Transport Infrastructure Connectivity Through the Mekong–India Economic Corridor: A Case Study of India and Vietnam

Thuy T. Dang*, Thi Oanh Nguyen**, Ngoc Diem Tran*** and Duc Trung Nguyen****

ABSTRACT

Transport infrastructure connectivity plays an important role in promoting trade between two countries, and creates an impetus for economic development and international cooperation. A synchronous, modern, flexible and appropriate transport infrastructure connectivity system promotes trade, boosts productivity and efficiency of cooperation, and promotes linkages between countries. The Mekong–India Economic Corridor (MIEC) is considered a bridge between India and the Mekong sub-region, including the CLMV countries (Cambodia, Laos, Myanmar, Vietnam). Despite the position of an end point in the connectivity system, Vietnam is an important factor in India’s Look East strategy. Enhancing transport infrastructure connectivity through the MIEC will help promote Vietnam–India comprehensive strategic partnership effectively. The paper, based on objective assessment, presents an in-depth perspective on the transport infrastructure connectivity between Vietnam and India through the MIEC and figures out the bottlenecks in connectivity, cooperation and development between the two countries.

Keywords: Transport infrastructure; Connectivity; MIEC; Vietnam; India.

1.0 Introduction

According to the Global Competitiveness Report 2019 released by the World Economic Forum, the criteria “infrastructure” is assessed as the second pillar of the 12
pills in the framework of the Global Competitiveness Index 4.0 (Schwab, 2019). The Vietnamese government has identified connectivity as the most important key for Vietnam’s integration into the world and has approved the project “Policies on synchronous development of infrastructure linking domestic infrastructure development with regional infrastructure networks” in 2016 aiming at turning Vietnam into a gateway connecting Southeast Asia and the Indian Ocean (Communist Party of Vietnam Online Newspaper, 2016). Through the Act East policy, ASEAN, including Vietnam will remain an important destination for India’s development projects in terms of infrastructure connectivity, trade and investment. In addition, India has been a comprehensive strategic partner of Vietnam since 2016, while Vietnam has been seen as a bridge connecting India with an emerging Southeast Asia.

Only by developing infrastructure connectivity, will cross-border connectivity be truly successful. Various activities such as trade finance, building long-term relationships or building trust in trade and other soft infrastructure connectivity elements will create an overall operating ecosystem, so investment in transport infrastructure (hard infrastructure connectivity) cannot be disregarded. Infrastructure connectivity is essential to facilitate the movement of goods, people and capital. The comprehensiveness of infrastructure connectivity is very crucial. When the operation of hard and soft infrastructure connectivity proves completely effective, the geographical factor between countries will gradually be erased (ERIA, 2020). Enhancing infrastructure connectivity is considered a core task in encouraging cooperation between Vietnam and India. A number of connectivity projects have been planned for implementation phase, and policymakers and researchers continuously learn about the potential, strategy and roadmap of infrastructure connectivity between the two countries.

Vietnam and India do not share a common border, thus all transport infrastructure connectivity activities are implemented synchronously via third countries or in the region, specifically the ASEAN region. As stated by Bhattacharyay (2012), India’s connectivity with ASEAN has been maturing mainly at two levels: through national connectivity, such as the Golden Quadrilateral (GQ) projects, the Delhi–Mumbai Industrial Corridor (DMIC); and through regional connectivity, such as the Dedicated Freight Corridor (DFC), the Trilateral Highway and MIEC. India’s regional connectivity with ASEAN is evolving on two pillars: The Northeast India region with its multimodal and intermodal operations; and Southern India region with multimodal operations. India’s connectivity with ASEAN, despite entering the opening stages of development, could emerge as an excellent driver of pan Asian integration in upcoming
years. Therefore, the transport infrastructure connectivity between Vietnam and India is an important part of these components.

2.0 Literature Review

In general, currently, there is a wide diversity and variability of research works on connectivity, especially those on inter- and trans-regional connectivity. However, the works on infrastructure connectivity between Vietnam and India by Western scholars as well as by Indian and Vietnamese scholars are not very great in amount. These few papers mainly consider the linkages of civilization and history between Vietnam in particular and Southeast Asia in general with India, but none of these works in-depth look at the infrastructure connectivity and transport infrastructure between Vietnam and India or if any, are mainly mentioned in works on Vietnam - India relations.

