



Status and Trends of Chinese Marine Spatial Planning

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- **Chinese Context of MSP**
- **Chinese MSP System**
- **Trends of Chinese MSP**
- **Suggestions on international Cooperation**



Chinese Context of MSP

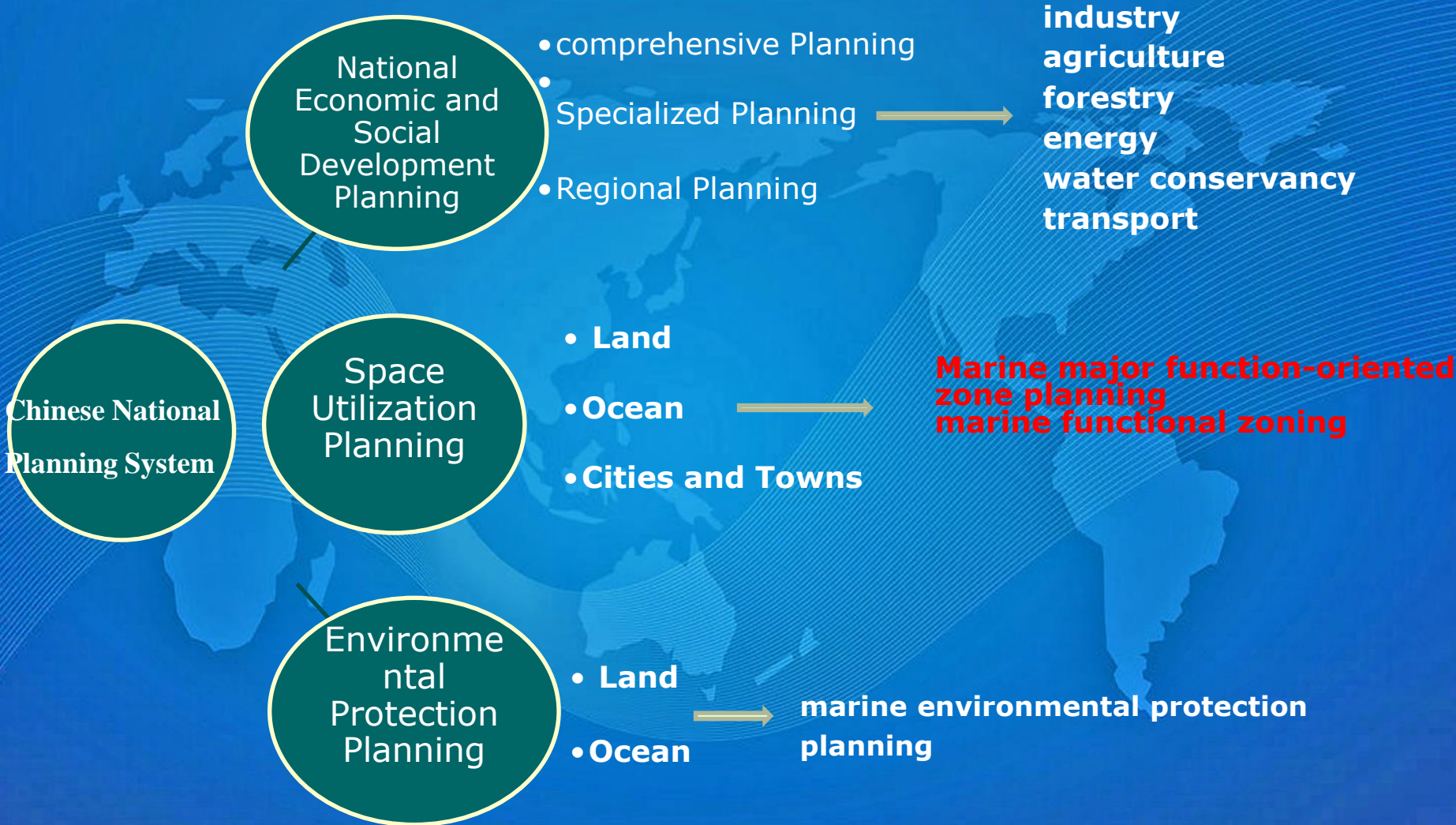
General Ocean and Coastal Information

- **18,000Km** coastline
- Ocean economy **10%** of national GDP
- **7300** islands (over 500 square meters)
- **34** National Natural Reserves (19400 square KM)
- **11** Coastal Provinces with **9%** of the world Population





