

WWJMRD 2017; 3 (11): 122-126 www.wwjmrd.com International Journal Peer Reviewed Journal Refereed Journal Indexed Journal UGC Approved Journal Impact Factor MJIF: 4.25 e-ISSN: 2454-6615

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# The actual situation of the port system in Vietnam

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### Abstract

At present, Vietnam has 44 seaports (250 wharfs) with 59.405m long wharves, total designed capacity of 470-500 million tons per year. In 2016, cargo through Vietnam's port system was estimated at 456 million tons, up 7% from 2015, fulfilling 98% of the plan in 2016, of which containerized cargo reached 13.3 million TEUs, an increase of 11% compared to the year 2015, reaching 106% of the year plan. The port system of Vietnam has met the requirements of rotation of goods transported by sea, actively serving the process of socio-economic development, coastal areas, and the whole country to create a motive force to attract and promote related economic sectors and industries. In order to exploit fully, the potential of cargo through seaports, it is necessary to have a synchronous solution between the development of seaports and industrial parks. Ultimately, industrial zones are the main sources of goods for operation logistics at seaports.

Keywords: port system, seaport, actual situation, operation logistics

## Introduction

Sea economy was selected as one of the key industries, the construction and development of the national seaport system has a great role, contributing worthily to the country's achievements.

According to Vietnam sea strategy until 2020, with the aim of striving to make Vietnam a strong country on the sea, enriching from the sea, firmly asserting sovereignty and national sovereignty over the sea and islands; in the cause of industrialization, modernization. By 2020, successful development, breakthrough in marine and coastal economy with marine economy ranked second in the marine economy (after oil exploitation and processing) and after 2020, the economy Marine will be at the forefront of maritime industries. Thus, the development of maritime economy has been considered by the Party and State as a breakthrough in marine economic development in particular and in the country's socio-economic development in the coming period.

In order to successfully implement, the resolutions of the Party, the Ministry of Transport has been directing the development of seaport infrastructure in accordance with planning directions, concentrating and not spreading. Organizing the management of seaport infrastructure in a coordinated and modern manner, development of logistics services and infrastructure of the maritime industry, contributing to affirming and maintaining the sovereignty and sovereignty over the sea and islands must be carried out. The implementation of the master plan of the national port system has achieved certain achievements, but also some shortcomings need to be adjusted and updated to suit the new situation. The Prime Minister has approved the master plan for the development of Vietnam's seaport system in the period up to 2020 and orientation to 2030. In 2015, the national port system should meet the cargo flow through 500 - 600 million tons / year, about 1 billion tons / year by 2020 and 1.6 - 2.1 billion tons / year by 2030. The Ministry of Transport has approved the detailed plan of 6 seaport groups in the system. There are 39 seaports, of which 3 are 1A seaports (Van Phong international transshipment port, 2 international gateway ports of Hai Phong and Cai Mep - Thi Vai port), 11 ports of type 1.

With 3260 km of coastline stretching from the North to the South, the continental shelf has sovereignty over 3 times the size of the mainland, numerous bays, deep rivers, and geographic proximity to international maritime routes.

Therefore, Vietnam has great potential in developing marine economy. At present, sea transport is still the dominant sector, occupying the absolute advantage (80% of volume) in trade exchange between countries. and average growth rate of 8-9%. The largest throughput ports are in the Asia-Pacific region. Potential is, but it is not simple to have a direction and a total solution to maximize this potential. The point of the Party and State is to develop the marine economy, facing the sea. The development of marine infrastructure in which seaport development must be prioritized must be one step ahead to serve the political stability and social and economic development of the region and the region as well as the country. Now, Vietnam has a master plan for the port system up to 2020 and Vietnam is expanding its vision up to 2030. However, in reality there are still many inadequacies. The status of "medium and small" in the port system, wherever there is sea port construction without regard to socio-economic efficiency or investment spread, many small ports without water ports. Deep, international ports are losing the advantage of the sea that we have. Due to the inadequacies in the development of Vietnam's seaport system, the need for seaport system, situational analysis and hence some solutions from the perspective of a student to contribute a part in the development of Vietnam's seaport system is increasingly perfect.



