World Wide Journal of Multidisciplinary Research and Development



WWJMRD 2019; 5(12): 72-75 www.wwjmrd.com International Journal Peer Reviewed Journal Refereed Journal Indexed Journal Impact Factor M.JIF: 4.25 E-ISSN: 2454-6615

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Information on Waterway Transportation in Vietnam

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Abstract

Most of the boats in Vietnam are small because of the limited depth of rivers and canals, and small passages. Ports are equipped with outdated facilities, low mechanization and poor maintenance, which explains the poor connectivity inland. The container transport service in Mekong Delta has gained encouraging results. According to Tan Cang Sai Gon Port, the cost of transporting goods by barge has decreased by 7 percent for 40 feet containers and by 20 percent for 30 feet containers. Inland waterway ports in Vietnam still cannot meet the requirements for container loading and unloading activities. About 15 percent of the cargo arrived at the ports without operation licenses, according to the Inland Waterway Bureau in 2017. In the north, as there is no domestic container port for good unloading, container goods are mostly carried by land to industrial zones and export processing zones. Only 15 percent of goods at Hai Phong Port and 35 percent of container goods in Mekong Delta are carried on the domestic waterway network. The investment capital poured into waterway transport infrastructure over the last decade mostly came from ODA (official development assistance), while the budget allocated by the government is limited. The World Bank warned that the presence of many ministries in the domestic waterway transport management hinders the development of this type of transport. The Vietnam Inland Waterways Association reported that there are 13 checkpoints for every 100 kilometers of river.

Keywords: domestic waterway, solutions, policies

Introduction

Vietnam's inland waterway sector is considered by the World Bank to transport a greater proportion of goods than any other country (outside the Netherlands), with a quarter of the transport volume. Domestic. Status of waterway accident has decreased by 2/3. The report "Sustainable development of inland waterway transport in Vietnam" published by the World Bank on 28/3 shows that, the proportion of goods transported in the field of inland waterways of Vietnam more than with any other country in the world (outside the Netherlands). According to the analysis of the Report, the inland waterway transport routes also directly link to the main ports in the country. This is another important cause contributing to the above results. In fact, inland waterway and coastal transport is currently responsible for 34 of the domestic traffic. Research shows that currently, the domestic fleet has more than 170,000 vehicles, most of which are small ships. However, the number of large and specialized vessels is increasing. International experience shows that these vehicles better meet the needs at lower costs. However, these vehicles require high standard waterways to accommodate larger investment costs for the fleet as well as for port mechanization.

Most of the traffic is carried out over 7,000 km of national inland waterways managed by the Central. However, only less than 30% of this network length is suitable for barges with a tonnage of more than 300 tons to operate. This is a very modest rate compared to the most successful commercial water transport networks in the world. The size of vessels in Vietnam is not large due to the shallow depth of rivers and canals, the size of the channel is small and the bridge clearance is low. Many ports have outdated facilities and low level of mechanization, or poor maintenance, or poor inland connectivity. Meanwhile, all inland waterway transport networks of China, Europe and the United States are developed suitably for vessels with a tonnage of more than 1,000 tons to operate, normally the tonnage of this

medium is even bigger.

