

RECOMMENDATIONS FOR SUSTAINABLE DEVELOPMENT OF CITIES IN COASTAL AREAS IN VIETNAM

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1. INTRODUCTION

The Vietnam Institute for Development Strategy is a national researching organization for formulating strategies and planning development in Vietnam. In recent years, this institute has had to fulfill many mission/tasks assigned by the Government of Vietnam, therein researching for sustainable development of cities in coastal areas, which contributes to the sustainable development strategy of Vietnam. For formulating both the socio-economic development strategy and sustainable environmental strategy for coastal areas, my researching team is focusing on researching sustainable development for coastal areas and cities along coastal areas in Vietnam. It is a broad and difficult topic to work with.

- *Why we focus on this topic:* The sea is important for the development of human civilization. It is estimated about more than 3 billion people live close to or connected to the sea, and proximity to the sea is closely linked to population growth and urbanization. There is an increasing trend of human dependence on marine resources because the demand for exploitation of the sea's resource is increasing due to the world's growing population [3]. Therefore, the balance between the demand and supply capacity of marine resources and the sustainability of these marine resources are becoming more and more critical [1]. Sustainable use of marine/oceanic resources is also an important factor in poverty alleviation, food security, sustainable livelihoods, and climate change mitigation [2]. Nearly 2.4 billion people (about 40 per cent of the world's population) live within 100 km (60 miles) of the coast¹. In the world, coastal areas, especially coastal cities, are where many economic, cultural, and scientific activities are concentrated. Coastal areas now more than ever represent the world's economic power. However, coastal areas are where economic development issues seriously impact on the environment [4]. With Vietnam, while some positive results for sustainable marine management have been achieved, the level of marine exploitation is at a critical juncture. Vietnam is a coastal country, but so far the country has not taken the sea into account to mobilize for development, let alone for sustainable urban development [9]. Addressing sustainable development for cities along the coastal areas in Vietnam will include sea environment protection, sustainable use and exploitation of marine resources, and proper attention to social factors related to the development of marine economic sectors.

Objectives of sustainable development for cities and coastal areas: For the sustainable development of marine economic sectors and coastal areas, it is necessary to focus on some basic objectives as follows [6]:

1. Ensuring a healthy marine environment and marine productivity with all the necessary support and regulation of basic marine functions and services, as the oceans are an important part in the constituent systems of the earth;
2. Developing climate change mitigation and adaptation strategies for resilience to global change;

¹ The ocean conference, United Nation, New York, 5-9 June 2017

3. Ensuring fairness in access to marine resources and ensuring that harvesting and exploitation of marine resources (especially marine organisms) does not compromise basic ecological functions;
4. Encouraging the development of sustainable and harmonious coastal communities by harmonizing national and regional maritime policies and encouraging co-operation in the spatial planning of coastal marine environments and marine space.

Some important benefits from sea for development: Shipping worldwide has always played an important role in economic development. Shipping is the backbone of international trade and a driving force for globalization. Approximately 80% of global trade volume and more than 70% of international trade value are shipped by sea and through ports around the world. For developing countries, the contribution of maritime transport to trade is even higher [7]. Statistics show that in Europe, seaports transport around 30% of international arrivals and about 35% of domestic passengers [8]. Worldwide, there are about 350 million jobs per year related to marine fishery economic activities, with 90% of fishermen living in developing countries. Marine biotechnology has the potential to solve many global sustainable development challenges such as sustainable food supply, improving human health, energy security, and environmental management [9].

2. SOME RECOMENDATIONS FOR SUSTAINABLE DEVELOPMENT OF A MARINE ECONOMY AND COASTAL AREAS IN VIETNAM

Based on international experience, analysis of the current situations, and the potential for marine economic development, this paper proposes several orientations for sustainable development for cities in coastal areas as follows (these recommendations are individual viewpoint of author, based on scientific evidence provided by other researchers):

(I). Initiative 1: Improving economic development in coastal cities and coastal areas

For this initiative it is recommended to develop two working groups:

- a) **Working group focused on the creation of fundamental foundations for marine economic development:** For this orientation the government will need to focus on the following work:
 - 1) Promoting the establishment of strong economic groups/corporations in combination with construction of strong economic zones along the coast;
 - 2) Establishing the effective and efficient State management agencies on the sea's affairs and expand international cooperation to exploit the advantages/profits from the sea;
 - 3) Adjusting mechanisms and policies to encourage the development of marine economic sectors, eliminate overlapping mechanisms which negatively affect the development of a marine-based economy.
- b) **Working group focused on the development of potential marine economic sectors:** For this orientation the government will need to focus on developing and enhancing the efficiency of important marine economic sectors as follows:
 - 1) Exploiting and processing petroleum;

- 2) Developing the maritime industry and key services within it such as shipping and logistics, as well as the development of coastal economic zones;
- 3) Exploiting and processing seafood;
- 4) Developing marine tourism and island economic activities;
- 5) Developing the shipbuilding industry;
- 6) Promoting the development of marine biotechnology.

