Solutions for Sustainable Development of Vietnam Marine Economy

Author Details: Dr. Vu Tuan Hung- Assoc.Prof. SISS, Vietnam Academy of Social Sciences Email: hung.qlkh.vass@gmail.com Contact number: 0084.913966388

Note: This research is the product of the topic: "Implementation of marine spatial planning in Vietnam: Impact factors and some recommendations"

Abstract:

Vietnam is a country with a large sea in the East Sea. Vietnam's sea is long and beautiful, and contains many rich and diverse resources with good reserves and scale, allowing the development of many important marine economic fields. In fact, in recent years, Vietnam has not had a proper attention and practical overall strategy for the sea and islands. awareness of the position and role of the marine economy is not worthy. Therefore, the research to point out the current situation and propose solutions for the sustainable development of the marine economy is an essential step.

Keywords: Marine economy; Marine development planning; Sustainable development of marine economy.

Introduction:

Vietnam is a large maritime country in the East Sea with a marine index of about 0.01, 6 times the world average. Vietnam's sea is long and beautiful, and contains many rich and diverse resources with good reserves and scale, allowing the development of many important marine economic fields. The marine economy has been contributing a huge part to the national economy. Effective and sustainable marine economic development is extremely important for the country's economic development and strengthens our nation in the immediate and long-term struggle to protect sovereignty over the sea and islands. In fact, in recent years, Vietnam has not had a proper attention and practical overall strategy for the sea and islands. Awareness of the position and role of the marine economy is not commensurate, even unclear even for some coastal ministries, sectors and localities. area, overall. Recent complicated developments in the East Sea have once again reminded us of the need for a strategy on seas and islands in general, with attention to sustainable development of the marine economy in particular.

1. Inevitability and overview of the research problem

1.1. The inevitability of the strategy of sustainable development of the marine economy in Vietnam

As a maritime country, Vietnam has a long history of marine economic development. In that process, the sea brings great economic benefits, creates jobs for millions of people, brings stable life, development and change to many regions, provinces and cities along the length of the country. Accompanying the benefits of the sea are great risks if they do not know how to exploit and develop. Many inadequacies in economic development, security and defense protection have been taking place in the East Sea, environmental pollution has led to mass fish deaths in the North Central provinces due to the Fomusa environmental incident., or the problems of climate change, saltwater intrusion, etc. in recent times, once again show us the need to implement a strategic solution for the sustainable development of the marine economy and This is a requirement, an objective and necessary trend.

1.2. Research overview:

There are many different studies in Vietnam and abroad, some typical studies can be found as follows: Research by Cuadrado Quesada, Gabriela, Thomas Klenke, and Luis Manuel Mejía-Ortíz (2018) has highlighted the challenges of integrated coastal management from lessons learned in Germany, Costa Rica,

Impact Factor 3.582 Case Studies Journal ISSN (2305-509X) – Volume 10, Issue 7–July-2021

Mexico and South Africa. . Integrated Coastal Management (ICM) is considered a suitable approach widely applied in many countries around the world to implement comprehensive coastal development and protection plans. This also requires an adequate system of policies and legal documents in the countries to support this work to be fully promoted. The authors have carried out four cases in 4 countries through two studies. In the first study, the authors focus on analyzing the content of ICM and related legal documents. The second study performed a qualitative analysis based on expert interviews. With the aim of enhancing the effectiveness of policy systems as well as international legal instruments in specific country contexts, the research team considers four principles currently applied to guide the ICM practices include: incorporate international principles in national legislation and policy frameworks; participation; sustainable development and monitoring. The IPS combination diagram is used by the authors to evaluate the ability to integrate ICM in each specific situation in each country. In which: (I) put international principles into practice in the framework of nation; (P) participate; (s) sustainable development. The full application of this scheme will ensure the effectiveness of the ICM in each country. However, the limitation of this model is the lack of practical implementation in countries.

Biliana Cicin-Sain and Stefano Belfiore (2006), confirm the relationship between marine protected areas (MPAs) and integrated coastal and marine management (ICM) from both theoretical and practical perspectives. The authors found that indiscriminate exploitation of marine protected areas affects the development ability of marine natural resources, therefore the protection of coastal and marine areas should be carried out in conjunction with a marine spatial development strategy that is part of an integrated coastal and marine management program. However, participants in marine conservation and integrated management programs often differ in motivations, goals, cultures, and networks. The authors' study examines the ecological, social and economic relationship between MPAs and marine and coastal management; establish guiding principles for the management of protected areas in the ICM management model; review activities under the Convention on Biological Diversity to link MPAs and ICMs; and develop strategies to implement this association. Through the study, the authors propose community groups to jointly participate in marine, coastal and marine protected area management and basin management, combining national marine and coastal planning including network of marine protected areas.