Fig. 1: Hai phong port



Fig. 2: Cat Lai port

The overall assessment shows that although the quantity is abundant and allocated from north to south, land use and exploitation are low. The reason is spreading investment, local "deep water port" while goods are less, natural conditions do not allow. Secondly, due to the lack of foresight and inaccurate seaport system planning, in order to deal with local growth, it is impossible to establish a synchronous and rational national transport network, closely connected with the seaport system. This has undermined capacity in large urban ports undergoing rapid population growth, as well as severe degraded infrastructure. In particular, it lacks the true deepwater port to accommodate 80,000 DWT vessels or more, or about 6,000 TEU container ships, and there is no international transshipment port for the global shipping industry. Vietnam is also missing the opportunity to acquire Logistics as a key sector of maritime services formed during the development of the seaport system, which now stands at between \$ 8 billion and \$ 10 billion a year, largely in hand. International maritime groups operating in Vietnam. However, due to various reasons, both subjective and objective, the efficiency of using and exploiting Vietnam's seaport system is still low and it has not matched the potential and advantages. At present, most of seaports still use backward management and exploitation technology, productivity is limited (only 45% - 50% of the world advanced level). Meanwhile, some ports, due to lack of vision and heavy weight in dealing with local growth, are difficult to connect to establish a coherent national transport network. This not only leads to more port and less cargo, but also undermines the capacity to clear goods at large urban ports, but is under increasing population pressure and transportation infrastructure degradation.

Due to the unique characteristics of natural geography, the high economic growth rate of the country is concentrated in both the South and the North, the attractive area behind the port is a large area. Therefore, the distribution of ports will be concentrated mainly in the north of Hai Phong, Quang Ninh, in the south of Ho Chi Minh City, Vung Tau, Thi Vai and a few in the Mekong Delta. In the central region, on the length of 1600 km, there are many bays quite suitable for the construction of ports (such as Cam Ranh, Van Long, Da Nang ...) but the attractive area of the port is narrow, The economic development is not high, so the volume of goods through the port has not reached optimal, the port is scattered on the sea with small scale. Besides the advantages located near the international sea route with many locations to build and expand the development of seaports, most of Vietnamese seaports are located deep in the estuaries. Can be mentioned as: Sai Gon port cluster from buoy 0 to 95 km; Hai Phong and Cai Lan ports are from 20 to 70 km away from Can Tho, and 120 km from Can Tho. Therefore, the train speed, train width and radius are very limited. Weather and technical factors also limited access to the port. The monsoons, storms, sea waves happen quite often, assistance, towing ships into ports cannot be done 24/24 year round. Therefore, it can be said that with the increasing size of international ships, the capacity of ships to port of Vietnam is limited and unfavorable.

## The process of forming Vietnam's seaport system

Vietnam's seaport system has a long history of development, starting with the ancient trading port before

the 17th century and the flourishing of the later dynasties. These may include Hoi an, Pho Hien, Thanh Ha, Ha Tien, Thang Long or Van Don. In 1149 King Ly Anh Tong of Ly dynasty officially established Van Don site, and Van Don was the first trading port of Dai Viet, in trade with countries in East Asia and the world such as Japan, China, India, Thailand, Indonesia. The commercial port of Van Don prospered throughout the three dynasties: "Ly dynasty, Tran dynasty- Hau Le, Le dynasty and then recession and neglected in the Mac dynasty. Tran, in the documents of the ancient Chinese, Arabs, Indians and Persians, confirmed the Cua Dai area in the past. the main port of Champa, where the foreign ships often visit fresh water from Champa wells and in exchange for produce such as incense, cinnamon, ivory, glass, silk, tortoise and nacre. From the end of the 16th century to the 17th century, more Chinese and Japanese immigrants settled in Hoi An. Hoi An quickly became a prosperous trading port for centuries.

