

Domestic Waterway Transportation Mater: A Case In Vietnam

Xuan Nam Chu, Van Vang Le, Van Trung Tran, Van Huong Dong

Abstract: Vietnam's shipping fleet is in a state of surplus of small-tonnage vessels, composite cargo vessels, while there is a lack of large-scale vessels running international routes and specialized ships carrying cement, chemicals and gas. Liquefied. With such a fleet structure, the domestic fleet only accounts for 10-12% of the import and export market, of which the combined dry bulk market share accounts for 12%, containerized cargo accounts for 8%. %, liquid cargo accounts for 8%. The export market of the Vietnamese fleet is mainly China, Southeast Asia, Asia, some ships have exported to Eastern Europe but in very small quantity. Some Vietnamese ship owners have large vessels such as Container Vinalines Company, East Sea Transportation Company, Gemadept Corporation, Vietnam Shipping Joint Stock Company, have ship to Europe and North America. Most of the dry bulk carriers, mainly containerized feeder feeder ships, are used in Singapore and Hong Kong, while other major markets such as the Americas are owned by foreign shipping lines. The reason for the low market share of Vietnamese shipping is primarily due to subjective factors such as improper fleet structure; The technical condition is weak, the ship is detained many times abroad; The organization of management of service delivery of Vietnamese enterprises is weak, lack of linkage between ships, cargo owners, trade and insurance; Difficult financial resources; Weak and lack of human resources; The habit of buying CIF, selling FOB lost the opportunity to rent a means. In addition, due to some objective reasons such as the global financial crisis; Oil prices, fuel prices are unstable and continuously rising; The mechanism of government policy is lacking and incomplete.

Keywords: domestic waterway, inadequacies, solutions, policies, orientation.

1 INTRODUCTION

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 8036km exploited. 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 super-heavy 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.

2 SHIP FLEETS & PORTS FOR DOMESTIC WATERWAY TRANSPORTATION

The number of domestic waterway ports in Vietnam as of the present time and planning for 2020 is more than 130 cargo ports are divided 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

- Xuan Nam Chu. Ho Chi Minh College of Transport III, Vietnam. E-mail: chuxuannamcdhh3@gmail.com
- Van Vang Le. Mechanical Engineering Faculty , Ho Chi Minh University of Transport , Vietnam. E-mail: levamvang@gmail.com
- Van Trung Tran. Mechanical Engineering Faculty, Ho Chi Minh University of Transport , Vietnam. E-mail: tvtrungck@yahoo.com.vn
- Van Huong Dong. Mechanical Engineering Faculty, Ho Chi Minh University of Transport , Vietnam. E-mail: dvhuong@gmail.com

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.

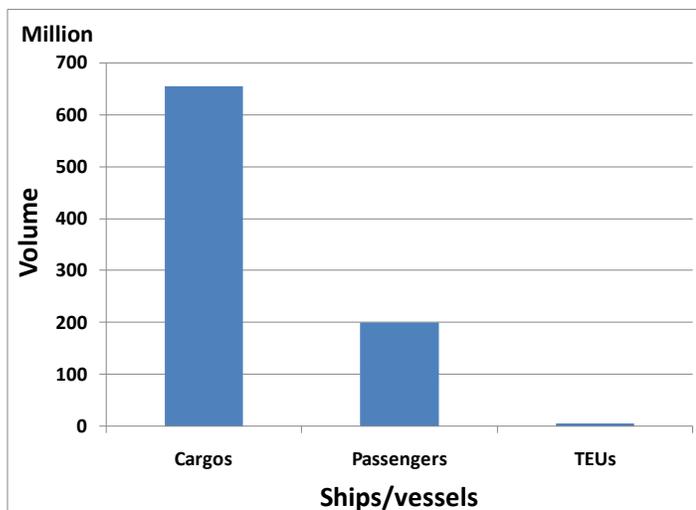


Fig.1. Volume of cargos, passengers and containers by 2030

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 – 125 thousand 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.

3 THE INADEQUACIES OF THE VIETNAMESE FLEET

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:

On the transport volume of cargos

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.

About the transportation

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 North to South is only about 60% in comparison with South to North).

Structure of the fleet

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.

Ownership of the fleet

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.

Type of ship

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.