Ha Van Bien (2018) in her research on sustainable marine economic development analyzed the outstanding potentials of Vietnam's sea, which are petroleum resources, navigation, marine resources, tourism and business. island economy. Especially, the island system has a unique distribution position, which has a great advantage in the development of the sea and island economy, an outstanding and unique advantage that other regions do not have. However, the author also realizes that along with opportunities are the challenges of coastal pollution, hot development of marine space, and master planning. The author emphasizes that marine planning in Vietnam is mainly a sectoral plan, each ministry is assigned to manage one sector, so each ministry builds its own master plan. The lack of a comprehensive and unified plan on exploitation and use of the sea leads to conflicts and overlaps between sectors and fields, and at the same time marine resources are used unsustainably, ecological environment seriously affected. Currently, there are regulations on the development and promulgation of a number of master plans at sea such as: Master plan on resource use and environmental protection of sea and islands; Planning on the use of Vietnam's sea; Master plan on exploitation and sustainable use of coastal resources or, more recently, the National Marine Spatial Planning. However, none of these plans have been issued yet. According to the author, it is necessary to urgently implement this task to ensure harmony in the exploitation and use of resources, protect the marine environment, and at the same time ensure people's access to the sea.

Through the above preliminary study, it is shown that there is still a research gap in providing solutions for marine economic development from an extensive and in-depth perspective from an economic perspective. This study will approach and exploit that gap.

1.3. Research Methods:

Research on solutions for sustainable development of Vietnam's marine economy is a rather complicated topic, requiring a lot of documents related to many fields and through different stages. Therefore, the authors use research methods including:

- Methods of collecting information and data: Information and data are collected from domestic and international studies on sustainable marine economic development, books and journals,...

- Methods of analysis and synthesis of theories: study different documents and theories on sustainable development of marine economy by analyzing them into each aspect for in-depth understanding. Synthesize and link each aspect, each aspect of analyzed information to create a complete theoretical system.

1.4. Some concepts used in the research:

- *Marine economy:* The marine economy is a field of activities and economic relations that take place at sea along with other economic activities that do not take place at sea but are related to marine exploitation activities.

- *Sustainable development:* Sustainable development is the development in all aspects of the present society while ensuring the continued development in the distant future. In which, this development must ensure balance, and at the same time 3 objectives: economy, society and environment.

- *Sustainable development of the marine economy:* From the above premise concepts, we can see that the concept of sustainable development of the marine economy is the development of all aspects of the current marine economy while still having to ensure continued development in the distant future. In which, this development must ensure balance, and at the same time 3 objectives: economy, society and environment.

2. Current of development of Vietnam's marine economy

That potential and reality has been creating a foundation and opportunity for Vietnam to step by step become a strong country in the sea, enriching from the sea, on the basis of comprehensive development and promotion of marine industries. in a suitable manner, with a rich and modern structure, creating a fast, sustainable and effective development speed. To do this, it is necessary to have macro-strategies and guidelines of the leading actors in the country. There have been many early orientations for marine economic development activities, which can be seen in the contents of documents and policies of the Party.

Since the 9th National Congress (2001), our Party has advocated "Building a strategy for economic development of sea and islands, bringing into play the specific strengths of more than 1 million square kilometers of the continental shelf... closely combine economic development with maritime security protection"(2). At the 4th Plenum of the Party Central Committee, term X (2007), our Party issued Resolution No. 09-NQ/TW on "Vietnam's maritime strategy to 2020"[4]. Although determining the importance and role of geopolitics and geo-economics in the country's development, in reality, the implementation and implementation of the strategy for sustainable development of the marine economy is still limited and has not yet been established. commensurate with the potential.

