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IDENTIFYING THE CURRENT STATUS OF LAND TRANSPORT INFRASTRUCTURE IN VIETNAM TO SUPPORT CROSS-BORDER FLOWS IN SOUTHEAST ASIA (PHASE 1 CONCLUSIONS)

Summary. This article presents selected aspects of the existing land infrastructure system in Vietnam that are important for cross-border transport. The aim of this paper is to present the results of the first phase of the study, which includes the analysis of the condition of the logistics infrastructure that supports the processes of international trade in goods. This phase includes the identification and initial assessment of the usefulness of the components of the logistics system in terms of its functionality and economic efficiency. The results define the scope of work necessary for the proper preparation of the logistics system in Vietnam for the needs related to ensuring the desirable efficiency of logistics corridors connecting Vietnam with China and neighboring regional markets of the Association of Southeast Asian Nations.

1. INTRODUCTION

The Socialist Republic of Vietnam, an authoritarian state ruled by the Communist Party, has been a development success story. In 1986, *the Doi Moi* launched new reform policies (its name means “restoration”), which led to far-reaching changes. From a country faced with the prospect of a serious economic collapse, Vietnam has become a fast-growing market. As a result, its international position has strengthened, which was also certainly helped by its active presence in several international and regional initiatives such as the World Trade Organization, the Association of Southeast Asian Nations, and the Asia-Pacific Economic Cooperation forum (Vietnam became a member of the United Nations earlier, in 1977). Within just one generation, economic reforms coupled with beneficial global trends resulted in the transformation of Vietnam from one of the world’s poorest countries into a developing middle-income economy.

Vietnam, with an area exceeding 331,334 sq km and a population of 98.17 million (eighth place among Asian countries), has significant and growing importance [1]. In the geopolitical context, Vietnam has significant geostrategic value. This, in particular, is due to its belonging and, therefore, potential causality concerning the region of Southeast Asia and the South China Sea. This article refers to the preliminary results of the study carried out as part of the project *Identification of the state of adaptation of the logistics infrastructure of Vietnam to the requirements of the OBOR concept*, implemented between February and June 2023 and financed under the scholarship of the Polish National Agency for Academic Exchange (NAWA). An attempt was made to identify the current state and importance of the logistics infrastructure from the point of view of the national economy and its ability to handle international trade in goods as part of the first phase. In the next stage, the identified existing state will be analyzed, taking into account the tasks and goals included in the relevant national and international documentation, and the logistics needs will be determined.

While the present study addresses the relationship between transport infrastructure – a component of the logistics system and economic development, its aim is to diagnose the state of Vietnam’s land

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infrastructure so the needs can be determined in terms of undertaking infrastructure projects to improve its efficiency, productivity, and economic utility. One of the necessary conditions to obtain multiplier effects (for example, strengthening the accessibility of the market, including local markets, attracting and intensifying investments, and supporting employment) is an efficient transport system. It must function at the right level (from logistical and economic perspectives) to ensure the desired capacity and reliability. This, in turn, in the case of inadequate levels, increases economic costs, such as reduced quality of life and lost profits [1]. It is well-known that the logistics system, which includes the transport system, provides the economy with the possibility of growth [3, 4]. Thus, it has a direct impact on manufacturing and the productivity of the economy. Thus, there is a need to study the factors of economic growth, taking into account the modernization and expansion of transport infrastructure, as it is important for the creation, implementation, and updating of policy [5-7].

2. VIETNAM AS A SUBJECT OF RESEARCH – MACROECONOMIC TERMS AND GEOPOLITICAL CONTEXT

2.1. Economic situation and international trade

Vietnam's GDP increased by 8.0% (y/y) in 2022, which exceeded the 2016-2021 average (7.1%). The rebound in private domestic consumption after the pandemic and the favorable results of various industries, driven by exports, became the main reasons for growth [8]. According to the International Monetary Fund, Vietnam's economy in 2021, with an estimated value of 368 billion USD, ranked sixth in Southeast Asia, following Indonesia, Thailand, the Philippines, Singapore, and Malaysia. Fig. 1 shows the level of economic growth of selected countries. Vietnam stands out not only against the background of global data but also in relation to other countries in the region.

