



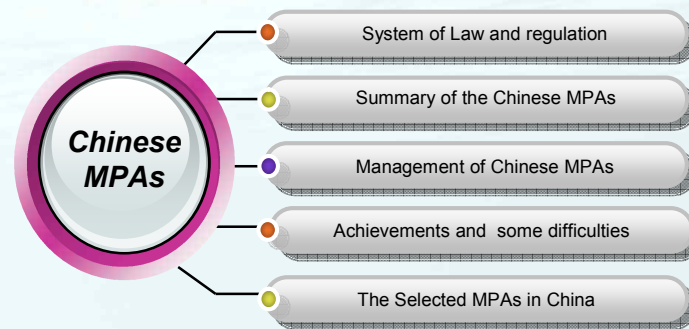
## **Current Status of Chinese MPAs.**

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## Current Status of Chinese MPAs



An underwater scene with a blue and white background. In the upper right, there are several yellow and blue fish swimming. In the upper left, there are several bubbles. The text is overlaid on the left side of the image.

## **System of Law and regulation**

The law system of Chinese MPAs is based on the related content of China's constitution, with the marine environmental protection law at its core. It consists of several coordinated legislations.

By now, Chinese government has issued many related law and regulations.

## System of Law and regulation

### law of environmental protection

Approved on Dec. 26 1989, by the 7th National Congress at its 11th session. It was executed on same day.

### Marine environmental protection law

Approved on Dec. 25 1999, by the 9th National Congress at its 13th session. It was executed on Apr. 1st 2000.

### Regulations of Nature Reserves

On Oct.9 1994, the State Council published this Regulations, which came into effect on the following 1 Dec.

## System of Law and regulation

### Management regulation of marine nature reserves

Published on May 29 1995, by the State Oceanic Administration. It was executed on same day.

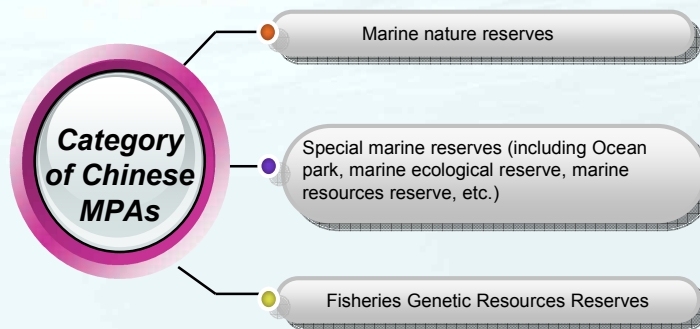
### Management regulation of special marine reserves

Published on May 2005, by the State Oceanic Administration. It was executed on same day.

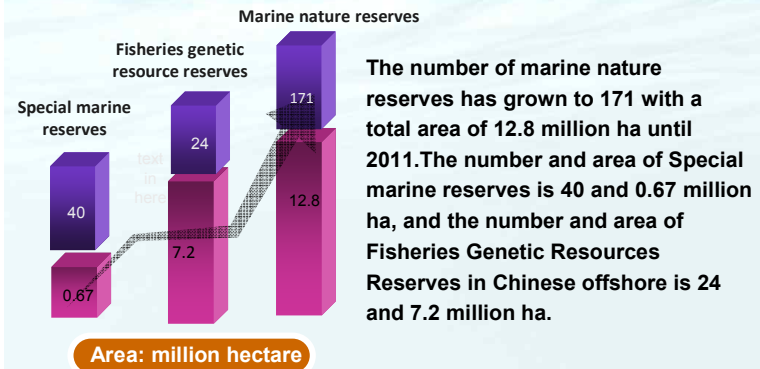
### Interim regulations on Fisheries Genetic Resources Reserves

In Jan. 2011, Ministry of Agriculture published this Regulations, which came into effect on the following 1st March.

## Summary of Chinese MPAs: category



## Summary of Chinese MPAs: quantity and area



The number of marine nature reserves has grown to 171 with a total area of 12.8 million ha until 2011. The number and area of Special marine reserves is 40 and 0.67 million ha, and the number and area of Fisheries Genetic Resources Reserves in Chinese offshore is 24 and 7.2 million ha.