According to estimates, the economic scale (GDP) of the sea and coastal areas of Vietnam averages about 47-48% of the country's GDP, of which the GDP of the "pure sea" economy accounts for about 20-22% of the total GDP of the country. In the marine economic sectors, the contribution of economic sectors taking place at sea accounts for 98%, mainly oil and gas exploitation, seafood, maritime (shipping and seaport services), sea tourism. Economic sectors directly related to marine exploitation such as shipbuilding and repair, oil and gas processing, seafood processing, communications, etc., have initially developed, but now the scale is large. still very small (accounting for only about 2% of the marine economy and 0.4% of the country's total GDP). Forms of marine economic development still rely on resource exploitation, the creation and formulation of an overall strategy for sustainable economic development has not been effectively implemented.

Although there has been prosperity and stronger investment in recent times, the economy on some islands has made progress thanks to immigration policies and investment in building infrastructure on the islands (the system of transportation, electricity network, fresh water supply, schools, clinics...) but it can be

Impact Factor 3.582 Case Studies Journal ISSN (2305-509X) – Volume 10, Issue 7–July-2021

stated in general that the development of the marine economy is still too small and has many weaknesses. The scale of Vietnam's marine economy is only about 10 billion USD; while the world's marine economic output is estimated at 1.3 trillion USD, Japan is 468 billion USD, South Korea is 33 billion USD. Infrastructure in seas, coastal areas and islands is still weak and backward. The seaport system is small and fragmented, and the equipment is generally outdated and inconsistent, so its efficiency is low. The norms of goods through the port per capita are very low compared to other countries in the region (only 1/140 of Singapore, 1/7 of Malaysia and 1/5 of Thailand) [2]

Up to now, Vietnam still has no highway running along the coast, connecting coastal cities, economic zones and industrial zones into a continuous marine economic system. Coastal airports and on some tiny islands. The coastal cities, towns, economic zones and industrial zones are still small and are in the beginning of construction. System of marine science and technology research facilities, human resource training for the marine economy, facilities for monitoring, forecasting, warning of weather, natural disasters, search and rescue centers, ...small, rudimentary equipment.

Vietnam's tourism and marine tourism services industry has a great business potential. Sea and coastal areas focus on 3/4 of the general tourist areas and 10/17 thematic tourist areas. However, the marine tourism industry still lacks unique sea-island products and services that are highly competitive in comparison with the region and the world. In many places, tourism activities are still sporadic, spontaneous, and business phenomena still take place in some places, seriously affecting the image of Vietnam's tourism in the eyes of tourists. domestically and internationally.[3]

For economic fields directly related to the sea, such as processing oil and gas products; seafood processing, ship building and repair, industrial sea salt production, marine and coastal economic services (such as information, maritime search and rescue, domestic marine public telecommunications services) and international, marine scientific-technological research, crew export,...) are currently mainly at the stage of construction, formation and small scale. Fishing and brackish water aquaculture, which is a typical economic field of the sea, has contributed more than 3 billion USD in the total value of seafood exports (in 2008) and created jobs for more than 1 million workers. direct fishing, aquaculture and 50,000 related service workers.

According to data from the Ministry of Planning and Investment, in the past 10 years (2008-2017), the gross domestic product (GRDP) of coastal localities has grown by an average of 7.5% per year, higher than that of overall growth rate of the whole country (the whole country increased by 6%/year). In 2017, GRDP of coastal localities accounted for 60.5% of GDP of the whole country, GRDP per capita reached VND 64.9 million, higher than the national average of VND 53.5 million. In which, some localities have high GRDP per capita such as Ba Ria-Vung Tau (reaching more than 225 million dong), Quang Ninh (reaching more than 90 million dong), Da Nang (reaching more than 70 million dong). Currently, coastal localities are actively attracting investment in the construction and development of many new and modern coastal tourist zones and attractions, attracting a large number of domestic and international tourists. There are quite a lot of investment projects in sea resorts, high-class islands, coastal sports and entertainment resorts with capital from 500 million USD to 1 billion USD. The country's coastal areas have developed a chain of modern tourist resorts and resorts of international standards (4-5 stars) in most coastal localities. To develop a number of marine tourism centers with regional reach, such as: Van Don, Da Nang, Phan Thiet, Phu Quoc... attracting millions of international tourists every year. Sea and island tourism currently contributes about 70% of the total annual revenue of the country's tourism industry. In 2020 and 2021, if there is no covid 19 pandemic, the tourism development area in general and Vietnam's sea tourism in particular will develop positively. Therefore, it is necessary to balance the diversity of domestic and foreign markets, as well as different fields to avoid risks in development.

