

Introduction of Marine Protected areas - China



Dr. Zhaohui ZHANG
First Institute of Oceanography, SOA

Contents

1. Overview of MPAs in China

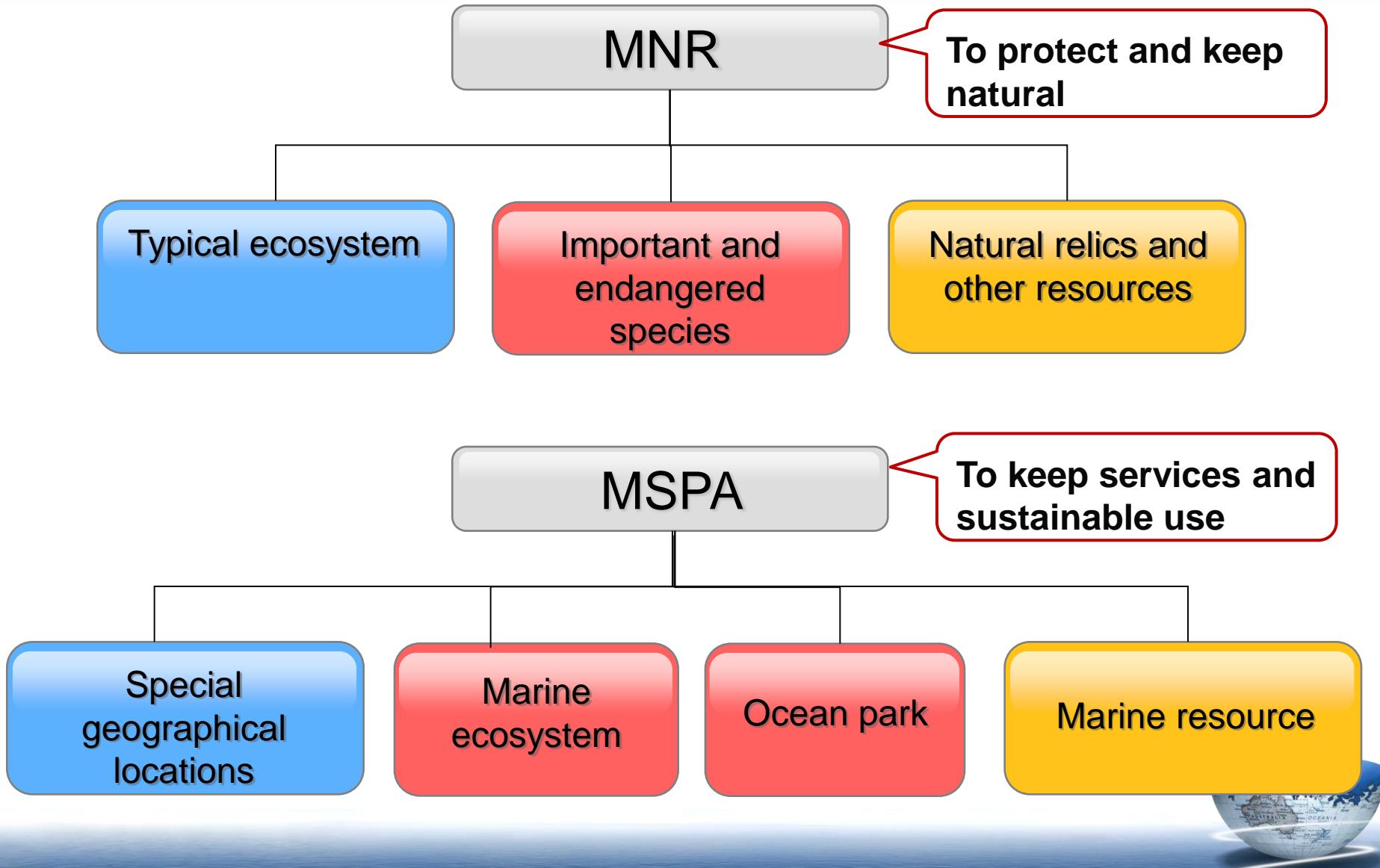
2. Three of nominated MPAs in China



Overview of MPAs in China



1. Overview of MPAs in China



1. Overview of MPAs in China

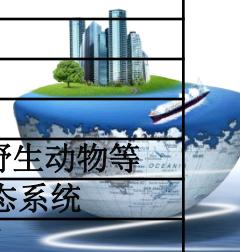
- 264 MPAs in total up to 2015, in which
 - National marine protected areas: 93
 - National Marine nature reserve: 34
 - National Marine special protected: 69
- Total area: >100, 000 km²
- Ecosystem: mangrove, coral reef, salt marsh, estuary, bay, island, lagoon et al
- Endangered species: amphioxus, spotted seals, dolphins, sea turtles and other rare and endangered marine species



序号	国家级自然保护区名称	地点	主要保护对象
1	鸭绿江口滨海湿地国家级自然保护区	辽宁东港	沿海滩涂湿地及水禽候鸟
2	蛇岛-老铁山国家级自然保护区	辽宁大连	蝮蛇、候鸟及蛇岛特殊生态系统
3	大连斑海豹国家级自然保护区	辽宁大连	斑海豹及其栖息
4	城山头国家级自然保护区	辽宁大连	地质遗迹、古生物化石及海滨喀斯特地貌
5	双台河口及水鸟国家级自然保护区	辽宁盘锦	珍稀水禽及湿地生态系统
6	天津古海岸与湿地国家级自然保护区	天津	贝壳堤、牡蛎滩古海岸遗迹、滨海湿地
7	昌黎黄金海岸国家级自然保护区	河北昌黎	海滩及近海生态系统
