

PROTECTION OF OCEANS AND THEIR LIVING RESOURCES - CHINA

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Summary

China attaches great importance to marine development and protection, and takes it as part of the State's development strategy. It is constantly strengthening comprehensive marine management, carrying out a sustainable development strategy for marine programs, safeguarding the new international marine order and the state's marine rights and interests, overall planning for marine development and control, rationally utilizing marine resources and promoting the coordinated development of marine industries, simultaneously planning and implementing the development of marine resources and the protection of the marine environment, reinforcing oceanographic technology research and development, setting up a comprehensive marine management system, actively participating in international co-operation, steadily improving its marine-related laws, and actively developing science, technology and education pertaining to the

oceans; rationally developing and utilizing marine living resources, putting forward many principal and methods on protection and preservation of the marine environment. China has made positive contributions to international ocean development and protection by participating positively in UN marine affairs, promoting co-operation between countries and regions and conscientiously carrying out its obligations in this field.

1. Introduction

The ocean, which covers 71% of the earth's surface, is a basic component of the global bio-support system. It is also a treasure house of resources and an important regulator of the environment. It is inevitable that the development of human society will come to depend more and more on the ocean. In the twenty-first century mankind will have new opportunities to develop and utilize the ocean. Upholding the principles of international marine law as defined by the United Nations Convention on the Law of the Sea, maintaining the quality of the oceans, and protecting the marine environment and its living resources have become common norms for all the people of the world.

As a major developing country with a long coastline, China attaches great importance to marine development and protection, and takes it as part of the State's development strategy. It is constantly strengthening comprehensive marine management, steadily improving its marine-related laws, and actively developing science, technology and education pertaining to the oceans. China has made positive contributions to international ocean development and protection by participating positively in UN marine affairs, promoting co-operation between countries and regions and conscientiously carrying out its obligations in this field.

2. Sustainable Marine Development Strategy

China boasts a mainland coastline of more than 18 000 kilometers. There are more than 5000 islands in China's territorial waters, each with an area of more than 500 square meters, and the island's coastlines total more than 14 000 kilometers. China also exercises sovereignty and jurisdiction over vast continental shelves and exclusive economic zones (EEZs), as defined by the UN Convention on the Law of the Sea. Located in medium and low latitudes, the seas in China have comparatively advantageous natural environmental and resource conditions. About 20 278 species of sea creatures have been verified there. The developed fishing grounds cover 818 000 square nautical miles. The shallow seas and intertidal area have a total area of 13.33 million hectares, of which 2.6 million hectares of water surface are suitable for raising aquatic products in terms of the current scientific level. So far, 938 000 hectares are being utilized for this purpose.

The China Ocean Agenda 21 formulated by China in 1996 put forward a sustainable development strategy for China's marine programs. The basic ideas of this strategy are as follows: To effectively safeguard the state's marine rights and interests, rationally develop and utilize marine resources, give positive protection to the marine eco-environment and realize the sustainable utilization of marine resources and the

marine environment as well as the coordinated development of the work in this field. In this regard China abides by the following basic policies and principles:

2.1. Safeguarding the new international marine order, rights and interests

In February 1992 the Standing Committee of the National People's Congress (NPC) of China adopted the Law of the People's Republic of China on Its Territorial Seas and Adjacent Zones. As China's important law in this particular field, it provides a legal basis for the country to exercise sovereignty over its territorial seas, jurisdiction over the adjacent zones and safeguarding of the State's safety and marine rights and interests.

To uphold the new international marine legal system and the State's marine rights and interests, the NPC Standing Committee approved the UN Convention on the Law of the Sea in May 1996, and solemnly stated: In accordance with the provisions of the UN Convention on the Law of the Sea, the People's Republic of China enjoys sovereignty and jurisdiction over the EEZs and continental shelves up to 200 nautical miles off its coasts. Together with the countries whose coasts lie opposite to China or its neighboring countries, China shall, through consultation and on the basis of international laws and the principle of fairness, fix the dividing lines of each country's marine jurisdiction. China has sovereignty over all archipelagoes and islands listed in the Law of the People's Republic of China on Its Territorial Seas and Adjacent Zones. Regarding disputes over marine issues between China and its neighboring countries, the Chinese Government shall, in view of the vital interests bearing on peace and development, stand for their settlement through friendly consultation. With regard to issues that cannot be solved for the time being, China stands for pigeonholing them for strengthened co-operation and joint development.