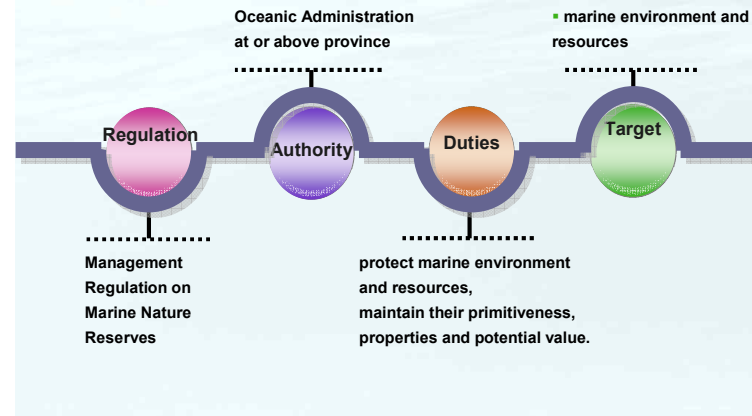
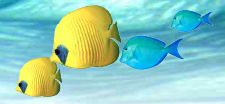
An underwater scene with a sandy bottom and blue water. Several yellow and blue fish are swimming in the upper right corner. The text is overlaid on the left side of the image.

## Summary of Chinese MPAs: marine nature reserves

- ❖ Marine nature reserves established on the purpose of protecting the natural environment and resources, are classified in seashores, estuaries, islands, wetlands or seawaters and need to be implemented with special protection and management.
- ❖ Obviously, the reserves aim to protect marine environment and resources, including the primitiveness, retention and rarity of ecological objectives, and maintain their primitiveness, properties and potential value.



## Summary of Chinese MPAs: marine nature reserves

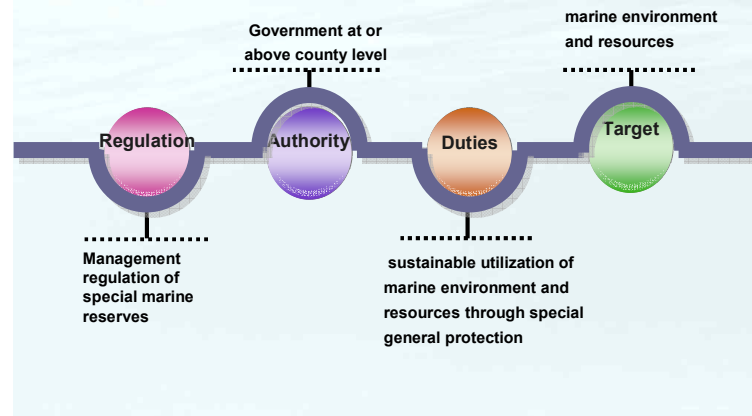
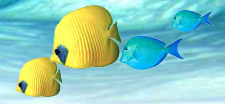


An underwater scene with a sandy bottom and blue water. Several fish are visible: two large yellow fish and two smaller blue fish. The text is overlaid on the left side of the image.

## **Summary of Chinese MPAs: special marine reserves**

- ❖ special marine reserves refer to those areas possessing special geographic conditions, ecosystems, living or non-living resources and areas calling for special need in marine development, need to be implemented with special management by adopting effective protection measures and scientific development methods.
- ❖ Therefore, under the condition of exploration and utilization, special marine reserves attain their basic aim of sustainable utilization of marine environment and resources through general protection, not just simple protection.

