

Study on the Countermeasures for the Development of Seaward Economy in Western Guangdong

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Abstract: The development of seaward economy in western Guangdong has the policy advantages, resource endowment and geographical features, but also such problems as unreasonable structure of marine industry, insufficient innovation of marine science and technology, and insufficient protection of marine ecological environment. Therefore, in this paper, the countermeasures of developing seaward economy in western Guangdong were put forward from four aspects, which is of great significance for building an important development pole of modern coastal economic belt in western Guangdong and realizing high-quality development.

1. Introduction

The development and utilization of marine resources have attracted the attention of various countries and regions with the continuous improvement of science and technology. In 2017, China proposed “seaward economy”, which is a new open economy model based on land-based economy, supported by marine economy, with coastal zone as the spatial carrier, modern port as the fulcrum, driven by scientific and technological innovation, and guaranteed by the construction of ecological civilization, with the purpose of improving the modern marine industrial system, effectively connecting land and sea channels, and realizing the interaction and integration of land and sea economies [1]. As an emerging economic model, seaward economy has pointed out the direction for the economic development of coastal areas. The western part of Guangdong Province is an important coastal development area in China, which is rich in marine resources, unique in location and favorable in policy environment. In particular, the development proposal of “One Core, One Belt and One District” in Guangdong Province emphasizes that western Guangdong will be built into an important coastal economic belt, which further empowers its seaward development. Therefore, it is of great decision-making significance for the high-quality development of the coastal economic belt in western Guangdong to deeply study the advantages and disadvantages of the development of seaward economy and put forward the countermeasures.

2. The Realistic Foundation for the Development of Seaward Economy in Western Guangdong

2.1. Policy Advantages

In 2019, Guangdong Province formulated the *Opinions on building a new pattern of regional development of 'One Core, One Belt and One District' to promote the coordinated development of the whole province* and proposed to build “One Belt” as the coastal economic belt, with Zhanjiang City as the center in the west wing, covering Zhanjiang, Maoming and Yangjiang. It focuses on accelerating the development of Zhanjiang, Maoming and Yangjiang metropolitan areas, strengthening the industrial layout near the port, dredging the major traffic channels connecting the east and the west and outside the province, expanding international air and sea routes, and connecting Hainan Free Trade Port and Beibu Gulf urban agglomeration, so as to turn western Guangdong into a new growth pole of the whole province, form a chain with the Pearl River Delta coastal areas, jointly build a world-class coastal economic belt, strengthen marine ecological protection, and build a coastal ecological barrier, which are also the strategic positioning and important task of development for the western Guangdong. In the new development period, a specific way and effective method to shoulder the special historical mission of the new era is to develop the marine economy [2]. In addition, the green development path of marine economy is highlighted in the *Master Plan of Beautiful Bay Construction in Guangdong Province (2019-2035)*, the *Master Plan of Island Tourism Development in Guangdong Province (2017-2030)* and the *Ecological Red Line in Guangdong Province*. The local governments of Zhanjiang, Maoming and Yangjiang attach great importance to marine resources and regard the ocean as the core industry for the development of western Guangdong. At the same time, they also regard the marine industry as the key industry for development. The promulgation and full implementation of their own policies in Guangdong and western Guangdong have provided important supporting conditions for the economic development of western Guangdong.

2.2. Superior Endowment of Marine Resources

Western Guangdong has a good marine resource environment, which provides natural resources endowment for the development of seaward economy. In addition, the total coastline length of three cities in western Guangdong is more than 2,200 kilometers, accounting for about half of the coastline length of Guangdong Province, and hundreds of ports including Zhanjiang Port, Maoming Port and Yangjiang Port have been built. Moreover, western Guangdong has relatively sufficient marine fishery resources and its output of aquatic products ranks first in the country. At the same time, it has three marine ecosystems including mangroves, coral reefs and submarine grasslands, where the highly diverse coastal ecological environment is an ideal place for the breeding and growth of fish, shrimp, crab and shellfish [3]. Coupled with the long sunshine time on the coast, large total solar radiation, abundant solar and thermal energy resources, the development of tidal energy and sea breeze is also promising.

2.3. Unique Location Advantage

Western Guangdong, located in the west part of Guangdong, includes Zhanjiang, Maoming and Yangjiang, is the intersection of Guangdong, Guangxi and Hainan provinces, the junction of the four national strategies of New International Land-Sea Trade Corridor, Guangdong-Hong Kong-Macao Greater Bay Area, Beibu Gulf Economic Zone and Hainan Free Trade Zone, and also an important bridge connecting southwest China, south China and ASEAN markets. As an

important marine outfall in southwest China, the port group in western Guangdong can be built into the main channel to the sea in southwest China and the new channel for international road and sea trade in the west. Meanwhile, the natural deep-water port in western Guangdong is also the port with the shortest voyage connecting Africa, Europe, Southeast Asia and other places in China. Along with the establishment of the free trade zone between China and ASEAN and the formulation and implementation of the economic development strategy of the marine Silk Road, as the main route to sea, western Guangdong is building a regional deep-water port that faces China and serves the world, and its geographical advantages are gradually showing up.

