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Maritime Logistics Sector in ASEAN: Exploring Opportunities and Addressing Key Challenges

Zamroni Salim, Nika Pranata, Fina Astriana
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Project Supervisor:
Rahimah Abdulrahim
(Executive Director)

Head of ASEAN Studies Program/Editor:
A. Ibrahim Almuttaqi

Authors:
Zamroni Salim
Nika Pranata
Fina Astriana

Finance and Administration:
Mila Oktaviani

Design and Publication:
Rahma Simamora
Tongki Ari Wibowo

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The Habibie Center was founded by Bacharuddin Jusuf Habibie and family in 1999 as an independent, non-governmental, non-profit organisation. The vision of The Habibie Center is to create a structurally democratic society founded on the morality and integrity of cultural and religious values. The mission of The Habibie Center are first, to establish a structurally and culturally democratic society that recognizes, respects, and promotes human rights by undertaking study and advocacy of issues related to democratization and human rights, and second, to increase the effectiveness of the management of human resources and the spread of technology.

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The ASEAN Studies Program was established on February 24, 2010, to become a center of excellence on ASEAN related issues, which can assist in the development of the ASEAN Community by 2015. The Habibie Center through its ASEAN Studies Program, alongside other institutions working towards the same goal, hopes to contribute to the realization of a more people-oriented ASEAN that puts a high value on democracy and human rights. The objective of the ASEAN Studies Program is not merely to conduct research and discussion within academic and government circles, but also to strengthen public awareness by forming a strong network of civil society in the region that will be able to help spread the ASEAN message. With the establishment of ASEAN Studies Program, The Habibie Center aims to play its part within our capabilities to the ASEAN regional development.

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The Association of Southeast Asian Nations (ASEAN) is a region with the largest and fastest growing economy in the world with an average annual real growth rate of 5.3 percent between 2007 and 2015. In 2016, the combined GDP of ASEAN Member States (AMS) reached USD 2.6 trillion, making it the sixth largest economy in the world and the third largest in Asia. The region’s GDP is projected to double up to USD 4.7 trillion in 2020, with the Association becoming the fourth largest economy in the world by 2030. There is little doubt that the ASEAN market presents huge potentials. The region is home to more than 620 million people, and is currently enjoying a demographic dividend, in which 67.6 percent of its population in 2013 was categorised in the working age, whilst another 55 million of its population will be put into the same category in the following decade (2012 – 2023). Moreover, the region’s market potentials are also strengthened by the rise of its middle-class. Over the last decade, the number of the region’s population falling into this category has sky rocketed to more than 500 percent, from a mere 50 million in 2004 to more than 300 million by 2014.

Strategic opportunities of ASEAN maritime logistics

Taking into account the potentials of ASEAN as previously discussed in the introduction part, the maritime logistics sector in ASEAN also contains vast opportunity that awaits to be reaped and can be summarized as follows:

- Vast market, growing trade, and strong domestic consumption generating demand for efficient maritime transport and its related services

Figure 1. Real GDP growth rate of ASEAN versus world

| Year | World | ASEAN | Emerging market and developing economies | Advanced economies |
|------|-------|-------|------------------------------------------|---------------------|
| 2007 | 10.0  | 8.0   | 6.0                                      | 4.0                 |
| 2008 | 8.0   | 6.0   | 4.0                                      | 2.0                 |
| 2009 | 6.0   | 4.0   | 2.0                                      | 0.0                 |
| 2010 | 4.0   | 2.0   | 0.0                                      | -2.0                |
| 2011 | 2.0   | 0.0   | -2.0                                     | -4.0                |
| 2012 | 0.0   | -2.0  | -4.0                                     | -6.0                |
| 2013 | -2.0  | -4.0  | -6.0                                     | -8.0                |
| 2014 | -4.0  | -6.0  | -8.0                                     | -10.0               |
| 2015 | -6.0  | -8.0  | -10.0                                    | -12.0               |
| 2016 | -8.0  | -10.0 | -12.0                                    | -14.0               |
| 2017P| 0.0   | 2.0   | 4.0                                      | 6.0                 |
| 2018P| 2.0   | 4.0   | 6.0                                      | 8.0                 |

Source: ASEAN Secretariat (2017:2)
By looking at ASEAN as a single entity, it is currently the third largest population in the world, which makes the region one of the major markets in the world. Such vast market is also supported by its flourishing trade. Between 2004 and 2016, total value of merchandise trade was nearly doubled, from approximately USD 0.6 trillion in 2004 to more than USD 1.1 trillion in 2016. Some of this increasing trade also contributes to fulfil ASEAN’s domestic consumption as 24 percent of its total trade is Intra-ASEAN trade.