Chinese Context of MSP





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Strategic MSP

Marine Major Function-Oriented Zone planning

- **Basic unit:** the whole ocean area under the administration of the county-level government
- **Hierarchy of MMFOZ planning:** National, Provincial

foundation
and basis

Marine Functional Zoning

- **Basic unit:** relatively integrated geographic unit
- **Hierarchy of MMFOZ planning:** National, Provincial, city and county

Specific
MSP

Other MSP

- **Redline for the protection of ecological regions**
- **Island protecting plan**

Marine Major Function-Oriented Zone Planning (MMFOZ Planning)

Goal of MMFOZ planning

Chinese MMFOZ Planning is an comprehensive marine spatial planning, based on resource and environmental carrying capacity, current development state and future development potential of different ocean areas, aiming at realizing sustainable development of maritime space.

Marine Major Function-Oriented Zone Planning (MMFOZ Planning)

Law and policy basis

- Marine Environmental Protection Law
- National Major Function-Oriented Zone Plan

Mission of MMFOZ planning

- identify ocean functions
- carry out division of major function-oriented zones
- define the orientation of each major function-oriented zone

Marine Major Function-Oriented Zone Planning (MMFOZ Planning)

Types of MMFOZ

- A. Development-optimized area.** Optimization is carried out at two levels. One is the optimization of marine spatial structure. Enlargement of ocean exploitation scale will be controlled in this type of areas, the focus of future development should be increasing the yield of per ocean unit. The other is the optimization of development mode, aiming at developing new green industries with high technology and added value.
- B. Development-prioritized area.** This kind of zone has the priority to enlarge the industrial sea use appropriately and establish modern industrial system.

Marine Major Function-Oriented Zone Planning (MMFOZ Planning)

Types of MMFOZ

- C. Development-restricted area.** This type of areas are divided into the fishery industry-related area and ecology-related area. The orientation of the fishery industry-related area is to ensure the food security of the country or region. They can also develop industries in a way suitable for local conditions. For the ecology-related areas, the primary mission is to restore the ecosystem, protect the environment, and provide ecological products.
- D. Development-prohibited area.** This type of areas specifically refers to natural reserves and islands with territorial sea base point. They should be mandatorily conserved according to laws, regulations and relevant plans.

Index system of major function orientation identification

| index | index | Development-optimized area | Development-prioritized area. | Development-restricted area |
|--|---|----------------------------|-------------------------------|-----------------------------|
| Resource and environmental carrying capacity | Utilizable ocean spacial resources | ※ | ※※ | ※※※ |
| | Environmental quality | ※ | ※※ | ※※※ |
| | Vulnerability of ecosystem | ※ | ※ | ※※※ |
| | Ecological importance | ※ | ※ | ※※※ |
| | Danger of natural disaster | - | - | - |
| Current development state | Degree of sea use aggregation | ※※※※ | ※※※ | ※※ |
| | Ocean economic development level | ※※※※ | ※※※ | ※※ |
| | Regional economic development level | ※※※※ | ※※※ | ※※ |
| Future development potential | Transport superiority | ※※※※ | ※※※ | ※※ |
| | Ability of marine science and technology innovation | ※※※※ | ※※※ | ※※ |
| | Ability to manage pollutants from land | ※※※※ | ※※※ | ※※ |

※ represents the unit value of evaluation result

Index system of major function orientation identification

- Based on the index system, 3 types of MMFOZ are identified at the county level through a series of appropriate technical processes. Each coastal county is confirmed as a development-optimized area, development-prohibited area or development -restricted area.
- Development-prohibited area is directly recognized by its definition.



