



THE SERIES OF "CHINA'S MARITIME DEVELOPMENT"

# CHINA'S MARITIME ECONOMY AND MARITIME SCIENCE & TECHNOLOGY



Authors: Liu Rongzi, Liu Ming, Zhang Ping, Liu Kun



China Intercontinental Press



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# Preface

Oceans and seas are the basic environment and treasure house of resources for human survival and development. They are vital bridges for the world's nations to enter the global economy. With the rapid growth of society and economy, resources, energy and space in the land territory are increasingly under much more severe pressure. Mankind has already turned to the vast world of oceans and seas for social and economic development. China is a maritime power having a package of marine interests and rights. With the formation of its opening-up economy, the strategic position of ocean has become prominent with each passing day and marine economy has played a more and more remarkable role in supporting national economy and social development.

Marine economy has developed into a powerful engine to promote the development of national economy. With the advancement of marine science and technology, the developing mode of the ocean has been extended both in depth and breadth. This field has been propelled into an increasingly expanding value-added new economic domain. China's marine industry has established a relatively complete industrial system covering 12 main marine industries including marine fishery and ocean oil and gas and others. In 2012, China's Gross Ocean Product (GOP) reached 5008.7 billion Yuan accounting for 9.6% and 15.9% respectively in China's Gross Domestic Product (GDP) and the GDP of coastal areas. Besides, marine economy has already penetrated into the national economic system to a high degree with its substantial development promoting the growth of many other sections including iron and steel, machinery, nonferrous metals, petrochemicals, light textile, building materials and others.

Oceans and seas have grown into an important supporter for maintaining an export-oriented economic pattern and ensuring economic stability for China. The degree of China's dependence on foreign trade is as high as 60%. The constant increase of trade has greatly enhanced China's seaborne volume since 90% of the freight volume of its foreign trade is completed through marine transportation. Therefore, oceans and seas are the strategic frontier for national economic security. They are vitally important for upholding convenience of transportation in the neighboring seas and the world's important straits for China. From the long-term development of the economy and society, China's open economy with high reliance upon the ocean will sustain for a very long time and be constantly deepened.

The "new east" is now rising as a new growth-pole in China's economic territory. Since 2008, China has promulgated plans for economic development in coastal areas in succession such as *The Planning Outline for the Reform and Development of the Pearl River Delta (2008 to 2009)* and *The Planning for the Development of the Coastal Areas in Jiangsu Province*. It has also greatly promoted the construction of marine economic pilots in Shandong, Zhejiang, Guangdong, and Fujian, launching a new round of economic growth in the coastal areas. From space, marine economy is expanding and making breakthroughs with great momentum from shallow-water offshore to deep-water high seas in a two-way mode between land and sea and thus enhancing social, economic and cultural development. A "new east" characterized by marine resources exploitation and marine industry development and driven by people's migration towards ocean and economic development in coastal areas is rising up and forging ahead as the new growth-pole for China's national economy.

Reviewing on the progress of China's marine economy from small to huge and from weak to strong, it is easy to notice that scientific and technological innovation is undoubtedly the key driving force supporting and leading the comprehensive promotion of marine economy. "Science and technology constitute the primary productive force." The advancement

of marine enterprise is indispensable role in the progress of science and technology. Looking into the world, the political, economic, and military competitions in maritime domain are more and more embodied as the competitions of science and technology. Presently, marine science and technology has already become a frontier of the competition of science and technology in the world and also one of the contending focuses of national comprehensive strength between different states. The development of marine science and technology especially the advanced science and technology has become a key component of the world's new technological revolution. The progress of marine science and technology has already been considered as an important index for measuring the overall level of a nation's science and technology and evaluating whether a nation is maritime power or not.

From the formulation of the perspective long-term planning for the development of marine science and technology in 1956 and after the development for more than half a century, China's marine science and technology has basically formed a strategic pattern of facing the main battlefield of economic construction, developing advanced technology, and enhancing basic research and established a relatively complete regime of marine scientific research and technological development. Marine science and technology is playing a more and more remarkable role in the marine enterprise and its contribution rate to marine economy is gradually increasing. With marine science and technology, traditional marine industry is being upgraded step by step and rising marine industries are being formed and developed. It has become a fundamental basis supporting and leading the development and utilization of the oceans and propelling a sustainable, rapid and healthy development of China's marine enterprise.

The *Report of the 18th National Congress of the Communist Party of China* proposed a grand and ambitious goal of "constructing a maritime power" for the first time which is characterized by two prominent features of developed marine economy and mighty strength of marine science and technology. Therefore, the only path to building a maritime power is

to develop marine economy and science and technology vigorously. Under the above-mentioned circumstances, at the invitation of China Continental Press we compiled this book of *China's Marine Economy and Marine Science and Technology*. Through a perspective of sea we straightened out the development progress of China's marine economy and science and technology and stated their current situation in order to demonstrate the latest results recently achieved in the two fields and provide the readers with the actual situation of their development.