2.1 The importance of transport infrastructure connectivity

According to Hong (2017), intra-regional trade serves as the principal growth engine of East Asian economies. Along with the massive strengthening of bilateral and intra-regional trade relations, East Asian economies are becoming increasingly interconnected and interdependent. Transport infrastructure connectivity plays an important role in connecting different parts of East Asia and allows the country to reap the socio-economic benefits of economic cooperation and integration. However, the improvement of transport infrastructure in the region faces major challenges due to the lack of effective coordination and dialogue mechanisms on regional integration through financing infrastructure projects as well as a complete lack of trust among member states arising from territorial disputes and historical factors. Connectivity has become the necessity of a modern economy and one of the most important trends of the 21st century has clearly shown the increasing demand for resources to invest in bilateral and multilateral connectivity. Marsh & McLennan (2017) show that, in the Asia-Pacific region, it is estimated that investment in infrastructure connectivity will more than double in 10 years to achieve $2.5 trillion per year by the end of 2020. In the opinion of Douglas (2016), as Asian economies become more and more connected through transport infrastructure, the region’s trade gradually develops and changes. Intra-regional trade has boosted, largely through the expansion of trade in intermediaries involved in the development of global value chains. Policies that support regional infrastructure development and flow of goods and services, as well as factors of production, can bring more benefits of connectivity. Michael et al. (2016) examines how deeper regional connection and economic integration might benefit both South Asia and Southeast Asia,
with an emphasis on the role of infrastructure and public policy in enabling this process. Bangladesh, India, Myanmar, Nepal, Sri Lanka, and Thailand are the subjects of country studies on national connectivity issues and policies, which look at major developments in South Asia–Southeast Asia trade and investment, economic cooperation, the role of economic corridors, and regional cooperation initiatives.

The geography and economic theory of Brakman et al. (2001) and Overman et al. (2003) indicates that high transportation costs are a barrier to growth in trade flows and industrial and economic development of each country. Improved arterial traffic and infrastructure connectivity will create a premise for commercial growth as well as potential for economic development. For example, the neighboring country of both India and Vietnam, China, has made large-scale investments in infrastructure that have promoted regional integration through the redistribution of industries and economic activities (Qin, 2016). In the report of Pham et al. (2013), infrastructure connectivity is represented in trade competitiveness - one of the most important factors promoting higher productivity of the economy and outlined in the 3-pillar policy framework as follows: (i) reducing trade costs associated with policy barriers to trade, (ii) improving the efficiency and reliability of transport infrastructure, and (iii) strengthening the integration of domestic production into global value chains.

2.2 Transport infrastructure connectivity at the national, regional and global level

Bhattacharyay (2010) provides the concepts, importance, benefits and barriers for transport infrastructure connectivity in Asia. Based on his research, it can be seen that transport infrastructure cooperation in Asia in the early 21st century has not yet been specifically implemented. According to a joint research by the Asian Development Bank (ADB, 2015a) and the Asian Development Bank Institute (ADBI), improving hard and soft infrastructure between South Asia and Southeast Asia - two dynamic emerging regions - will boost connectivity in the region. The research shows an overview of the economic connectivity between these two regions as well as infrastructure investment strategies and policy reform aiming at the development of the financial sector. As stated by Douglas & Menon (2008), the role of transport infrastructure connectivity is of greater significance for facilitating international trade and thus regional economic integration will have the opportunity to accelerate. The research reveals the basic concepts of infrastructure, infrastructure connectivity as well as the impact of infrastructure connectivity on trade, investment or poverty reduction. Polyzos & Tsiotas (2020) argues that transport infrastructures are a crucial driver of economic growth at all geographical scales, but especially at the regional and local levels, where the spatial
economic systems’ units are often structured. A large number of studies have been published recently on the relationship between transportation and economic development, and many of them have revealed various aspects of transportation infrastructure’s contribution to local and regional development, highlighting the complexities and importance of this symbiotic relationship. This study analyzes this contribution in a theoretical setting and proposes an integrated framework for conceptualizing how transportation infrastructures contribute to economic and regional development in this environment.

According to Prabir (2011), the effective transport infrastructure expands the competition needed for industry and services. Improved connectivity reduces costs and increases reliability. Connectivity is of great importance for industrial transport improving manufacturing, cost effectiveness and reliability. Without adequate connectivity, the opportunities for cooperation between border countries or within the region also arise many challenges. The research highlights the challenges and opportunities of transport infrastructure connectivity between ASEAN and India and proposes some important recommendations to enhance transport infrastructure connectivity between India and this region. The research shows that to create a large market in Asia, it is necessary to overcome the missing links in corridor traffic, the lack of interoperability and infrastructure as that will reduce efficiency, degrade and weaken the global competitiveness of the industry in the Asian region.