2.2. Overall planning for marine development and control

China will strengthen the comprehensive development and administration of its coastal zones, rationally develop and protect the offshore areas, actively participate in the development and utilization of international seabed and oceans, and exploit the coastal land and sea areas in a unified way in order to gradually form coastal economic belts and marine economic zones, thus making the coastal areas more prosperous and developed.

2.3. Rationally utilizing marine resources and promoting marine industries

China adopts the policy of placing equal stress on development and protection to guarantee the sustainable utilization of marine resources. It will comprehensively develop and utilize its marine resources, continue to explore the oceans for new resources, make use of new technologies, and form and develop new marine industries to promote the sustained, rapid and healthy development of the marine economy.

2.4. Simultaneously planning and implementing the development of marine resources and the protection of the marine environment

China will work out a program for the coordinated development of marine resources

and the protection of the marine eco-environment and, in line with the principles of “putting prevention first, combining prevention with control” and “making the causers of pollution responsible for its treatment,” will improve the monitoring, surveillance, law enforcement and management of the marine environment. Stress will be laid on strengthening the control of land-based pollution and implementing system for controlling the total quantity of pollutants, in order to prevent degeneration of the marine environment.

2.5. Reinforcing oceanographic technology research and development

China will pay attention to basic research and marshal all necessary forces to tackle key oceanographic problems, development and services. It will speed up the promotion and utilization of advanced and applicable technologies, and consistently narrow the differences between the regions in terms of the technological level of marine development. Furthermore, the discipline of oceanography will be further emphasized in institutions of higher learning, including vocational education, and oceanographic personnel of various levels will be trained. At the same time, oceanographic knowledge will be spread among the general public.

2.6. Setting up a comprehensive marine management system

China will continue to improve its marine function zoning and planning and strengthen the scientific management of marine development and protection, as well as the utilization of sea areas. Experiments in the comprehensive management of the coastal zones will be actively carried out, and a comprehensive control system will be gradually put in place.

2.7. Actively participating in international co-operation about marine development

China will conscientiously fulfill the obligations defined in the UN Convention on the Law of the Sea, actively take part in international marine affairs, promote international and regional co-operation and exchanges related to oceanic matters, and contribute its full share to the prosperity and development of the world's work in this field.

3. Rational Development and Utilization of Marine living Resources

In the light of the bearing capacity of marine resources, China adopts a policy of developing and utilizing them in a comprehensive way, so as to promote the coordinated development of marine industries. In 1997 the total output value of the major marine industries, including ocean fishing, salt-making, the salt chemicals industry, marine transportation, shipbuilding, offshore oil and gas, and tourism, topped 300 billion yuan (US\$36.2 billion). As a result, these industries have become forces actively promoting the development of China's economy as a whole.

China's ocean fishing industry has a long history steeped in experience. In developing this sector, the country adheres to the principle of “speeding up the development of aquaculture, conserving and rationally utilizing offshore resources, actively expanding deep-sea fishing, emphasizing processing and circulation, and strengthening legal

administration.” Since the mid 1980s, China’s saltwater aquaculture has developed rapidly, with a large increase in species and expansion of breeding areas. The output of such products rose from 1.926 million tons in 1987 to 7.91 million tons in 1997, with their proportion in the total output of the maritime harvest rising from 27% to 36%. In accordance with the actual conditions of marine fisheries resources, China has actively readjusted the structure of this sector, made efforts to conserve and rationally utilize off-shore fisheries resources, and actively exploited new resources and fishing grounds, so as to make the fishing industry constantly adapt to the changes in the structure of marine resources. In 1997 the total output of China’s ocean fishing industry came to 13.854 million tons. While expanding deep-sea fishing and international fishing co-operation, China adheres strictly to relevant international maritime laws, pays full attention to the eco-environment and, in the light of the principle of “equality, mutual benefit, rational protection and development of the exploitable resources, and abstention from infringement on the interests of other countries,” and actively develops fishing co-operation with relevant countries and regions, in order to jointly expand the fishing economy. Since the 1980s, China has established co-operative fishing relations with more than 30 countries and regions.

