to work strenuously in this regard.

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[13] 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.

[14] In this connection, "COVID-19 Recovery Guidelines for Resilient and Sustainable International Road Freight Transport Connectivity in ASEAN" (downloadable at https://asean.org/book/covid-19-recovery-guidelines-for-resilient-and-sustainable-international-road-freight-transport-connectivity-in-asean/#:~:text=%EE%80%80ASEAN%20Comprehensive%20Recovery%20Framework%EE%80%81%3A%20implementation%20plan%20Developing%20Shock,and%20Strengthen%20the%20Resilience%20of%20Back%20to%20), released in February 2021, lists the following best practices for coping with COVID-19 through collaboration in transport services:
- Increase in digitalization to limit human contact and paperwork for cross-border trade facilitation
- Management of cross-border management (including the change of drivers at borders and establishment of COVID-19 guidelines for foreign drivers)
- Implementation of quarantine measures to control the spread of the virus
- Requirement for freight transport sites to comply with preventative measures (e.g., wearing of masks, washing hands and checking temperatures)
- Flexible supply chain management
- Strong leadership and commitment in governments
- Cross-sectoral and multi-ministerial support and collaboration.

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Annex A. Specific Schedule of Commitments for "Maritime Transportation" under AFAS (10th Package, Signed in November 2018) by ASEAN Members

Legend for this annex (and annexes B–D):

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

CPC (Central Product Classification) is a service-related classification, MA means market access and NT means national treatment.

"Horizontal section" means across-industry (hence the word "horizontal") commitments common to all the sectors, the text of which is separate from specific commitments (unique to the sector at issue).

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

D: limitations on the total number of natural persons who may be employed in a particular service sector or whom 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 that restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service

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 "transport services". In addition to these six types of market-access restrictions, the following restriction is observed:

G: Government approval requirement.

Source of these annexes: https://wtocenter.vn/chuyen-de/212-asean-framework-agreement-on-services-afas

Notes: * after a CPC code means the sector is part of the wider service sector elsewhere indicated.

** after a CPC code means the sector is part of the wider service sector indicated by the CPC code. Unbound* means unbound due to lack of technical feasibility

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
A. Maritime Transport Services Passenger transportation (CPC 7211)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N	The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions: 1. Pilotage 2. Towing and tug assistance 3. Provisioning and watering 4. Garbage collecting 5. Navigation aids 6. Shore-based operational services essential to ship operations including communications, water and electrical supplies 7. Emergency repair facilities 8. Anchorage, berth and berthing services
Freight transportation (CPC 7212)	(1) None. (2) None. (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%. b) The supply of international maritime transport of energy goods: unbound.	(1) N (2) N (3) EF51/U	(1) None (2) None (3) None	(1) N (2) N (3) N	
Freight transportation (CPC 7212) (except transportation of bulk liquid and gases)	(1) None. (2) None. (3) a) The supply of international maritime transport, excluding vessels for the carriage and transportation of energy goods, foreign equity participation shall not exceed 70%. b) The supply of international maritime transport of energy goods: unbound.	(1) N (2) N (3) EF70/U	(1) None (2) None (3) None	(1) N (2) N (3) N	

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Rental of vessels with crew (CPC 7213)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 51%.	(1) N (2) N (3) F51	(1) None (2) None (3) None	(1) N (2) N (3) N
Rental of vessels with crew (CPC 7213) (except related to tankers)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Pushing and towing services (CPC 7214) (excluding tow services of oil rigs)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Maintenance and repair of vessels (CPC 8868**)	(1) None. (2) None. (1) None (2) None (3) Foreign equity participation shall not exceed 51%.	(1) N (2) N (1) N (2) N (3) F51	(1) None (2) None (1) None (2) None (3) None	(1) N (2) N (1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maritime agency services (CPC 7454*)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 51%.	(1) N (2) N (3) F51	(1) None (2) None (3) None	(1) N (2) N (3) N
Maritime agency services (CPC 7454*) (only applies to vessel salvage and refloating services (CPC 74540) and tugboat services (except for pilotage)	(1) None. (2) None. (3) Foreign equity participation shall not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N

Cambodia

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
International transport (freight and passengers) (CPC 7211, 7212), excluding cabotage	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Rental vessels with crew (CPC 7213) Maintenance and repair of vessels (CPC 8868**)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Pushing and towing services (CPC 7214) Supporting services for maritime transport (CPC 745**)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (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
TRANSPORT SERVICES					
A. Maritime Transport Services International passenger transport excluding cabotage (pillar 1) (CPC 7211) International freight transport excluding cabotage (CPC 7212), except mining products	(1) None (2) None (3) Joint venture with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section[15]	(1) N (2) N (3) DET	1. Pilotage; 2. Towing and tug assistance; 3. Provisioning and water supply; 4. Garbage collection and ballast waste disposal; 5. Port captain's services; 6. Navigation aids; 7. Shore-based operational services essential to ship operation, including communication, water and electrical supply; 8. Emergency repair facilities; and 9. Anchorage and berthing services.
International freight transport excluding cabotage (CPC 7212)	(1) None (2) None (3) Joint venture with foreign equity participation up to 60% or owner's representative**	(1) N (2) N (3) EF60	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET	

15 The Income Tax Law provides that non-resident taxpayers will be subject to withholding tax of 20% if they derive the following income from Indonesian source: (1) interest, (2) royalties, (3) dividends and (4) fees from service performed in Indonesia. The tax rate can be changed due to tax treaty. Land Acquisition Undang-Undang Pokok Agraria (Land Law) No. 5 of 1960 stipulates that no foreigners (juridical and natural persons) are allowed to own land. However, a joint venture enterprise could hold the right for land use (Hak Guna Usaha) and building rights (Hak Guna Bangunan), and they may rent/lease land and property. Any juridical and natural persons should meet professional qualification requirements.

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Rental of vessels with crew (CPC 7213) excluding cabotage	(1) None (2) None (3) Joint venture company with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) Crew must be Indonesian	(1) N (2) N (3) D
Maintenance and repair of vessels (CPC 8868)	(1) None. (2) None. (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 and above. For other area and capacity, as indicated in the horizontal commitment.	(1) N (2) N (3) EF51	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Maintenance and repair of vessels (CPC 8868) For vessels classification 10,000 GT and above and for eastern part of Java and eastern part of Indonesia	(1) None (2) None (3) Joint venture with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) The joint venture company should utilize minimum 40% local content in its products and services	(1) N (2) N (3) E

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Pushing and towing services for maritime transport (CPC 7214) (excluding cabotage)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Vessel salvage and refloating services (CPC 7454)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 49%	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Vessel salvage and refloating services (CPC 7454) (excluding cabotage) Only in Padang (West Sumatera), Ambon (Maluku), Ternate (North Maluku) and Jayapura (Papua) waters	(1) None. (2) None. (3) Aggregate foreign equity participation is permitted up to 70% classified as up to 49% through foreign direct investment and the remaining percentages through other mechanism.	(1) N (2) N (3) F49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

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
11. TRANSPORT SERVICES				
A. Maritime Transport Services Passenger transportation (CPC 7211) Freight transportation (CPC 7212) Rental of vessels with crew (CPC 7213) Pushing and towing services (CPC 7214) Maintenance and repair of vessels (CPC 8868) Vessels salvage and refloating services (not applicable in harbour) (CPC 7454)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (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
A. Maritime Transport Services International maritime transportation services, excluding cabotage (CPC 7211)	(1) None. (2) None. (3) Only through a representative office, regional office or locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding in the joint-venture corporation shall not exceed 51%. *Malaysian-registered vessels:* To register a vessel in Malaysia, the following conditions must be met: a) Owner of that vessel must be a Malaysian citizen or corporation incorporated in Malaysia b) Majority shareholding to be held by Malaysians c) Majority of the board of directors to be Malaysians d) Principal place of business to be in Malaysia.	(1) N (2) N (3) DEF51	(1) None (2) None (3) None	(1) N (2) N (3) N	The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions: 1) Pilotage 2) Towing and tug assistance 3) Provisioning, fuelling and watering 4) Garbage collection and ballast waste disposal 5) Port captain's services 6) Navigation aids 7) Shore-based operational services essential to ship operations, including communications, water and electrical supplies 8) Emergency repair facilities. 9) Anchorage, berth and berthing services

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 transportation services, excluding cabotage (CPC 7211) Only vessels registered under the Malaysian International Ship Registry	(1) None. (2) None. (3) Only through a representative office, regional office or locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding in the joint-venture corporation shall not exceed 70%.	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N	

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 transportation services, excluding cabotage (CPC 7212)	(1) None (2) None (3) Only through a representative office, regional office or locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding in the joint-venture corporation shall not exceed 70%. *Malaysian registered vessels:* To register a vessel in Malaysia, the following conditions must be met: a) Owner of that vessel must be a Malaysian citizen or corporation incorporated in Malaysia b) Majority shareholding to be held by Malaysians c) Majority of the board of directors to be Malaysians d) Principal place of business to be in Malaysia.	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N	The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions: 1) Pilotage 2) Towing and tug assistance 3) Provisioning, fueling and watering 4) Garbage collection and ballast waste disposal 5) Port captain's services 6) Navigation aids 7) Shore-based operational services essential to ship operations, including communications, water and electrical supplies 8) Emergency repair facilities 9) Anchorage, berth and berthing services.