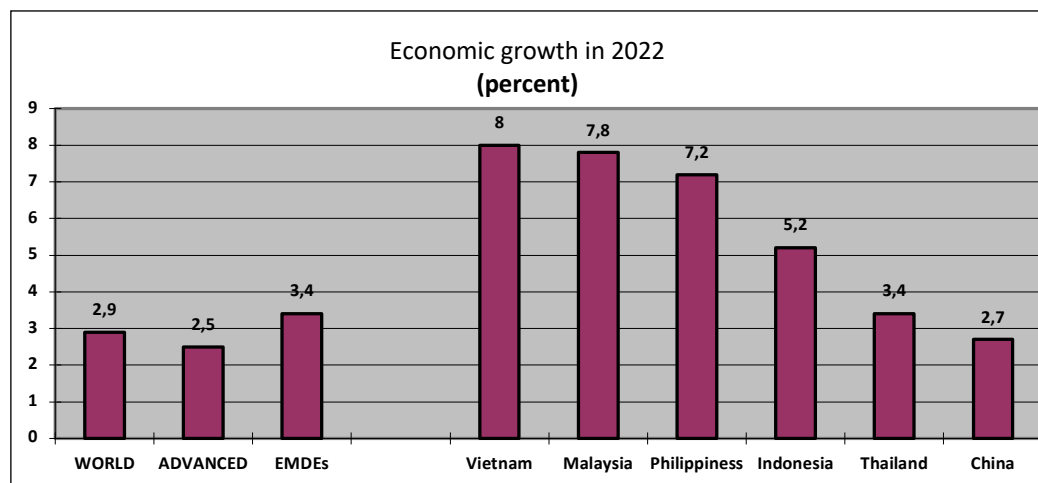


Fig. 1. Economic growth in selected countries/zones in 2022 (*in percent*)

Vietnam's economy is expected to surpass that of Thailand in the coming years. The prolonged US-China trade war spurred a wave of production being shifted out of China, with Thailand and Vietnam being considered two promising destinations for foreign investors. Vietnam has competitive advantages over regional rivals.

The service sector has played a dominant role in the economy over the last decade. Its share in creating GDP increased from 40.7% in 2010 to 44.6% in 2019. In recent years, there has been a dramatic change in the structure of Vietnam's economy, and the dynamics of the share of employment in services need to be noticed. This sector involved 19% of the professionally active in 1991 and already involved 35.3% in 2019. Thus, it has become the second-largest part of the labor market and is particularly attractive to people leaving agriculture. However, this does not change the fact that the agricultural, fishing, and forestry sectors still generate the largest percentage of jobs in the Vietnamese economy

today. While one of the strategic goals is to become a high-income country by 2045, high professional activity in the services sector aligns with the trends observed in other countries. All high-income economies boast an extensive service sector, which is the most important source of job creation and economic value. For example, in Singapore services are responsible for 70.8% of GDP and 84% of employment, and in South Korea 57.2% of GDP and 70% of employment. Therefore, services could significantly improve the Vietnamese development model, mainly by generating added value in other branches of the economy [8, 9]. A clear increase in the importance of services is not indifferent from the point of view of the growing role of the logistics sector. Meeting the growing demand for logistics services requires better indicators regarding both the quality and efficiency of logistics infrastructure. Therefore, the inclusion of macroeconomic factors is necessary at the research stage.

A clear increase in the number and scope of influence of regional trade agreements (RTAs), which we have been dealing with since the beginning of the 21st century, is explained by the intensification of the process of globalization of economies. Based on the value of import and export turnover that exceeded 668.55 billion USD in 2021, Vietnam's economy is among the top 30 in terms of trade scale globally. Free trade agreements are also a lucrative factor that attracts investors. Active participation of Vietnam in trade agreements should be considered an effective instrument to improve the economic situation and increase its financial security. Favorable trade agreements lead to the far-reaching elimination of tariff and non-tariff barriers. An excellent example is the agreement signed between Vietnam and the European Union in 2020. The Association of Southeast Asian Nations countries or East Asian economies show a desire to bind themselves in specific trading blocs that have agreements with partners of the so-called "Western world." In such a system, globalization is not based solely on the multilateral trading system of the WTO but is created owing to the presence of global RTAs [11-13].