Considering its huge market and increasing trade, with the majority of the region’s trade carried through the sea, there is little doubt that the region requires efficient maritime transport and its related services (shipping, shipbuilding and ship repairing, warehousing, etc.). The needs of such services are reflected from the projection of container traffic in the region. The demand for container in Southeast Asia is expected to triple in the next 25 years, from about 100 million TEUs at present to around 350 million TEUs by 2040. Definitely, the needs of efficient maritime services also mean a call for investors to take part in the development of the sector.

- **Massive plans of AMS to expand its maritime logistics infrastructure**

Realizing that the world is currently eyeing ASEAN as a crucial source of global economic growth and as a strategic hub for global trade, each of the AMS competes to be the champion of the
region; to be a regional hub. The governments of each AMS have been seriously intending to take part in such opportunity by improving its maritime logistics infrastructure. For instance, although Singapore is the leader in the sector, the nation still plans to double current port capacity by setting up a mega project to relocate the centre of container traffic from Pasir Panjang and Tanjong Pagar to Tuas. Malaysia, Thailand, the Philippines, Indonesia, and Vietnam also intend to reduce the domination of Singapore by setting up many major developments in maritime logistics infrastructure and giving more incentives for foreign investors. As for smaller nations in ASEAN such as Brunei, Myanmar, and Cambodia, they are expansively trying to catch up their maritime infrastructure

Table 1. AMS maritime infrastructure improvement plans and its logistics growth projection

| Country                      | Highlight of maritime infrastructure development plans                                                                 | Logistics growth projections                                                                 |
|------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Brunei Darussalam            | The Sultanate intends to establish an integrated logistics hub in Pulau Muara Besar (PMB). Once completed, the project is expected to increase the handling capacity of PMB to 1 million TEUs by 2021, from its current capacity of 330,000 TEUs per year | n.a.                                                                                         |
| Cambodia                     | Cambodia intends to increase Sihanoukville Autonomous Port (SAP) capacity up to 1 million TEU of container and 10 million tonnes per year. Other plans that the Kingdom intend to pursue is to transform Kampot Port as a new international port, and to expand the Phnom Penh Autonomous Port handling capacity up to 500,000 containers per year. | n.a.                                                                                         |
| Indonesia                    | As a major maritime country in the region, Indonesia plans to improve its maritime logistics infrastructure by setting up a sea toll road programme, which would include the improvement of 24 seaports (covering five hub ports and 19 feeder ports) | Supported by strong domestic consumption, manufacturing export increase, and the improvement of infrastructure in general, Indonesia’s logistics sector is forecasted to increase by 15.4 percent by 2020 |
| Lao PDR                      | Although Lao is a landlocked nation, the country has been granted a 50-year concession with an extendable option to develop and operate one of the Vietnamese ports, Vung Ang Port. Lao also plans to transform its river port, which is located at Golden Triangle Special Economic Zone (GTSEZ), to become international port. | n.a.                                                                                         |
| Malaysia                     | With the assistance of China, Malaysia ambitiously plans to improve its five existing ports, and make one of them as a new regional hub. The development of such a regional hub would reduce the dominance of Singapore as the major hub in ASEAN. | Logistics sector is expected to contribute up to 4.3 percent of Malaysia’s GDP by 2020, a rise of 0.7 percent from 3.6 percent registered in 2015. |
| Myanmar                      | The government of Myanmar has been pursuing serious plans to develop port infrastructure since mid-2000s, and these include plans to develop deep sea commercial ports along the coastline of Myanmar, such as Kyaukphyu, Kalagauk, and Dawei Deep Sea Port. | n.a.                                                                                         |
| The Philippines              | The government of the Philippines has allocated seven percent of the country’s GDP for public infrastructure development for the financial years of 2017 until 2022. In 2017 alone, the government allocated PHP 860 billion [USD 16.8 billion] for infrastructure development, of which about PHP 355 billion [USD 16.9 billion] is allocated for the improvement of roads, railways, seaports, and airports. | The nations’ logistics sector is expected to grow by 15.6 percent annually from now until 2020, and hit USD 6.77 billion in terms of market size value by then. |
| Singapore                    | The Singaporean government is currently planning to reduce port operations in Pasir Panjang and Tanjong Pagar by setting up a mega project called Tuas Mega Port Development, which is expected to become the new sea transportation hub capable of handling 65 million TEUs of cargo annually, or nearly double the present capacities of existing ports | n.a.                                                                                         |
| Thailand                     | The Thai government intends to strengthen its ports facilities, particularly Laem Chabang Port. More specifically, it plans to initiate the third expansion phase of the port. This plan is well reflected in the Kingdom’s Infrastructure Development Plan 2015 – 2022. The expansion is estimated to triple Lam Chabang Port’s current capacity up to 18 million TEU per year by 2021 | Thailand’s revenue from logistics sector is projected to hit USD 96.5 billion by 2019.         |
| Vietnam                      | Through the country’s development master plan, the Vietnamese government intends to achieve 2,100 million tonnes of cargo handling by 2020, a significant improvement of merely 1,274.5 million tonnes in 2016. | Vietnam’s logistics sector is expected to grow 12 percent per year, with total trade reaching USD 632 billion by 2020. |