Chinese MSP System

Development-prohibited area of Guangdong Province



Evaluation of resource and environmental carrying capacity

Utilizable ocean spacial resources



Environmental quality



Vulnerability of ecosystem



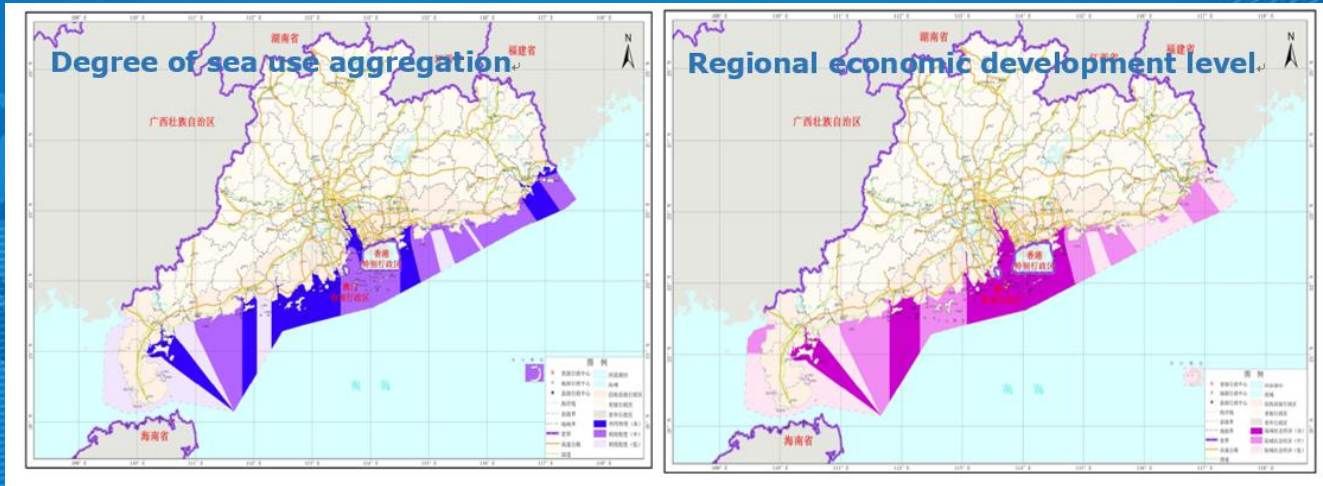
Ecological importance



Danger of natural disaster



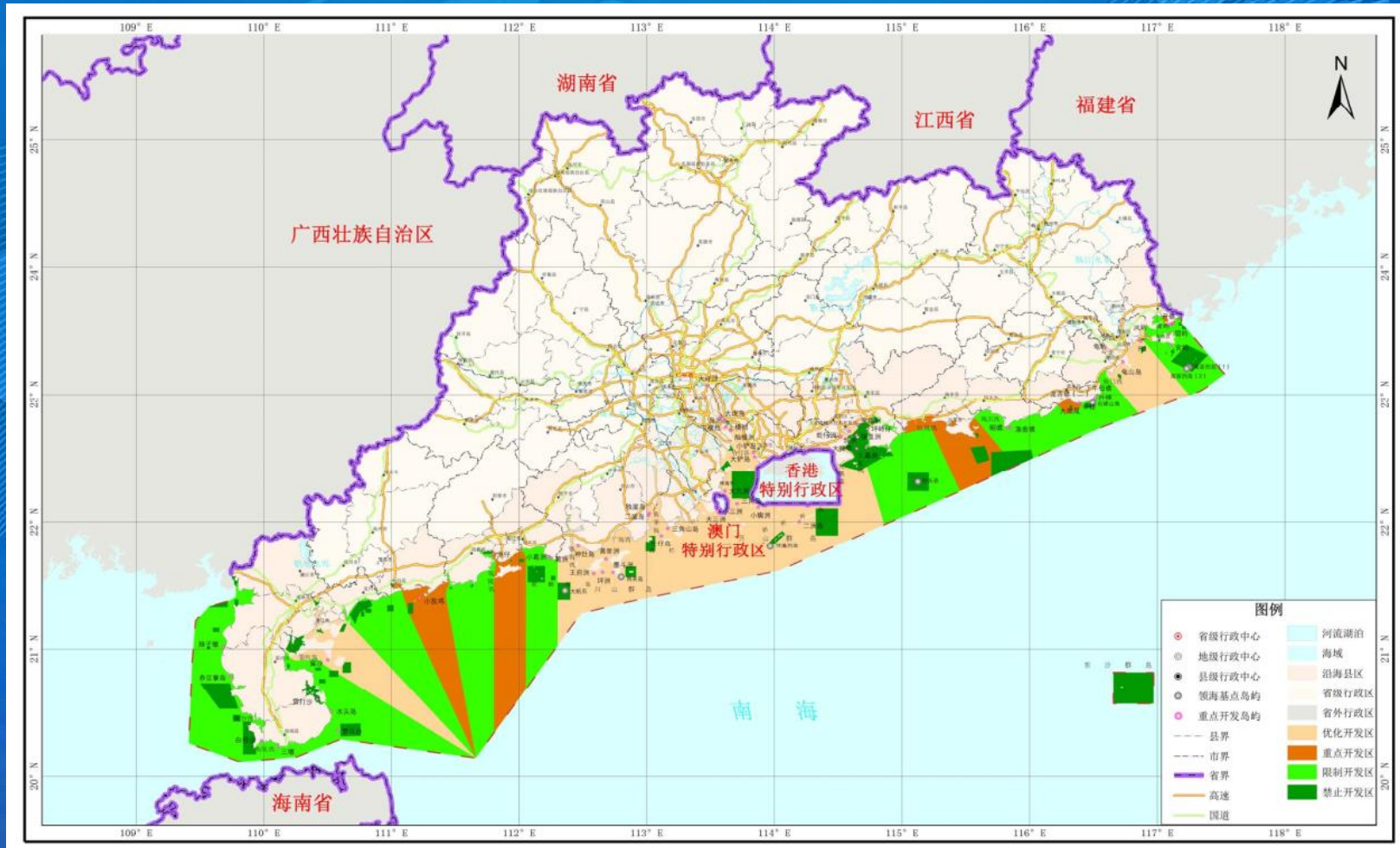
Evaluation of current development status