China attaches great importance to the protection of marine fisheries resources, and has adopted various measures to conserve such resources so as to guarantee the implementation of a sustainable marine development strategy. It has done this by instituting various closed fishing seasons, closed fishing areas, marine sanctuaries and moratorium systems, banning harmful fishing gear and methods, and restricting the size of net meshes and the proportion of young fish. In 1979 China began to adopt a fishing permit system to curb over-fishing, and in 1987 the country began to control fishing boat’s horsepower. Since 1995 China has practiced a new midsummer moratorium system—every year during July and August fishing is banned in the sea areas north of 27 degrees north latitude. The new system has achieved encouraging economic, ecological and social results, and from this year the midsummer moratorium area will be expanded to 26 degrees north latitude and its duration will be lengthened to three months. China attaches great importance to marine reproduction and the reproduction of fisheries resources, and has always insisted on marine reproduction and the release of prawns and other species, a measure which has achieved positive results.

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Biographical Sketches

Jinhai Dong was born in July 1937 in Shandong Province. He graduated from Biology Department, Shandong University in 1962, and was a visiting scholar in the Memorial University of Newfoundland, Canada from 1981-1984. During 1987-1995, he was deputy-director of the Institute of Oceanology, Chinese Academy of Sciences, deputy director of the Shandong Zoology Society, Fisheries Society and Society of Oceanology and Limnology, associate chief editor of “ *Studia Marine Sinica*”, member of Shandong Science Committee, “Oceanology and Limnology” Editing Committee and International Marine Mammal Society. He used to be a member of the National Academic Committee for South Pole Investigation and headed the biology group. His research fields include biology and population dynamics of marine mammals, existing natural resource investigation and stock assessment, artificial breeding and investigation of mammals of polar regions. His research achievements filled several domestic research gaps, and laid important groundwork for the study of marine mammals. Up to now, more than 40 research papers on mammals have been published. He pushed the study of marine mammals to a higher level by developing the Science of Resource Protection and Resources Management Ecology, on the basis of morphology and classification studies. He developed new methods and ideas (stock assessment, statistical methods , a potential new subspecies presented for the first time, etc.). Since 1994, through a co-operation agreement on studying the Bowhead Whale with USA, he has filled another research gap in China, and greatly promoted study of marine mammals around the world.

Wenqi Wang was born on March 8, 1969, in Laiyang, Shandong Province. She graduated from the biology department of Chinese Eastern Normal University in 1991 (sites in Shanghai), and began to work in the Institute of Oceanology, Chinese Academy of Sciences in 1991. During 1991-1995, her research subjects were majoring in marine biology about the Antarctic *Euphausia superba*. During 1994-1999, she carried out research on Bio-indicator Selection and Environmental Monitoring of the Jiaozhou Bay. Meanwhile, for her excellent research work and outstanding study, she pursued her masters degree and doctor degree, and published nearly 20 research papers. She is now continuing work in the following three areas: environmental bio-indicator monitoring in Jiaozhou Bay, microbiological monitoring in Jiaozhou Bay, and diseases of marine mammals in China.

I-Hsun Ni was born in 1944, in Xuzhou, Shandong Province. He graduated from the Department of Biology, Taiwan University in 1966, and obtained his doctor degree from the University of British Columbia in 1978. His earlier research was with Canadian Department of Fisheries and Oceans on fish population dynamics and management as well as stock discrimination and assessment. His research interests then encompassed population assessment of marine mammals with advanced remote sensing techniques, interaction between seals and fish stocks, transmission of parasites, density effects on population parameters, and pollutant studies. To date he has published more than 40 papers on marine mammals about taxonomy, morphology, ecology, biology and population dynamics, etc. He is now continuing quantitative analysis in the following areas: (1) fisheries management and aquaculture, with the ultimate aim of increasing fish productivity in Hong Kong; (2) marine environmental impact assessment, with particular interest in the interrelationship between biological components and environmental factors, and (3) comparative population dynamics of marine animals, by studying the life history strategies from vital statistics.