In recent times, policies on supporting fishermen in fishing and building offshore fishing vessels have had positive effects. Currently, there are more than 620 industrial-scale seafood and seafood processing establishments, of which 415 are processing factories that meet export standards to markets with high requirements for quality and food safety (Japan, the US). , EU...). The annual production of seafood has increased rapidly and continuously, from 2006 to 2017, the output increased from 1.8 million tons to 3.2 million

tons [2]. The current concern is the implementation of standards in fishing and marine fishing to ensure that yellow cards do not create barriers to the development of the industry.

Besides, for coastal economic zones, there are 17 coastal economic zones established nationwide with a total area of land and sea surface of nearly 845,000 ha. By the end of 2017, coastal economic zones have attracted more than 390 foreign investment projects with a total registered investment of 45.5 billion USD, realized investment capital reaching 26.5 billion USD and 1,240 projects. domestic investment projects with a total investment capital of 805,000 billion VND, realized investment capital is 323.6 trillion VND. In 2017, coastal economic zones achieved a total revenue of about 14.3 billion USD, exported more than 7.2 billion USD, contributing to the budget about 40,000 billion VND.[4]

The seaport system was built and developed in terms of scale, quantity and density in coastal areas. Up to now, the country has 45 seaports including 3 international gateway ports, international transshipment (Hai Phong, Ba Ria-Vung Tau and Van Phong), 11 regional hub ports, 17 local general ports, in addition to There is a specialized port system for concentrated industrial zones,

The living standards and living standards of the people in the coastal areas and on the islands have been significantly improved, both materially and spiritually. From 2006 to 2016, per capita income per month in coastal localities increased 4.8 times; in 2016 reached 3,035 million VND/person/month (the national average is 3,049 million VND/person/month). In the period 2011-2016, the coastal provinces and cities created jobs for about 4.67 million workers, accounting for 49.73% of the total number of jobs created in the country[1].

Shortcomings and limitations in marine economic development

In addition to the questionable results, currently in the development of the marine economy also reveals a number of limitations, existing as follows:

Firstly, the perception of many organizations and individuals involved in marine economic activities shows the correct role and position of the sustainable development of the marine economy in Vietnam. The capacity of the subjects is not really strong and there are many limitations in potential. This can be seen through the wasteful and inefficient exploitation and use of marine and coastal resources in many places, especially in terms of exploitation and use of coastal land and coastal sea surface. The economic development coupled with the protection of marine resources, conservation of the marine and coastal ecological environment is still limited. Exploiting the potential of aquatic resources is not highly efficient, unsustainable, and the limit of fishing licenses for each sea area is not controlled, leading to the gradual depletion of seafood in coastal areas. Environmental pollution of coastal seawater, estuaries, pools and bays due to economic activities and daily life (industrial production, mineral exploitation, aquaculture, seaport operations, wastewater from coastal urban areas,...) occurs in many places that have not been resolved. The implementation of solutions to respond to climate change and sea level rise has not been synchronized, with limited effectiveness.[1]

The implementation of the marine economic development policy has not been paid much attention and drastically implemented. Some marine economic sectors are prioritized to create breakthroughs but develop slowly, not commensurate with potential conditions. The seaport economy is still developing slowly and inefficiently. The seaport system has been invested in construction and developed quite quickly in terms of infrastructure, the total designed capacity of ports in the country has reached 534.7 million tons/year. However, the port management model has not been innovated, port services and post-port logistics services have developed slowly and are not synchronous, many ports have not been fully exploited. The annual volume of goods through the main seaports (managed by the Central Government) increased slowly, in the 2007-2017 period, the average volume was only 5.4%/year. Sea transport has a low level of modernization and competitiveness, especially ocean transport. The fleet is mostly old ships, mainly operating on close routes. The volume of goods transported by sea from 2007 to 2016 only increased at an average rate of 3.6%/year. The capacity to build and repair ships has increased slowly, there are now more than 120 shipbuilding and repairing factories, the new shipbuilding capacity is about 1,000,000 DWT per year [1]

Because the planning work, especially spatial planning, has not been done well, sometimes the arrangement of places in the production value chain is subject to subjective factors, so the efficiency is not high

in economic investment. Specifically, it can be seen in the oil refining and petrochemical production chain in some localities far from the extraction site. Production capacity in refining and petrochemicals and processing products from refining and petrochemicals is still very limited and the cost is high.