2.3 Policies on strengthening Vietnam’s transport infrastructure connectivity within the country and across the region

Japan International Cooperation Agency and Dream Incubator Inc (2013) analyze the situation of international seaports in the southern region of Vietnam and propose a plan aimed at developing seaports in this area. The research identifies the challenges faced by the southern seaports of Vietnam in the early twenty-first century due to the rapid development of economic sectors, such as congestion despite operating at full capacity, limited area for expansion, the need to accommodate larger ships, the growth of opportunity costs due to the city center location and the negative impact on traffic and the environment. Focusing on the case of India, Desai (2017) puts the spotlight on digital connectivity and transport infrastructure connectivity between India and ASEAN countries and clearly reveals the importance of connectivity in terms of multilateral cooperation. For Vietnam, the fact that the countries agreed to expand the trilateral highway (India - Myanmar - Thailand) up to Vietnam in 2012 or the New Delhi train route to Hanoi is an opportunity to open up the potential for bilateral infrastructure connectivity despite the lack of geographical proximity. The Mekong-India Economic
Corridor (MIEC) connecting South and Southeast Asia creates an integration opportunity for four countries in the Mekong region, including Vietnam and linking ports in Ho Chi Minh City. Prabir (2014) explores the cooperation between India and ASEAN partners towards economic development in the Mekong region. The research mentions micro-policies affecting India’s infrastructure connectivity with ASEAN countries such as the Neighborhood First Policy & Act East Policy. As a result, India focuses on infrastructure development and connectivity projects, especially the Trilateral Highway project, and the extension to Cambodia, Laos and Vietnam (CLV) aimed at bringing countries in the Mekong region closer to India. Besides, Pulipaka et al., (2017) sets a framework to connect India with neighboring countries and further to the Indo-Pacific region, which is also consistent with Japan’s initiative on improving the quality of transport infrastructure connectivity.

With the goal of promoting transport connectivity between Vietnam and other countries around the world, transport connectivity has always been focused on implementing synchronously with international integration goals (Đào, 2012). According to ADB (2015a), strategies and master plans for the development of national infrastructure connectivity in all fields of road, railway, maritime, aviation and inland waterways by 2020 and the orientation to 2030 is linked into the goals of integration and infrastructure connectivity in the region and the world. Regarding the framework of multilateral cooperation, Vietnam has actively participated in proposals and initiatives to fulfill its role as an active member in the framework of the cooperation forum such as the Greater Mekong Sub-region (GMS) Cross-Border Transport Facilitation Agreement, ASEAN Framework, Agreement on the Facilitation of Inter-State Transport (ADB, 2015a). The orientation and development plan of Vietnam’s infrastructure connectivity is always aligned and towards the construction of an effective infrastructure system with neighboring countries as well as the ASEAN region and the GMS. Thus, Vietnam can establish both direct and indirect connectivity with the Asia-European infrastructure system and countries around the world (In recent years, Vietnam has also contributed to the development of multimodal transport corridors such as: promoting the Mekong-India Economic Corridor (MIEC), completing the infrastructure development in East - West Economic Corridor (EWEC)

3.0 Hard Infrastructure Connectivity between Vietnam and India through the Mekong-India Economic Corridor (MIEC)

3.1 The birth and goals of MIEC

An important connectivity project between ASEAN-India in general and
Vietnam-India in particular is the Mekong-India Economic Corridor (MIEC). The Mekong sub-region, referred to by India as the CLMV countries (Cambodia, Laos, Myanmar and Vietnam), forms an integral part of Southeast Asia and the road connectivity between the Bay of Bengal and the East Sea. The region plays an important part in India’s foreign policy as India shares a land border with one of the CLMV countries - Myanmar in the Bay of Bengal. Vietnam and India have been establishing comprehensive strategic partnership, meanwhile this cooperation has been a natural trend in the context of China’s efforts to increase its influence in the region intended as a springboard to enter the Bay of Bengal area, the Indian Ocean. Therefore, India must actively “Look East”, strengthen connectivity to demonstrate the role of a South Asian power. India’s goal of extending its influence in the “Look East” has been evident in the Look East Policy since the 1990s aimed at promoting economic integration with East Asian countries. In which, in the first phase (1991 - 2002), Southeast Asian countries served as the focus of the policy. In the second phase (2002 - 2012), the focus was expanded to the whole East Asia region, however Southeast Asia, considering it a bridge to expand policy across East Asia and even Asia-Pacific, retained its central focus (Vajpayee, 2001). In 2014, India under Prime Minister N. Modi had adjusted its Look East policy to Act East Policy defining the primary objective of deepening India’s ties with the Asia-Pacific region through the main pillars of trade, regional connectivity, culture, education and people-to-people exchanges. India has taken the lead in promoting a series of trans-national projects aimed at creating an interconnected system of roads, railways and waterways (Cân, 2014); promoting strong connectivity between India and ASEAN on the basis of 4Cs (Culture, Commerce, Connectivity, Capacity building) (Drishti, 2021). Although the main objective of the Act East policy is to increase India’s participation in Southeast Asia and East Asia, the main focus of this policy is, according to many scholars, to enhance India’s proactive role in building a single market on the basis of an ambitious connectivity program (Anand & Mishra, 2014). In addition, this is also an India’s move to strengthen connectivity with countries in the East in the context of China’s development of the North-South economic corridor through the “Belt and Road” initiative.

