

# The Current Situation of Marine Resources Development and the Way of Marine Integrated Management

Chao Zhang

North China Sea Data and Information Service, SOA, Qingdao 266061, China

**Abstract:** As a key factor of marine ecological composition, marine resources play an important role in promoting the development of marine economy. In view of this, in view of a series of problems existing in the process of marine resources development, this paper uses the method of literature review to put forward suggestions on marine resources development and implementation measures of management path, so as to escort the development of marine resources in the new era.

**Keywords:** Marine resources; Marine ecology; Resource development management

**Publication date:** November, 2020

**Publication online:** 30 November, 2020

\***Corresponding author:** Chao Zhang, 475905965@qq.com

## 1 Introduction

The exclusive economic zone under the jurisdiction of China covers an area of about 4.7 million km<sup>2</sup>. There are many islands, and marine resources are extremely rich, especially aquatic products, oil and gas reserves, salt fields and other resources, which are in the forefront of the world and have great development and utilization value. According to the statistics of China's marine economic development index 2020 issued by the Ministry of resources of the people's Republic of China, by 2019, China's marine economic value has reached 8.9 trillion yuan, an increase of 9.4% over the previous year, accounting for more than 17% of the GDP of the coastal economic zones. Therefore, the development of China's marine economy has been in a period of growth since the 18th National Congress of the

Communist Party of China, and the coastal area and environmental quality have generally improved. However, the environmental and ecological problems of the ocean are still seriously polluted by land-based discharge, such as the discharge of coastal industrial, agricultural and domestic sewage, as well as the pollution caused by mariculture, port ships and the development of marine resources. In view of the contradiction between the development of marine resources and the demand for marine tourism, Hou Jinghui<sup>[1]</sup> put forward the development idea of enriching marine tourism culture and strengthening the development planning of marine resources, so as to be consistent with the strategic goal of developing China as a maritime power, so as to promote the sustainable development of China's marine resources; Yu Kangxing<sup>[2]</sup> used the method of literature review to sort out the relationship between marine resources development and economic growth of 11 coastal provinces and cities in China. Through the sbm-dea model, it was found that marine resources development and overall economic growth showed a "U" trend of first decline and then rise, which laid a solid foundation for the region to achieve the grand strategic goal of strengthening the province with marine economy; Zhao Shuangshuang<sup>[3]</sup> in view of the shortage of talents in China's marine resources development, proposed to strengthen the education of marine resources related knowledge, carry out targeted human resources training, optimize the structure of marine resources development talents, and promote the implementation of China's marine power strategy by formulating a detailed human resources development plan and a series of Talent Awards.

## **2 Analysis of the current situation of China's marine resources development and management**

Through reading the relevant literature, we can see that some practical problems encountered in the process of developing marine resources in China have seriously affected the construction and development of marine economy. This paper mainly discusses from the aspects of science and technology and national policy control.

### **2.1 Scientific and technological issues of marine resources development**

First, scientific research funds. The development of marine resources is inseparable from a large number of financial support. However, due to the high risk and long cycle of marine scientific research investment, it is difficult for social capital to enter. Compared with the developed countries, China's annual investment in scientific research is still limited. The developed countries have already constructed a multi-channel fund introduction mode and established a long-term cooperative relationship with large marine enterprises, thus ensuring the stability of marine scientific research funds. Second, coordination of marine resources development. At present, China's marine resources development is still in the running in period of development. The coordinated development of the government, social enterprises and scientific research institutions and the enthusiasm of resource development need to be improved. At the same time, we should strengthen the informatization of marine resources exploration, improve the construction of information sharing mechanism of marine resources exploration results, and avoid the secondary collection of scientific research data in the development process of new projects in the same region, which not only wastes resources, but also causes the expenditure of human and financial resources.

### **2.2 Marine resources development policy**

As a big maritime country, China's rational exploitation of marine resources plays an important role in promoting the development of China's marine economy. However, in the promotion of marine implementation strategy, the overall layout and guiding ideology of marine resources development need to be strengthened, and perfect development

countermeasures need to be formulated. First of all, it is necessary to combine the advantages of the world's marine resources and formulate marine development strategies in line with China's. For example, the exploration and development of resources from near shallow sea to far deep sea will promote the integration and optimization of marine resources with the progress of science and technology; The second is to develop marine resources from traditional mode to industrial chain and diversified cooperation mode. However, in the realization of the above development mode, due to the disorder of marine resources coordination and management and the unclear division of responsibilities among the regulatory departments, the problems can not be timely communicated and solved, and the lack of strict supervision and management mechanism. In addition, the lack of protection of marine resources leads to the wanton plunder or over exploitation of marine resources, resulting in serious damage to marine ecology.

## **3 Suggestions on sustainable development of marine resources**

In order to ensure the sustainability and good circulation of marine resources development, this paper mainly discusses the development of fishery resources, mineral resources and tourism resources.