3. Problems in the Development of the Seaward Economy in the Western Guangdong

3.1. To-be-Improved Structure of Marine Industry

The marine industry in western Guangdong is dominated by traditional industries, including marine fishery, marine transportation and coastal tourism. Although marine strategic emerging industries have gradually increased in recent years, such industries as marine engineering equipment manufacturing industry, ship building and repairing industry, marine biological medicine field, and marine chemical industry are in the stage of development and have not yet formed a certain scale and do not have agglomeration advantages. The effect of industrial transformation and upgrading has not yet fully manifested. Inadequate development of modern industry, few high-quality entity enterprises, single structure of traditional marine fishery industry, mariculture of mostly individual farmers, few large-scale leading aquaculture enterprises, and weak deep processing ability of aquatic products together lead to generally low added value of marine aquatic products. Moreover, the development level of industries such as modern mariculture, deep-sea fishing, offshore ocean-going fishery production base, and deep processing of aquatic products is still not high and needs to be improved. As the output value of the tertiary industry accounts for a relatively low proportion, there is much room for the development of the marine service industry.

3.2. To-be-improved Innovation in Marine Science and Technology

Marine science and technology is the support and fundamental power for the scientific development of marine industry. Marine scientific and technological innovation has a strong leading role to promote the development of marine emerging industries. However, there are still some problems in western Guangdong such as less marine scientific research institutions and high-level talents, lower proportion of marine scientific and technological input in fiscal expenditure, weak strength in marine science and technology, lack of independent innovation ability, development of marine industries mainly relying on labor force and existing resources, most of the products being primary products, low scientific and technological content of products, weak competitiveness, serious industrial homogenization and low-level competition, and low contribution rate of marine science and technology to marine economy. Besides, leading technologies for marine strategic emerging industries have not yet been formed and uncertainty about the market structure and market demand have led to the facts that the overall level of industries is still not high, low-end industries account for a relatively large proportion, and new industries cannot form clusters for development. In particular, the local manufacturing capacity for scientific and technological innovation needs to be strengthened urgently.

3.3. Lack of Effective Protection of Marine Environment

Marine ecological environment is the basic condition for the development and survival of marine

organisms, which directly affects the development of marine economy and the sustainable development of human society. The rapid economic and social development brought by the acceleration of industrialization and urbanization has brought unprecedented environmental pressure to marine ecological environment protection. For example, large-scale reclamation of land from sea has greatly reduced the area of natural tidal flats and wetlands, and the repair of sea dams has pushed the coastline outward and reduced the sea area [4]. The shoreline with abundant marine habitats is reclaimed, which damages the ecological environment, and the processing plants and farms near the coastal scenic spots aggravate the ecological damage of the scenic spots. As the regional cooperation mechanism for environmental protection has not yet been formed, there is still a gap between the environmental monitoring technology and means and the ecological marine construction, the marine ecological development needs to be strengthened urgently, effective and reasonable control in scale needs to be realized, and the green production and living style has not yet been formed, so the ability to manage and protect the marine ecosystem needs to be further strengthened.

4. Countermeasures and Suggestions for the Development of Seaward Economy in Western Guangdong

4.1. Strengthening Innovation in Marine Science and Technology

The promotion of high-quality development of the seaward economy cannot be separated from the innovation of marine science and technology. First of all, the development direction of the marine economy should be clearly defined. Scientific and technological research should be carried out in the areas of manufacturing of marine engineering equipment, development and utilization of marine living resources, marine new energy and materials, comprehensive utilization of seawater and marine environmental protection, so that their achievements can promote marine economic and social development as soon as possible. Second, by strengthening scientific and technological innovation, constantly innovating marine development technology, the marine engineering equipment manufacturing industry will develop to the high end, marine shipbuilding will be promoted to green, and the key technologies for the development and manufacture of new marine materials will be broken through. Marine scientific investigation should focus on the deep-sea field, so as to strengthen the exploration and development of deep-sea oil and gas resources, promote the optimization and upgrading of traditional marine industries through innovation-driven development, cultivate and expand strategic emerging marine industries to become new growth areas of marine economy, improve the utilization efficiency of marine resources and environment, and enhance the marine economic structure [5]. Third, the platform construction should be strengthened, and the construction of three types of platforms, namely, the National Marine Economic Development Demonstration Zone, marine specialized universities and research institutes, and marine public service platforms, should be promoted, so as to aggregate diverse resources, balance diverse objectives, cope with changing situations, promote the transformation of marine scientific and technological achievements, turn marine resources into realistic productivity, and realize the high-quality development of the marine economy [6].