Moreover, in recent years, due to the impact of a number of market factors and the combination of the covid 19 pandemic, oil and gas extraction and processing activities have faced difficulties in the context of the impact of oil prices. world decline. Total oil production in the period 2007-2017 reached about 167.9 million tons (annual average of 15.2 million tons), gas production reached 101.7 billion m3 (annual average of 9.2 billion m3). [4]

In addition, the human resource capacity to meet activities for marine economic exploitation in depth and associated with the current industrial revolution 4.0 is still modest, leading to being heavily dependent on foreign expert labor sources with high productivity. high cost; The coordination between organizations and agencies in marine economic exploitation and development is also one of the obstacles to the development of the industry.

In summary, with the above situation of marine economic development, although sea-island exploitation has brought about important initial socio-economic benefits, the use of seas and islands is not effective. Unsustainable, our country's sea exploitation level is still the most backward in the region. Although Vietnam is a maritime country, up to now, we have not really relied on the sea to develop the right potential and strengths. Vietnam is still not a strong country in the sea, still not a "sea power". From the limited development capacity of the marine economy, together with the limited financial capacity and investment, the protection of national defense, security and the integrity of the sea and islands of Vietnam is facing great challenges if it wants to. sustainable marine economic development.

3. Some solutions for sustainable development of Vietnam's marine economy

First, about thinking and perception. It is necessary to thoroughly understand the sea and island economy and the development of the sea and island economy associated with security and defense. Marine economic development is a task not only of coastal provinces, cities, districts or industries such as natural resources and environment, fisheries, industry and trade, tourism, oil and gas... but also of the whole country. Party, people and army. Economic development does not neglect security and defense work. At the same time, continue to renew thinking about the sea and islands and the sea and island economy, linking the economy with national defense, establishing and unifying a long-term and steady vision of linking the land with the ocean. , to build and develop marine, island - ocean culture in the community and each person in order to develop in a sustainable and stable way. In particular, the building of thinking and awareness about the sustainable development of the marine economy must be thoroughly and implemented in the actions of all organizations, individuals and the whole nation.

Second, about planning. In order to develop comprehensively, at the same time with depth and effectiveness and sustainability, it is necessary to do well in planning to ensure active development. But why is there still fragmentation, even closedness, isolation among sectors in the province and localities, even though almost every coastal province has its own orientation, planning, program outline and model? about building deep-water ports, about oil refineries, about industrial parks, about airport wharfs..., while in dire need of a "conductor" or a general coordination center on energy, about land, about population, about environment, about coping with climate change and sea level rise... And, so that this does not hinder creativity, promote capacity and advantages of each industry, each location ... then what to do and how to do it? Comprehensive, unified but focused development, what is the focus? Therefore, perfecting the overall strategy and effectively implementing it requires that planning work must be linked to reality and grasp the development trend of domestic and foreign situations. In which, marine spatial planning is an important issue that needs to be raised and implemented soon.

Third, about the coordination mechanism. Naturally, the cooperation between provinces, cities with sea and islands in the country by specific action programs based on each comparative advantage, in all strategic directions and plans of the country. Every step is inevitable, survival. There should be a synchronous

coordination mechanism from the central to local levels, between agencies, businesses, individuals and authorities at all levels in planning and implementing the strategy for sustainable marine economic development. steady.

Fourth, about the quality of human resources. This is one of the factors that determine the success of the development of marine and island economic sectors. The reality of implementing the Vietnam Maritime Strategy to 2020 shows that we are facing a serious shortage of human resources, especially qualified human resources in key industries: shipbuilding industry, oil exploitation. offshore gas, petrochemical refining technology, island economy, marine communications, marine ecological environment protection, etc., while the scale of training and occupations related to marine economy is still very limited. Therefore, it is necessary to focus on reviewing and forecasting long-term human resource needs; organize training in new fields of high demand on the basis of balancing the training rate by level and profession; diversify training methods and scales to meet the needs of sustainable marine economic development.

