CONNECTING SOUTH EAST ASIA: A BLUEPRINT FOR ASEAN CONNECTIVITY

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Abstract

The Association of Southeast Asian Nations (ASEAN) was established on August 8, 1967, when foreign ministers of five countries, consisting of Indonesia, Malaysia, the Philippines, Singapore, and Thailand, met in Bangkok and signed the ASEAN Declaration. The regional grouping has made the most progress in economic integration, aiming to create an ASEAN Community by 2015. Recently, the Member Countries of the ASEAN have accepted the concept of ASEAN Connectivity, which emphasized on the three pillars regional cooperation of security, socio-cultural, and economic integration. In particular, ASEAN Connectivity is expected: (1) to enhance trade, investment, tourism, and development, (2) to narrow development gaps, and (3) to facilitate people-to-people contacts. As a preparation to adapt with a new system, Indonesia is geared to improve its domestic connectivity as a prerequisite of regional connectivity. In Indonesia's view, regional connectivity should help empower and develop the local economies, as an effort to narrow the development gaps within ASEAN. To fulfill these goals, Indonesia needs to strengthen its physical connectivity through better transportation infrastructure. However, to support trade facilitation, good transportation infrastructure alone is not sufficient. It needs to be enhanced with ICT infrastructure, which is crucial in supporting trade facilitation through its ability to facilitate information exchange and to reduce the cost of doing business. This paper aims to explore how Indonesia's domestic connectivity coops with the concept of ASEAN connectivity. Some data and various existing policies in their effort to accomplish ASEAN connectivity will be explored. With the new legal framework in ICT and transportation, the performance of the ICT and transportation system in Indonesia is expected to ameliorate, hence supporting the development of other sectors, and this will ultimately lead to the realization of ASEAN Connectivity.

Keywords: ASEAN connectivity, domestic connectivity, economic integration, transportation policy, ICT infrastructure.

Abstrak

Asosiasi Bangsa-Bangsa Asia Tenggara (ASEAN) didirikan pada tanggal 8 Agustus 1967 ketika menteri luar negeri dari lima negara, yang terdiri atas Indonesia, Malaysia, Filipina, Singapura, dan Thailand, bertemu di Bangkok dan menandatangani Deklarasi ASEAN. Kerjasama negara-negara ini telah menghasilkan kemajuan pesat dalam hal integrasi ekonomi, yang bertujuan untuk menciptakan Komunitas ASEAN pada tahun 2015. Sekarang negara-negara Anggota ASEAN telah menerima konsep Konektivitas ASEAN, yang didasarkan pada tiga pilar kerjasama regional, yaitu keamanan, sosial-budaya, dan integrasi ekonomi. Secara khusus, Konektivitas ASEAN diharapkan untuk: (1) meningkatkan perdagangan, investasi, pariwisata, dan pengembangan, (2) mempersempit kesenjangan pembangunan, dan (3) memfasilitasi hubungan individual (*people-to-people contact*). Sebagai persiapan untuk beradaptasi dengan sistem baru, Indonesia harus meningkatkan konektivitas domestiknya sebagai prasyarat dapat berperan dalam konektivitas regional. Dalam pandangan Indonesia, konektivitas regional harus membantu memberdayakan dan mengembangkan ekonomi lokal, sebagai upaya untuk mempersempit kesenjangan pembangunan di ASEAN. Untuk memenuhi tujuan tersebut, Indonesia perlu memperkuat konektivitas fisik melalui penyediaan infrastruktur transportasi yang lebih baik. Namun untuk mendukung kegiatan perdagangan, infrastruktur transportasi yang baik saja