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Rental of cargo vessels with crew for international shipping (CPC 7213) 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 and cargo and freight vessels. These are limited to services of hiring of a vessel with crew under charter party terms for voyage or period of time.	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Maintenance and repair vessels (CPC 8868**) (Limited to businesses related to maintenance and repair of oceangoing vessels at anchor or alongside and maintenance and repair of local vessels)	(1) Unbound* (2) None (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 70%.	(1) U (2) N (3) DEF70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Classification societies[16] (Except for statutory services for Malaysia flag vessels)	(1) None (2) None (3) Only through a representative office, regional office or locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding in the joint-venture corporation shall not exceed 51%.	(1) N (2) N (3) DEF51	(1) None (2) None (3) None	(1) N (2) N (3) N

[16] Provision of rules on construction and safety of ships and issuance of certificate should be in accordance with specified rules stated in domestic legislation.
Exclude survey and classification of Malaysian flag vessels which requires specific authorization by the relevant authority.

Myanmar

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
A. Maritime Transport Services International passenger transport (excluding cabotage) (CPC 7211)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
International freight transport (excluding cabotage) (CPC 7212)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
Rental of cargo vessels with crew for international shipping (CPC 7213/72130)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Maintenance and repair of vessels (CPC 8868**)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Pushing and towing services (CPC 7214)	(1) None. (2) None. (3) Joint venture with a Myanmar citizen or enterprise up to 70% equity is permitted.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
Supporting services for maritime transport Vessel salvage and refloating services (CPC 7454) (not applicable in harbour limit)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Classification societies	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Port and waterway operation services (excluding cargo handling) (CPC 7451)	(1) None. (2) None. (3) Joint venture with a Myanmar citizen or enterprise up to 70% equity is permitted.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Navigation aid services (CPC 7453)	(1) None. (2) None. (3) Joint venture with a Myanmar citizen or enterprise up to 70% equity is permitted.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) DET	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
TRANSPORT SERVICES				
All subsectors	(3) No franchise, certificate, or any other form of authorisation for the operation of a public utility shall be granted except to citizens of the Philippines or to corporations or associations organised under the Laws of the Philippines at least 60% of whose capital is owned by such citizens. Limitations listed in the horizontal section shall also apply.	(3) EF40		

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
A. Maritime Transport Services				
International transport passenger, except cabotage transport, and government-owned cargoes	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
International transport (freight), except cabotage transport and government-owned cargoes	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Maritime cargo freight services by foreign-registered shipping companies (CPC 7212**)	(1) None. (2) None. (3) None except that up to 70% foreign equity participation is allowed.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Leasing/rental of vessel without crew	(1) None (2) None (3) Bareboat charter or lease contract subject to approval by the Maritime Industry Authority (MARINA)	(1) N (2) N (3) G	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance of vessels	(1) Unbound due to lack of technical feasibility.	(1) U	(1) Unbound due to lack of technical feasibility	(1) U
	(2) Any repairs, conversion or drydocking of Philippine-owned or registered vessels are required to be done at domestic repair yards registered with MARINA.	(2) EG	(2) None	(2) N
	(3) None.	(3) N	(3) None	(3) N
Repair of vessels	(1) Unbound due to lack of technical feasibility.	(1) U	(1) Unbound due to lack of technical feasibility	(1) U
	(2) Any repairs, conversion or drydocking of Philippine-owned or registered vessels are required to be done at domestic repair yards registered with MARINA.	(2) EG	(2) None	(2) N
	(3) None except that up to 70% foreign equity participation is allowed.	(3) F70	(3) None	(3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Pushing and towing services (CPC 72140)	(1) Unbound.*	(1) U	(1) Unbound*	(1) U
	(2) None.	(2) N	(2) None	(2) N
	(3) Up to 40% foreign equity participation is allowed.	(3) F40	(3) None	(3) N
Supporting services for maritime transport (CPC 745**) Container yard and depot services	(1) Unbound*	(1) U	(1) Unbound*	(1) U
	(2) None	(2) N	(2) None	(2) N
	(3) None	(3) N	(3) None	(3) N
Port and waterway operation services (CPC 74510)	(1) Unbound.*	(1) U	(1) Unbound*	(1) U
	(2) None.	(2) N	(2) None	(2) N
	(3) Up to 40% foreign equity participation is allowed.	(3) F40	(3) None	(3) N
Maritime agency services (CPC 7454)	(1) None	(1) N	(1) None	(1) N
	(2) None	(2) N	(2) None	(2) N
	(3) None	(3) N	(3) None	(3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Other supporting services for water transport (CPC 74590)	(1) Unbound.* (2) None. (3) Up to 40% foreign equity participation is allowed.	(1) U (2) N (3) F40	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Classification societies	(1) None. (2) None. (3) Unbound, except up to 40% foreign equity is allowed.	(1) N (2) N (3) U/F40	(1) None (2) None (3) Unbound	(1) N (2) N (3) U
Vessel and salvage refloating services provided in oceans and seas (CPC 745**)	(1) None. (2) None. (3) Up to 70% foreign equity participation is allowed.	(1) N (2) N (3) F70	(1) None (2) None (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 (2) N (3) EG

Singapore

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
TRANSPORT SERVICES **A. Maritime Transport Services**					
International maritime passenger and freight transport, excluding cabotage transport (CPC 7211**, CPC 7212**)	(1) None (2) None (3) None, except on the registration of Singapore flag ships as specified in the Merchant Shipping Act	(1) N (2) N (3) G	(1) None (2) None (3) None, except on the registration of Singapore flag ships as specified in the Merchant Shipping Act	(1) N (2) N (3) G	In accordance with the decisions made by the WTO Negotiating Group on Maritime Transport Services, where the following services are not otherwise covered by the obligation enshrined in (ii) of subparagraph (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: - Pilotage - Towing and tug assistance - Provisioning, fueling and watering - Garbage collection and ballast waste disposal - Port captain's services - Navigation aids - Emergency repair facilities - Anchorage - Other shore-based operational services essential to ship operations, including communications, water and electrical supplies.

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
Rental of vessels with crew (CPC 7213)	(1) None (2) None (3) Foreign equity allowable up to a maximum of 70%	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N	
Maintenance and repair of vessels (CPC 8868 **)	(1) Unbound* (2) None (3) Foreign equity allowable up to a maximum of 70%	(1) U (2) N (3) F70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N	
International towage	(1) None (2) None (1) None (2) None (3) None	(1) N (2) N (1) N (2) N (3) N	(1) None (2) None (1) None (2) None (3) None	(1) N (2) N (1) N (2) N (3) N	

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maritime auxiliary service: Classification societies,[17] except for statutory services for Singapore flag ships	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Vessel salvage and refloating services (not applicable in harbour) (CPC 7454)	(1) None (2) None (3) Foreign equity allowable up to a maximum of 70%	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N

[17] Provision of rules on the construction and safety of ships and issuance of classification certificate in accordance with the specified rules. Excludes survey and classification of Singapore flag vessels, which requires specific authorization by the relevant authority.

Thailand

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
TRANSPORT SERVICES **A. Maritime Transport Services**					
(a) Passenger transportation (CPC 7211 excluding cabotage transport: as defined at the end of the Thailand tables, 3.1)	(1) None (2) None (3) As indicated in 3.3 of the horizontal section a) Unbound for establishment of juridical person for the purpose of operating a fleet under the national flag of Thailand 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 (2) N (3a) U (3b) E	(1) None (2) None (3a) Unbound (3b) None	(1) N (2) N (3) U/N	The following services at the port provided by government enterprises are made available to international maritime transport suppliers on reasonable and non- discriminatory terms and conditions: 1. Pilotage[18] 2. Towing and tug assistance 3. Provisioning, fueling and watering 4. Garbage collecting and ballast waste disposal 5. Port captain's service 6. Navigation aids 7. Shore-based operational services essential to ship operations, water and electrical supplies 8. Emergency repair facilities 9. Anchorage, berth and berthing services. 10. Inland transports services (internal waterways transport services, rail transport services and road transport services)

18 A Thai captain of a Thai ship that sails regularly in a certain compulsory pilotage area may be permitted to pilot the ship in the area.