A permanent change in the structure of Vietnam's exports is noticeable. Foreign sales of low-level goods (simple, repetitive manufacturing) give way to more complex, technologically advanced goods such as electronics, machines, vehicles, and medical devices. In addition, the Regional Comprehensive Economic Partnership (RCEP) that came into force on January 1, 2022, resulted in a reduction in tariffs by changing existing trade rules. As a result, it is much easier to tighten cooperation in supply chains. It is also expected that commerce (including e-commerce), services, telecommunications, and even the sphere of copyright will become beneficiaries of free trade agreements in the next two decades [10]. While striving to take an important place in the world's high-tech production, the RCEP will support Vietnamese local entrepreneurship in intensifying exports and attracting high-quality goods for consumers. In addition, Vietnam is set to benefit from the demand for its exports, like agriculture and fishery products.

Data from the General Department of Customs shows the four biggest commodity groups in 2022: computers; electrical products (including spare parts and components), machines, devices, tools, and instruments; phones, mobile phones, and their parts; and textiles, leather, and footwear were. This is confirmed by the commodity structure of the activity of enterprises carrying out foreign trade operations in order to satisfy internal production and consumption needs.

Vietnam's largest trading partner is the People's Republic of China, with a total two-way trade turnover of 175.57 billion USD, followed by the United States (123.86 billion USD), the Republic of Korea (86.38 billion USD), and Japan (47.61 billion USD) [14]. Table 1 presents data relating to the largest and neighboring countries in terms of international trade.

In 2022, four major exporting markets of Vietnam with a turnover of over USD 24 billion were the US (109.39 billion USD), China (57.7 billion USD), the Republic of Korea (24.29 billion USD), and Japan (24.23 billion USD). Meanwhile, on the import side, four partners exporting goods to Vietnam with a turnover of over 22 billion USD included China (117.95 billion USD), the Republic of Korea (62.09 billion USD), Japan (23.37 billion USD), and Taiwan (22.63 billion USD).

In addition to the important roles of China and the United States, it is worth noting the relatively insignificant trade turnover with countries with which Vietnam has a land border (i.e., Laos and Cambodia). This has had an influence on the transport needs existing between these countries. However, apart from road connections, land transport is currently not possible between these countries. Therefore, the lack of railway infrastructure across the Vietnamese-Cambodian and Lao state borders may, to some

extent, determine the reluctance to intensify cooperation that requires stable, uninterrupted mass transport.

Table 1

Vietnam's trade with selected partners
(Value turnover based on 2022 date, percent share based on 2020 data)

EXPORT		Country	IMPORT	
Value (billion USD) 2022	Share (%) 2020		Value (billion USD) 2022	Share (%) 2020
		<i>Largest</i>		
48.880	17.37	China	117.87	32.22
77.072	27.38	United States	14.47	5.27
24.29	6.80	South Korea	62.09	17.93
24.23	6.85	Japan	23.37	7.75
		<i>Neighborly</i>		
7.48		Thailand	14.09	
4.83		Cambodia	5.75	
0.66		Laos	1.05	
281.441		TOTAL	261.309	

2.2. Geopolitical view of the logistics of Vietnam

Countries that can mediate reconciliation or compromise cooperation of regional partners are commonly determined as “regions-gates” or “regions-corridors” [18]. Globalization is a multidimensional, multifaceted process, and economic globalization includes often-contradictory phenomena with a lot of direct and inverse relations between multinational, national, and supranational entities (these are not always states but can also be international institutions and commercial entities). These entities, such as regional intergovernmental associations, are formal and informal organizations whose relations are based on reconciling fierce competition with elements of interaction and conducting competition based on cooperation. The interpenetration and interdependence of national economies and large-scale, cross-border, regional, and intercontinental trade are the basis for the functioning of the world economy. However, efficient international transport and appropriate transit conditions are a prerequisite.

Based on the analysis of the literature by Lin [19], it would be untrue and unfounded to conclude that the geography of transport does not relate to the geopolitical perception of the present. In international terms, tends to interpret the components of reality (borders, laws) as incidental facts that may pose a constraint to mobilities. Moreover, from a logistical point of view, a border is a barrier, a limitation that affects the efficiency and smoothness of flow. In the geography of transport, however, there is a tendency to focus on their consequences for the network or distribution. There is no broad research on how strategies in statecraft intentionally and contextually develop through transport. This is important, especially in terms of unification or harmonization (of logistics systems, transport law, market services, etc.), but it is not always treated in a broader, geopolitical sense.