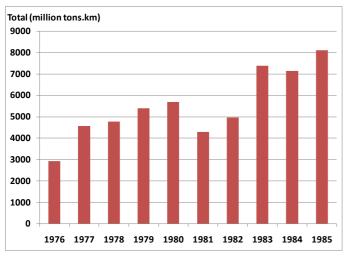


Fig. 1: Volume of goods transferred by transport in the period 1976-1985

Ha Tien in the Mac Cuu period, also known as Mang Khut, was an important link in the eastern Gulf of Thailand. Lan, on the Asian trade maritime route through the Gulf of Thailand, along the coast of the South China Sea, Guangzhou, China or Luzon, Philippines. In the period of Mac Cuu's father, Mac Thien Tich (1706-1780), he applied a comparative freedom and respect for trade. Mac Thien Tich opened a port for foreign merchant ships to trade freely. Ha Tien became the destination of the merchant ships from the Malay Peninsula, Siam, India, Burma, Fujian, Guangdong, Hainan. On the occasion of Mac Thien Tich birthday (12th lunar month), the merchant ships are allowed to enter Ha Tien port for tax exemption. For a long time, the job of making white wax (glaucoma) for lighting is a traditional profession in Ha Tien, supplying to neighboring countries like China, Thailand and Malaysia. In addition to this land there are many other commercial products, Le Quy Don used to write in "border cover" in the district of Ha Tien, the mass is like copper, black as iron, it is said to use it. In the French colonial period, the port of Da Nang was quite developed, while after 1954, the northern areas exploited large ports such as Hai Phong, Quang Ninh and the region. South developed quite strong port of Saigon. Some data on the volume of goods circulated by transport in the pre-reform period, from 1976 to 1985 also showed clearly the role of shipping in business development. With the structure accounting for over 50% of the volume of cargo moving in all transport sectors, the volume of cargo has quadrupled since 19 76 to 1985.

# Actual situation

The advantages of long-standing development, the seaport system that was established early and were very prosperous in feudal times until the war years or the reconstruction of the country are good conditions for the development of the latter for seaport system of Vietnam.

Distribution of Vietnam's seaports is along the country, the North, Middle, and South of Vietnam have main ports. However, the current distribution is going to be "both redundant and missing" while in some places such as Saigon port during the time of traffic jams, congestion costs both time and money as well as losing competitiveness. But the difficulty is that the distribution between regions and regions is uneven. Northern ports account for 30% of the transport volume, so the capacity is still over. Central ports accounted for 13% of volume, in short supply, using only part of capacity. South ports account for 57% of the total volume of shipped containers, up to 90% of container volume, which is currently overloaded. There is another place to develop the port but it cannot operate or operate ineffectively. Vietnam seaport system is divided into 8 port groups, including 4 important port groups in key economic zones

Group 1: Northern seaport group, including seaports from Quang Ninh to Ninh Binh

Group 2: North Central seaport group, including seaports from Thanh Hoa to Ha Tinh

Group 3: The group of seaports in Central Vietnam, including seaports from Quang Binh to Quang Ngai

Group 4: South Central seaport group, including seaports from Binh Dinh to Binh Thuan

Group 5: Group of seaports in Ho Chi Minh City - Dong Nai - Ba Ria - Vung Tau. Group 6: Group of seaports in the Mekong Delta

Group 7: Group of seaports of southwest islands

Group 8: Con Dao seaport group

The classification of Vietnamese ports is given in Table 1.