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 (excluding cabotage transport: as defined at the end of the Thailand tables, 3.1): International sea cruises (cruise carrier with more than 200,000 DWT capacity) (CPC Version 1.1: part of 65119) This subclass does not include transportation of passengers on coastal route between domestic ports.	(1) None. (2) None. (3) As indicated in 3.1 of the horizontal section (foreign equity participation must not exceed 70% of the registered capital and shall only operate through joint venture with a juridical person of Thai nationality).	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N	

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
(b) Freight transportation (CPC 7212 excluding cabotage transport: as defined at the end of the Thailand tables, 3.1)	(1) None. (2) None. (3) As indicated in 3.3 of the horizontal section (a. Foreign equity participation must not exceed 49% of the registered capital and b. The number of foreign shareholders must be less than half of the total number of shareholders of the company concerned.) a) Unbound for establishment of juridical person for the purpose of operating a fleet under the national flag of Thailand b) Other forms of commercial presence for the supply of international maritime transport services (as defined at the end of the Thailand tables, 3.2) except branch offices: As indicated in the horizontal section	(1) N (2) N (3) DEF49	(1) None. (2) None. (3a) Unbound. (3b) None other than - 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 - 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% 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.	(1) N (2) N (3a) U (3b) ET

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
(b) Freight transportation (excluding cabotage transport: as defined at the end of the Thailand tables, 3.1): Transoceanic water transport services of refrigerated freight by refrigerator vessels (CPC Version 1.1: part of 65121) This subclass does not include coastal and transoceanic water transportation of chemical, liquid gas, any form of gasses or any form of liquids cf. 65122	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N
(c) Rental of non-Thai flag vessels with crew (CPC 7213)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N
(d) Maintenance and repair of vessels exceeding 100,000 DWT (part of CPC 8868)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
(e) International towing (CPC 7214)	(1) None (2) None (3) As indicated in 3.3 of the horizontal section a) Unbound for establishment of juridical person for the purpose of operating a fleet under the national flag of Thailand b) Other forms of commercial presence for the supply of international towing service (as defined at the end of the Thailand tables, 3.2) except branch office: As indicated in the horizontal section	(1) N (2) N (3) DEF49	(1) None (2) None (3a) Unbound (3b) None	(1) N (2) N (3a) U (3b) N
Towing and pushing services on transoceanic waters (CPC Version 1.1: part of 65140) (excluding cabotage transport: as defined at the end of the Thailand tables, 3.1)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
(f) Supporting services for maritime transport - Shore reception facilities (collection of waste/oily water from ships) - Port captain's services attached to specific foreign vessels - Classification societies - Vessel salvage and refloating services—not applicable in harbour.	(1) None (2) None (3) As indicated in 3.3 of the horizontal section	(1) N (2) N (3) DEF49	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
- Vessels salvage and refloating services (CPC 1.1 67630) This subclass does not include - Towing services supplied to distressed vessels: - On coastal waters or on open sea, cf. 65140 - On inland waters, cf. 65240 - Lifeboat services, marine fireboat services and other marine search and rescue services: - - Police services, cf. 91260 - - Marine fireboat services, cf. 91260 - - Other public order and safety affairs related services, cf. 91290	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Custom clearance services (as defined at the end of the Thailand tables, 3.5)	(1) Unbound. (2) None. (3) As indicated in 3.3 of the horizontal section: A customs broker must be natural person of Thai nationality and must obtain a license from the Customs Department.	(1) U (2) N (3) DEF49	(1) Unbound. (2) None. (3) A customs broker must be natural person of Thai nationality and must obtain a license from the Customs Department.	(1) U (2) N (3) DG

Sector or Subsector	Limitation on Market Access	Limitation on National Treatment	Additional Commitments
I. HORIZONTAL COMMITMENTS			
ALL SECTORS INCLUDED IN THIS SCHEDULE	3) Commercial presence in sectors or subsectors in this schedule is permitted only through limited liability company which is registered in Thailand or the other type of legal entity as specified in the sector-specific commitments of which the company is incorporated and registered, pursuant to Thai laws and regulations and will have to meet one of the following condition as indicated in the sector-specific commitments: 3.1 Foreign equity participation must not exceed 70 per cent of the registered capital and shall only operate through joint venture with a juridical person of Thai national; or 3.2 Foreign equity participation must not exceed 51 per cent of the registered capital and shall only operate through joint-venture with a juridical person of Thai national; or 3.3 a. Foreign equity participation must not exceed 49 per cent of the registered capital; and b. The number of foreign shareholders must be less than half of the total number of	3) For 3.3, legal entity which is owned or controlled by foreigner(s) must meet the requirements as stipulated by laws and regulations regarding foreign investment. For 3.1 and 3.2, prior to obtaining a license or certificate, legal entity which is owned or controlled by foreigner(s) must meet the criteria required by relevant authorities. In establishing its commercial presence, a legal entity which is owned or controlled by foreigner(s) must apply for a certificate of business operation pursuant to a treaty or obligation under section XI of the Foreign Business Act; Ministerial Regulation Prescribing Rules and procedures Pertaining to the Application for a Foreign Business certificate B.E. 2546 (2003). According to article XIV and XIV *bis* of GATS, service supplier is required to comply with section V of the Foreign Business Act. For legal entity incorporated pursuant to Thai laws and regulations with foreign equity participation not exceeding 49 per cent of the registered capital: None	

Sector or Subsector	Limitation on Market Access	Limitation on National Treatment	Additional Commitments
	shareholders of the company concerned.	Unbound for the measures pertaining to subsidies or privileges, minimum capital requirements, acquisition and usage of land, taxation measures, and nationality requirement.	
	3) Acquisition and usage of land: according to the Land Code of Thailand, foreign nationals or domestic companies which are deemed foreigners are not allowed to purchase or own land in Thailand. However, they may lease land and own buildings. For 3.1 and 3.2, a natural person or juridical person of another member that acquires or gains ownership of land, shall be deemed ineligible to exercise rights and privileges under this agreement	3) The board of directors, including administrative and executive position or alike in the legal entity must be of Thai national and have permanent domicile in Thailand. The person or the representative of the juridical person who apply for a license must be of Thai national. For 3.1 and 3.2 a natural person or a juridical person who receive other special privileges or incentives from Thai authorities other than those provided under this agreement may not claim benefits under this agreement.	

Notes (Thailand):

1. Where road, rail, inland waterways and related auxiliary services are not otherwise fully covered in this schedule, a multimodal transport operator shall have the ability to rent or lease trucks, railway carriages or barges and related equipment, for the purpose of inland forwarding of cargoes, or have access to and use of these forms of multimodal activities on reasonable and non-discriminatory terms and conditions for the purpose of carrying out multimodal transport operations.
2. "Reasonable and non-discriminatory terms and conditions" means, for the purpose of multimodal transport operations, the ability of multimodal transport operator to arrange for the conveyance of its merchandise on a timely basis, including priority over other merchandise that enters the port at a later date.
3. <u>Definitions:</u>

   3.1 "Cabotage": For the purpose of this schedule means the transportation or towage of passengers or goods between a port or place located in Thai waters and another port or place located in Thai waters.

   3.2 "Other forms of commercial presence for the supply of international maritime transport services": For the purpose of this schedule means the ability for international maritime transport service suppliers of other members to undertake locally the following:

   (a) Marketing and sales of maritime transport services through direct contact with customers, from quotation to invoicing, these services being those operated or offered by the service supplier itself

(b) The procurement, on their own account of any transport and related services, necessary for the supply of the integrated service

(c) The preparation of documentation concerning transport documents, customer documents or other documents related to the origin and character of the goods transported

(d) The setting up of any business arrangements (including participation in the stock of a company) and the appointment of personnel recruited locally with any locally established shipping agency: As indicated in the horizontal section.

3.3 "Multimodal transport operator" means the person on whose behalf the bill of lading/ multimodal transport document, or any other document evidencing a contract of multimodal carriage of goods, is issued and who is responsible for the carriage of goods pursuant to the contract of carriage.

3.4 "Freight forwarding services" means the activity consisting of organizing and monitoring shipment operations on behalf of shippers, through the procurement of transport and related services, preparation of documentation and provision of business information.