## Summary of Chinese MPAs: special marine reserves

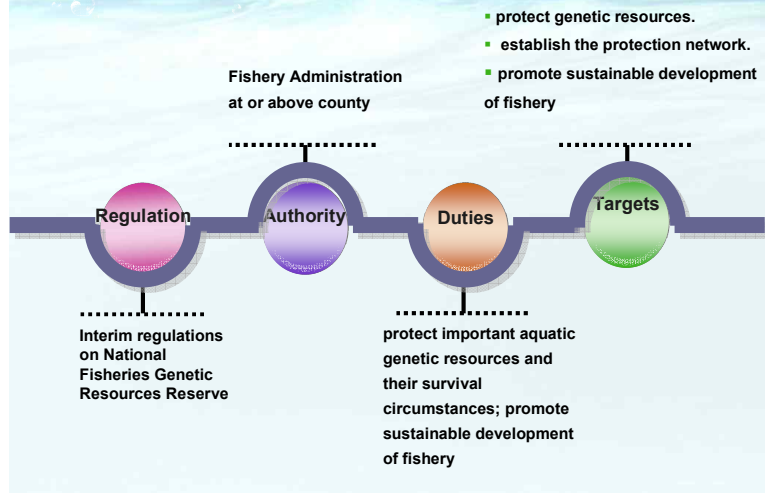




## Summary of Chinese MPAs: Fisheries Genetic Resources Reserve

- ❖ The fisheries genetic resources reserve refers to waters, tidal flats and their adjacent reefs and land areas, these areas are demarcated lawfully for the breeding regions of aquatic genetic resources with great value of economy and genetic breeding and afforded special protection and management.
- ❖ Its aim is to protect important aquatic genetic resources and their survival circumstances; to promote sustainable development of fishery, to establish the protection network and to alleviate the adverse effect of human activity.

## Summary of Chinese MPAs: Fisheries Genetic Resource Reserves



## Summary of Chinese MPAs:

### The comparison of three types MPAs:

Category	Regulation	Authority	Duty and target
Marine nature reserves	Management regulation of marine nature reserves	Oceanic administration	protect environment, maintain their primitiveness.
Special marine reserves	Management regulation of special marine reserves	Local government	sustainable utilization of marine environment and resources
Fishery genetic resource reserves	Interim regulations on Fisheries Genetic Resources Reserve	Fishery administration	protect aquatic genetic resources; promote development of fishery

An underwater scene with clear blue water and sandy seabed. Several fish are visible: two large yellow fish with black stripes, and several smaller blue fish. The scene is bright and clear.

## Management of Chinese MPAs: marine nature reserves

- ❖ Oceanic administration located in coastal provinces, select, demarcate, construct and manage the reserves. The approved marine natural reserves must be set up relevant management institution and equipped with professional technicians.
- ❖ Marine nature reserve can be divided into core area, buffer area and experimental area according to nature environment, resources and protection; on basis of different protected objects, it can be divided in to absolute protective period and relative protective period.
- ❖ Units, residents, outsiders and alien vessels must obey all regulations and rules and accept management in marine nature reserves.



## **Management of Chinese MPAs:**

### marine nature reserves

The following activities and behaviors are forbidden in marine nature reserves:

1. moving, relocating or damaging landmarks, marker and relevant protection facilities;
2. illegal collecting and fishing marine organisms;
3. illegal quarrying, sand excavation and exploring mine;
4. other behavior damaging protected objects and nature environment and resources.



## Management of Chinese MPAs:

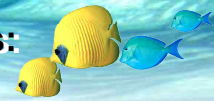
### special marine reserve

The managements that should be enforced by local government at or above the county level are as followings:

- ❖ 1. work out and implement the manage regulation ;
- ❖ 2. organize the facility construction and the protection ;
- ❖ 3. organize and conduct the routine patrol management ;
- ❖ 4. organize and enact the ecological compensation project as well as ecological restoration and protection plan,;
- ❖ 5. organize and manage the ecological tourism activity;
- ❖ 6. the management institution should conduct the status investigation regularly.

## **Management of Chinese MPAs:**

special marine reserve



The following activities are forbidden in special marine reserve:

1. hunt and collect bird egg;
2. cut the mangrove and damage coral reef;
3. use of explosives, poison and electricity in fishing;
4. directly discharge pollutant to the sea;
5. collect and sell the products of mineral, wild flora and fauna illegally;
6. move and damage the protection facilities of special marine reserve.