Port kind	Name
1	Cẩm Phả, Hải Phòng, Nghi Sơn, Cửa Lò, Vũng Áng, Chân Mây, Đà Nẵng, Dung Quất, Quy Nhơn, Vân Phong, TP Hồ Chí Minh, Vũng Tàu, Đồng Nai, Cần Thơ, Nha Trang, Ba Ngỏi, Hòn Gai
2	Mũi Chùa, Diên Điền, Nam Định, Lệ Môn, Bến Thuỷ, Xuân Hải, Quảng Bình, Cửa Việt, Thuận An, Quảng Nam, Sa Kỳ, Vũng Rô, Cà Ná, Phú Quý, Bình Dương, Đồng Tháp, Mĩ Thới, Vĩnh Long, Mỹ Tho, Năm Căn, Hòn Chông, Bình Trị
3	Rồng Đôi, Rạng Đông, Hồng Ngọc, Lan Tây, Sư Tử Đen, Đại Hùng, Chí Linh, Ba Vì, Vietsopetro 01

Table 1: The classification of Vietnamese ports

The technical status of the port system in Vietnam is generally old and outdated. However, at some large ports there is a good investment in technology, especially from foreign partners. The port system, wharf built from the previous period has deteriorated in some places. There are cases of collapse in the port of Tra Vinh cause both damage to people and property. Thus, coupled with the new construction, the repair and upgrading of ports is technically very necessary. In many localities, auxiliary works in the port system have not been paid much attention. Most recently, the demand for frozen warehouses in Hai Phong port is becoming increasingly urgent. Just as water utilities are not as important, they must be considered indispensable in the port system. Seaforts cannot be operated due to lack of power supply. SP-PSA Port, Phu My I IP has registered capital of USD 240 million. SP-PSA is in the process of being completed and tested, scheduled to be operational in the second quarter of this year. Although the port is nearing completion but not yet know where to find power to use. In accordance with the power supply scheme, SP-PSA will be supplied with electricity through the 965 (inter-port) route, but by this time the 965 route has not yet been completed.

Considering the individual ports, it can be seen that in some large ports, the capacity was maintained at a relatively stable level. In the first quarter of 2009, Sai Gon Port liberated 500 times of cargo of all kinds, 4,670,051 tons of cargo throughput, reaching 38% of planned 2009 output, up 41.6% over the same period last year. The two largest items accounted for through the port are sand (48%) and container (21.8%). In the five ports, the volume of cargo through Tan Thuan 2 port increased 24.7% and the maritime services increased by 38.4% compared to the first quarter of 2008. Total volume of goods through Saigon Port in the first quarter of this year is holding a record in previous quarters, in which the loading and unloading in March 2009 reached 1,806,585 tons of cargo. Oriented to 2020, the ports are divided into eight geographical groups, with three main centers called international gateways to receive large tonnage vessels serving the key economic zones. The port system by 2010 is likely to pass 100 million tons of cargo. The plan was, however, only in 2006, the volume of goods through the ports was 154.498 million tons, up 11.2% over 2005 and far exceeded the planning. Of this total, container shipments totaled 3.42 million TEUs, an increase of 11.84 percent compared to 2005, of which the Saigon Port handled 1.47 million TEUs, while water forecasts from consulting firms, including consultants In addition to 2010, container through Saigon port is 2 million TEU, in fact, in 2007 will reach 2.5 million TEU. Thus, the average growth in 10 years (2000-2010) will be 10-12% per year.

Infrastructure is not synchronized from the traffic system leading to the port, technical factors forming the port, other auxiliary factors. There is even a port of construction that cannot operate because there is no full path system or if it is too far, high costs. Conversely, some ports are experiencing congestion due to the inability of the infrastructure to meet rising demand. At present, many seaports need highways and dredge canals such as the port area of Can Tho city with 16 ports, most of which are capable of receiving ships of less than 5,000 tons and only a few new wharves. Construction will be able to receive ships with a tonnage of 10,000 tons. It is necessary to expand the inter-provincial