Vietnam is treated as a geopolitically important area by both dominant powers in the modern world – China and the US. This is the result of not only the geographical location of the Vietnamese capital but also (and perhaps even more so) Vietnam's extensive coastline, spanning over 3,400 km. Interest in this strategically important part of the continent means that both Beijing and Washington will strive to intensify political and economic pressure on the authorities in Hanoi. The decision that will have to be made will certainly involve the intensive expansion and arming of the Chinese army, especially concerning militarization in the South China Sea (disputed Chinese territories in the Spratly archipelago). Presumably, Vietnam will move closer to the United States. This, in turn, would facilitate the possibility of conducting US military operations in the future in key areas of the region: the Taiwan Strait, Malacca, and the Spratly and Paracelsus archipelagos [16, 17].



Fig. 2. Vietnam and neighboring countries

The Gulf of Tonkin is of particular interest to both powers. It separates Hanoi from China, and the important Vietnamese port of Haiphong is located here, but the proximity of the Chinese territories of the Leizhou Peninsula and Hainan Island is significant in geopolitical meaning. It is significant that Cam Ranh Bay, located in the remote southern part of the country, was used by the US Navy during the Vietnam conflict as a base for its surface ships. This is the best evidence of the measurable impact of Hanoi's political decision on relations between Washington and Beijing and their geopolitical strategies in the region [17, 19].

However, each region of Vietnam may assume a different role: Northern Vietnam can act as a sea gateway for China's southwest, a central part of Vietnam for Northeast Thailand and Laos, and Southern Vietnam for Cambodia. This approach is of particular importance for understanding what problems the logistics system will have to overcome to be fully prepared to handle natural flows and the directions of the flow of goods. On the other hand, it should be taken into account that the existence of routes (logistic corridors) is determined by needs in the form of demand for transport or, more broadly, logistics services. Including the current capacity of Vietnam's hinterland, the role of the gateway could not be successful or popularized due to the efficiency conditions of land infrastructure (i.e., the capacity of the railway network operating basically in the north-south directions and the condition of road infrastructure, including the capacity of border crossings with countries located to the west).

Even at the beginning of the 21st century, analysts emphasized that it was reasonable and expedient to "attract" the shipping route leading through the waters of the South China Sea to the Vietnamese coast. With a growing economy, extensive (necessary) investments in maritime infrastructure, and openness to international cooperation, Vietnam has the potential to increase its transport importance and perform in the role of entrepot, serving as the hub of Southeast Asia [20].

In geopolitical terms, Vietnam seems to consciously draw "geopolitical dividends" and increasingly play the role of an important link in Southeast Asia's trade routes. The subtle but noticeable tendencies to strengthen cooperation with the economies of Singapore and Japan are also based on geopolitical factors (the complementarity between Vietnam and Singapore, as well as that between Vietnam and Japan, is nearly ideal). The importance of Vietnam's economic partnership with Tokyo is a counterpoint

to Hanoi's trade relationship with China. In addition, Vietnam could become a kind of hinterland for Singapore, providing land and people to the world's commercial and financial center. The best effects could be achieved by absorbing Japanese capital, technology, and know-how. This would allow a critically important new one, critical nexus of the trans-East Asian trading network to be generated in Vietnam [20].

The essence of the effective creation of the reality in which the survival or development of nations and persistence takes place is the skillful use of geopolitical resources. In the face of the observed shaping of a new global balance of power, Vietnam remains in the close sphere of interest of both the Western world and the neighboring superpower of China. It lies at both a main cleavage of great power rivalry and a major linkage of regional economic integration, which poses both great challenges and opportunities.

3. LAND TRANSPORT INFRASTRUCTURE OF VIETNAM – ANALYSIS OF THE CURRENT STATE

3.1. Road transport infrastructure and its specificity

The total length of Vietnam's road network is 595,201 km (64.76% of the road network is paved). Nevertheless, national roads (24,321 km) and motorways (1,239 km) have a total length of 25,560 km. These should also be considered as infrastructure important from the point of view of handling the exchange of goods. Among the roads included in the national network, roads with two or more lanes predominate, which seems to be specific to this part of Eurasia. In mid-2022, 14 sections of roads with a higher standard had a total length of 840 km under construction [21].