As mentioned in Figure 1, MIEC involves itself in the development of infrastructure projects to connect the four Mekong countries Myanmar, Thailand, Cambodia and Vietnam with India. Specifically, this project connects Ho Chi Minh City (Vietnam) with Dawei (Myanmar) via Bangkok (Thailand) and Phnom Penh (Cambodia) to Chennai (India). The completed MIEC will be the area around the main highway connecting Vung Tau (Vietnam) with Dewei (Myanmar) passing through Ho Chi Minh City, Phnom Penh and Bangkok via passing highway of three borders (i) Moc Bai -
Bavet (Vietnam - Cambodia); (ii) Poipet - Aranyaprathet (Cambodia - Thailand) and (iii) Sai Yok -Bong Tee (Thailand - Myanmar). So far, there is a road from Vung Tau to Bong Tee running along the Thai-Myanmar border, followed by an unpaved road running to Dawei.

Figure 1: The Mekong–India Economic Corridor (MIEC)

Source: ERIA (2009)

In addition, this economic corridor will also connect developing cities in the countries of this project such as Bien Hoa (Vietnam), Battambang, Sisophon (Cambodia), Chachoengsao, Prachinburi and Kanchanaburi (Thailand). The route connecting these major economic centers will act as the main traffic axis for the corridor. The Influence Zone of the corridor will be extended up to 80-100km on both sides of the corridor. The goal of this project is to create a defined “MIEC Corridor Region” that includes provinces within the geographical area of 80-100 km of the economic corridor. According to Figure 2, in order to optimally develop the corridor, including key economic areas and western coastal port, the MIEC corridor region covers 21 provinces of Thailand, 17 provinces of Cambodia and 20 provinces of Vietnam. As Table 1, with an area of about 256,000 square kilometers, this corridor accounts for about 25% of the total area of MIEC countries (ERIA, 2009).
Figure 2: MIEC Corridor Region

Table 1: The Comparison in Terms of Distance between India and MIEC Countries (with and without MIEC)

<table>
<thead>
<tr>
<th>Country</th>
<th>Travel Distance without MIEC (approximate) (km)</th>
<th>Travel Distance with MIEC (approximate) (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>4,500</td>
<td>2,500</td>
</tr>
<tr>
<td>Cambodia</td>
<td>4,200</td>
<td>3,000</td>
</tr>
<tr>
<td>Vietnam</td>
<td>4,200</td>
<td>3,500</td>
</tr>
</tbody>
</table>

Source: ERIA (2009)

If completed, the corridor is expected to increase trade between CLMV countries and India by reducing travel distances and removing supply bottlenecks. According to ERIA’s assessment, the corridor will create opportunities for Myanmar, Thailand, Cambodia and Vietnam to shorten the development gap through building a modern, developed infrastructure (ERIA, 2009). The focus of the corridor is aimed at expanding the manufacturing and trade base to the rest of the world, especially to India. The
The corridor will create an opportunity for these economies to deepen their integration and emerge together as a competitive global economic bloc.

The vision of the corridor developed towards creating a solid economic base to provide jobs, reduce poverty and promote human resource development through smooth infrastructure and trade facilitation between the Mekong region and India. The main tasks are: (i) Strengthening economic development and trade between India and the Mekong region; (ii) Promoting investment in the corridor shifting the focus on FDI attractions and public-private partnerships (PPP); (iii) Creating job and social development opportunities; (iv) Exploiting comparative advantages and (v) Utilizing radically the potential of each MIEC member for economic development. If completed, the MIEC will increase trade between India and other countries of the Mekong sub-region, removing bottlenecks in the supply of goods. Additionally, the corridor also facilitates extensive economic integration for the entire Southeast Asia region and India. In the scope of the Indo-Pacific strategy, MIEC shows the potential to become a key mechanism in promoting maritime connectivity between the Indian and the Pacific Ocean.

The corridor will create opportunities for countries to participate in infrastructure development, improve economic base with the region and especially, reduce the transport distance between India and ASEAN countries.

3.2 The financial resources of MIEC

It is estimated that the implementation of projects in the MIEC region would require an investment of USD 88 Billion (ERIA, 2009). Due to the development of infrastructure projects that vary from country to country with diverse realities and development needs, financial resources of the project are allocated by public investment, multilateral organizations and the private sector. In addition, through this project, the MIEC calls for support from the ASEAN Infrastructure Fund (AIF)² to broaden the development of potential infrastructure connectivity between MIEC and non-MIEC ASEAN countries.