4.2. Strengthening Marine Cooperation and Openness

The development of seaward economy in western Guangdong is inseparable from the cooperative development between domestic and foreign market economies. First of all, it will link up with the national strategy and form a new pattern of openness through cooperation among participating countries in the “belt and road initiative” [7]. Through the realization of economic and

trade cooperation between countries, the implementation of import and export, the purchase of overseas raw materials, and the sale of marine products and agricultural products from western Guangdong to foreign countries, the economic benefits of enterprises are increased, and at the same time, the supply chain cooperation in international commodity production is strengthened. Secondly, it is necessary to actively participate in the construction of Guangdong-Hong Kong-Macao Greater Bay Area, establish the development orientation of western Guangdong in Guangdong Province in combination with the development plan for Guangdong-Hong Kong-Macao Greater Bay Area, rely on the advantages of marine resources and strive to achieve cooperation with Greater Bay Area cities, seize the opportunity of Guangdong, Hong Kong and Macao to build a world-class urban agglomeration, realize cooperation with Hong Kong and Macao in marine economy and culture and other aspects, and jointly plan the development of marine economy. Finally, it is to take advantage of its geographical advantages, actively integrate into the construction of the Beibu Gulf urban agglomeration and the construction of new international land and sea trade channels, increase the connection with the Hainan Free Trade Zone, and conduct extensive cooperation and exchanges in the field of marine economy for the southwestern part of China and Southeast Asia through the linkage of land and sea.

4.3. Strengthening the Establishment of a Modern Marine Industrial System

Economic innovation and structural adjustment should be carried out in the region to develop the seaward economy, so as to give full play to the important role of the ocean in the seaward economy, speed up the adjustment of industrial structure in western Guangdong, actively promote the upgrading of traditional marine industries, and innovate and develop strategic emerging marine industries. First of all, the traditional fishery developed by marine ecology should be improved by optimizing the breeding space, developing the fishing port economy, introducing modern machinery and equipment, and enhancing the fishing operation ability, and an important national research and development center of excellent mariculture germplasm should be built, the advanced aquaculture technology at home and abroad should be absorbed, and the processing of marine products and deep-water products should be strengthened to form a complete modern fishery industry system. Secondly, new marine industries should be actively developed, and new and high-tech industries such as marine monitoring and detection equipment, marine engineering supporting equipment, marine transportation, harbor-adjacent industries, marine bio-pharmaceuticals, seawater desalination, offshore wind power characteristic industries, and marine informatization should be developed [8]. Finally, the marine industrial structure should be adjusted to achieve the goal of rationalization of the marine industrial structure, and strive to optimize the structure of the primary, secondary and tertiary industries in the seaward economy. On the basis of solid development of the primary industry in the seaward economy, the proportion of the secondary industry should be steadily increased, the development level of the tertiary industry should be improved, and the marine tourism industry should be built to integrate the coastal tourism resources [9].

4.4. Improving the Marine Ecological Environment

Marine ecology, as the basis of development of seaward economy, should be guaranteed by the construction of ecological civilization, adhere to the concept of “blue ocean” development, and put the protection of ecological environment in a prominent position, which is the barrier to the development of modern marine economy. Western Guangdong should actively strengthen marine environmental protection and optimize marine ecosystem [10]. Pollution control of the marine environment should be strengthened by reducing pollution emissions from the source, strengthening the control of land-based pollution sources, key polluting enterprises and key polluted sea areas,

strengthening the dynamic monitoring and real-time control of marine pollution sources, and improving the emergency handling capacity of marine pollution. Information disclosure system of the marine environment should be established to improve the public participation and supervision platform for pollution emissions. Ecological protection and restoration should be promoted, including the construction of marine protected areas and marine ranching, the implementation of mangrove protection projects, the scientific establishment of marine protected areas, wetland parks and wetland protection units, the gradual restoration of coastal degraded wetlands, and the continuous improvement of marine environmental protection capacity. The publicity of marine resources and environment protection should be strengthened to make the public pay attention to marine environment protection and to raise the public's awareness of marine ecological environment protection.

5. Conclusions

With the construction and development of the “Marine Silk Road” in China in the new century and new period, this paper takes the development of the seaward economy as the main line of research, carefully sorts out the advantages of the development of the seaward economy in western Guangdong, and analyzes the shortcomings in the development of seaward economy in this area. In the process of developing marine economy, western Guangdong should adhere to the concepts of scientific and technological innovation and blue development, because only by comprehensively strengthening marine scientific and technological innovation, marine cooperation and opening up, building a modern marine industrial system and paying attention to the construction of marine ecological environment, can the construction goal of a coastal economic belt in Guangdong be realized, and the rapid development of seaward economy in western Guangdong be achieved.

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