Considering the current state of Vietnam's road network, it should be noted that the overall coverage of the national network is relatively good. However, expressways are lacking, especially on heavy-traffic transport axes (North-South, Hanoi, and Ho Chi Minh City Ring Roads). In addition, due to topographical conditions, as much as 39% of the national road network is located in upland or foothill areas. It should be emphasized that investments in the basic (national) road network are carried out on a massive scale and treated as a priority. However, many sections with a higher standard remain in the sphere of plans, so they have not yet been modernized, which may remain a factor limiting the possibility of increasing transport, taking into account the current expectations of recipients of logistics services. A very large number of rail-road crossings contributes to the intensification of the phenomenon of congestion in places where road and rail transport meet (Fig. 3 provides an example).

The analysis of ongoing and planned investments in the field of road networks allows us to conclude that emphasis is placed on relieving the existing network and improving road transport infrastructure through the largest urban centers that are particularly struggling with the problem of congestion (i.e., Hanoi and Ho Chi Minh City). There is also an understanding of the need to improve the accessibility of seaports (especially Haiphong and Quang Ninh in the northern part of the country and Vung Tau and Ho Chi Minh City in the southern part), which – as port complexes – are the basic links connecting land and sea transport. Conditioned by the availability and quality of road transport infrastructure, access to ports is even more important because six of 75 Vietnamese ports, including Nam Dinh Vu Port in Haiphong, HICT Port in Quang Ninh, and Cat Lai Port in Ho Chi Minh, together with Cai Mep Port in Vung Tau, accounted for 77.1% of container throughput in 2020 [21].

The issues of border crossings, which are important in the latitudinal system, also deserve attention. Even the main check-in terminals handling traffic to and from Cambodia and Laos do not operate around the clock (they are mostly closed at night). This factor undoubtedly limits the effective handling of flows, including cargo flows, and, together with the improvement of infrastructure quality, requires involvement in increasing their availability.

3.2. Railway transport infrastructure and its special role in mass transport

The national railway network has a total length of 3,143 km, of which 2,703 km are trunk lines. The rail density is approximately 9.5 km/1,000 sq km, which does not distinguish Vietnam from the world

average or the ASEN average [21]. Vietnam's railway network has been presented in data on the specificity of the main railway sections in Table 2 and Fig. 4.



Fig. 3. A typical example of a solution used in the Saigon agglomeration: separated heavy vehicle traffic (on a viaduct and flyovers) and local traffic by roads crossing the railway infrastructure. Here: expectancy for the opening of the railway crossing in the northern part of Ho Chi Minh City, May 24, 2023

It is noteworthy that the only neighboring country with which Vietnam has a railway connection is China. There are currently two lines connecting Vietnam with its northern neighbor and main import partner: Hanoi – Dong Dang (the route to Nanning in Guangxi province) and Hanoi – Lao Cai (the route to Kunming in Yunnan province) (Fig. 5).

As most of the railway lines were built a long time ago (the vast majority of them were created during the colonial period), they have low technical standards and many limitations in terms of load and profile. The train speed does not meet modern requirements, reducing the ability of the railways to compete with other modes of transport. The throughput capacity (exploitation capacity) on most of the main railway lines is only about 17-25 pairs of trains a day since the lines are single-track only. In addition, the track gauge, the basic one of which is 1,000 mm, is smaller than the standard track, which limits not only the operational length of the trains (as a rule, the maximum limit is 20 wagons) but also the axle load and, thus, transport capacity.

Three main corridors: Hanoi – Ho Chi Minh City and Lao Cai – Hanoi – Hai Phong account for 78% of the network, handling 98% of passengers and 88% of freight transported. Table 3 includes transport data on selected sections of the network (data are provided at the author's request by the Vietnamese Railway Administration).

While railways connect two seaports (Cai Lan and Hai Phong), two inland waterway ports (Viet Tri and Ninh Binh), and one dry port (Lao Cai), the existing infrastructure does not allow the operational capacity to increase. There is a clear need for extensive investments in both the improvement of the technical parameters of the existing lines (eliminating bottlenecks, increasing track speed, automating train traffic control systems) and, above all, the construction of new lines.