3.3 The components and implementation status of MIEC

Based on an integrated approach and a comprehensive regional planning perspective to make the MIEC a major economic hub of East Asia, this project focuses on building industry and transport infrastructure for each country, including promoting industries based on each country’s strengths, thereby creating linkages between
industries, which are opportunities for countries to diversify products, shift production line. On that basis, the MIEC has 4 main components (ERIA, 2009):

First, the Growth Pole: includes focal centers of economic activity or focal production blocks of national importance. This is a collection of big urban and industrial zones with surrounding areas spreading development from the core area to the periphery. These regions are locomotives of local growth performing highly specialized secondary, tertiary, and quaternary activities. The Growth pole will play two important roles in corridor development: (i) acting as an anchor for investments throughout the corridor; (ii) Facilitating the development of secondary centers by providing forward and backward linkages to economic activities planned in the secondary centers. The following regions were selected as growth poles based on regional analysis and factors such as regions with large population, high density, high gross product, established industrial base: Bangkok (Thailand), Eastern Economic Corridor of Thailand, Phnom Penh (Cambodia) and Ho Chi Minh (Vietnam).

Second, the Growth Node: consists of secondary production centers or blocks of economic activity that have the potential to become growth drivers in the mid-term. These growth nodes include the following cities/provinces: Chachoengsao - Prachinburi, Ayuthaya, Kanchanaburi (Thailand); Sihanoukville, Battambang, Svay Rieng - Bavet, Sisophon - Poipet (Cambodia); Ba Ria – Vung Tau, Can Tho, Vinh Long (Vietnam) and Dawei (Myanmar).

Third, the Transport Linkages: is to promote effective links between centers of economic activities, reduce service link costs, thereby attracting new production blocks into the corridor through the development of a multimodal transport network, the improvement of transport infrastructure system by rail, road, sea, and air, and the looseness of cross-border travel.

Fourth, the Support Infrastructure: Focusses on improving human resource capacity to reduce costs in production blocks and maintain long-term development. This can be enabled by building productive human resources through supportive measures in education, training and health care and reducing the cost of services through reducing energy costs. Some of these interventions have a direct impact on human resource development and an indirect impact on production costs and the competitiveness of economies. It focuses on two main interventions: (1) Human Resource Development and (2) Power.

Of the above 4 components, the third component (infrastructure and transport linkages) is considered as the foundational component, creating the connectivity of the MIEC including: (i) roads; (ii) railways; (iii) seaports; (iv) airports and (v) multimodal logistics parks (MMLPs)
3.3.1 Roads

The main corridor of the MIEC is the road route from Bong Tee on the Thailand-Myanmar border to Ho Chi Minh City with a length of 1,131 km with 61% of the link length as a 2-lane road, 20% as a 4-lane road, 14% as 4 lanes with service roads and 5% as 8 lanes (Figure 3). Table 2 mentioned Road Linkages projects in the MIEC including Upgradation projects, New road linkages, Upgradation of Service Links from Growth Poles/Growth Nodes and Development of connectivity to Rural Areas.

Table 2: Road Linkages Projects in MIEC

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Length (Km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upgradation projects</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Upgradation of road link between Poipet and Bavet from 2-lane to 4-lane</td>
<td>572</td>
</tr>
<tr>
<td></td>
<td>(Cambodia)</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Upgradation of road link between Moc Bai and Vung Tau from 4-lane to 6-lane (Vietnam)</td>
<td>174</td>
</tr>
<tr>
<td>1.3</td>
<td>Upgradation of road link between Phnom Penh and Sihanoukville port from 2-lane to 4-lane (Cambodia)</td>
<td>226</td>
</tr>
<tr>
<td>2</td>
<td>New road linkages</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Construction of bypasses with access control around Phnom Penh City (Cambodia)</td>
<td>44</td>
</tr>
<tr>
<td>2.2</td>
<td>Construction of bypasses with access control around Ho Chi Minh City (Vietnam)</td>
<td>56</td>
</tr>
<tr>
<td>2.3</td>
<td>Development of road links from Dawei port to Bong Tee (Thailand border) and road from Bong Tee to Kanchanaburi in Thailand as 4-lane</td>
<td>136</td>
</tr>
<tr>
<td>2.4</td>
<td>Construction of 4 lane access controlled expressway from Go Dau Ha to Vung Tau transshipment Port</td>
<td>163</td>
</tr>
<tr>
<td>3</td>
<td>Upgradation of Service Links from Growth Poles/Growth Nodes</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Upgradation of Road Link connecting Siem Reap with Battambang via Sisophon to 4-lane (Cambodia)</td>
<td>85</td>
</tr>
<tr>
<td>3.2</td>
<td>Upgradation of road link between Can Tho and Ho Chi Minh City from 4-lane to 6-lane (Vietnam)</td>
<td>169</td>
</tr>
<tr>
<td>4</td>
<td>Development of connectivity to Rural Areas</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Upgradation of road between Chamkar Luang to Koh Kong from 2-lane to 4-lane</td>
<td>140</td>
</tr>
<tr>
<td>4.2</td>
<td>Development of important Rural Roads in Cambodia and Vietnam</td>
<td>4,000</td>
</tr>
</tbody>
</table>