4 SOLUTIONS, POLICIES

Management and development of transport

Checking on policies for water transport in general as well as construct the new policy framework for developing types of water taxi, bus taxi, which contribute to the development of public transport in major cities such as Ha Noi, Ho Chi Minh, Da Nang. Pushing up the development of container traffic by domestic waterway on the main waterway connect to international gateway ports. Encouraging transit enterprise corporation with high capacity, which takes part in container traffic by domestic waterway

Innovating policies to support domestic waterway enterprise corporation

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 provide service methods multimodal transportation services and logistics of high quality

Developing domestic waterway infrastructure system to create convenience for transporting

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.

Improving the quality of training, examining and certificating for crew members, driver of domestic waterway vehicle

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.

Solution to improving effectively the management of register of vehicle

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.

Solution to developing shipbuilding and repairing domestic waterway vehicles yards

Promoting, developing socialization of investment for building yards at the North and the South to meet the demands about developing fleet in modern way. Encouraging, supporting ship building and repairing domestic waterway vehicles yards improve capacity, Improving enlargement of domestic and foreign coalescence to finance, technology handover. Organizing plan for shipbuilding yards and repairing domestic waterway vehicles within the country.

Solution for environmental protection

Promoting inspection and monitoring activities to execute existing laws for environmental protection related to the domestic waterway field; Investing means and equipment to fix the oil spill, collecting with domestic waterway port.

Solutions, policies to apply science, new technology

Building and improving standards, regulations, rules, procedures, regulations, economic and technical norm in the fields study, design, construction, acceptance, maintenance, maintenance of domestic waterway in structure. Coordinating with other transport sectors which are applying advanced methods of transportation, especially multimodal transport.

Planning by 2015-2020

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.

Orientation by 2030

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.

container-duong-thuy-noi-dia-giai-phap-gop-phan-giam-ach-tac-duong-bo-d29116.html

- [15] <http://www.doanhnhansaigon.vn/van-de/van-tai-duong-song-tiem-nang-choa-khai-thac-het/1100850/>

REFERENCES

- [1] <http://www.business.gov.vn/Tint%E1%BB%A9cv%C3%A0s%E1%BB%B1ki%E1%BB%87n/tabid/96/catid/10/item/14160/Quy-ho%E1%BA%A1ch-phan-tri%E1%BB%83n-%C4%91%E1%BB%99i-tau-v%E1%BA%ADn-t%E1%BA%A3i-th%E1%BB%A7y-n%E1%BB%99i-%C4%91%E1%BB%8Ba-2015-2020-%C4%91%E1%BB%8Bnh-h%C6%B0%E1%BB%9Bng-%C4%91%E1%BA%BFn-2030.aspx>
- [2] <http://www.vlr.vn/vn/news/van-ban/van-ban-moi/2551/nhung-bat-cap-cua-doi-tau-bien-viet-nam.vlr>
- [3] <http://cangvinhtan.vn/tin-tuc-su-kien/phan-trien-giao-thong-duong-thuy-noi-dia-de-anh-cho-duong-bo>
- [4] http://www.vietnamshipper.com/?action=news_detail&atcid=33925&chnlid=3
- [5] <http://www.vinamarine.gov.vn/print.aspx?page=detail&id=2028>
- [6] <http://thoibaotaichinhvietnam.vn/pages/xa-hoi/2015-10-28/van-tai-thuy-noi-dia-can-luc-day-de-vuon-khoi-25664.aspx>
- [7] <http://ndh.vn/van-tai-thuy-noi-dia-tiem-nang-choa-duoc-khai-thac-dung-muc-2014080608417957p145c153.news>
- [8] <http://www.daibieunhandan.vn/default.aspx?tabid=75&NewsId=383037>
- [9] <http://www.mt.gov.vn/khcn/tin-tuc/42124/tang-suc-hut-van-tai-duong-thuy.aspx>
- [10] <http://vcci.com.vn/quy-hoach-phan-trien-doi-tau-van-tai-thuy-noi-dia>
- [11] <http://www.nhandan.com.vn/cuoituan/goc-nhin-kinh-te/item/31506002-dan-loi-cho-van-tai-thuy-noi-dia.html>
- [12] <http://business.gov.vn/tabid/60/catid/10/item/14046/c%C6%A1-ch%E1%BA%BF-chinh-sach-khuy%E1%BA%BFn-khich-giao-thong-%C4%91%C6%B0%E1%BB%9Dng-th%E1%BB%A7y-n%E1%BB%99i-%C4%91%E1%BB%8Ba.aspx>
- [13] <http://www.nhandan.org.vn/kinhte/item/30933602-buoc-dot-pha-cua-van-tai-duong-thuy.html>
- [14] <http://www.tapchigiaothong.vn/phan-trien-van-tai>