tidak cukup. Infrastruktur transportasi tersebut perlu ditambah dengan infrastruktur teknologi komunikasi dan informasi (ICT), yang sangat penting untuk mendukung kegiatan perdagangan melalui kemampuannya untuk memfasilitasi pertukaran informasi dan mengurangi biaya untuk melakukan bisnis. Tulisan ini bertujuan untuk mengeksplorasi bagaimana konektivitas domestik Indonesia dapat berjalan dan mendukung realisasi konsep Konektivitas ASEAN. Beberapa data dan berbagai kebijakan dalam upaya mereka untuk mencapai konektivitas ASEAN akan dikaji. Dengan kerangka hukum baru dalam bidang ICT dan transportasi, kinerja sistem ICT dan transportasi di Indonesia diharapkan diperbaiki, sehingga dapat mendukung pengembangan sektor-sektor lain, dan semuanya diarahkan untuk mewujudkan Konektivitas ASEAN.

Kata-kata kunci: konektivitas ASEAN, konektivitas domestik, integrasi ekonomi, kebijakan transportasi, infrastruktur ICT.

INTRODUCTION

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967 when foreign ministers of Indonesia, Malaysia, the Philippines, Singapore and Thailand met in Bangkok and signed the ASEAN Declaration. This inter-governmental organization was later joined by other countries in the region, namely Brunei Darussalam, Vietnam, Lao PDR, Myanmar, and Cambodia. It aims to strengthen the cooperation in the economic, social, cultural, technical, education and other fields among the Member States, as well as to promote regional peace and stability through abiding respect for justice and the rule of law and adherence to the principles of the United Nations Charter (ASEAN Secretariat, 2009).

ASEAN has made the most progress in economic integration, aiming to create a people-oriented ASEAN Community by 2015. This vision requires a well-connected ASEAN that will lead to a more competitive and resilient ASEAN. To achieve this, the ASEAN leaders accepted the concept of ASEAN Connectivity during the 15th ASEAN Summit in Cha-am Hua Hin on 24 October 2009. The country leaders observed that the strategic location of ASEAN has the potential to physically anchor itself as the transportation, information and communication technology, and tourism hub of the region. The Master Plan for ASEAN Connectivity was subsequently adopted one year later by the ASEAN Head of States in the 17th ASEAN Summit on 28 October 2010.

ASEAN Connectivity is expected to accomplish the following goals within the region: (1) to enhance trade, investment, tourism, and development, (2) to narrow development gaps, and (3) to facilitate people-to-people contacts. Furthermore, the connectivity is expected to enhance the attractiveness of ASEAN as a foreign direct investment (FDI) destination and to encourage better integration of production and innovation networks in the region. A well-connected ASEAN may be achieved through three kinds of connectivity, i.e. physical, institutional, and people-to-people connectivity. Physical connectivity entails an enhanced physical infrastructure, while institutional connectivity refers to effective institutions, mechanisms, and processes. Finally, people-to-people connectivity is meant to empower people.

This paper aims to explore how Indonesia's domestic connectivity coops with the concept of ASEAN connectivity. Extensive data and various existing policies in their effort to accomplish ASEAN Connectivity will be explored. As the new legal framework in ICT and transportation, as well as inter-institution connectivity are implemented, the performance of the ICT and transportation system in Indonesia is expected to ameliorate,

hence supporting the development of other sectors, and this will ultimately lead to the realization of ASEAN Connectivity.

THE IMPORTANCE OF DOMESTIC CONNECTIVITY

To participate in and realize ASEAN connectivity, domestic connectivity of each country in the region needs to be strengthened. It is a precondition of regional connectivity. Similar to a network, when one node breaks or does not function properly, the rest of the network will also be affected. Domestic connectivity is extremely important to support the national economy, as poor domestic connectivity can sometimes put the national economy at a disadvantage.

Poor domestic connectivity limits the local economic growth. Domestic connectivity should help the local economy to improve as the concept of connectivity itself should concern with equitable growth. In the context of ASEAN, the domestic connectivity must support all efforts to narrow the development gaps among ASEAN member countries and to reduce pockets of poverty, especially in countries with high poverty levels. Such countries might have areas that are still somewhat isolated, both economically and geographically, thus the potential of these areas cannot be exploited. The domestic connectivity needs to be increased through the development of information and communication technology (ICT) to allow better flows of goods and information to all areas of the country, so that those isolated areas can be connected through a virtual connectivity system.