Currently, the economic development of coastal cities and coastal areas is limited, however, there are many potentials and advantages which could be mobilized for sustainable development in these areas.

- a) According to statistics, the GDP of the direct marine industries accounts for 20-22% of the total GDP of the whole economy, of which the major sectors are oil and gas, tourism, maritime and fishery (about 98%)². In addition, there are many potential sectors that have not been promoted such as ship building and repair, petroleum processing, seafood processing, and communication.
- b) In calculating the ability of marine exploitation compared with other countries in the world, the ability of Vietnam to utilize the sea is still very limited. Vietnam has the potential to develop marine tourism, but so far the current marine tourism lacks competitiveness due to lack of professionals working in the industry³.
- c) Marine economy creates jobs for about 4.6 million people in coastal areas, therein, exploiting sea products and brackish water aquaculture contributes significantly to the country's total GDP. However, at present, the country has not developed offshore fishing and aquaculture, and the industry is still heavily affected by natural disasters due to the lack of modern technology and no specialized farming areas³.
- d) In addition, the processing of seafood is still limited, not creating competitive products in the international market. Exploiting oil and gas is the marine economy contributing the biggest part of the marine economy to the total GDP of the country but now we export very large crude oil, only partially processed and not meet the demand for the quality and cost of domestic consumers, we still depend heavily on the amount of imported petrol.

(II). Initiative 2: Developing infrastructure for marine economic sectors in coastal cities and promoting the development of marine science and technology

For this initiative, it is again recommended to develop two working groups:

- a) **Working group focused on developing infrastructure for coastal cities:**
 - 1) Building infrastructure in coastal cities in close association with a strong development of marine services; for example, the construction of a coastal roads, including some highways and expressways along the sea and connect the national economic centers with sea and seaports⁴;

² <https://baomoi.com/huong-ra-bien-lon/c/26632557.epi> (summary of scientific workshop on marine economy in Vietnam)

³ <http://www.qdnd.vn/kinh-te/cac-van-de/bai-2-thuc-trang-phat-trien-kinh-te-bien-va-nhung-van-de-dat-ra-550823> (summary from scientific workshop on real situations and potentials for development of sea economy in Vietnam)

- 2) Developing a national seaport system and synchronously building a number of ports meet the demand of regional and international standards, paying special attention to deep-water ports in all three regions of the country, creating big open ports to access the sea trade with the world⁵.
- 3) Intensifying investment, allowing for modernization of material and technical foundations, and soon overcome the technological backwardness and efficient exploitation of the coastal airport system, build the coastal road and the North-South highway along the sea, etc. [27].⁶

b) Working group focused on promoting the development of marine science and technology:

- 1) Investing in a basic survey of marine resources and marine environmental quality and develop marine science and technology;
- 2) Building scientific and technological potentials to meet renovation demand and efficiently support industrialization and modernization;
- 3) Promoting international research as well as scientific and technological cooperation in the fields of basic surveys, forecasts of natural disasters, and utilization of marine resources.

(III). Initiative 3: Ensuring the development of social aspects and environment protection for coastal cities and coastal areas

For this initiative, it is again recommended to develop two working groups:

a) Working group focused on promoting social aspects of sustainable development in coastal cities:

- 1) Combining marine economic activities with any social development objectives and increasing the access to social services for laborers in marine economic sectors as well as for their children;
- 2) Improving the qualification of labor in marine economic sectors to meet the requirements of developing modern marine economic sectors;
- 3) Creating the necessary conditions to ensure the security and safety of people living and working in the sea, islands and in areas where natural disasters often occur.

b) Working group focused on ensuring a sustainable marine environment:

Environmental protection, including that of the marine environment, is a vital and urgent issue because the environment has long-term and profound effects on the lives, production, and development of people in all countries. In order to achieve the Sustainable Development Goals, considering the marine economy as a spearhead, we the importance of marine environmental protection should be attached to this new