road 25 from Cat Lai to Ha Noi, as the road is too narrow and degraded when there are several thousand vehicles a day. Heavy load and container loading and unloading. Meanwhile, investors in Dong Nai and Ba Ria - Vung Tau have proposed to widen Highway 51 from four lanes to six lanes as the route is overloaded and traffic jams or underground tunnels) to reduce traffic accidents. The Ho Chi Minh City - Long Thanh - Vung Tau Expressway should be started soon from now to 2010 because this route plays an important role in transporting goods in the coming years when the seaport system, the parks The province has been invested comprehensively. At the same time, the Bien Hoa-Vung Tau high speed rail line should be deployed soon to link the seaport system with industrial parks on National Highway 51, Ho Chi Minh City to Phnom Penh, to the delta. Cuu Long and go to the Central Highlands. Construction of the Ho Chi Minh City - Long Thanh - Dau Giay expressway to promote the development of the southern key economic region. The Ministry of Transport also suggested that localities rely on highway planning to make roads connecting to the highway. Ho Chi Minh City experiment dredging Soai Rap river channel to create a channel to the port of Ho Chi Minh City is a right direction because this is the second navigation channel is very convenient for ships with a tonnage of 50,000 tons About Cat Lai Port, Nha Be - Hiep Phuoc of Ho Chi Minh City. Taxes: import and export taxes, customs ... Procedures: Customs, ship registration procedures, current status of specialized state management activities at seaports are still in the mechanism of overlapping multiple crossed, contradictory and not in accordance with international rules. The implementation of management functions is undertaken by several agencies. Therefore, management activities cause difficulties for commercial and marine activities. Complex declaration procedures, papers submitted and submitted too many and duplicate content. Previously, when entering the port, the ship must submit 36 papers, produce 27 papers, when entering the port is 15 and 13 types, when the port of 36 and 27 types. At the same time, the location of the procedures is scattered, through many "doors"; the deadline for carrying out procedures is not consistent but according to the separate regulations of each agency. All these restrictions have had adverse effects on commercial maritime business. The length of the ship's stay at the port, the length of ship clearance and cargo, has led to increased costs, reduced profits, and even missed out on business opportunities. In addition, the special role and character of the Van Phong International Transit Authority also poses an urgent need for state-specific port state management regulations as well as coordinated, effective, effective between the agencies in charge and in accordance with international practices. The reform of administrative procedures at seaports was marked by the pilot in the seaport in HCMC. Content is the formation of "one-stop" mechanism: removal of the status of declarants must go to headquarters of all six functional agencies or all six agencies on board, the place of procedures will be at the headquarters of the Port Authority shipping; to simplify the order and procedures and minimize the types of papers to be submitted or presented; reduce time and improve procedures and clarify responsibilities of stakeholders. Pilot implementation generally had a positive impact. According to statistics, in the pilot year, the number of ships entering Ho Chi Minh City's port increased by 13.98%. At the same

time, economic benefits for owners, owners, vessels and related businesses such as shortening ship release time and releasing goods, reducing costs, increasing profits and enhance business autonomy; At the same time, the authorities at the port will be able to reduce management costs and form new operating modes.

# Conclusion

Currently the Vietnam system has a total length of 36.164km wharves, goods through about 130 million tons per year. The size of the port system in Vietnam has increased 1.8 times in berth length, and increased more than 3 times in capacity throughput, the rate of wharf construction increased by 6% per year. The development of the port system in Vietnam has met the requirements of import and export goods, contributing to the economic growth of the country in the integration period. Total volume of goods through Vietnam seaport system increased by 11.36% per year on average. Of which, containerized cargo rose by 3.35 times, liquid cargo increased 1.3 times, dry cargo increased 2.42 times, transit cargoes increased by 2.28 times, passengers increased by 1.96 times, boat increased 2 times. These are the happy signs of the economy of the country. Consideration should also be given to the development of seaport systems in relation to other types of storage facilities in order to see the contribution and correlations between different types of transport. After more than 20 years of innovation, from a poor infrastructure system in terms of quantity and quality, infrastructure has achieved remarkable results in the fields

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