Source: ERIA (2009)
3.3.2 Railways

Table 3: Existing Railway Linkages in MIEC (Excluding the New Delhi - Hanoi Rail Link Project)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build or boost rail link at key routes</td>
<td>Upgradation and double-tracking of Laem Chabang- Bangkok (ICD Lat Krabang) rail link</td>
</tr>
<tr>
<td></td>
<td>Construction of Ho Chi Minh City-Vung Tau (Cai Mep-Thi Vai Ports) rail link</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation of rail link from Sihanoukville Port to Phnom Penh (Cambodia)</td>
</tr>
<tr>
<td>Establish continuous end-to-end rail links in MIEC</td>
<td>Construction of missing link from Phnom Penh (Cambodia) to Ho Chi Minh City (Vietnam)</td>
</tr>
<tr>
<td></td>
<td>Construction of missing link between Nam Tok (Thailand) and Dawei (Myanmar)</td>
</tr>
<tr>
<td></td>
<td>Construction of missing link from Poipet to Sisophon (Cambodia)</td>
</tr>
<tr>
<td></td>
<td>Rehabilitation of rail link from Sisphon to Phnom Penh (Cambodia)</td>
</tr>
<tr>
<td></td>
<td>Establishment of rail trans-shipment terminal/yard as part of multimodal logistics park at border</td>
</tr>
<tr>
<td></td>
<td>Upgradation of rail tracks to 20 tonne axle load</td>
</tr>
</tbody>
</table>

Source: ADB (2008)
Railways are not widely used in the Mekong countries of the MIEC. Currently, apart from the New Delhi - Hanoi Rail Link route being implemented, the railway linkages in the MIEC are still limited (as mentioned in Table 3).

3.3.3 Seaports

Due to the strategic opening of the MIEC on both the East (East Sea) and West (Andaman Sea), the port network and sea transportation will be the main linkage of the CLMV countries and India. Currently, all shipments from the Mekong region to and from the West pass through the Strait of Malacca, which significantly increases the travel time to India. The Strait of Malacca is one of the busiest straits on the world’s shipping trade route, with nearly 35-40% of the world’s container traffic and half of the world’s oil passing through it every year. This huge amount of traffic leads to congestion in the narrow strait. In general, the proposed strategy for developing ports in the MIEC is as follows: Expanding port capacity to meet increasing traffic demand; Developing a deep seaport at Dawei and a transshipment port in Vung Tau to reduce the distance and travel time between India and the Mekong countries, while avoiding congestion in the Strait of Malacca (ERIA, 2009).

Table 4: Proposed Key Ports in MIEC

<table>
<thead>
<tr>
<th>Objective</th>
<th>Project</th>
<th>Proposed Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand ports capacity to meet the increasing traffic demand</td>
<td>Expansion of Laem Chabang (Thailand)</td>
<td>1.5 million TEU*</td>
</tr>
<tr>
<td></td>
<td>Expansion of Sihanoukville (Cambodia)</td>
<td>0.3 million TEU</td>
</tr>
<tr>
<td></td>
<td>Expansion of Cai Mep-Thi Vai Port (Vietnam)</td>
<td>6 million TEU</td>
</tr>
<tr>
<td>Develop ports to avoid congestion at Strait of Malacca</td>
<td>Development of Greenfield port at Dawei (Myanmar)</td>
<td>1 million TEU</td>
</tr>
<tr>
<td></td>
<td>Development of Transshipment Port at Vung Tau-Ba Ria province (Vietnam)</td>
<td>1 million TEU</td>
</tr>
</tbody>
</table>

* TEU stands for Twenty-foot equivalent Unit is an inexact unit of cargo capacity, often used for container ships and container ports
Source: Kumagai & Isono (2011)

Especially, for the trade between the CLMV countries and India, the development of the Dawei Port is important, helping to reduce the distance and travel time of goods and increasing the competitiveness of products. Along with Dawei, the ports in Vung Tau have the potential to become the gateway port of the region. With the
development of these gateway ports, the international goods from the Western part of the world to the MIEC countries can be transshipped from Colombo, Vallarpadam or Vizhinjam to Dawei and goods coming from the East can be transshipped through Vung Tau. This above fact contributes to reducing congestion in the Strait of Malacca. As Table 4, Kumagai & Isono (2011) mentioned proposed key ports in MIEC and proposed Capacity of each project (Figure 4).