The creation of a virtual connectivity can dramatically eliminate geographic, economic, and institutional boundaries and change the way people do business. With this connectivity, all parties, including manufacturers, suppliers, customers, and other trading partners, have the opportunity to collaborate and interact, which allows a product or service customized for certain customers. This will change the way a product is created, stored, and transported and will also affect the way people buy, sell, and promote products and services they need or generate. The implication of better connectivity would be, for example, a prospecting small business can have a better business opportunity even though it is located in a remote area. As ASEAN connectivity aims to narrow the development gap, the local economy should be empowered and included as a part of the regional economy. If this does not happen, the goal of narrowing the development gap in this region will not be achieved. This local economic empowerment will enable smoother flow of labor and capital, so the gap between lagging regions and developed regions can be reduced, as shown in Figure 1. It seeks to justify how interregional flows of labor and capital can help the lagging regions in catching up disparities with advanced regions. With connectivity, the flows of labor and capital will be unrestricted between the regions. As the labor flows out from the lagging region, it will be able to increase productivity and this will result in an increase of remuneration for labor. Capello (2007) argues that this dynamic process will come to an end when both regions reach the same remuneration, the same productivity, and therefore the same levels of income, thus accomplishing the goal of growth equity.

To fulfill the goal of narrowing development gaps in the region, connectivity is expected to alleviate poverty (ADB, JBIC, World Bank, 2005). There are three ways of

how connectivity may reduce poverty. First, domestic connectivity should help lessen the poverty measured by income and livelihoods; for example, that of the "dollar a day" poverty line. In this definition, poverty could be alleviated when the real incomes of the poor increase; the employment opportunities open up; and productive assets on which the poor depend are enhanced by the better infrastructure in transportation and communication. All would be made possible with better connectivity. Second, access to education and health services would be improved when connectivity has been realized. Third, poverty may be reduced when people's ability to engage in collective activities or to access wider sources of information and opportunities is expanded with better connectivity, allowing them better social inclusion, human capabilities, and freedom.

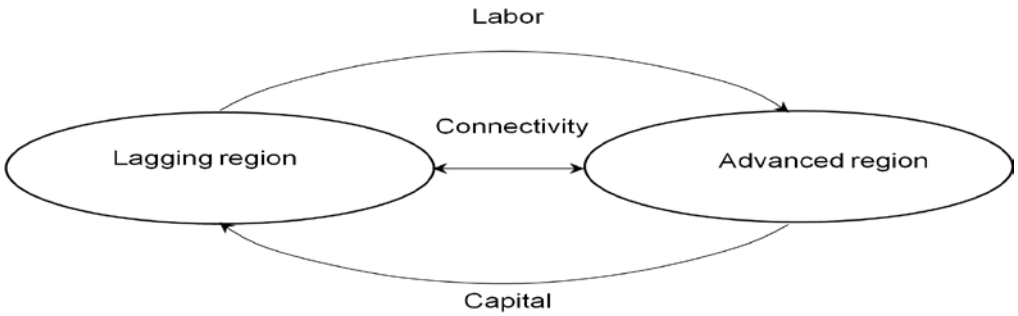

Figure 1 Modified Scheme of Interregional Flows of Production Factors

Table 1 portrays the positive impacts of connectivity on the poor in the transport and communication sectors. Better roads can directly improve the poor's access to employment and public services. Urban mass transit increases the access to employment opportunities as it gives them freedom of mobility. ICT impacts the poor through better access to knowledge, enabling them to be involved with potential engagement in wider communities.