**Management of Chinese MPAs:**  
Fisheries Genetic Resources Reserve

Departments of fishery administration under governments at or above the county level shall be in charge of management of this reserve.

The management institution should be equipped with necessary administrative staff, law enforcement officials, and the technician should be ascertained and in charge of the regular work .



## Summary of Chinese MPAs: Fisheries Genetic Resources Reserve

- ❖ Fishing, blasting and other activities damaging ecological resources and environment are forbidden during the special protection period.
- ❖ Anyone engaged in construction project in reserves should compile thematic report on the effect of construction project to aquatic genetic resources, and integrate it into EIA report. Units and individuals should obey laws and regulations.
- ❖ It shall be forbidden to reclaim land from lakes or undertake sea reclamation. No new outlet shall be built in aquatic genetic resources reserves.



## Achievements in the past years

01

- the construction of regulation on MPAs has been reinforced.

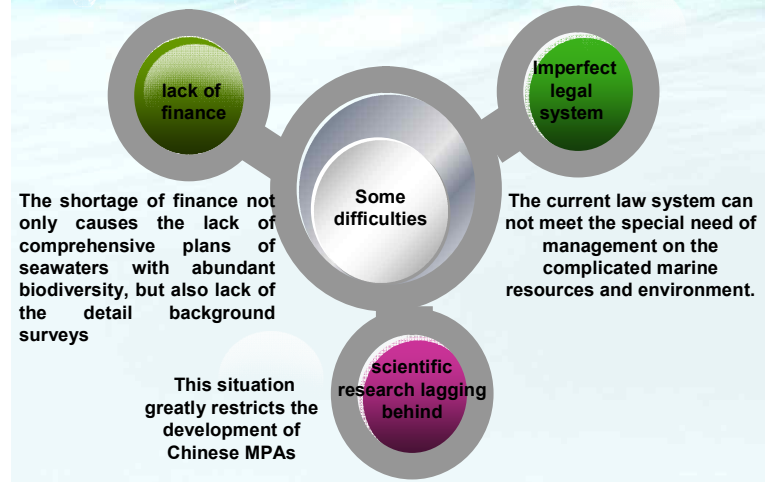
02

- the network of marine reserves preliminary has been built, and the main objects have received effective protection.

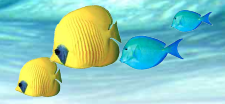
03

- the management ability of marine reserves increases consistently,
- the considerable progress has been made in the various performance .

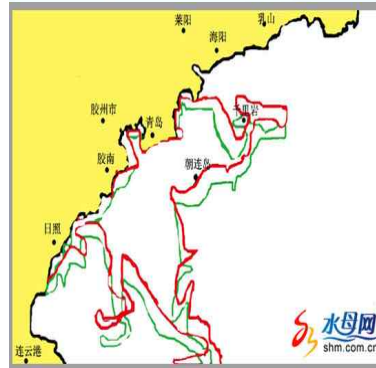
## Some difficulties



## The selected MPAs in China



### Haiyang Qianliyan Island Marine Ecosystem Provincial Nature Reserve



Qianliyan island, located in the Southern Yellow Sea, belongs to Haiyang county Yantai city Shandong province.

On January 25 2002, the Reserve was established by the government of Shandong province. The area of this reserve is 1823 hectares, with core area 52 hectares, buffer area 207 hectares, experimental area 1564 hectares.

**The selected MPA in China**

**Haiyang Qianliyan Island Marine Ecosystem  
Provincial Nature Reserve**



**Qianliyan island and its surrounding ocean system is the typical island and ocean ecological system in warm temperate zone of China.**

**With more than 20 marvelous peaks and rugged rocks, this island has reputation for its scenic beauty.**



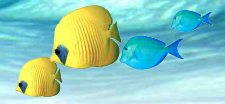
The selected MPA in China



**Haiyang Qianliyan Island Marine Ecosystem  
Provincial Nature Reserve**



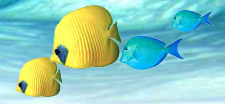
The selected MPA in China



**Haiyang Qianliyan Island Marine Ecosystem  
Provincial Nature Reserve**



## The selected MPA in China

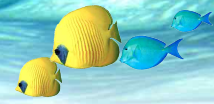


### Haiyang Qianliyan Island Marine Ecosystem Provincial Nature Reserve



The island has abundant in bird resource, about 100 kinds of rare birds and plants were found there. Among them, there are rare plants *Japanese Camellia* and medical plants *honeysuckle*, *Chinese wolfberry* etc.