3.5 "Customs clearance services" means activities consisting of carrying out on behalf of another party customs formalities concerning the import, export or through transport of cargoes, whether this service is the main activities of the service supplier or a usual

3.6 "Maritime cargo handling services" means activities exercised by stevedore companies, including terminal operators, but not including the direct activities of dockers when this workforce is organised independently of the stevedoring or terminal operator companies. The activities include the organisation and supervision of

- The loading/discharging of cargo to/from a ship
- The lashing/unlashing of cargo
- The reception/delivery and safekeeping of cargoes before shipment or after discharge.

3.7 "Maritime agency services" means activities consisting of representing as an agent, the business interests of one or more shipping lines, for the following purposes:

- Marketing and sales of maritime transport and related services, from quotation to invoicing, and issuing of bill of lading of the shipping lines; procurement and resale of the necessary related services, preparation of documentation and provision of business information
- Acting on behalf of the shipping lines organizing the call of a ship or taking over cargoes when required.

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
A. Maritime Transport Services Passenger transportation less cabotage (CPC 7211)	(1) None. (2) None. (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 a Vietnamese citizen. b) Other forms of commercial presence for the supply of international maritime transport services:[20]	(1) N (2) N (3) DEF49	(1) None (2) None (3) None	(1) N (2) N (3) N	The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions: 1. Pilotage 2. Towing and tug assistance 3. Provisioning, fueling and watering 4. Garbage collecting and ballast waste disposal 5. Port captain's/ harbour master's services 6. Navigation aids 7. Shore-based operational services essential to ship operations, including communications, water and electrical supplies 8. Emergency repair facilities 9. Anchorage, berth and berthing services 10. Access to maritime agency services.[19]

[19] With respect to the access to and use of maritime agency services mentioned in the Additional Commitments column, where road, rail, inland waterways, coastal and inland shipping and related auxiliary services are not otherwise fully covered in the schedule, a multimodal transport operator shall have the ability to access Vietnamese maritime agency services suppliers to rent, hire or charter trucks, railway carriages or barges and related equipment, for the purpose of onward forwarding of international cargoes carried by sea.

[20] "Other forms of commercial presence for the supply of international maritime transport services" means the ability for foreign shipping companies to undertake locally activities that are related to the cargoes carried by them and necessary for the supply of the integrated transport service to their customers, within which the international maritime transport constitutes a substantial element and is supplied by the concerned foreign shipping company.

	January 2012, foreign shipping companies can establish 100% foreign-invested enterprises. Since 11 January 2007, foreign-invested enterprises are only permitted to carry out activities from (1) to (5) as indicated below: 1. Marketing and sales maritime transport services through direct contact with customers, from quotation to invoicing 2. Acting on behalf of the cargo owners 3. Provision of required business information 4. Preparation of documentation concerning transport documents including customs documents, or other documents related to the origin and character of the goods transported 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.				

	6. Acting on behalf of the company, organising the call of the ship or taking over cargoes when required 7. Negotiate and sign contracts for road, rail and inland waterways transportation related to cargoes transported by the company. The number of joint ventures by foreign shipping companies will be limited to five 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.				

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
Freight transportation less cabotage (CPC 7212)	(1) None. (2) None. (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 on ships under the national flag of	(1) N (2) N (3) DEF70	(1) None (2) None (3) (text not provided)	(1) N (2) N (3) N	The following services at the port are made available to international maritime transport suppliers on reasonable and non-discriminatory terms and conditions: 1. Pilotage 2. Towing and tug assistance 3. Provisioning, fuelling and watering 4. Garbage collecting and ballast waste disposal 5. Port captain's/ harbour master's services 6. Navigation aids

	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. b) Other forms of commercial presence for the supply of international maritime transport services:[21] Since 11 January 2007, foreign shipping companies can establish joint ventures with 51% foreign ownership., Since 11 January 2012, foreign shipping companies can establish 100% foreign-invested enterprises. Since 11 January 2007, foreign- invested enterprises are only permitted to carry out activities from (1) to (5) as indicated below: 1. Marketing and sales maritime transport services through direct contact with customers, from quotation to invoicing				7. Shore-based operational services essential to ship operations, including communications, water and electrical supplies 8. Emergency repair facilities 9. Anchorage, berth and berthing services 10. Access to maritime agency services.[22]

21 "Other forms of commercial presence for the supply of international maritime transport services" means the ability for foreign shipping companies to undertake locally activities that are related to the cargoes carried by them and necessary for the supply of the integrated transport service to their customers, within which the international maritime transport constitutes a substantial element and is supplied by the concerned foreign shipping company.

22 With respect to the access to and use of maritime agency services mentioned in the Additional Commitments column, where road, rail, inland waterways, coastal and inland shipping and related auxiliary services are not otherwise fully covered in the schedule, a multimodal transport operator shall have the ability to access Vietnamese maritime agency services suppliers to rent, hire or charter trucks, railway carriages or barges and related equipment, for the purpose of onward forwarding of international cargoes carried by sea.

	2. Acting on behalf of the cargo owners 3. Provision of required business information 4. Preparation of documentation concerning transport documents, including customs documents, or other documents related to the origin and character of the goods transported 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: 6. Acting on behalf of the company, organising the call of the ship or taking over cargoes when required 7. Negotiate and sign contracts for road, rail and inland waterways transportation related to cargoes transported by the company. The number of joint ventures by foreign shipping companies will be limited to five 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.				

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Rental of vessels with crew (CPC 7213)	(1) None. (2) None. (3) None, except joint venture with the foreign capital contribution not exceeding 70% shall be permitted.	(1) N (2) N (3) EF70	(1) None (2) None (3) None, except as indicated in the market access column	(1) N (2) N (3) N
Maintenance and repair of vessels (CPC 8868*)	(1) None. (2) None. (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%.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Supporting Services for Maritime Transport Customs clearance services[23]	(1) Unbound.* (2) None. (3) None, except that since 11 January 2007 joint ventures with foreign capital contribution not exceeding 51% can be established. After five years, joint ventures can be established with no foreign ownership limitation.	(1) U (2) N (3) E	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Maritime agency services (CPC 7454*)	(1) None. (2) None. (3) Commercial presence may be in the form of joint venture. Maximum share of foreign equity in the joint venture company is allowable up to 49%.	(1) N (2) N (3) EF49	(1) None (2) None (3) Unbound	(1) N (2) N (3) U

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Container station and depot services[24]	(1) None. (2) None. (3) None, except that since 11 January 2007 joint ventures with foreign capital contribution not exceeding 51% can be established. Since 11 January 2014, none.	(1) N (2) N (3) EF51	(1) None (2) None (3) None	(1) N (2) N (3) N

[23] "Customs clearance services" (alternatively "customs house brokers' services") means activities consisting in carrying out on behalf of another party customs formalities related to import, export or through transport of cargoes, whether this service is the main activity of the service provider or a usual complement of its main activity.

[24] "Container station and depot services" means activities consisting in storing containers, whether in port areas or inland, with a view to their stuffing/stripping, repairing and making them available for shipments.

Annex B. Specific Schedule of Commitments for “Air Transportation” under AFAS (10th Package, Signed in November 2018) by ASEAN Members

Note: Commitments are not listed as part of the main AFAS commitment tables; nor have they come into force. This is because the 10th 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 C.
Specific Schedule of Commitments for "Rail Transportation" under AFAS (10th Package, Signed in November 2018) by ASEAN Members

Brunei Darussalam

Sector or Subsector	Limitation on Market Access	A-H Classification of MA	Limitation on National Treatment	A-H Classification of NT
E. Rail Transport Services Passenger transportation (CPC 7111)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Freight transportation (CPC 7112)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Pushing and towing services (CPC 7113)	(1) None (2) None (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Maintenance and repair of rail transport equipment (CPC 8868)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Supporting services for rail transport services (CPC 743)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N

Cambodia

E. Rail Transport Services

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Passenger transportation (CPC 7111), excluding cabotage	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Freight transportation (CPC 7112), excluding cabotage	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Pushing and towing services (CPC 7113)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance and repair of rail transport equipment (CPC 8868**)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Supporting services for rail transport services (CPC 743)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Indonesia

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
E. Rail Transport Services Passenger transportation (CPC7111)	(1) None. (2) None. (3) a) Commercial presence is only possible by establishing joint venture company. b) Maximum share of foreign equity participation (FEP) in the joint venture railway company could be 49%	(1) N (2) N (3)EF49	(1) None (2) None (3) As indicated in the horizontal Section	(1) N (2) N (3) DET
Passenger Transportation (CPC7111) limited to Interurban Passenger Transportation (CPC 71111)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) Shall not operate on the existing railways	(1) N (2) N (3) E