3.3. Availability of intermodal infrastructure

Container (intermodal) terminals are an important element of infrastructure, constituting an element of interoperability of transport and enabling efficient handling operations. A container handling and storage facility situated at inland points away from seaports helps importers and exporters to handle shipments near their location. Their functioning and appropriate concentration are prerequisites for the

efficiency of the logistics system and its efficiency in terms of handling international goods exchange. Lists of the most important inland container depots in Vietnam, in national documents mentioned as “strategic,” include 11 terminals: Hai Linh (Phu Tho), Km3+4 Mong Cai (Quang Ninh), Tan Cang, Vu – Quang Binh, and Hoang Thanh (Hai Phong), Tan Cang Que Vo (Bac Ninh), Long Bien (Hanoi), Tan Cang (Ha Nam), Phuc Loc (Ninh Binh), Tan Cang Nhon Trach and Tan Cang Long Binh (Dong Nai). Their annual combined ability is 1,375,000 TEU, and the total area of warehouse space available in terminals is 535,000 sq meters [21]. While intermodal terminals created in new locations are, as a rule, of standard quality, terminals and loading points based on the existing infrastructure face various types of limitations (compare Figs. 6 and 7).

Table 2

Selected technical characteristics of main railway lines

Railway line	Length (km)	Gauge (mm)	Min/max operating speed (km/h)
Hanoi – Ho Chi Minh City	1,726	1000	30 / 100
Hanoi – Hai Phong	102		30 / 80
Hanoi – Lao Cai	295		35 / 90
Hanoi – Dong Dang	162	Dual (gauntlet track) 1,435 and 1,000	25 / 80
Hanoi – Quan Trieu	75		40 / 80
Luu Xa – Kep – Ha Long	163	1,435	30 / 80

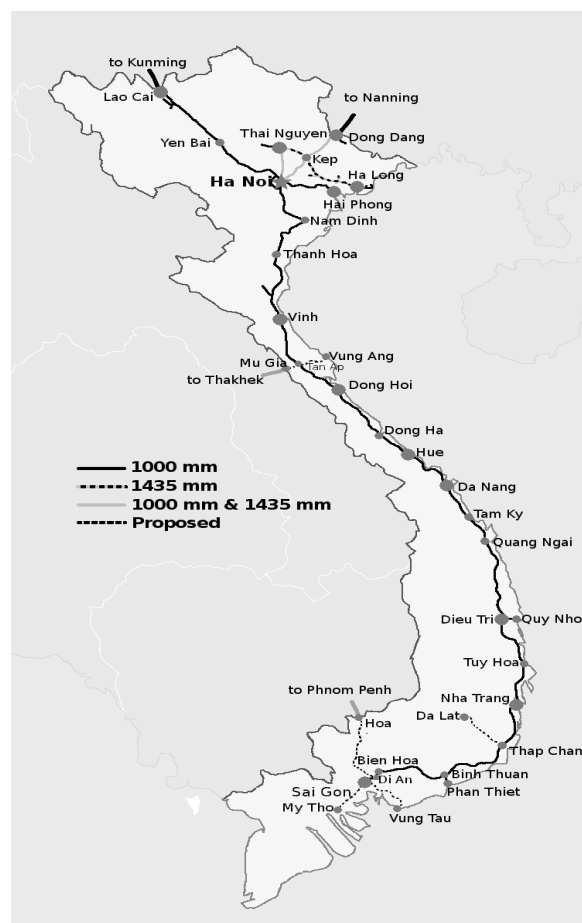


Fig. 4. Vietnam's railway network



Fig. 5. One of the many loading points (here: with an additional track for handling containers) in the area of the Yên Viên station where an infrastructure based on two track gauges is used. June 6, 2023

Table 3
 Volumes of freight transport on selected operated sections (tons)

Railway line	2018	2020	2021
Hanoi – Ho Chi Minh City	2,519,401	2,156,727	2,204,090
Hanoi – Hai Phong	441,189	464,076	387,933
Hanoi – Lao Cai	2,089,401	1,788,129	2,137,202
TOTAL	5,664,036	5,102,435	5,619,268



Fig. 6. Container terminal at Đông Anh station (northeast Hanoi) after the arrival of the container train from China (flatcars are located on the gantlet track 1,000-1,435 mm). June 11, 2023

Growth in international trade and the availability of infrastructure is shaping the formation of key logistics hubs. Therefore, it can be concluded that current intermodal terminals will not be able to handle the growing demand for logistics services. However, the shortage of warehouse space requires supplementation by considering the capacity of the linear infrastructure that leads to the newly constructed facilities.