Source: Salim, Pranata, and Tobing (2017) and Spire Research and Consulting (2016)
capacity and quality with other AMS. Even Lao as the only landlocked country, is borrowing a port from Thailand to be expanded and operated by them to support their international trade. Moreover, some of the strategic maritime logistics improvement project in ASEAN along with its logistics growth projections is summarised in Table 1. Such massive plans of infrastructure improvement definitely require vast amount of investment which cannot be fulfilled without participation from foreign investors. Hence, such condition contains a big opportunity for investors as each AMS is getting more open and provides numerous incentives and facilities to investors taking part in the process.

Key challenges in ASEAN's maritime logistics

Despite various initiatives to improve the logistics sector in general, ASEAN's logistics sector has not really improved too well. As illustrated in Figure 4, the standing of almost all of AMS, with the exception of Singapore, Cambodia, and Myanmar, in the 2016 Logistics Performance Index (LPI) dropped when compared to their standings in 2014. The biggest drop was experienced by Lao PDR, and this was followed by Thailand, Vietnam, Malaysia, the Philippines, and Indonesia. Given the relatively poor performance of the region’s logistics sector, concrete efforts are needed to improve the sector. The following are some of the key challenges in ASEAN's maritime logistics sector.

- Logistics performance gap among AMS

If we are to divide LPI 2016 rank into three categories, it will consist of: (1) Top performers for those that are ranked 1st-50th; (2) Middle performers for those that are ranked 51st-100th; and (3) Low performers for countries that are ranked 101st and below. As far as ASEAN is concerned, therefore, Singapore, Malaysia, and Thailand fit the top performers category, whereas Indonesia, Vietnam, the Philippines, and Cambodia belong to the second category. Ranked below 100th position globally, Myanmar and Lao PDR are classified as low performers. The significant logistics performance gap in the region has the potential to undermine intra-ASEAN trade efficiency.

- Lock of maritime logistics Infrastructure capacity

In 2015, the number of combined ports from 9 AMS was only 47 ports with most of them already reaching their maximum capacities (refer to Table 2.). Some ports, such as that of Tanjung Priok in Indonesia, already exceed their capacities.

Moreover, port quality has not seen much improvement either in the last three years. In 2016, the score for port quality in AMS, according to the World Economic Forum's Port Quality Index, was 4.02, which is slightly lower than the score in 2013, or 4.1. Another problem is that the quality of ports among AMS significantly differs. To date, only Singapore and Malaysia are equipped with adequate ports in ASEAN, and each scored 6.7 and 5.6 in 2016 WEF's Port Quality Index. As for the rest of AMS, their ports were scored below 5.

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Figure 4. Comparison of AMS Logistics Performance Index 2014 and 2016

Source: Author's creation based on World Bank Logistics Performance Index
Note: Brunei is excluded from the graph by the reason of Brunei's 2014 data is unavailable
connectivity level among AMS are greatly varied with the highest connectivity in 2016 held by Singapore (the city-state received the score of 106.91 then), whilst Brunei Darussalam scored the lowest (or 4.61). As illustrated in Figure 6, the sea transport connectivity of Singapore and Malaysia significantly outperformed other AMS. In addition, in terms of connectivity improvement, ASEAN’s Liner Shipping Connectivity Index (LSCI) measure the degree of countries’ sea transport connectivity to the global shipping networks, the connectivity level among AMS are greatly varied with the highest connectivity in 2016 held by Singapore (the city-state received the score of 106.91 then), whilst Brunei Darussalam scored the lowest (or 4.61). As illustrated in Figure 6, the sea transport connectivity of Singapore and Malaysia significantly outperformed other AMS. In addition, in terms of connectivity improvement, ASEAN’s
connectivity figure in 2016 did not much differ from its score in 2013. The average of ASEAN’s LSCI in 2013 was 38.68, with the figure slightly improved to 44.17 in 2016. It is also important to note that this ‘minimal’ improvement was mainly due to some improvements made by ASEAN’s top performers, particularly Singapore.