Sector or Subsector	Limitation on Market Access	A-H Classification of MA	Limitation on National Treatment	A-H Classification of NT
Freight transportation (CPC 7112)	(1) None. (2) None. (3) a) Commercial presence is only possible by establishing joint venture company b) Maximum share of foreign equity participation in the joint venture railway company could be 49%.	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Freight transportation (CPC 7112), limited to transportation of frozen or refrigerated goods (CPC 71121)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Pushing and towing services (CPC 7113) Supporting services for rail transport services (CPC 743)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 70%	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance and repair of rail transport equipment (CPC 8868)	(1) None. (2) None. (3) a. Commercial presence is only possible by establishing joint venture company. b. Maximum share of foreign equity participation in the joint venture company is 49%. c. Maximum share of foreign equity participation is allowed up to 51% if the joint venture is established with PT. INKA (state-owned company).	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

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
E. Rail Transport Services	(1) None	(1) N	(1) None	(1) N
	(2) None	(2) N	(2) None	(2) N
Passenger transportation (CPC 7111) Freight transportation (CPC 7112) Pushing and towing services (CPC 7113) Maintenance and repair of rail transport equipment (CPC 8868**) Supporting services for rail transport services (CPC 743)	(3) None	(3) N	(3) None	(3) N

Malaysia

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
E. Rail Transport Services Maintenance and repair of rail transport equipment (CPC 88688**)	(1) None. (2) None. (3) Aggregate foreign equity shall not exceed 51%.	(1) N (2) N (3) F51	(1) None (2) None (3) None	(1) N (2) N (3) N
Maintenance and repair of rail transport equipment (CPC 88688**) For greater certainty, exclude maintenance and repair operations under the purview of Technology Depository Agency (TDA) Malaysia.	(1) None (2) None (3) Only through a locally incorporated joint venture with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding shall not exceed 70%.	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Supporting services for rail transport (CPC 743) Covering left-luggage services	(1) None (2) None (3) Unbound	(1) N (2) N (3) U	(1) None (2) None (3) Unbound	(1) N (2) N (3) U

Myanmar

Sector or Subsector	Limitation on Market Access	A-H Classification of MA	Limitation on National Treatment	A-H Classification of NT	Additional Commitments
E. Rail Transport Services Maintenance and repair of rail transport equipment (CPC 8868**)	(1) None (2) None (3) Unbound	(1) N (2) N (3) U	(1) None (2) None (3) Unbound	(1) N (2) N (3) U	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
E. Rail Transport Services				
a. Passenger transportation (CPC 7111) b. Freight transportation (CPC 7112) e. Supporting services (CPC 743) Railroad, street railway, traction railway	(1) Unbound.* (2) None. (3) Up to 40% foreign equity participation is allowed.	(1) U (2) N (3) F40	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
c. Pushing and towing services Towing services for defective trains provided by designated maintenance provider (CPC 71130**)	(1) Unbound.* (2) None. (3) Up to 70% foreign equity participation is allowed.	(1) U (2) N (3) F70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Supporting services for rail transport services (CPC 743): Sale and/or reloading of tickets/cards (CPC ver. 1.1, part of 67400)	(1) Unbound.* (2) None. (3) Up to 100% foreign equity participation is allowed.	(1) U (2) N (3) F100	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
d. Maintenance and repair of rail transport equipment (CPC 8868**)	(1) Unbound.* (2) None. (3) Up to 100% foreign equity participation is allowed.	(1) U (2) N (3) F100	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Singapore

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
E. Rail Transport Services				
Passenger transportation (CPC 7111)	(1) Unbound (2) None (3) Unbound	(1) U (2) N (3) U	(1) Unbound (2) None (3) Unbound	(1) U (2) N (3) U
Freight transportation (CPC 7112)	(1) Unbound (2) None (3) Unbound	(1) U (2) N (3) U	(1) Unbound (2) None (3) Unbound	(1) U (2) N (3) U
Pushing and towing services (CPC 7113)	(1) Unbound* (2) None (3) Unbound	(1) U (2) N (3) U	(1) Unbound* (2) None (3) Unbound	(1) U (2) N (3) U
Maintenance and repair of urban and suburban rail transport equipment (CPC 8868 **)	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Thailand

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
E. Rail Transport Services				
(d) Maintenance and repair of rail transport equipment on a fee or contract basis (CPC 8868)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N
(e) Supporting services for rail transport services: - Security services at railway station	(1) None (2) None (3) As indicated in 3.3 of the horizontal section	(1) N (2) N (3) DEF49	(1) None (2) None (3) None	(1) N (2) N (3) N
- Railway car cleaning services under the service contract of railway authority	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (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
E. Rail Transport Services Passenger transportation (CPC 7111)	(1) None. (2) None. (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 the foreign side does not exceed 70% of the total legal capital.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) N
Freight transportation (CPC 7112)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Pushing and towing services (CPC 7113)	(1) None. (2) None. (3) None, except that joint ventures with foreign capital contribution not exceeding 70% can be established.	(1) N (2) N (3) EF70	(1) None (2) None (3) None, except as indicated in the market access column	(1) N (2) N (3) N
Maintenance and repair of rail transport equipment (CPC 8868)	(1) None. (2) None. (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 does not exceed 70% of total legal capital.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) N
Supporting services for rail transport services (CPC 743)	(1) None. (2) None. (3) None, except that joint ventures with foreign capital contribution not exceeding 70% can be established.	(1) N (2) N (3) EF70	(1) None (2) None (3) None, except as indicated in the market access column	(1) N (2) N (3) N

Annex D. Specific Schedule of Commitments for "Road Transportation" under AFAS (10th Package, Signed in November 2018) by ASEAN Members

Brunei Darussalam

No listing

Cambodia

F. Road Transport Services

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

Indonesia

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
F. Road Transport Services				
Passenger transportation by human- or animal-drawn vehicles (CPC 71224)	(1) None. (2) None. (3) Maximum share of foreign equity participation in the joint venture company is 70%.	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section In suburbs of the island of Sulawesi, Moluccas and Papua	(1) N (2) N (3) DET
Freight transportation (CPC 7123)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 49%	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Freight transportation by human- or animal-drawn vehicle (CPC 71236)	(1) None. (2) None. (3) Maximum share of foreign equity participation in the joint venture company is 70%.	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET
Supporting services for road transport terminal (CPC 744)	(1) None (2) None (3) Joint venture company with foreign equity participation up to 49%	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Parking services (CPC 74430)	(1) None. (2) None. (3) Maximum share of foreign equity participation in the joint venture company is 70%.	(1) N (2) N (3) EF70	(1) None (2) None (3) As indicated in the horizontal section Only in suburbs in Sulawesi, Moluccas and Papua	(1) N (2) N (3) DET
Maintenance and repair of road transport equipment (CPC 8867)	(1) None. (2) None. (3) a. Commercial presence is only possible by establishing joint venture company. b. Maximum share of foreign equity participation in the joint venture company is 49%.	(1) N (2) N (3) EF49	(1) None (2) None (3) As indicated in the horizontal section	(1) N (2) N (3) DET

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
F. Road Transport Services Passenger transportation proposed- taxi (CPC 71221)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None, but driver has to be Lao	(1) N (2) N (3) E
Freight transportation (CPC 7123)	(1) None. (2) None. (3) Foreign equity participation is 100% for domestic transportation. For cross-border transportation joint venture with local service provider(s) is required, with foreign equity limited to 49%.	(1) N (2) N (3) EF100/49	(1) None (2) None (3) None	(1) N (2) N (3) N
Rental of commercial vehicles with operator (CPC 7124)	(1) None. (2) None. (3) Joint venture with Lao services providers is required. Foreign equity participation is limited to 70%.	(1) N (2) N (3) EF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance and repair of road transport equipment (CPC 6112, CPC 8867)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
Supporting services for road transport services (CPC 744) - Bus station service - Parking service	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Malaysia

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
F. Supporting services for maritime transport Vessel salvage and refloating services (not applicable in harbour) (CPC 74540) (Vessel salvage services provided on ocean and seas. Such services consist of recovering distressed and sunk vessels and their cargoes, including the raising of sunken vessels, the righting of capsized vessels and the refloating of stranded vessels.)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Passenger transportation (CPC 7111)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Freight transportation (CPC 7112)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Pushing or towing services (CPC 7113)	(1) None. (2) None. (3) Foreign equity participation should not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
F. Road Transport Services Freight transportation (CPC 7123) Covering private carriers (Class C Licence)	(1) None. (2) None. (3) Foreign equity shall not exceed 70%.	(1) N (2) N (3) F70	(1) None (2) None (3) None	(1) N (2) N (3) N
Passenger transportation by human- or animal-drawn vehicles	(1) Unbound due to lack of technical feasibility. (2) None. (3) Only through a locally incorporated joint venture with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding shall not exceed 70%.	(1) U (2) N (3) DEF70	(1) Unbound due to lack of technical feasibility (2) None (3) None	(1) U (2) N (3) N
Rental of commercial vehicles with operator (CPC 71240)	(1) None (2) None (3) Unbound	(1) N (2) N (3) U	(1) None (2) None (3) Unbound	(1) N (2) N (3) U