8	滨州贝壳堤岛与湿地国家级自然保护区	山东滨州	贝壳堤岛和滨海湿地
9	荣成大天鹅	山东荣成	大天鹅等珍禽及生境
10	长岛国家级自然保护区	山东长岛	鹰、隼等猛禽及候鸟栖息地
11	黄河三角洲国家级自然保护区	山东东营	原生性湿地生态系统及珍禽
12	盐城珍稀鸟类国家级自然保护区	江苏盐城	丹顶鹤等珍禽及海涂湿地生态系统
13	大丰麋鹿国家级自然保护区		
14	崇明东滩国家级自然保护区		
15	上海九段沙国家级自然保护区		
16	南麂列岛国家级自然保护区		

MNR

17	深沪湾海底古森林国家级自然保护区	福建晋江	海底古森林怀遗迹和牡蛎海床岩及地质地貌
18	厦门珍稀海洋生物物种国家级自然保护区	福建厦门	中华白海豚、白鹭、文昌鱼
19	漳江口红树林国家级自然保护区	福建云霄	湿地红树林生态系统
20	惠东港海龟国家级自然保护区	广东惠州	海龟及产卵繁殖地
21	内伶仃-福田国家级自然保护区	广东深圳	猕猴、鸟类、红树林等
22	珠江口中华白海豚国家级自然保护区	广东珠海	中华白海豚及其生境
23	湛江红树林国家级自然保护区	广东湛江	红树林生态系统
24	徐闻珊瑚礁国家级自然保护区	广东徐闻	珊瑚礁及其生态系统
25	雷州珍稀海洋生物国家级自然保护区	广东湛江	白蝶贝
26	山口红树林国家级自然保护区	广西合浦	红树林生态系统
27	合浦儒艮国家级自然保护区	广西合浦	儒艮及海洋生态系统
28	北仑河口国家级自然保护区	广西防城港	红树林生态系统
29	东寨港红树林国家级自然保护区	海南海口	红树林生态系统
30	大洲岛海洋生态系统国家级自然保护区	海南万宁	金丝燕及生境、海洋生态系
31	三亚珊瑚礁国家级自然保护区	海南三亚	珊瑚礁及其生态系统
32	铜鼓岭国家级自然保护区	海南省文昌市	珊瑚礁、地质地貌、热带季雨矮林、野生动物等
33	韭山列岛海洋生态国家级自然保护区	浙江象山	大黄鱼、鸟类等动物及岛礁生态系统
34	广东南澎列岛国家级自然保护区	广东南澳	海洋生态系统及海洋生物



1. Overview of MPAs in China

Basic information of MNR

Total area **19011 km²**

Protect target:

Ecosystem: mangrove, coral reef, salt marsh, estuary, bay, island, lagoon et al.