The remaining provincial waterways play an important role as a popular means of transportation both in localities and transshipment of goods and passengers for the national transport network. The provincial waterway system connects to thousands of small ports and wharves where small barges are used to transport small volumes of cargo on lower standard routes. However, to ensure that the inland waterway sector develops successfully and plays a strategic role, the World Bank believes that Vietnam needs to maintain and improve the main routes of the national transportation network. Notably, the World Bank assessed that the safety level of inland waterways has improved in recent years. Accidents per ton-km have decreased by twothirds since 2010. Vietnam is a country has dense rivers network with 2630 rivers, canals large and small channel and more than $41.900 \ km$ receptions but now only 8036 kmexploited. Especially, in the Northern provinces (Red river delta) and the Southern provinces (Mekong delta) have many rivers most. Most of rivers of Vietnam are originated in from foreign and only flowing in the middle and downstream. And 2 big rivers of Vietnam are Mekong River and Red river also originated from foreign. Inside Mekong River originated from Tibet and Red river originated from China. Both the waterway network in the north is currently over 4,500 km are exploiting transport, of which the national route is 2,663.9 km, running through most of the economic centers, urban areas and industrial parks. The birth of the Hoa Binh, Son La, Thac Ba, Tuyen Quang and other hydroelectric power plants such as Lai Chau, Huoi Quang, Ban Chat (Da River) contribute to regulate and reduce the amplitude of fluctuations. Flood level, downstream sedimentation of rivers; it also creates reservoirs hundreds of kilometers long and is the ideal transportation route. According to the economic zoning, the North has formed clusters of ports: Ha Noi, Ninh Binh, Viet Tri, Hoa Binh, Ha Bac, Quang Ninh, Da Phuc. Other, serving the export demand, coal consumption of thermal power plants, cement, ship industry, transshipment superheavy cargo. However, since most of the river ports in the north were built in the 1980s, the old, outdated facilities, equipment and loading equipment were destroyed. Commodities through port terminals are less than 60% designed, mainly bulk goods, coefficient of using wharves and warehouses. There is not yet a river port that qualifies for container handling. Many temporary wharf ports, which are not up to the technical standards for exploitation, are not regularly inspected (for stability, bearing capacity, anchorage ...). Environmental pollution and degradation of landscapes in ports and wharves have been and will continue to increase rapidly without restrictive measures As known, water transportation accounts for 53% of freight in our country in which 48% of the domestic waterway transportation with more than 210 million tons of goods transport by domestic waterway each year in it Mekong Delta is the main transport route with the largest mass transportation in our country. The number of domestic waterway ports in Vietnam as of the present time and planning for 2020 is more than 130 cargo ports are devided into three main group: Key ports; the ports of local and specialized port group and more than 30 passenger port are spread from North to South. In which port of cargo volume the largest is Ninh Phuc port in Ha Noi is with cargo volume 8,5 milliontons/year next is Chem - Thuong Cat port with cargo volume 4,5 milliontons/year, Truong Tho port with 3,6 milliontons/year, Phu Dong new port with 3 million tons/year and Viet Tri port with 3 million tons/year. The river ports can give ships size bigger 5000 DWT into are located in the Southem including: Port Bourbon Ben Luc, Thanh Tai port, Phuoc Dong Port, Phuong Quan Port (Long An); Port of Long Binh (HCMC); Ha Duc port; Nhon Trach port; Tin Nghia port; TRACOMECO Port (Dong Nai).

Up to now, Vietnam has had 37 passenger ports, which concentrate mainly in North (Red river delta) and in South (Mekong delta). Particularly, the North has had 20 ports with 5, 52 million passengers/year and the South has had 17 passenger ports with 29 million passengers/year. Vietnam not only has passenger ports and cargo ports but also the domestic waterway port, which exploit minerals. For example, coal, gasoline. About fleet in Vietnam, the cargo ship is divided into 2 types as voyage and liner. Liner is planned and well-schooled but it is incoherent with Vietnam's economic versus the voyage. Passenger ship has fleet, which served passengers at the passenger ports. Additionally, the government and the ministries of Transport has made a decision on developing and planning period 2015 -2020 and oriented development about fleet in 2030. Accordingly, 2020: Volume of cargo will reach 393.89 million tons and 85.9 billion tons per km. The number of passengers will reach 170 million passengers and 3.5 billion passenger per kilometer; volume of container traffic will reach about 3.45 million TEUs; volume of marine cargo will reach about 17.1 million tons. Tending to 2030: Volume of cargo will reach 655.89 million tons and 141.5 billion tons per km; the number of passengers will reach 200 million passengers and 4.1 billion passengers per kilometers; volume of container traffic will reach about 5.57 million TEUs; volume of marine cargo will reach 30.3 million tons. As can be seen from the plan of oriented fleet development period 2015-2020: Total the volume of cargo which will be planned until 2020 will be 20 - 22 million tons (The volume of fluvio-marine cargo will reach 0, 85 million tons; The volume of container traffic will reach 1, 2 -1, 3 million tons) and passenger ship will be 780 thousand seats. About the number of exploitation of vehicles on the domestic waterway of cargo fleet in VietNam which is planned until 2020 will be about 7.8 - 10.2 million tons of vehicles, there will be 6.8 -8.8 million tons to satisfy with development and 1.0 - 1.4 million tons to change the old ships which need to sell. About passenger fleet will be 90 - 125thousand seats, there will be 10 thousand seats to satisfy with development and 80-115 thousand seats to change the old ships which need to sell.

According to the plan of the Government and The ministries of Transport, Vietnam will develop all types of ship have modern technical features, apply new technologies, appropriate equipment, prevent from environmental pollution (equipment which contains sludge, waste from oil, sewage, garbage, hazardous waste, collection, transport, waste disposal,...) to use for developing water transport in general and domestic waterway in particular.