Table 1 Potential Positive Impacts of Connectivity Elements on the Poor

Sector	Direct impact on Poor	Indirect impact on Poor
Roads	• Access to employment and markets • Acess or services (health, education)	• Reduced transport cost and improved market access for enterprises and service providers, lowering cost of serving remote communities
Railways	Limited	• Reduced cost and improved market access for enterprises
Urban Mass Transit	Access to employment opprtunities	• Employment creation from more efficient labor markets
Ports	Limited	• Reduced transport cost encouraging employment creation
Airports	Limited	• Reduced transport cost encouraging employment creation
ICT	Better communication access, aiding migration, information on opportunities, access to knowledge and potential engagement in wider communities	• Employment creation through improved knowledge of markets, reduced management supervision cost, access to wider knowledge base

Source: Jones (2004a), quoted from ADB-JBIC-World Bank (2005)

THE ROLE OF TRANSPORTATION INFRASTRUCTURE AND INFORMATION AND COMMUNICATION TECHNOLOGY

As ASEAN Connectivity seeks to accomplish its three goals, in a narrow context, the connectivity is often viewed from the point of infrastructure availability, particularly transportation and telecommunication infrastructure. Infrastructure development, in this case, is viewed as an important role in reducing poverty, increasing investment, and facilitating economic growth, thus accomplishing the goals of ASEAN Connectivity. To support this role, the availability of the infrastructure must be accompanied by a favorable investment climate, so that business activities can be done with the most efficient manner.

Transportation and ICT infrastructures have a great effect on the business competitiveness of a country, which is required to maintain the sustainability and economic growth in the country. In addition, such infrastructures will be able to reduce the price disparity, stabilize economic growth, increase access to markets, and reduce travel time of people and goods. The availability of the infrastructures will also increase the attractiveness of the area for private parties to invest.

To be more competitive and attractive for investors, Indonesia needs to provide quality transportation infrastructure. Based on the Global Competitiveness Index, Indonesia's ranking from 2001 until 2010 continues to increase. Compared with some ASEAN countries, Indonesia ranks above Vietnam, Cambodia, and the Philippines, while Singapore, Malaysia, and Thailand perform better than Indonesia. According to Global Competitiveness Report (2010), the quality of Indonesia's infrastructure is ranked 84 out of 133 countries. Of the existing transport infrastructure condition, the port condition in Indonesia still needs improvement. This is shown by the rank of port in Indonesia, which sits at the 95^{th} rank, although port infrastructure is very important for Indonesia, since Indonesia is an archipelago which has a long coastline that relies heavily on sea transportation.

An index is used to measure of industrial competitiveness in information technology by the Economist Intelligence Unit. The index is determined by comparing the development of information technology in 66 countries. Based on this index, the ICT in Indonesia is still weak, ranking 59 in 2009. Indonesia's ranking is below those of other ASEAN countries, namely Malaysia, Thailand, Philippines, and Vietnam. Some of the parameters used to evaluate IT competitiveness is the willingness of skilled human resources; a culture that supports innovation and technology infrastructure to international standards; protection of intellectual property (property-right); a strong economy; and stable strong leadership to balance between technologies and market promotion.

Since the business competition in the ASEAN region in the future is expected to be tighter, Indonesia must improve its competitiveness through more effective and efficient business activities. These activities can be created with the existence of adequate transportation and ICT infrastructure. The availability of high quality transportation infrastructure will certainly affect local economic performance. At the time of delivery, transport infrastructure development will open up job opportunities in places where the infrastructure is built. The provision of ICT infrastructure, on the other hand, is generally not labor intensive; therefore, the provision of ICT infrastructure does not provide much additional labor or direct income to the area. However, the improvement of ICT infrastructure will provide wider access to information and knowledge, particularly those

related to productive resources, and this will assist business players to gain a larger market to sell their products.

Furthermore, the policies in the provision of various types of infrastructures need to be harmonized. They include policies between sectors, between central and local governments, as well as between government and private sectors. In this case, a comprehensive national policy in infrastructure sector is in demand.