Fifth, effectively solve the problem of social security. Social security needs to be placed at the same level as the foundation, goal and motivation for an effective and sustainable seaward roadmap keep the peace of the ocean in the direction of organically combining the sea and island economy with the coastal economy; economic development combined with consolidating national defense and security. Innovating investment policies, first of all, investing in building infrastructure, credit policies, supporting prices in a specific and effective way, so that the salt people can overcome difficulties and make production efforts. Continue to develop tourism and service development programs, especially coastal and island tourism, strengthen joint venture cooperation at all levels, expand domestic consumption and export markets, attract more customers. employment, creating more jobs. To attach importance to the development of education - training, and grassroots health care in remote, isolated and island areas. Strengthening the bond between fishermen, all classes of residents in the sea with the armed forces, directly the Border Guard to help each other in production, improve cultural life, and create a stable position of the people's hearts. protect the country's seas and islands.

Sixth, it is necessary to ensure a balance between socio-economic development and environmental protection in marine economic exploitation and development. It is necessary to include laws and sub-law documents and thoroughly grasp the issues of comprehensive consideration of 3 factors: economy, society and environment in selecting, approving and organizing the implementation of related projects. related to the marine economy. It is necessary to strengthen the capacity and responsibility of leaders at all levels in implementing and agreeing to effectively implement this content for the sustainable development of Vietnam's marine economy.

Conclusion:

In the process of concretizing and adjusting the sustainable development of the marine economy, it is necessary to continue to affirm that the marine economy must be developed effectively and sustainably, towards a blue sea economy based on an economic institution. open, high-class technology, shifting from prioritizing exploitation with outdated technology to developing marine and ocean industries with advanced technology for efficient and economical exploitation of resources, environmental protection. school; reaching out to the sea farther and deeper, actively preparing conditions to participate in ocean exploitation. Strengthening the role of the people and helping them stick to the sea and islands to exercise civil sovereignty over the seas and islands of the Fatherland. At the same time, the development of the sea and island economy is closely linked to the guarantee of national defense and security in order to sustainably exploit, manage, preserve and protect sea and islands in order to contribute to the economic development. The country's society is the responsibility of the whole political system from central to local.

Impact Factor 3.582 Case Studies Journal ISSN (2305-509X) – Volume 10, Issue 7–July-2021

References:

- *i* People's Army Newspaper (2021) https://www.qdnd.vn/tinh-te/cac-van-de/bai-2-thuc-trang-phattrien-king-te-bien-va- velvet-van-de-dat-ra-550823 "The current state of marine economic development and issues raised".
- *ii* Nguyen Chu Hoi (2013). Actual situation of applying marine spatial planning in Vietnam. Proceedings of the Workshop: Applying spatial planning of marine and coastal zones in Vietnam - An ecosystem-based management approach
- *iii* Hoang Van Khai (2020), Developing Vietnam's marine economy Potentials and challenges, accessed May 25, 2020.
- *iv* Bui Nhat Quang (2018), Some issues on the sea and sustainable development of marine economy, Vietnam Journal of Social Sciences, No. 12-2018
- *v* Bilian Cicin-Sain, Stefano Belfiore (2006), Linking marine protected areas to integrated coastal and ocean management: A review of theory and practice, Elsevier Ltd.
- *vi Chua TE (1993), Essential element of integrated coastal management. Ocean Coastal Manage ; 21(1-3): 81-108*
- vii Cicin-Sain B, Knecht RW (1998), Integrated coastal and ocean management: concepts and pratices. Washington, DC: Island Press
- viii Cuadrado Quesada, Gabriela, Thomas Klenke, and Luis Manuel Mejía-Ortíz. "Regulatory Challenges in Realizing Integrated Coastal Management—Lessons from Germany, Costa Rica, Mexico and South Africa." Sustainability 10, no. 10 (October 2018): 3772. https://doi.org/10.3390/su10103772.
- *ix* Douvere, F., F. Maes, A. Vanhulle, and J. Schrijvers. "The Role of Marine Spatial Planning in Sea Use Management: The Belgian Case." Marine Policy 31, no. 2 (March 1, 2007): 182–91.
- x Douvere, Fanny, and Charles N. Ehler. "New Perspectives on Sea Use Management: Initial Findings from European Experience with Marine Spatial Planning." Journal of Environmental Management 90, no. 1 (January 1, 2009): 77-88. https://doi.org/10.1016/j.jenvman.2008.07.004.
- xi The City of New York (1992). New York City Comprehensive Waterfront Plan-Reclaiming The City's Edge
- xii The City of New York. 2011. New York City Comprehensive Waterfront Plan-Vision 2020.