Characteristics

Proposing policies to develop this field, the World Bank offers a series of solutions, especially the Ministry of

Transport needs to increase domestic capital for investment and development projects. Inland waterways. However, the World Bank research team recommends that the Ministry of Transport consider carefully investing in ports because this activity would scatter the scarce investment capital that could have been invested. Invest in more essential areas than the waterway network. One of the World Bank's "warnings" is that it is "prudent to accept views from port operators' representatives and the means involved in proposals that can help achieve the goal of improvement." way". According to the World Bank, if the Inland Waterway Advisory Board is set up early, it will play an important role in identifying priority activities and implementation plans. Besides, in spite of Vietnamese favorable geographic position and 3.260 km of coastline, Vietnam provides a great opportunity for fleet development but in 2015 Vietnam ranks only 28th in the world. With 45 points, Vietnam is much lower than other countries in Asia such as China, Hong Kong, Singapore, Korea, Malaysia, Japan. Due to the low export volume of Vietnam, the lack of seaport system, few deep water ports and outdated seaport infrastructure, the mother ships of major carriers do not favor to port. Moreover, the fleet of Vietnam sea ships is rather fragmented, low fleet weight and poor management capacity. Therefore, many companies exploit ships ineffectively, thus limiting their ability to link sea transport. Specifically, the inadequacies of the Vietnamese fleet include:

According to data from the Transportation Sector Restructuring Scheme, the current share of ocean freight in the total transport volume is only 17.6% (while road transport is still at a high level With 75.3% of total transport volume), this proportion is not commensurate with the potential and strength of a country that has a huge advantage in maritime transport development such as Vietnam. Vietnam's shipping fleet is almost exclusively operating on inland transports with a market share of over 90%. On international routes, the fleet mainly runs short routes around Southeast Asia and Northeast Asia and also accounts for only about 12% of the market share on these routes. Despite its large market share, inland shipping is facing low tariffs, scarce resources and a disproportionate between North-South transportation (The direction between Norths to South is only about 60% in comparison with South to North).

According to statistics of Vietnam Maritime Bureau, by 2015, Vietnam's cargo ship fleet has 1,849 vessels (not including 38 foreign flagged vessels) with a total tonnage of 7.3 million DWT. However, the structure of the US Navy fleet is generally not reasonable. In the container fleet trend of the world, container ships of Vietnam only 64, accounting for 3.5%, much lower than the average proportion of 13% of the world. Recently, the rate of growth of container ships in the world about 7.7%, the new Vietnam only increased by more than 1%. In contrast, composite cargo ships accounted for the largest number with 1,085 units, or 58.7%. Subsequently, dry bulk carriers were 318 (17.2%). Oil tankers and chemicals with 185 (10.5%), but owned by many shipowners. The bulk carrier has 188 (10.2%), but its exploitation is generally ineffective.

According to general assessment of Vietnam Maritime Bureau, the number of ship owners in Vietnam is quite a lot, but financial capacity and management level is limited. Of the 597 shipowners, only 33 owners of vessels have a total tonnage of over 10,000 DWT and the rest are 564 small business owners of the private sector in the provinces of Hai Phong, Thanh Hoa, Thai Binh., Can Tho ... but only managed 27% of total fleet tonnage.

Apart from the above mentioned limitations, there are also inadequacies in each type of ship. Bulk cargo ships: mainly transported agricultural products (rice, sugar ...), steel products, iron ore, fertilizer, coal dust, cement ... on domestic and short routes in the Southeast Asia, China or some ships transported on long distances to West Africa, South America, Eastern Europe. Currently, bulk carriers with a tonnage of less than 10,000 DWT account for the largest volume but only 13% of total tonnage. The ships of 20,000 - 30,000 DWT account for 47% of the total tonnage, and over 40,000 TDW are very few but account for 21% of the tonnage of the bulk carriers of Vietnam. The exploitation of bulk carriers of Vietnamese enterprises is generally very inefficient, the average time for running vessels is only 30 - 35%, the time of empty bulk carriers is still quite high, about 13 - 15% during the year, the time waiting for ships to work usually also accounts for about 20-25%, the phenomenon of the afternoon ship in line while the lack of goods very often. Container fleet: Sea container shipping began to develop in Vietnam in the 1990s. Up to the end of 2015, Vietnam had 15 container shipping companies with a total of over 64 ships. Download about 544.106DWT. VN container ships are generally small in terms of tonnage, the age of the ship is high, the speed is slow compared to the container fleet of foreign firms. Vietnam has only two shipping lines ranked among the top 100 container shipping companies in the world, namely South China Sea and Vinalines, but also in relatively low rankings. Most of Vietnam's container ships operate on domestic routes like Hai Phong - Da Nang - Ho Chi Minh City under the protection of the Government. Only a few carriers have sailed to Singapore and Hong Kong but the frequency is limited. Meanwhile, competitive pressure on international routes for Vietnam shipping lines is growing. In 2015, Vietnam has over 40 international container shipping lines and currently accounts for about 85% of Vietnam's export and import container. These shipping companies operate mainly under three forms: VN companies as agents, joint venture companies or companies with 100% foreign capital.