This book was written by the collective efforts of the Research Center of Marine Economy and Science and Technology of the Marine Development Strategy Institute of State Oceanic Administration. It was designed and compiled by Liu Rongzi and Liu Kun also participated in compiling. The writers of each chapter are as follow:

Chapter1, 4, 5, 6 by Liu Ming; Chapter2: Zhang Ping; Chapter 3: Liu Rongzi; Annex: Liu Rongzi and Liu Ming. This book covers two fields of marine economy and marine science and technology spanning over a long period of time and involving a huge quantity of materials and data. It is thus difficult to reorganize all these materials. With the limited length of the book, shortcoming and deficiencies are inevitable. We hope the readers could be magnanimous enough to forgive and tolerate this.

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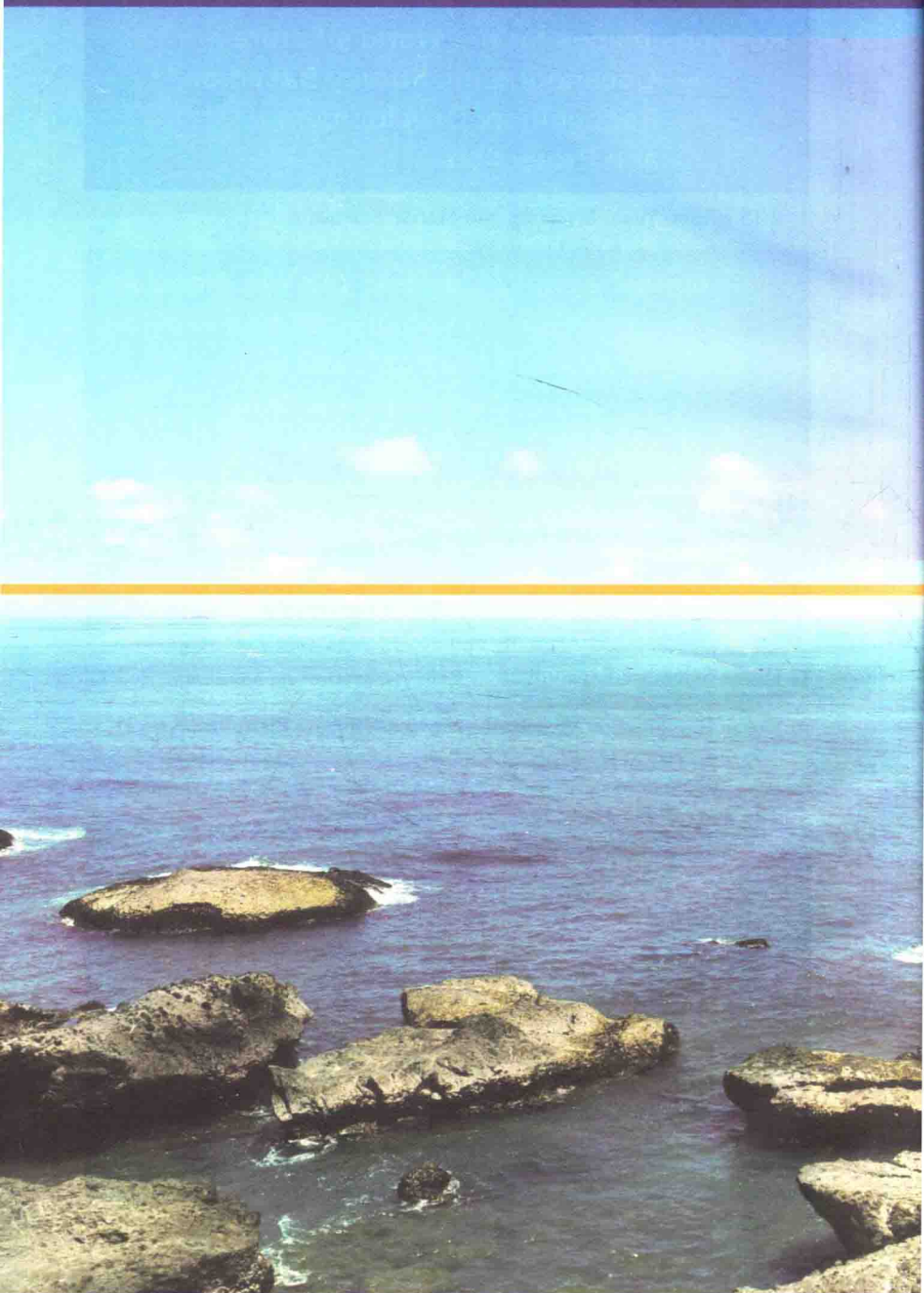
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