### **3.1 Fishery resources**

Fishery resources are traditional marine resources. Reasonable fishing can ensure the balance of marine water ecological environment and alleviate the resource depletion of some rare fishery species. In this regard, we must strengthen the optimization and adjustment of the industrial structure of marine fishery resources, formulate a detailed fishing plan, control the number of offshore fishing vessels, advance from offshore fishing to offshore fishing, and improve the fishing technology level of fishing vessels by changing the operation mode. Secondly, we should strengthen the policy propaganda, education and training, so that the relevant personnel can master the correct fishing mode of fishery resources, improve their ideological cognition, and make it clear the importance and significance of strengthening the protection of marine resources; In addition, combined with the actual situation of marine fishery resources, we should build a sound legal and regulatory

mechanism, strengthen maritime law enforcement, eliminate all kinds of acts that damage marine fishery resources, and ensure the sustainable development and utilization of marine fishery resources.

### **3.2 Mineral resources**

The development of marine mineral resources is mainly discussed from two aspects. The first is to formulate a reasonable plan for the development of marine mineral resources through the research and development of high and new technologies. The research and development of marine high-tech mainly starts from marine acoustics and marine sensing, and strengthens the exploration and development of marine oil and gas, mineral resources and other resources. Under the guidance of national policies, we should adhere to the green development of marine mineral resources, so as to control the environment for sustainable marine development, avoid the risk of marine mineral resources development, and actively formulate reasonable development strategies. These measures are not only to save the cost of resource development, optimize the industrial structure, but also to ensure the orderly development of marine resources.

### **3.3 Tourism resources**

The development and utilization of marine tourism resources can not only promote the development of marine tourism economy, but also promote the construction of marine scenic spots, so as to improve the overall ecological environment of the sea area. Therefore, we must do a good job in the development planning of marine tourism industry and the construction of relevant laws and regulations system. The development of marine tourism is a long-term and high investment comprehensive industrial structure. In the process of development, we must follow the overall development layout guided by the law of market development, build marine characteristic tourism, and protect the environment. We must pay attention to the disturbance of the surrounding environment and ecology in the development, and make full use of the resource advantages of marine scenic spots, so as to meet the needs of different tourists. In order to promote the economic development of marine tourist attractions. Secondly, in order to ensure the smooth development of marine tourism, it is necessary to build a sound regulatory system of laws and regulations. Through

speeding up the legislative process of marine tourism development, establishing and improving the order of tourism resources development, balancing the ecological and resource protection of tourism development, thus laying the foundation for the healthy and sustainable development of marine tourism.

## **4 To realize the comprehensive management path of marine resources development**

According to the concept of integrated marine management given by China Ocean Agenda 21, the definition is as follows: Integrated marine management should be based on the national marine rights and interests, resources, environment and other overall interests, combined with the implementation of international policies, guidelines, regulations and overall planning, actively organize and coordinate, balance the development and utilization relationship between relevant industrial institutions and coastal areas, so as to safeguard marine rights and interests, reasonably develop resources, protect marine ecological environment, and promote marine economy. The sustainable and stable development of the industry.

In view of the current practical problems, this study proposes the following management measures: The first is to build a comprehensive marine management mechanism and effectively promote the rational development and utilization of marine resources. The construction of comprehensive management mechanism can ensure the order of marine resources development and eliminate unnecessary duplication of work and waste of resources. For example, the "one level and multi-layer" management mode, that is, unified leadership and hierarchical management, can eliminate the waste of resources caused by cross management, and make up for the blank area of management, so that the marine resource management mechanism can truly become the right assistant for the healthy development of marine industry. The second is to strengthen the optimization of marine industrial structure and actively promote the diversified development of marine industry. Zhai Qing, Vice Minister of the Ministry of ecology, pointed out that: The special plans for key river basins and marine environmental protection are the key documents to guide the ecological protection of China's marine basins and other river basins in the

future, which are of great significance to promote the sustainable development of China's marine economy. At present, China is at the beginning of the fourteenth five year plan. In order to promote the modernization process of marine industrial resources development, we must eliminate some relatively backward industries, such as marine transportation and marine industry. These traditional industries not only occupy a large number of labor force, but also restrict the innovation and development of marine industry to a certain extent due to the low overall quality of these labor force. Therefore, we should actively promote the development of some new industries, such as marine medicine and marine tourism. Third, strengthen the protection of marine resources and adhere to the road of innovation and development. In the process of marine resources development, we should take preventive measures, strictly control the source of marine pollution, and use modern wastewater treatment equipment to eliminate the

discharge of waste water, so as to make the marine water environment develop in a virtuous circle.

## References

- [1] Hou JH. The impact of marine tourism resources development on the sustainable development of marine economy [J]. *Business and management*, 2020, (11): 156-160
- [2] Yu KX. Economic benefit analysis of marine resources utilization in China [D]. Liu Dezhi. *Anhui University of Finance and economics*, 2020
- [3] Zhao SS. Discussion on the development and sustainable development of marine human resources in China [J]. *Knowledge economy*, 2019, (31): 25 + 27
- [4] Lu H. Research on the relationship between China's marine resources development and marine economic growth [D]. *Liaoning Normal University*, 2018
- [5] Jia R. Research on science and technology demand and policy of sustainable development and utilization of marine resources in China [D]. *Bohai University*, 2015