INDONESIA TRANSPORTATION POLICIES TO IMPROVE NATIONAL CONNECTIVITY

Indonesia has introduced regulatory reform in the transport sector in recent years through passing the railway law in 2007, sea transportation law in 2008, and both land transportation and aviation laws in 2009. The new laws advocate clear role separation between regulator, operator, and contracting agencies. The transport sector is now moving toward the multi-operator operation from monopolistic single-operator scheme, and provides less restrictive platform for private sector involvement to make it more attractive for private investors. In addition, the new laws give wider access to the government support, in the form of infrastructure funds and guarantee fund. They adopt more decentralized approach and relied on the combination of accessibility and market driven approaches, a shift from the centralized supply approaches in the previous laws.

Moreover, the new laws encourage private participation in the transportation sector, to satisfy the infrastructure needs that cannot be fulfilled by the government alone. This is anticipated to accelerate the development, thus realize the domestic connectivity in the physical point of view. Also, based on the new transportation laws, investment in transportation infrastructure sector can be divided into two parts, namely investment to serve public needs and that to serve special needs. Transportation infrastructure serving public needs is provided to meet the needs of the public at large. This service can be done commercially with the imposition of certain tariffs in its provision to involve the private sector through public-private partnership schemes. On the other hand, transportation infrastructure serving special needs is intended only to serve the business interests of a particular business entity.

To implement these new trasportation laws, the laws will be followed by other rules and plans for infrastructure development in all sub-sectors of transportation, i.e. land, railway, sea, and air transportation. These plans need to be harmonized through intensive review of the blueprints of each of transportation sub-sectors, identifying the inconsistency of policies and establishing program priorities in order to get an optimum result. The policies have to strive that the development of all transportation modes do not stand on their own. The development of the various modes should be integrated, so as to obtain synergy between modes that will contribute to the refinement of domestic connectivity.

DATA AND DISCUSSIONS

The existing domestic connectivity in Indonesia indicates the container shipping cost from Jakarta to Padang, a city in Sumatera island, is more than threefold the cost from

Jakarta to Singapore, albeit the comparable distance. The higher cost is due to port inefficiency and low accessibility caused by several nodes which are not well connected. These factors directly affect the transportation and logistics costs, resulting in higher prices of goods and lower competitiveness. It is, therefore, imperative for Indonesia to improve its domestic connectivity in an effort to reduce shipping cost, which will ultimately impact on the country's competitiveness.

Another example of the current state of the domestic connectivity in Indonesia can be observed in the price disparity across the countries, as shown in Table 2, where people in eastern part of Indonesia spends up to four times on food than those in the western part, resulting in higher poverty levels and lower purchasing power of the people living in the eastern part and, thus, inter-regional disparity, as demonstrated by Figure 2.

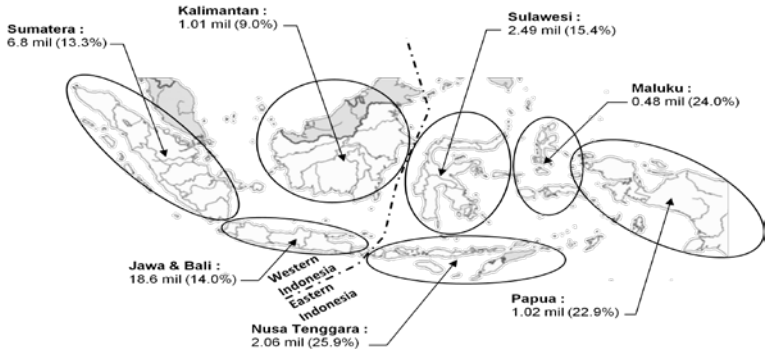

Figure 2 Number of Poor Population and Percentage of Poor Population in Each Major Island (Indonesia Statistics Bureau, 2009, analyzed)

Another problem faced by the country is that many infrastructure and ICT systems developed have created islands of information that are neither connected nor compatible with each other. This condition led to the emergence of wasteful investment and utilization of ICT systems that are not optimal, in the presence of idle capacity. To expedite the solutions to these problems, the government is currently working on standards and formats for investment, operation, and audit of ICT services to improve the quality of the ICT infrastructure and optimize the ICT role in an integrated telecommunications network. All of these efforts will also be followed by coordination across sectors to enhance the business competitiveness of the country.