## The selected MPA in China



### Zhifu Archipelago National Special Marine Reserve

Zhifu archipelago is located in north sea area of Yantai city. Annual mean temperature in this area is 12.5°C. The tide of this sea area belongs to regular semi-diurnal tide.



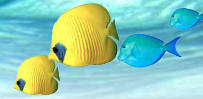
## The selected MPA in China

Zhifu Archipelago National Marine Special Reserve

parameters	average	range
PH	8.23	8.11~8.43
COD (mg/L)	2.1	0.8~4.2
Oil and grease (mg/L)	0.09	0.01~0.48
Phosphate (mg/L)	0.004	0.000~0.063



## The selected MPA in China



### Zhifu Archipelago National Marine Special Reserve

The phytoplankton species in this area were identified into 64 species. The cell densities of phytoplankton was above  $10^6$  cells/m<sup>3</sup>.

The dominant zooplankton in this area were *Copepods*, *Amphipoda* and *Euphausiid*.

There were 87 species of benthic animals in this area. The mean weight biomass of benthic animals was 3.86g/m<sup>2</sup>.



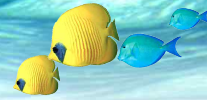
## The selected MPA in China

### Zhifu Archipelago National Marine Special Reserve

According to the survey in 1984, there was a multitude of marine organisms including more than 10 species of marine food products like sea cucumber, prawn and sea urchin.



## The selected MPA in China



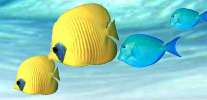
### Yalujiang River Estuary Wetland National Nature Reserve

Yalujiang River Estuary Wetland National Nature Reserve has a total area of 1080.5 km<sup>2</sup>. This reserve consists of four parts: land, reed marsh, tidal flat and sea area. The area of land in this reserve is 311.8 km<sup>2</sup>, reed marsh 60 km<sup>2</sup>, tidal flat 242 km<sup>2</sup> and sea area 466.7 km<sup>2</sup>





## The selected MPA in China



### Yalujiang River Estuary Wetland National Nature Reserve

The annual mean temperature of this area is 8.9°C, with a continental monsoon climate and four distinct seasons. The Yalujiang River has high tide range and the mean tide range is 4.6m. The tide of Yalujiang river belongs to non-regular semi-diurnal tide except Donggang harbor.



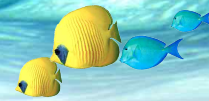
## The selected MPA in China

### Yalujiang River Estuary Wetland National Nature Reserve

	species	Dominant species
Phytoplankton	55	<i>Melosira</i>
Zooplankton	54	—
Benthic animals	49	—



## The selected MPA in China



### Yalujiang River Estuary Wetland National Nature Reserve

A total number of 241 Aves are recorded in this reserve. Among of those Aves, 6 Aves such as white stork , black stork, golden eagle , imperial eagle, red-crowned crane, siberian crane are in first-class wild protected animals, 30 species are the second-class wild protected animals. 121 species of migratory birds are listed in *China-Japan Agreement for Protection of Migratory Birds* .



# Conclusion



## Chinese MPAs play a role in the environment protection

1. The network of MPAs has been built preliminarily.
2. The ability of management increases continuously.
3. The construction of regulation on MPAs has been reinforced and gradually perfected.

## Chinese MPAs are required considerable effort in the future

1. Increasing financial investment to Chinese MPAs.
2. Improving and developing to legal system.
3. Strengthen scientific research.



LOGO

**Thank You for your attention!**