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance and repair services not elsewhere classified of trailers and semi-trailers on a fee or contract basis (CPC 88670*)	(1) None. (2) None. (3) Only through a locally incorporated joint venture with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding shall not exceed 70%.	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N
Private services provided by car parks, parking lots and parking garages, whether roofed or not (CPC 74430)	(1) None. (2) None. (3) None, except only through a representative office, regional office or locally incorporated joint-venture corporation with Malaysian individuals or Malaysian-controlled corporations or both. Aggregate foreign shareholding in the joint venture corporation shall not exceed 70%.	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Myanmar

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 Passenger transportation (excluding cabotage)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Freight transportation (excluding cabotage)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT	Additional Commitments
Maintenance and repair of road transport equipment (CPC 6112, CPC 8867)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	Subject to horizontal commitments
Supporting services for road transport services (CPC 744)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) DET	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
F. Road Transport Services				
a. Passenger transportation (CPC 7121, CPC 7122) b. Freight transportation (CPC 7123) c. Rental of commercial vehicles with operator (CPC 7124)	(1) Unbound.* (2) None. (3) Up to 40% foreign equity participation is allowed.	(1) U (2) N (3) F40	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Passenger transportation (CPC 7121) Airport limousine transportation with driver and ancillary to a hotel (*i.e.*, operated and owned by the hotel for the benefit of its guests/clients but not for hire) (CPC 71214**)	(1) Unbound.* (2) None. (3) Up to 100% foreign equity participation is allowed.	(1) U (2) N (3) F100	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Freight transportation (CPC 7123) Transportation of refrigerated goods in specialty refrigerated trucks operated by business owners for exclusive use in the course of their business (CPC 71231**)	(1) Unbound.* (2) None. (3) Up to 100% foreign equity participation is allowed.	(1) U (2) N (3) F100	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
d. Maintenance and repair of road transport equipment (CPC 8867)	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
Routine cleaning and maintenance services limited to vehicle laundry and car-wash services (CPC 6112**)	(1) Unbound.* (2) None. (3) Up to 70% foreign equity participation is allowed.	(1) U (2) N (3) F70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N
e. Supporting services for road transport services Parking services (CPC 7443	(1) Unbound.* (2) None. (3) Up to 70% foreign equity participation is allowed.	(1) U (2) N (3) F70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Singapore

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
F. Road Transport Services				
• Rental services of cars with operators (CPC 71222) • Rental services of buses and coaches with operators (CPC 71223) • Rental services of commercial freight vehicles with operators (CPC 71240)	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
• Freight (road) transportation of a) Refrigerated goods (CPC 71231) b) Liquids or gasses (CPC 71232) c) Containerized freight (CPC 71233) d) Furniture(CPC 71234)	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
• Maintenance and repair services of motor vehicles (CPC 61120) • Maintenance and repair services of parts of motor vehicles (CPC 88 **)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N
• Parking services (CPC 74430)	(1) None (2) None (3) None	(1) N (2) N (3) N	(1) None (2) None (3) None	(1) N (2) N (3) N

Thailand

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
F. Road Transport Services: Other non-scheduled passenger transportation				
(a) Passenger transportation: - Rental services of passenger cars with operator (CPC 71222) - Rental services of buses and coaches with operator (CPC 71223)	(1) Unbound. (2) None. (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 (2) N (3) DEF49	(1) Unbound (2) None (3) None	(1) U (2) N (3) N
(b) Freight transportation only for frozen or refrigerated goods, bulk liquids or gasses and containerised freight (CPC 71231–71233)	(1) Unbound.* (2) None. (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 (2) N (3) DEF49	(1) Unbound (2) None (3) None	(1) U (2) N (3) N
Road transport services of freight by human- or animal-drawn vehicles (CPC Version 1.1: 64334)	(1) Unbound* (2) None (3) As indicated in 3.1 of the horizontal section	(1) U (2) N (3) DEF70	(1) Unbound* (2) None (3) None	(1) U (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
(d) Maintenance and repair of road transport equipment: Automobile emergency road services	(1) None (2) None (3) As indicated in 3.3 of the horizontal section	(1) N (2) N (3) DEF49	(1) None (2) None (3) None	(1) N (2) N (3) N
Car valeting services (part of CPC Version 1.1: 87141)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N
(e) Supporting services for road transport services: Parking services (CPC 7443)	(1) None (2) None (3) As indicated in 3.3 of the horizontal section	(1) N (2) N (3) DEF49	(1) None (2) None (3) None	(1) N (2) N (3) N
Parking services for motor vehicles, motorcycles and bicycles provided by car parks, parking lots and parking garages, whether roofed or not (part of CPC Version 1.1: 67530)	(1) None (2) None (3) As indicated in 3.1 of the horizontal section	(1) N (2) N (3) DEF70	(1) None (2) None (3) None	(1) N (2) N (3) N

Viet Nam

Sector or Subsector	Limitation on Market Access	A–H Classification of NT	Limitation on National Treatment	A–H Classification of NT
F. Road Transport Services Passenger transportation (CPC 7121, CPC 7122)	(1) Unbound. (2) None. (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 the foreign side not exceeding 49%. Since 11 January 20140, subject to the needs of the market, joint ventures with foreign capital contribution not exceeding 51% may be established to provide freight transport services. 100% of joint venture's drivers shall be Vietnamese citizens.	(1) U (2) N (3) N	(1) Unbound. (2) None (3) None	(1) U (2) N (3) N
Freight transportation (CPC 7123)	(1) None. (2) None. (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 the foreign side not exceeding 70% of total legal capital. 100% of joint venture's drivers shall be Vietnamese citizens.	(1) N (2) N (3) EF70	(1) None (2) None (3) None, except as indicated in the market access column	(1) N (2) N (3) N

Sector or Subsector	Limitation on Market Access	A–H Classification of MA	Limitation on National Treatment	A–H Classification of NT
Maintenance and repair of road transport equipment (CPC 6112, CPC 8867)	(1) None. (2) None. (3) None, except that joint ventures with foreign capital contribution not exceeding 51% can be established.	(1) N (2) N (3) EF51	(1) None (2) None (3) None, except as indicated in the market access column	(1) N (2) N (3) N

Annex E.
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, regional maritime transport cooperation and effective implementation of the International Maritime Organization 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 indicators on port efficiency, e.g., cargo handling and ship turnaround time
  - MT-1.1.1 Monitor and, when necessary, review the key performance indicators to improve efficiency of ASEAN ports
- MT-1.2 Conduct a pilot project on the operationalization of the ASEAN Single Shipping Market 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 issued by ASEAN member states
  - MT-1.3.1 Adopt the mechanism to mutually recognize the certificates of competency for near coastal voyages issued by ASEAN member states
- MT-1.4 Enhance the implementation of electronic data interchange in ASEAN ports
  - MT-1.4.1 Support and enhance electronic data interchange 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 that 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 polices 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 programmes 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 roll-on/roll-off (RO-RO) shipping network operation in ASEAN

MT-2.1 Conduct dialogue among concerned ASEAN member states for the preparation of RO-RO routes operation

MT-2.1.1 Improve institutional arrangements (e.g., customs, immigration and quarantine; 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 network

MT-3.1 Conduct a study and formulate a regional plan for developing inland waterway transport in ASEAN

MT-3.1.1 Complete the Development Study for Inland Improvement project in Thailand and the CLMV countries [Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam]

MT-3.2 Further improve linkage among countries in the Mekong region

MT-3.2.1 Conduct relevant research and workshops

MT-3.3 Implement the suggestions/projects proposed by the aforementioned 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 International Maritime Organization 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 programmes of the Port Security Group

MT-4.2 Development of vessel traffic services (VTS) operators' capacity

MT-4.2.1 Establish ASEAN regional training centres 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 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 research 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 the 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 the 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 programmes at regional and national levels

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 levels

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 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)

To achieve the air transport goal, it is important 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 accounting for the status of air transport measures, ASEAN member states need to undertake continued discussion on the way forward and identify concrete steps to establish ASAM. Efforts in some areas such as full ratification and implementation of the Roadmap for Integration of Air Travel Sector agreements and the Multilateral Agreement for the Full Liberalization of Passenger Air Services under ASAM need to be redoubled. Air connectivity expansion with the European Union, 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 cooperation 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, the ASEAN Multilateral Agreement on the Full Liberalization of Air Freight Services, the Multilateral Agreement for the Full Liberalization of Passenger Air Services and their respective protocols and implementation, and discuss further liberalization of key economic elements, where necessary, under the 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 third, fourth and fifth freedom traffic rights