**Figure 4: Existing Seaports Connecting India and Mekong Sub-region Countries through MIEC**

![Existing Seaports Connecting India and Mekong Sub-region Countries through MIEC](image)

*Source: ERIA (2009)*

### 3.3.4 Airports

Air transportation will play a crucial role in the MIEC as it is a key mode of transport for high value fragile goods, perishable goods and passengers. Currently, there is a potential demand for air transportation as the MIEC countries are among the major producers and exporters of perishables and hubs for tourist destinations. The MIEC has strategies to promote air connectivity between the CLMV countries and India: Upgrading key airports in the MIEC based on international standards to boost tourism
potential in key zones; Improving and synchronizing airport infrastructure systems between countries (Figure 5).

**Figure 5: Existing Airports of the MIEC Countries (Excluding India’s Airports)**

![Map of existing airports in MIEC countries](source: ERIA (2009))

**Table 5: Key Airport Projects in MIEC**

<table>
<thead>
<tr>
<th>Project</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion of Suvarnabhumi Airport in Thailand</td>
<td>Completed</td>
</tr>
<tr>
<td>Expansion of Siem Reap Airport in Cambodia</td>
<td>Completed</td>
</tr>
<tr>
<td>Expansion of Phnom Penh Airport in Cambodia</td>
<td>Already planned</td>
</tr>
<tr>
<td>Upgradation of Can Tho Airport in Vietnam</td>
<td>Under implementation</td>
</tr>
<tr>
<td>Upgradation of Dawei Airport in Myanmar</td>
<td>Proposed under MIEC</td>
</tr>
<tr>
<td>Upgradation of Sihanoukville Airport in Cambodia</td>
<td>Proposed under MIEC</td>
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</table>

*Source: Kimura (2011)*

According to Table 5, currently, to promote maritime transport connectivity within the framework of the MIEC, Thailand has been building the Southern Seaboard Development Project (SSBD), while the “Dawei Development Project” has been initiated by India and Myanmar. To meet the needs of Myanmar’s deep seaports, three
proposed locations by the government are: Kyaukpyu in Rakhine, Kalegauk in Mon State, Dawei and Bokpin in Tanintharyi. An indispensable project to strengthen ASEAN - India connectivity is the development of a special economic zone (SEZ) and a deep seaport at Dawei (Myanmar).

However, there are certain challenges that need to be addressed for the MIEC to be successfully implemented, such as the lack of a deep seaport in Myanmar or the highway between Dawei and the Thai border crossing, the lack of key routes linking with Chennai (India).

3.3.5 Multimodal logistics parks (MMLPs)
Multimodal Logistics Parks (MMLPs) will be developed. Likewise, the development needs of key economic zones and the development of other means of transportation, especially ports and railways. They contribute to the smoothness of cargo movement from land to ports. The proposed multimodal logistics key projects are: Bong Tee (Thailand - Myanmar border); Ba Ria-Vung Tau (Vietnam); Sihanoukville (Cambodia)... including an interstate logistics complex, freight handling facility, warehousing, container yard, CFS, truck terminal, etc.

The immediate need of the MIEC region is to develop transport infrastructure towards economic integration and act as a catalyst to develop Growth Nodes and Growth Poles and prompt the development throughout the MIEC. Therefore, along with the list of potential projects, a number of projects regarding the development of transport infrastructure in the region, especially roads, ports, logistics and cross-border infrastructure have been prioritized for actual development. Such projects are called “Priority Projects”. Some of these projects are planned to be implemented based on PPP.

In general, by 2020, the projects in the MIEC in particular and the construction progress of the MIEC in general are still slow due to (i) as a multilateral project, it is difficult to locate and deploy capital sources; (ii) differences in engineering and construction management among member countries; (iii) lack of assertiveness by governments. Among them, the biggest challenge is the financial one. In particular, the outbreak of the COVID-19 pandemic made these projects even more congested because they had to focus on “suppressing the pandemic”.