- Lengthy customs procedure and inspection

According to a study carried out by the Logistics Institute - Asia Pacific, customs procedures and inspection has been the main logistics barriers in ASEAN. Amongst some of the common issues include: (1) Time consuming documentation requirements, (2) Burdensome inspection requirements, and (3) Different classification of goods in different AMS. The study also found other impediments in the region, such as lack of clear and firm regulations in customs, working hours of customs officials that cannot accommodate urgent situations, the absence of electronic procedures in all customs procedures, including payment, and so on.

- Land Acquisition Issue

Land acquisition is a common issue across ASEAN, and remains as a major homework that most AMS need to handle. The issue is, without doubt, likely to impede strategic infrastructure development projects in the region. In Indonesia, for example, land acquisition takes about 30 to 40 percent of private investment cost related to infrastructure projects.

- Shortage of qualified labours

Another critical issue that poses a threat to ASEAN development and connectivity is shortage of skilled labour. McKinsey Global Institute’s projected that by 2030, Indonesia and Myanmar will experience shortage of 9 million skilled workers and 13 million semiskilled workers. This concern was further extended by recent estimation of International Labour Organization (ILO) and the Asian Development Bank (ADB), both of which project that, by 2025, more than 50 percent of high-skilled positions in Cambodia, Indonesia, Lao PDR, the Philippines, Thailand, and Vietnam would be filled by candidates with insufficient qualification.

Conclusion and recommendations

Maritime logistics has played a crucial role for ASEAN, particularly in promoting efficient trade and mobilizing intra- and extra-ASEAN goods and people. Blessed with a strategic geographic location, maritime logistics should play an even more prominent role in assisting ASEAN to achieve its target of being a big four economies in the world by 2030. In order to reap the potential of its maritime logistics sector, however, ASEAN should address the challenges mentioned above. In view of these challenges, we propose the following policy recommendations:

- Relaxation of investment and market access restrictions and the provision of attractive incentives in maritime logistics sector

Given significant amount of resources needed to improve the region’s maritime logistics sector, AMS should improve the participation of foreign investors in the sector. In doing so, AMS could relax their investment and market access restrictions. Apart from the relaxation of foreign ownership rule, AMS should also consider getting rid of unnecessary requirements and procedures. Investment incentives, furthermore, are also critical for AMS to attract more investors in the sector. The Philippines can serve a good example in this matter, particularly as the country manages to offer attractive investment incentives by allowing Built-Operate-Transfer (BOT) scheme for investors.

- Accelerating establishment of new ASEAN Ro-Ro routes

AMS should make effective use of and expand their sub-regional integration initiatives, such as those of the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMPEAGA) and the Great Mekong Subregion (GMS), to improve their connectivity. The Latest Roll-on/ Roll-of (Ro-Ro) route connecting Indonesia and Philippines, Davao – General Santos – Bitung (D-G-B) under the BIMPEAGA initiative has significantly improved the connectivity of the sub-region, and reduce time and cost needed to transport goods and passengers from Manila to eastern parts of Indonesia. Whereas the usual route (Manila – Jakarta – Bitung) requires three to five weeks of shipping, the new Ro-Ro route only requires one and a half day (excluding port stay). The new Ro-Ro route is also more cost-efficient. The usual route costs USD 2,200, whilst the cost to ship goods through the new route can save shippers up to 68 percent of the total cost. Accordingly, AMS could consider establishing new Ro-Ro route in the region in order to further promote trade and improve connectivity in the region.

- Improving Customs Inspection by Re-
To address problems associated with lengthy customs procedures, AMS should, in addition to existing ASEAN Single Window initiative that is to be fully operational by the end of 2017, reduce the number of goods needing specialized inspection. For instance, 30-50 percent of total Vietnam’s custom procedures accounts for specialized inspection, which is still far greater than the World Bank’s proposed figure of 15 percent. Furthermore, efforts to standardise goods classification amongst AMS is also important to improve ASEAN connectivity as different types of good classification require different treatments. Lastly, to shorten time associated with goods inspection, customs officials of each AMS should reduce the use of paper, and move to digitalize every stages of such procedures.

- **Speeding up, easing, and reducing the cost of land acquisition**

To overcome issues associated with land acquisition, governments across the region need to establish legitimate and clear regulations land acquisition.

- **Improving labour quality and easing intra-region labour mobility**

To address the shortage of qualified labour, each AMS must intensively prepare its workforce to enhance their capability. Though this is unlikely to be achieved within a short period of time, AMS, in the meantime, should find ways to further ease intra-region mobility of skilled labour. This, amongst others, can be facilitated through the expansion of existing ASEAN Mutual Recognition Arrangements (MRA).

Endnotes

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5. Bloomberg Op.cit
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11. The Logistics Institute - Asia Pacific (n.d.:3).
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