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

AT-1.3.2 Conclude a comprehensive air transport agreement with the European Union

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 the Republic of Korea

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 the 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 licences

AT-2.2.1 Conclude a framework agreement to support future mutual recognition of approvals, certificates and licences

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 training organization and establish procedures to achieve mutual recognition

AT-3 Enhance aviation security in ASEAN in accordance with ICAO Standards and Recommended Practices (SARPs)

AT-3.1 Promote capacity building and align aviation security measures with ICAO SARPs

AT-3.1.1 Conduct the Points of Contact network exercise on a yearly basis

AT-3.1.2 Leverage existing capacity-building mechanisms such as those offered by the ICAO Asia and Pacific Regional Office and 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 Aviation System Block Upgrade Framework

AT-4.2.1 Adopt the ASEAN ATM Master Plan

AT-4.2.2 Implement the ASEAN ATM 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 analyse 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 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 (WHO, 2015) 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 no data are available).[25] 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 aforementioned, the specific goals and actions for land transport for the period of 2016–2025 are

LT-1 Accomplish the implementation of the Singapore–Kunming Rail Link (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 People's Democratic Republic: 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

25 Figures are updated from the original one based on the 2013 World Health Organization Global Status Report on Road Safety (WHO, 2013).

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 People's Democratic Republic: 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 and 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 People's Democratic Republic: AH12 Nateuy–Oudomxai–Luang Prabang–Vientiane (293 of 682 km)

LT-2.1.2 Lao People's Democratic Republic: 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 People's Democratic Republic: AH 13 Oudomxai–Pakbeng (133 km)

LT-2.2.2 Lao People's Democratic Republic: AH131 Thakhek–Na Phao (96 km of 146 km)

LT-2.2.3 Lao People's Democratic Republic: 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 Thaung (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 two 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 two 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) Kdey Ta Koy–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 People's Democratic Republic: AH11 four-lane highway project Vientiane–Ban Hay section (63 km)

LT-2.3.14 Lao People's Democratic Republic: 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 the ASEAN Highway Network (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 establishing 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 People's Democratic Republic: 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–Sibu–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, designing ITS architecture, determining standards for ASEAN and developing implementation and monitoring mechanism

LT-3.1.2 Formulate the national ITS policy and master plans for ASEAN members states addressing policy, standards, ITS development, operation and 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 ITS capacity-building programmes

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 AHN and 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 ports 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 ports 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 road fatalities by 50 per cent in ASEAN member states by 2020[26] 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 five strategic pillars (Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users and Post Crash Response) of the United Nations Decade of Action for

[26] Achievement by 2020 is not yet verified as of this writing.

Road Safety

LT-5.1.1 Develop guidelines for improving the standard procedure for reporting road crashes based on United Nations standards

LT-5.1.2 Adopt data collection template on road crashes in accordance with 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 regarding 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 programmes

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 programmes on road safety

LT-5.3 Continued improvement of road safety policy and programmes to further enhance road safety in the ASEAN region

LT-5.3.1 Reduce road traffic injuries and fatalities by another 25 per cent from 2021 to 2030

LT-5.4 Harmonize safety regulation with the United Nations 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 road safety

LT-6 Develop a database of the ASEAN land transport network

LT-6.1 Develop a map of ASEAN land transport network, including all relevant information on AHN, SKRL and dry ports

LT-6.1.1 Publish a map of the ASEAN land transport network

LT-7 Intensify regional cooperation in improving transport safety

LT-7.1 Review existing statistics, policies and programmes at regional and national levels

LT-7.1.1 Gap analysis

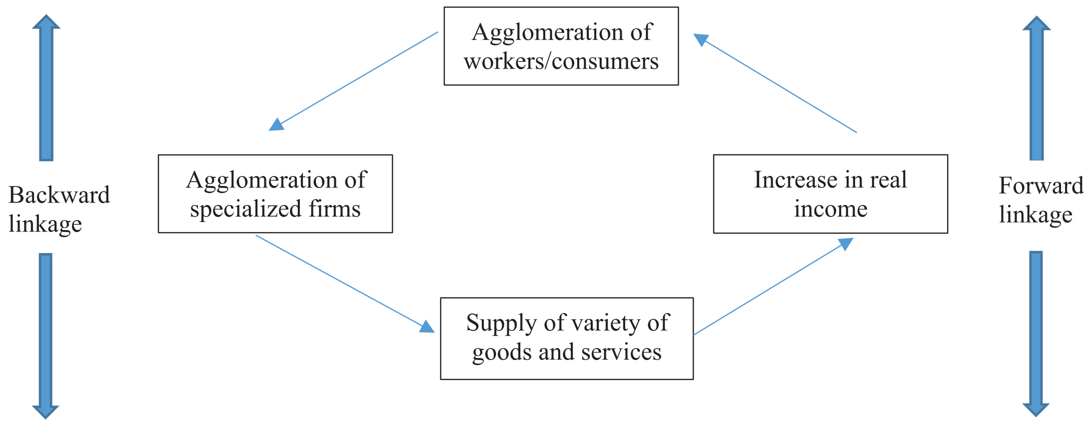
LT-7.2 Identify training needs to further improve transport safety in the region

LT-7.2.1 Conduct training on transport safety at regional and national levels

Annex F.
Policy Evaluation Exercise: How Transport Services and Courier Services Attain the Multiple-Equilibria Situation in a Country and in the Region[27]

Figure F1 shows how agglomeration (concentration) emerges with the reduction of transport and courier services costs.

Figure F1. Basic spatial economic mechanism of agglomeration (under low transport and courier services costs)



Source: Adapted from Fujita et al. (1999).

(1) Under high transport and courier services costs

When transport costs (costs associated with transporting people and goods) for the transfer of goods and services are prohibitively high, all production must take place locally (as shown in figure F2), generating decentralized economic activities (this is a two-equilibrium situation). In ASEAN, before full-fledged marketization in the latter part of the 20th century, multiple cities and multiple small villages co-existed as "major cities".

Figure F2. Multiple small cities and villages

[27] The exercise also contains the exercise for courier services, which another paper in this series covers. Courier services and transport services were combined in the discussion of policy implications at the Third Seminar on Promoting Services Trade in ASEAN in September 2017 in Kuala Lumpur. Therefore, these two services industries are considered together here.

(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 F3), 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 ASEAN member states.

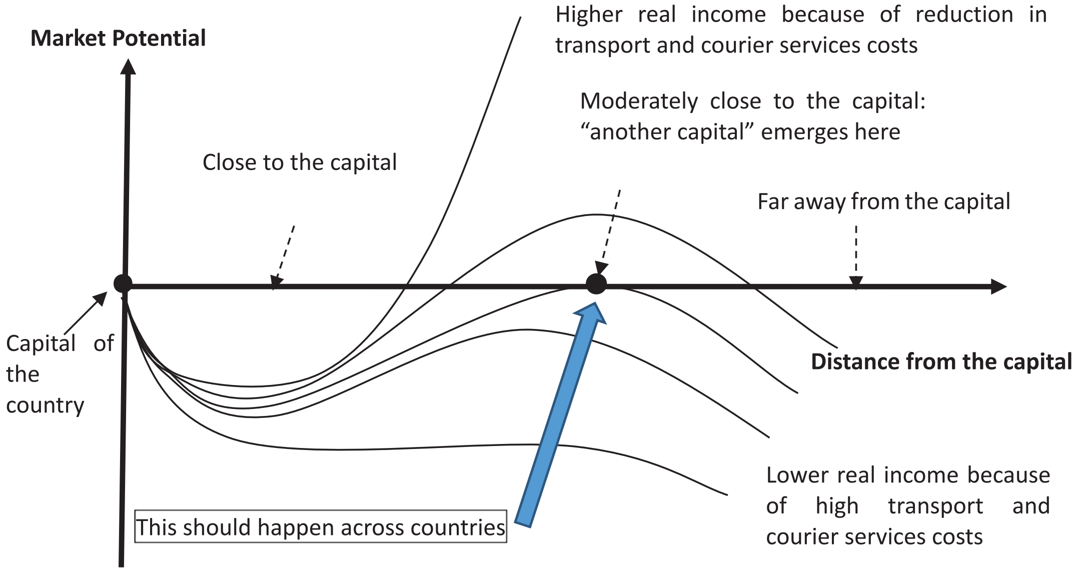
Figure F3. One capital and multiple small cities and villages

(3) Under low transport and courier services costs

When transport costs decrease further, the two- or multiple-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 F4). This is what ASEAN member states should aim for, with further liberalization of various forms of transport services. In connection with this multiple-equilibria situation, figure F5 shows the spatial economic interaction of locations and "market potential", which is the potential usefulness of particular locations for production activities and for living. Usefulness increases when transport and courier costs are low enough.