4.0 Conclusion and Recommendations

Promoting infrastructure connectivity will help both Vietnam and India participate in the production network at different levels and be ready to benefit from the global value chain in upcoming time, thanks to the improvement of connectivity
reducing logistics costs, creating synergies and location advantages. According to the status of hard infrastructure connectivity, it can be seen that:

First, connectivity in general and transport infrastructure in particular is a bottleneck in the Vietnam - India Comprehensive Strategic Partnership. In particular, the difficulty of infrastructure connectivity is conspicuous but not easy to solve in the Vietnam - India relationship because of the geographical distance, the current status of transport infrastructure in the two countries as well as the financial capacity of the two countries (Kumar, 2008). This is both the result of the cooperation that has not gone into "depth" of the two countries and also the reason for the ineffective cooperation in other fields such as economy, tourism, etc. Therefore, improving infrastructure and connectivity will lead to a reduction in transportation costs and at times, is an important solution to exploit the potential of the Vietnam - India trade (Thanh, 2010; ADB, 2015b). Besides, improving the quality of maritime connectivity plays an important role in promoting the flow of goods between the two developing markets of Vietnam and India. This not only contributes to reducing costs and transportation time, but also contributes to improving the competitiveness of goods and services of the two countries.

Second, at present, the direct transport infrastructure connectivity at the bilateral level between Vietnam and India are still lacking and weak, namely the lack of documents, bilateral agreements between the two countries and the weakness in connectivity projects and the level of project implementation (World Bank, 2019).

Third, due to geographical distance and limited financial investment resources, most of the transport infrastructure connectivity between Vietnam and India has to go through a third country. Specifically, in terms of connectivity projects between Vietnam and India, Myanmar is the main bridge (Datta, 2017). Therefore, most of the current hard infrastructure connectivity projects between Vietnam and India are multilateral connectivity projects in which Vietnam is a direct or indirect stakeholder of these connectivity projects. Moreover, the effectiveness of the connectivity between Vietnam and India depends greatly on the deployment of third parties and intermediaries.

Fourth, the most prominent feature of the infrastructure connectivity between Vietnam - India in particular and Vietnam - ASEAN in general is the existence of projects based on a multimodal approach, a multifunctional approach and a multilayer approach through multimodal connectivity. It is clear that regional connectivity cannot be accomplished with a single mode of transport, thus a multimodal approach is required. As discussed in detail above, a number of infrastructure projects have been proposed and implemented across all modes of transport such as road (including road and rail), maritime (including sea and inland waterways) and air. They not only
overcome the difficulties of geographical distance and topographic differences, but also help to exploit the potentials of regional connectivity as well as overcome the limitations of the financial capacity of developing countries like ASEAN and India.

Fifth, besides the progress in a number of projects have been achieved, at present, there is a slowdown in the connectivity projects between Vietnam and India due to dependence on third countries (Chaudhury, 2021). On the other hand, due to limited financial investment capacity, project management capacity, determination of governments and lack of coordination among countries, multilateral projects between Vietnam and India are mainly in the early stages of the project progress. As a result, they still have not achieved the goals of the projects such as the MIEC.

Sixth, in order to promote the strengthening of transport infrastructure connectivity between Vietnam and India in the coming time, some solutions are proposed as follows: (i) identify connectivity as a pillar (along with other pillars) in the process of institutionalizing the Vietnam - India Strategic Partnership; (ii) harmonize and simplify procedures and data requirements related to regional and international standard connectivity; promote transport corridors of both land and maritime; (iii) establish a Coordination Committee for connectivity activities between the two countries; (iv) mobilize capital sources for implementation, especially calling for the participation of the private sector to establish a system of Vietnam - India transport infrastructure in the direction of unification, safety and efficiency in order to promote investment, trade and tourism. In particular, the most important solution but also the most difficult is to ensure financial resources for investment in infrastructure connectivity between the two countries. Certainly, for both Vietnam and India, state capital will not be enough to meet the huge investment, so public-private partnership (PPP) forms should be encouraged. In addition, the ASEAN Infrastructure Fund (AIF) is another potential source of financing.

Seventh, in the context that multilateral connectivity projects between Vietnam and India are behind schedule, the outbreak of the COVID-19 pandemic has made these projects even more congested (Chatterji & Chaudhury 2021). It is very clear that in the context that both Vietnam and India as well as other Southeast Asian countries are straining and pouring money to stamp out the epidemic affecting the progress of infrastructure connectivity. In particular, the most obvious impact of the COVID-19 pandemic on the Vietnam - India connectivity is that this pandemic is directly hindering the transformation of the connectivity corridor into an economic corridor and the construction of cross-border infrastructure. Specifically, the COVID-19 pandemic has a direct impact on the global supply chain, pushing up construction costs and building material prices, specifically increasing steel prices globally and in Vietnam in the first
quarter of 2021. In addition, the progress of these projects is also affected by countries implementing social distancing.

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Endnotes

1. Decision No. 1734/QD-TTg, dated September 6, 2016 of the Prime Minister approving the Policy Project on synchronous infrastructure development, linking domestic infrastructure development with the domestic infrastructure network.

2. AIF was established in May 2012, headquartered in Malaysia. AIF raises funds from all ASEAN member states and partly from Asian Development Bank (ADB).

References