Create a healthy competitive environment, equal to enhance the capacity, efficiency of production and business of enterprises domestic waterway transport; encourage and create favorable conditions for enterprises to domestic waterway transport enhance joint ventures, associated with trucking businesses, rail, sea ports have enough ability to provinde service methods multimodal transportation services and logistics of high quality

Encouraging socialize form carrying out dredging domestic waterways project not using the state budget, combining with the recovery of the product according to current regulations. Supporting rent for building domestic waterway ports infrastructure system serve cargo handling and develop multimodal transportation; saving appropriate land foundation for investment projects in the construction of the domestic waterways port, especially the ports of loading and unloading cargo containers. Promoting communication as well as handle strictly cases lay out crew members, driver of domestic waterway vehicle who have

incorrect title or crew members , driver of domestic waterway vehicle whom doesn't have professional certificate or using diploma, professional certificate which is not suitable. Enhancing inspection and monitoring about the activities of register, registry at the local as well as patrolling control to reduce infringe situation of register, registry of domestic waterway vehicles.

The rate of inland waterway transport is 17.72%, passenger transport is 4.1% of transport volume of the entire transport sector. The average growth rate of transport volume from 2015 to 2020 is 11.20% per year in cargo and 2.5% per year in passengers. Cargoes reached 393.89 million tonnes and 85.9 billion tonnes.km; Passengers reached 170 million passengers and 3.5 billion passengers.km; Container shipping volume was about 3.45 million TEUs; the volume of sea-river transport reached 17.1 million tons. The proportion of inland waterway transport accounted for 15.48% and passenger transport was 1.9% of the total transport volume. The average growth rate of transport volume in the period 2021 - 2030 is 5.20% per year in cargo and 1.41% per year in passengers. Freight reached 655.89 million tons and 141.5 billion tons-kilometers; Passenger reached 200 million passengers and 4.1 billion passengers-kilometers; Container shipping volume is about 5.57 million TEU; the volume of goods transported by river-channel vessels reached about 30.3 million tons.

Conclusion

Despite great potentials, but in recent years, the inland waterway transport industry of Vietnam has developed slowly, because it encountered many "bottlenecks" such as relying on nature as the main source of investment capital, "dripping". old and outdated facilities ... In order to "awaken" the potential and develop appropriately, this industry needs to change from thinking and awareness. Statistics show that there are 3,500 rivers and channels across the country through 124 estuaries with a total length of about 80,500 km, of which 42,000 km of estuaries are capable of developing waterway transport. Besides, the country has 272 inland waterway ports, with 8,730 seaport boats. These are really great potentials for the development of Vietnam's inland waterway transport industry. Such great potential exists, but for many years, Vietnam's inland waterway transport industry has been developing very slowly, mainly due to lack of investment. Mr. Tran Bao Ngoc, Director of Department of Transport (Ministry of Transport - Transport) admitted that in the period of 2011-2015, the structure of road investment accounted for more than 70%, railways were 15%, maritime 4., 6%, aviation 7.6% and the lowest inland waterway with about 2.2%. Water transport means are mostly old and outdated. Infrastructure investment, maintenance and maintenance have not been given adequate attention; the transport business organization model is still fragmented and small; The connection with the modes of transport by road, rail and sea is not appropriate and there is no reasonable plan to form a connecting network. How to "awaken" the potential that nature has favored for the inland waterway transport industry of Vietnam? In fact, to develop, investment resources must be commensurate with the potentials; must ensure the planning of inland waterway transport routes; building connection points, forming the development of transportation service systems, developing special-use vehicle systems; training in-depth workforce.

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