Fig. 7. One of several loading yards of Sóng Thần station (a suburb of Ho Chi Minh City) handling cargo operations with containers and general cargo. May 28, 2023

4. CONCLUSIONS

Vietnam has a favorable position for the development of logistics. This is due to not only its geographical location but also its geographical factors, especially its coastline of 3,260 km running along the whole length of the country. The coastal areas of Vietnam have many large rivers pouring into the sea, creating favorable conditions for the construction of seaports. The data of the Vietnam Maritime Administration show that the total country port capacity is 550 million tons/year. Such a long coastline along the South China Sea, one of the most important maritime trade routes in this part of the world, creates factors that favor the development of logistics services. These, however, require an appropriate, modern, efficient, and productive infrastructure.

The main arteries of the Vietnamese road network are highways, which create the north-south corridor running along the country; there are also east-west routes. In the north, the national highways form a fan shape, while in the south, the national highways form a chessboard pattern [22]. In general, the national highways have good coverage. However, most other roads are too narrow for the amount of traffic, and their surface quality is insufficient.

Railway infrastructure in Vietnam is considered backward and weak compared to infrastructure in other countries in the region. Vietnam's transport capacity is generally lower than desired due to its small scale and lack of modernization. This situation certainly requires additional expenditure due to additional challenges in the construction and maintenance of trails in more difficult engineering conditions (geological: mountainous areas, sections along rivers and streams). The railway transport system shows significant exploitation, both in terms of linear and nodal infrastructure, as well as rolling stock. In the system of Vietnamese seaports, only Hai Phong Port is well-connected to the railway, but the operation efficiency is very low (Cai Lan Port has been invested in but has not been able to operate due to a lack of a synchronous gauge) with no highways, particularly for freight transport.

Railways are the mode of transport that requires the most urgent large-scale investment. Over the years, the state has encouraged investment in railways. However, investors are not interested. Therefore, the investment in railway field development needs the state's steadiness in infrastructure investment, and some items, such as stations, may require the private exploitation and localization of some urban railway lines [22].

Vietnam ranks 71st out of 201 markets in terms of transport network quality, with a moderate score of 56.8 out of 100, with the limited extent and quality of network infrastructure being key challenges faced by investors. Vietnam also ranked 11th out of 50 countries in the 2022 Emerging Market Logistics Index released in an Agility Report. The weakness of logistics infrastructures, especially transportation infrastructure, which increases logistics costs (which represent approximately 20% of GDP in Vietnam compared to 7-9% in mature markets), increases product transit time and reduces customer trust in the services of the supply industry.

Due to the significant geographical distance and the blockade of Hainan Island, the northern part of Vietnam does not promise the prospect of becoming an important link in the key shipping route through the South China Sea. Meanwhile, the central part of the country is the closest to the aforementioned world shipping channel. It has several well-located wind-tight ports. The largest space for expansion is in the southern part of Vietnam, which has an existing economic base and a high purchasing power index. Ho Chi Minh City is the key economic center of the sub-region covering Southern and Central Vietnam and Cambodia. Thus, the comparative advantage of Central Vietnam has a chance to be strengthened when an extremely external perspective is adopted, emphasizing its presence in international trade networks. For this, however, investments in Central Vietnam must be clearly oriented toward the international market and take into account the global context [20]. Developing logistics channels are an essential means of goods distribution in Vietnam's economy.

The conclusions from the first phase are a starting point for further research covering the specific needs in the development of Vietnam's logistics infrastructure. These will be presented in a separate article. The intention of the research is to identify the scope of activities and assess the degree of their implementation to ultimately increase the efficiency of logistic services for economic processes in the logistics corridors running through Vietnam.

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