Evaluation of future development potential



MMFOZ of Guangdong Province



Marine Major Function-Oriented Zone Planning (MMFOZ Planning)

Based on the requirements for each functional zone, in the 13th five-year, we will:

- improve differentiated policies related to finance, industry, investment, sea use, and environmental protection while also implementing differentiated performance evaluation methods.
- put into effect industry negative lists in key ecosystem service areas.
- increase transfer payments to major fishery industry-related areas and key ecosystem service areas.
- establish sound mechanisms for trans-regional compensation for ecological conservation efforts.

MMFOZ and MFZ

- coastal counties will make its MFZ (Marine functional zoning) based on the MMFOZ type, and its major functional orientation
- SOA is working on the technical standard

Marine Functional Zoning(MFZ)

MFZ, is a process to divide the sea into different functional zones with different environment quality requires in order to control and guide the direction of the sea use, aiming at making it clear that which kind of sea use are suitable, prohibited for the specific sea area.

Classification of MFZ

- MFZ can be divided into 10 types
- And 10 types are composed by 32 subtypes.

| | |
|---|--|
| Harbor and Channel Zone | Harbour area |
| | Channel area |
| | Anchor ground area |
| Fishery Resources Utilization and Conservation Zone | Fishing port and Fishery facilities basic building area |
| | Breed area: Harbour area, Shoal area, Shallow sea area |
| | Proliferate area |
| | Fishing area |
| | Important Fishery breed protected area |
| Mineral Resources Utilization Zone | Oil gas area |
| | Solid mineral area |
| Tourist Zone | Scenery tourist area |
| | Travel resort area |
| Seawater Resources Utilization Zone | Salina area |
| | Peculiar industrial water area |
| | General industrial water area |
| Ocean Energies Utilization Zone | Tidal energy area |
| | Tidal current energy area |
| | Wave energy area |
| | Temperature difference energy area |
| Sea Area for Engineering Use | Submerged pipeline area |
| | Petroleum platform District |
| | Make area around the sea |
| | Coast protected project area |
| | Bridge area across the sea other protective sea use area |
| Marine Protected Area | Marine nature reserve |
| | Special protection area of ocean |
| Special Use Zone | Experimental area of science and study |
| | Military affairs area |
| | Drain contamination area |
| | Dump area |
| Reserved Zone | |

Five basic principles of MFZ

- Scientifically defining the functions of the sea areas in light of such natural attributes as their geographical location, natural resources and natural environment;
- Making overall arrangements for the use of sea areas among various related sectors according to the needs of economic and social development;
- Protecting and improving the ecological environment, ensuring the sustainable utilization of the sea areas and promoting the development of the marine economy;
- Ensuring the maritime traffic safety;
- Safeguarding the security of national defense and guaranteeing the needs in the military use of the sea areas.