⁵ <http://mt.gov.vn/moitruong/quy-chuan-chat-luong/8148/pha%CC%81t-huy-toi-da-tie%CC%80m-nang-he-thong-cang-bien.aspx> (potentials of sea port sy

⁶ <http://www.qdnd.vn/kinh-te/cac-van-de/bai-2-thuc-trang-phat-trien-kinh-te-bien-va-nhung-van-de-dat-ra-550823>
(summary from scientific workshop on real situations and potentials for development of sea economy in Vietnam)

vision. In addition to the development of marine economic sectors, the government needs to focus on the following issues:

- 1) Enhancing awareness on the marine environment and promoting the responsibilities of people in marine environmental protection when they are conducting marine economic activities;
- 2) Intensifying inspection and management in order to minimize environmental pollution from marine economic activities;
- 3) Improving the legal foundation for marine environmental protection, which shall serve as a basis for the legal corridor to regulate and adjudicate violations of the marine environmental law;
- 4) Focusing on investment: material facilities, monitoring and evaluation tools, and raising capacity of staff to manage the marine environment;
- 5) Enhancing people's awareness about marine environmental protection, as well as raising awareness of people's self-determination in marine environmental protection;
- 6) Translating the content of the law on sea environmental protection into specific and practical content;
- 7) Strengthening international cooperation to monitor the discharge sources from other countries, in addition to taking advantage of international support for marine pollution management, research, and protection of the marine environment.

The reasons why we focus on the above group of works are: with social development in coastal cities and coastal areas we need to overcome the difficulties as follow: (i). The life of people associated with the sea is difficult, marine economic activities are more uncertain and risky; (ii). Offshore fishing activities are limited, the means of fishing and equipment to ensure safety for fishermen when fishing offshore are still backward; (iii). The output market for sea products are unstable, then it affects the production process and the motivation of people to do the economic activities; (iv). Fishermen and their oppspring are limited to access to social services (education, health care, other spiritual/cultural activities ...). Fishermen are still having difficulties in learning, lack of opportunity to improve their capacity in life and production while they are in low qualification; (v). The sea sovereignty are not consistent, so marine economic activities of the people are also affected and unstable. With environment protection, we need also face against some challenges: (i). Viet Nam's water/sea environment is threatened by the increasing number of industrial parks, urban areas and tourism along rivers and coastal areas, everyday waste volume increases rapidly. (ii). Most of Vietnam's big rivers flow through concentrated residential areas, industrial zones and developed agricultural areas..., then before pouring into the sea, water carrying large amounts of pollutants it receives in the mainland, then polluting the sea environment. (iii). Along with boosting agricultural production, aquaculture, exploiting and processing aquatic products, mineral exploitation activities, tourism development, traffic on the sea ... (iv). Although surface and ground water resources are plentiful in Vietnam, however, 2/3 of total surface water flowed from other countries and these countries are also in the process of industrialization and global economic integration. As a result, they also exploit and polluted water resources, then causing pollutions in upstream rivers. This will lead to more and more pollution of the sea, so the sea was polluted by not only socio-economic activities in the territory of Vietnam but also from neighbour countries. (v). The process of industrialization, urbanization increase rapidly, so the waster was discharged to the

river more and more, untreated wastewater from mining, processing activities, industrial parks, craft villages is discharged directly into the river and will lead to sea water pollution. (vi). Under the pressure of economic development, environmental pollution and natural disasters, ecosystems and habitats of marine species are destroyed, especially for sensitive ecosystems such as mangrove forests, seagrass and coral reefs...

CONCLUSION

Sustainable development of coastal cities and coastal areas in Vietnam is a relatively broad topic, involving many areas, including socio-economic and environmental aspects. Based on the international experience on sustainable marine economic development, the views of local academics, the recommendations as mentioned above are formulated for the sake of improving the efficiency and sustainable development for coastal cities and coastal areas in Vietnam. Recently in Asia, economic development and cooperation among countries has become more dynamic. So, sustainable development in coastal areas in Vietnam is also a problem that needs to be regularly researched and updated to improve efficiency of marine economic activities, ensuring that the marine environment is sustainable, protected, and that economic partners agree with each other on actively cooperating for the protection of marine resources. Marine economic sectors must be developed in order to balance the socio-economic benefits and ensure social development.

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