To improve the connectivity of the transport sector, the Government of the Republic of Indonesia has issued a blueprint for inter-modal/multimodal transportation, in the form of Minister of Transportation Regulation No. 15/2010. This blueprint is intended as the direction of planning and development of integrated transportation infrastructure in Indonesia to improve the smooth flow of goods and passenger and to support for the creation of efective and efficient National Logistics System. With this blueprint, it is expected that the accessibility of lagging regions can be improved, which eventually will enhance national connectivity.

Table 2 Food price comparison of select areas in Indonesia (USD 1 = IDR 9,000)

Region	Rice (IDR/kg	Wheat Flour (IDR/kg)	Sugar (IDR/kg)	Cooking Oil (IDR/l)	Salt (IDR/kg)
West Java	4,250	3,606	6,000	4,150	1,600
West Kalimantan	4,400	4,000	5,800	4,500	2,450
East Kalimantan	4,500	4,000	6,500	4,500	2,000
South Sulawesi	4,400	3,500	6,500	4,500	2,000
East Nusa Tenggara	4,200	4,500	5,800	6,300	2,000
Merauke (Papua)	5,000	7,000	7,000	6,670	3,000
Nabire (Papua)	6,000	10,000	11,000	11,000	4,000
Paniai (Papua)	18,000	7,500	8,000	7,000	8,000

Source: Ministry of Trade, quoted from Basri (2010)

Table 3 Number of Cable-Based Telephone Lines in Indonesia

Region	Regional Division	Line in Service	Regional Total and Percentage
West	Sumatera	2,744,101	19,976,641 (85%)
	DKI Jakarta	6,410,837	
	Jakarta and Banten	1,940,326	
	Central Java	1,978,867	
	East Java	6,905,510	
East	Kalimantan	1,259,081	3,536,209 (15%)
	Eastern Indonesia	2,277,128	
	Total	23,515,850	

Source: Telkom (2009), quoted from National Development Planning Agency (2010)

Each transportation sub-sector has also prepared its master plan, which is intended to enhance the role of each sub-sector in enhancing domestic connectivity. The railways sub-sector, for example, has prepared the draft of Railways Master Plan Master and this draft is expected to be enacted in the near future.

In the attempt to realize a comprehensive and harmonized policy in infrastructure sector, the Government of Indonesia is currently developing a domestic connectivity blueprint, which takes into account four other blueprints across different sectors, i.e.

national logistics system, national transportation system, regional spatial planning, and ICT blueprints.

Figure 3 Fiber Optic Backbone Infrastructure Distribution (Ministry of Communications and Information Technology, 2006, quoted from National Development Planning Agency, 2010)

CONCLUSIONS

Indonesia, as an ASEAN member country, is committed to the establishment of the ASEAN connectivity. To support this commitment, Indonesia needs to increase its domestic connectivity, so that national competitiveness can be enhanced at the regional level.

Some efforts that have been done by Indonesia to increase domestic connectivity include improving the quality and quantity of transport and ICT infrastructure. For this reason, a comprehensive and integrated national policy is greatly demanded.

Several new laws in transportation sector have been enacted and will be followed by the regulations for implementation. With these new transportation laws, private sectors are given greater opportunities to participate in the provision of transportation infrastructure. These greater opportunities for private parties, along with a policy that integrates plans in each sub-sector of transportation, are expected to improve the performance of the transportation sector in Indonesia.

At present, the Government realizes that the ICT infrastructure is still more available in the western part of Indonesia. The development of ICT infrastructure has also created some islands of information, which is not connected each other. This condition, of course, shows that investment and utilization of ICT are not optimum. For this reason, the Government prepares a set of standard and format for investment, operation, and audit of ICT services with the aim to integrate this sector with others so that the national business competitiveness can be enhanced.

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