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Trends of Chinese MSP

● Land-ocean integrating MSP

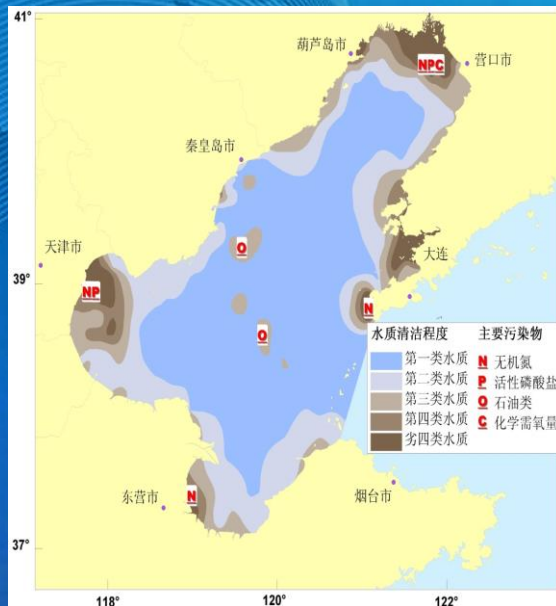
SOA is currently working on Protecting and Developing Plan of Chinese Coastal area. This plan is going to be the first land-ocean integrating MSP in China.

- ◆ Sea and land of coastal areas are considered as a whole;
- ◆ Implement ecosystem-based integrated management
- ◆ Further optimizing the urban spatial distribution and industrial layout

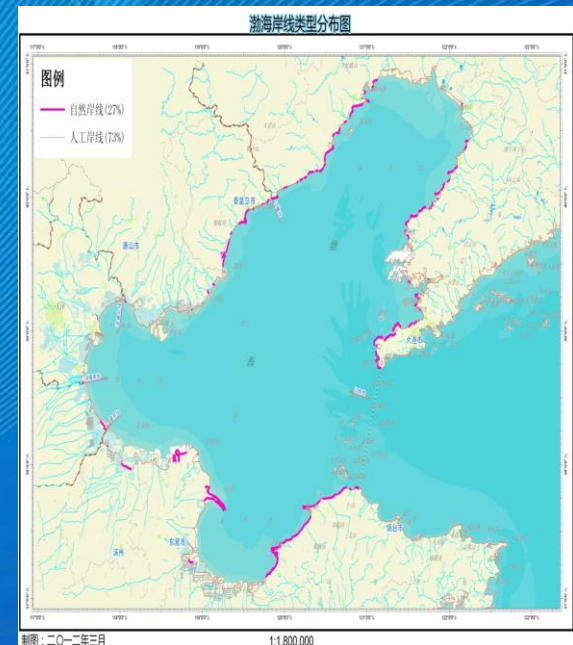


Trends of Chinese MSP

● **Strictest reclamation management.** The boundary of reclamation prohibited area will be made clear through MSP. SOA has released an policy on the environmental protecting of Bohai sea, by this policy no reclamation will be approved in the coming years.



Water quality and main pollutants in the Bohai Sea



Shorelines distribution in the Bohai Sea



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We propose that EU and China cooperate in the following areas:

- Improving the theory of MSP. Although about 60 countries have their own MSP initiatives, MSP is still in its infancy stage, so it should be a great idea for China and EU countries to cooperate on improving the theory of MSP and establishing standard for the MSP process.**



Suggestions on international Cooperation

● Since the definition of stakeholder engagement is widely variable across countries, and its scope and effectiveness is difficult to validate, we would love to start cooperation with researchers of EU countries on how to get stakeholders involved in MSP.



Suggestions on international Cooperation

- We are also interested in collaborating with EU countries on:
 - monitoring and evaluation of MSP plans
 - Trans-boundary MSP
 - MSP in the Arctic Ocean
 - MSP in the High Seas



Thanks for your attention!