Figure F4. Multiple capitals among cities and villages

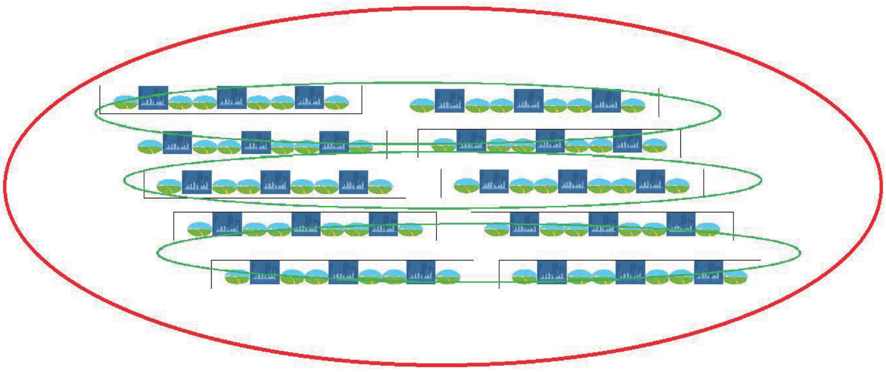
Figure F5. Spatial economic interaction of locations and market potential



Source: Adapted from Fujita *et al.* (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.

At this stage, when economic integration is taking place, the multiple-equilibrium situation can be extended to the region (ASEAN), subregion (*i.e.*, Mekong) or neighbouring countries (*e.g.*, Thailand and the Lao People's Democratic Republic). Figure F6 illustrates multiple capitals among cities and villages spread beyond a single country to the neighbouring countries, the subregion and the region.

Figure F6. 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 and policy evaluation for realizing a multiple-equilibria situation. Tables F1–F3 show the results.

These results show that the average score at the bottom of each table gets lower (less agreeable) in descending order at the in-country level (6.7), neighbouring-country level (5.8) and ASEAN level (5.35). Considering coordination at the ASEAN level to achieve region-wide economic impacts is clearly needed.

Table F1. Evaluation of accessibility to "capitals"

In-country level

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

Country	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 the multiple-equilibria situation	5. [Air] Fully developed to enable the multiple-equilibria situation	6. [Rail] Fully developed to enable the multiple-equilibria situation	7. [Public road] Fully developed to enable the 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	Total score [/100]
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 PDR	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[a]	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*
Average	**8.8**	**8.4**	**7.8**	**5.2**	**5.7**	**5.7**	**7.4**	**5.7**	**6.2**	**5.9**	***65.1***

[a] commuter rail like mass rail transit/light rail transit

Average of (1)–(10): 6.7

Table F2. Evaluation of accessibility to “capitals”

Neighbouring-country level

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

Country	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 the multiple-equilibria situation	5. [Air] Fully developed to enable the multiple-equilibria situation	6. [Rail] Fully developed to enable the multiple-equilibria situation	7. [Public road] Fully developed to enable the 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	Total score [/100]
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 PDR	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*
Average	**7.7**	**7.4**	**6.5**	**5.4**	**6.8**	**3.6**	**5.5**	**4.9**	**5.2**	**5**	***58***

Average of (1)–(10): 5.8

Table F3. Evaluation of accessibility to "capitals"

ASEAN level

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

Country	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 the multiple-equilibria situation	5. [Air] Fully developed to enable the multiple-equilibria situation	6. [Rail] Fully developed to enable the multiple-equilibria situation	7. [Public road] Fully developed to enable the 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	Total score [/100]
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 PDR	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*
Average	**6.7**	**6.5**	**6.2**	**5**	**6.4**	**3.4**	**4.7**	**4.4**	**5.1**	**5.1**	***53.5***

Average of (1)–(10): 5.4

Tables F4 and F5 show the evaluation of realizing 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 a serious need for consolidating ASEAN-wide policy coordination in terms of promoting trade in transport services.

Table F4. Evaluation of realizing a multiple-equilibria situation: National level

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

Country	1. Trade in maritime transport services	2. Trade in air transport services	3. Trade in rail transport services	4. Trade in road transport services	Total score [/40]
Brunei Darussalam	5	6	1	8	20
Cambodia	5	6	4	7	22
Indonesia	8	8	8	8	32
Lao PDR	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
Average	**6.9**	**7.2**	**5.1**	**7.7**	**26.9**
				Average of (1)–(4):	**6.7**

Table F5. Evaluation of realizing a multiple-equilibria situation: ASEAN-wide

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

Country	1. Trade in maritime transport services	2. Trade in air transport services	3. Trade in rail transport services	4. Trade in road transport services	Total score [/40]
Brunei Darussalam	5	6	1	5	23
Cambodia	7	9	9	9	43
Indonesia	8	8	8	8	40
Lao PDR	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
Average	**5.9**	**6.6**	**5.2**	**6.3**	**30.5**
				Average of (1)–(4):	**6.0**

Tables F6–F9 show the results of policy evaluation for maritime, air, rail and road transport services.

Table F6. Policy evaluation: Trade in maritime transport services (participant remarks)

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. [neighbouring-country level] Need more coordination with our neighbouring countries for better maritime transport services connection. [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 PDR	[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. [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 that covers implementation of national, subregional and international transport network. [neighbouring-country level] There is no maritime policy in neighbouring country level. [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. [neighbouring-country and ASEAN-wide] Maximize use of ASEAN RO-RO 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). [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 that meet international standards. [neighbouring-country level] Promote quality and reliable maritime transport services to connect major ports among neighbouring countries. [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. - Continue to support agriculture and rural areas; Increase market share of maritime transport, container transport on main corridors transport. - 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. - 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 F7. Policy evaluation: Trade in air transport services (participant remarks)

	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 airports and providing efficient logistic services to both passengers and cargos. [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. [ASEAN-wide] Need to improve networking and coordination ASEAN-wide in terms of sharing flight information, air safety and antiterrorism.
Indonesia	Policy for security, safety, licences for maintenance repair and operation (MRO)/policy for security, safety/policy for security, safety.
Lao PDR	[in-country level] The ticket price must be improved. [neighbouring-country level] Airplanes must be upgraded. [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. [ASEAN-wide] Go for full open skies agreement (*e.g.*, seventh freedom).
Thailand	..
Viet Nam	- Restructure air transport to become popular and convenient type of transport, undertake passenger transportation on international mid- and long-range routes. - Consider as key means of transport to important economic zones, remote area or island. - Create a favourable and competitive environment for airline operations. - Improve the competitive capacity of Vietnamese airlines by modernizing fleets, expanding air routes. - Enhance quality and quantity of services, absolutely ensure security and safety of aviation.

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 F8. Policy evaluation: Trade in rail transport services (participant remarks)

Country	Further policy options needed (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 railroads to cover the whole country to facilitate the movement of people (foreign and local tourist) and goods. [neighbouring-country level] There should be more coordination and cooperation with neighbouring countries in connecting the railroads for better connectivity. [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 [research and development]/sharing knowledge/policy for sharing knowledge and R&D.
Lao PDR	[in-country level] No services because it's still under construction. [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 [mass rail transit] and LRT [light rail transit] systems). [neighbouring-country level] Invest in high-speed rail connectivity. [ASEAN-wide] Invest in high-speed rail connectivity.
Thailand	..
Viet Nam	- Developing railways in the direction of modernization, rational capacity, fuel saving and efficiency. - Reducing fees, rail transport costs, improving the quality of transport services to compete with other types of transport. - 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 F9. Policy evaluation: Trade in road transport services (participant remarks)

Country	Further policy options needed (in-country level/neighbour-country level/ASEAN level)
Brunei Darussalam	..
Cambodia	[in-country level] Road transport needs more investment to expand and widen countrywide. Build new roads; maintenance and safety of the roads should be a priority. [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 [research and development]/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. [neighbouring-country level] Need to build Inland Container Depot along bordering crossing point for transshipment. [ASEAN-wide] -Both truck and bus including drivers should be upgraded. - Infrastructure, such as road capacity and lanes of road, must be 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. [neighbouring-country level] Improve capacity for customs clearance at road CIQ [customs, immigration and quarantine] facilities (Causeway and Second Link). Mutual recognition of commercial vehicles to facilitate cross-border trade. [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. 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. 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. - Taking advantage of road transport capacity focusing on short and average distance transportation. - 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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