Endangered species: amphioxus, spotted seals, dolphins, sea turtles and other rare and endangered marine species

Others: rare marine natural heritage

34NMNR, 17 managed by OFB, 50%



Coral reef



Seagrass bed



Salt marsh



mangrove

序号	保护区名称	面积
1	辽宁锦州大笔架山国家级海洋特别保护区	3240
2	辽宁绥中碣石国家级海洋公园	14634
3	觉华岛国家级海洋公园	10249
4	盘锦鸳鸯沟海洋公园	6000
5	大连长山群岛国家级海洋公园	51000
6	大连金石滩国家级海洋公园	11000
7	辽宁团山国家级海洋公园	446.68
8	山东昌邑国家级海洋生态特别保护区	2929.28
9	东营黄河口生态国家级海洋特别保护区	27500
10	东营利津底栖鱼类生态国家级海洋特别保护区	9403.57
11	东营河口浅海贝类生态国家级海洋特别保护区	44812
12	东营莱州湾蛤蜊类生态国家级海洋特别保护区	17958
13	东营广饶沙蚕类生态国家级海洋特别保护区	
14	文登海洋生态国家级海洋特别保护区	
15	龙口黄水河口海洋生态国家级海洋特别保护区	
16	威海刘公岛海洋生态国家级海洋特别保护区	
17	烟台芝罘岛群国家级海洋特别保护区	769.716
18	乳山市塔岛湾海洋生态国家级海洋特别保护区	1097.15
19	烟台牟平沙质海岸国家级海洋特别保护区	1465.2
20	莱阳五龙河口滨海湿地国家级海洋特别保护区	1291.1
21	海阳万米海滩海洋资源国家级海洋特别保护区	1513.48
22	威海小石岛国家级海洋特别保护区	3069
23	莱州浅滩海洋生态国家级海洋特别保护区	6780.10
24	蓬莱登州浅滩国家级海洋生态特别保护区	1871.42
25	刘公岛国家级海洋公园	3828
26	日照国家级海洋公园	27327
27	长岛国家级海洋公园	1126.47

MSPA

28	大乳山国家级海洋公园	3412.56
29	青岛西海岸国家级海洋公园	45855.35
30	烟台山国家级海洋公园	1247.99
31	蓬莱国家级海洋公园	6829
32	招远砂质海岸国家级海洋公园	2699.94
33	威海海西头国家级海洋公园	1274.33
34	天津大神堂牡蛎礁国家级海洋特别保护区	3400
35	江苏连云港海州湾国家级海洋公园	49037
36	江苏小洋口国家级海洋公园	4700.24
37	江苏海门蛎岈山国家级海洋公园	1545.91
38	浙江乐清市西门岛国家级海洋特别保护区	3080.15
39	浙江嵊泗马鞍列岛国家级海洋公园	56800
40	浙江普陀中街山列岛国家级海洋特别保护区	20290
	岛国家级海洋公园	5700
	国家级海洋公园	31104.09
	海洋公园	2487
	岛国家级海洋公园	6783
47	福建长乐国家级海洋公园	2598
48	福建湄洲岛国家级海洋公园	6911
49	福建城洲岛国家级海洋公园	225.2
50	福建崇武国家级海洋公园	1355
51	广东南澳青澳湾国家级海洋公园	1246
52	广东特呈岛国家级海洋公园	1893.2
53	广东海陵岛国家级海洋公园	1927
54	广东雷州乌石国家级海洋公园	1671.28
55	广西涠洲岛珊瑚礁国家级海洋公园	2512.92
56	广西钦州茅尾海国家级海洋公园	3482.7

1. Overview of MPAs in China

Basic information of NMSPA

- 2002, first MSPA approved by Fujian Province government
- 2004, first national MSPA approved
- 2010, first MSPA Committee meeting
- 2011, first national Ocean park
- 2013, 46 national MSPA
- 2015, 69 national MSPA





1. Overview of MPAs in China

Legislation and regulations

Article 21:

State Council departments and coastal provincial people's governments shall, according to the need to protect the marine ecosystem, electing & planning, the establishment of marine nature reserves.

Article 23:

Where has a special geographical conditions, ecosystems, biological and non-living resources, marine development and utilization region for special needs, shall establish marine special protection areas and take effective protection measures with scientific approach for management.



中华人民共和国海洋环境保护法

中国法制出版社

1. Overview of MPAs in China

Part of Technology standards for MPAs

National standard (GB/T17504-1998)

Principles of type and level of classification of marine nature reserves

National Standard (GB / T 19571-2004)

Technical specifications of marine nature reserve management

National Standard (GB / T 25054-2010)

Selection technology guidelines of marine special protection areas

Marine industry standards (HY / T 117-2010)

Special marine protected area classification and grading standards

Marine industry standards (HY/T118-2010)

Technical guidelines for the preparation of overall planning, function zoning in marine special protection areas



1. Overview of MPAs in China



2015年国家级海洋公园管理培训研讨会 12.21-23

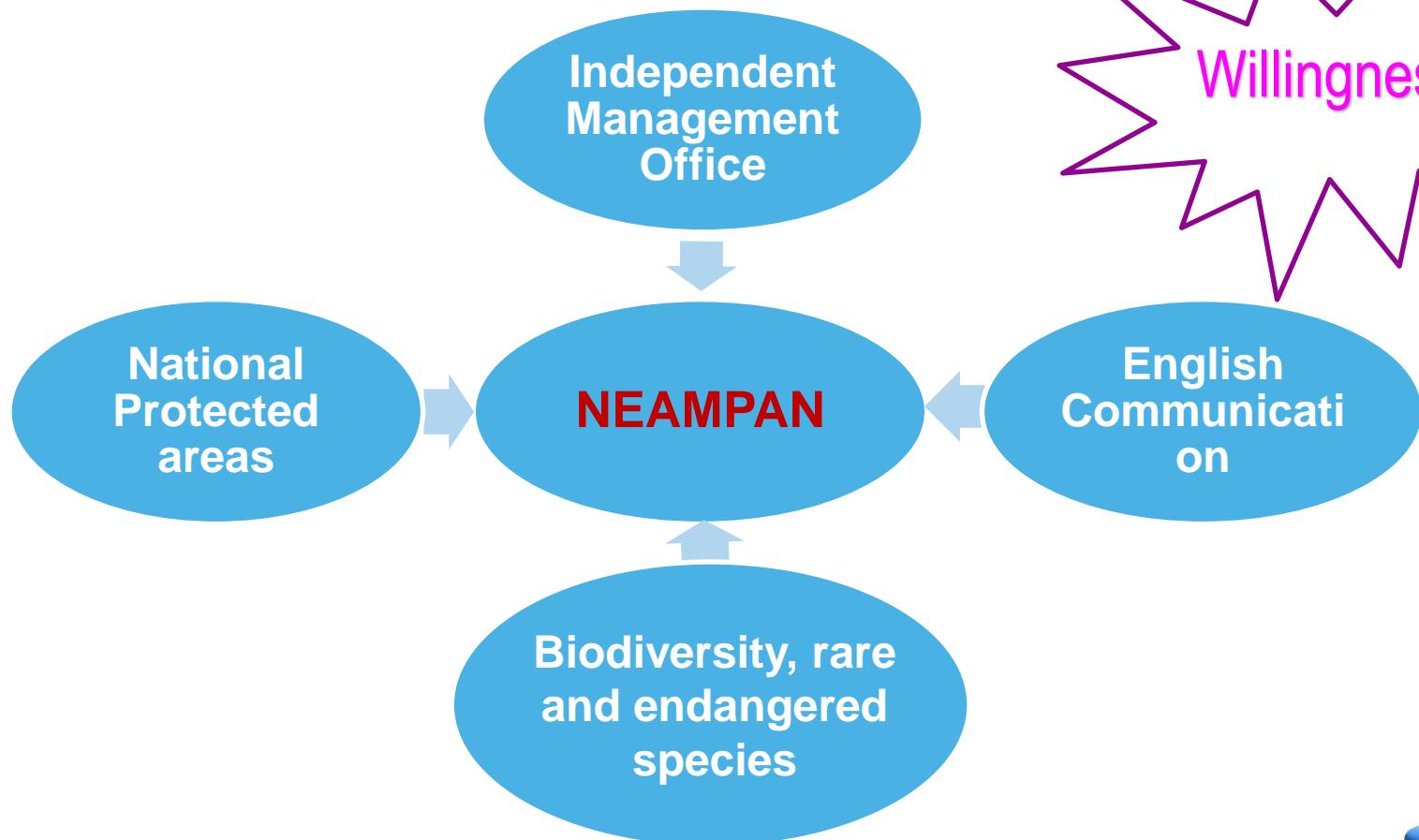


Three of nominated MPAs in China



2. Nominated MPAs in China

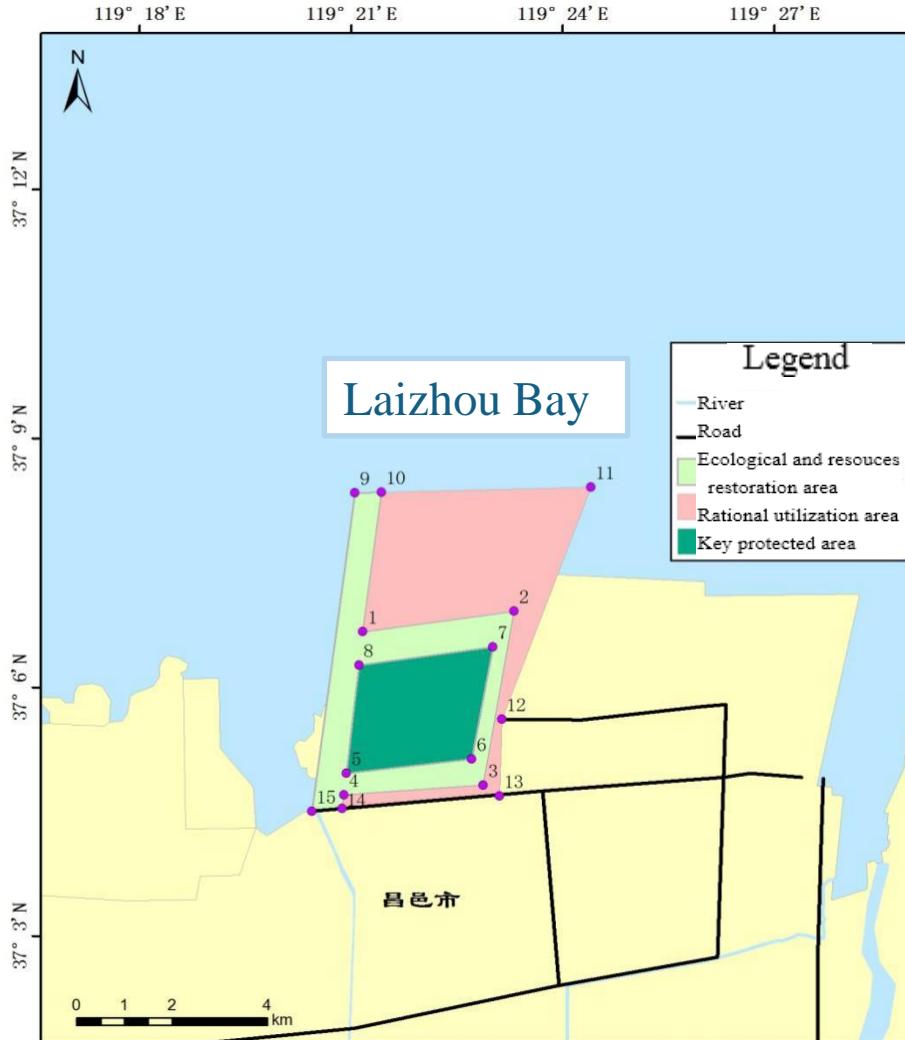
Common features of MPAs nominated in China



2. Nominated MPAs in China



2.1 Changyi National Marine Ecology Special Protected area



Year designated: 2007

Conservation status: MSPA

Area: 2929.28 hm²

Range: 119° 20'09.30"E-119° 24'13.21"E,
37° 04'25.74"N-37° 08'15.47"N

Location: Changyi, Shandong Province

Key Protected species: tamarisk (*Tamarix chinensis*), marine organisms and coastal wetland ecosystems



2.1 Changyi National Marine Ecology Special Protected area

Feature of protected area

❖ Diversity of wetland types

Shallow sea

Tideland

Saltmarsh

Tamarisk wetland

❖ Be abundant of biological resources

Marine organism

Terrestrial plant

Birds

- It's the only national MPA that protects mainly tamarisk of coastal wetland in China;
- It's tamarisk's natural range which own good growth, largest area and typical structure in China coast;
- It's extremely rare among the north coast and has been of inestimable value to protection and development.



2.1 Changyi National Marine Ecology Special Protected area



Tamarisk



Suaeda salsa



White Swan



Tamarisk



Terrestrial
plant



Wild animal
and birds



Tamarisk



Setaria

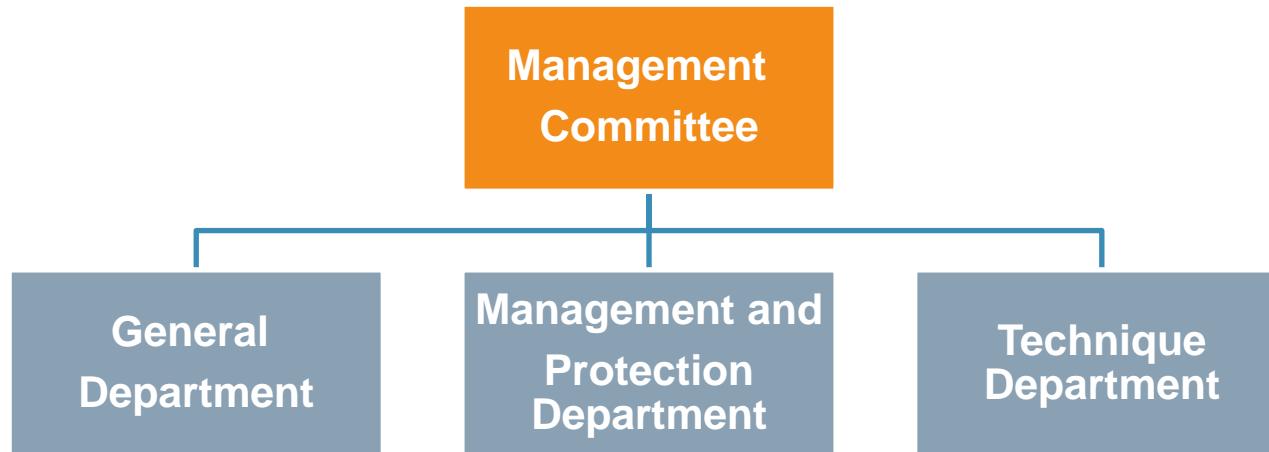


Wild geese



2.1 Changyi National Marine Ecology Special Protected area

Construction and Management—— Management authority

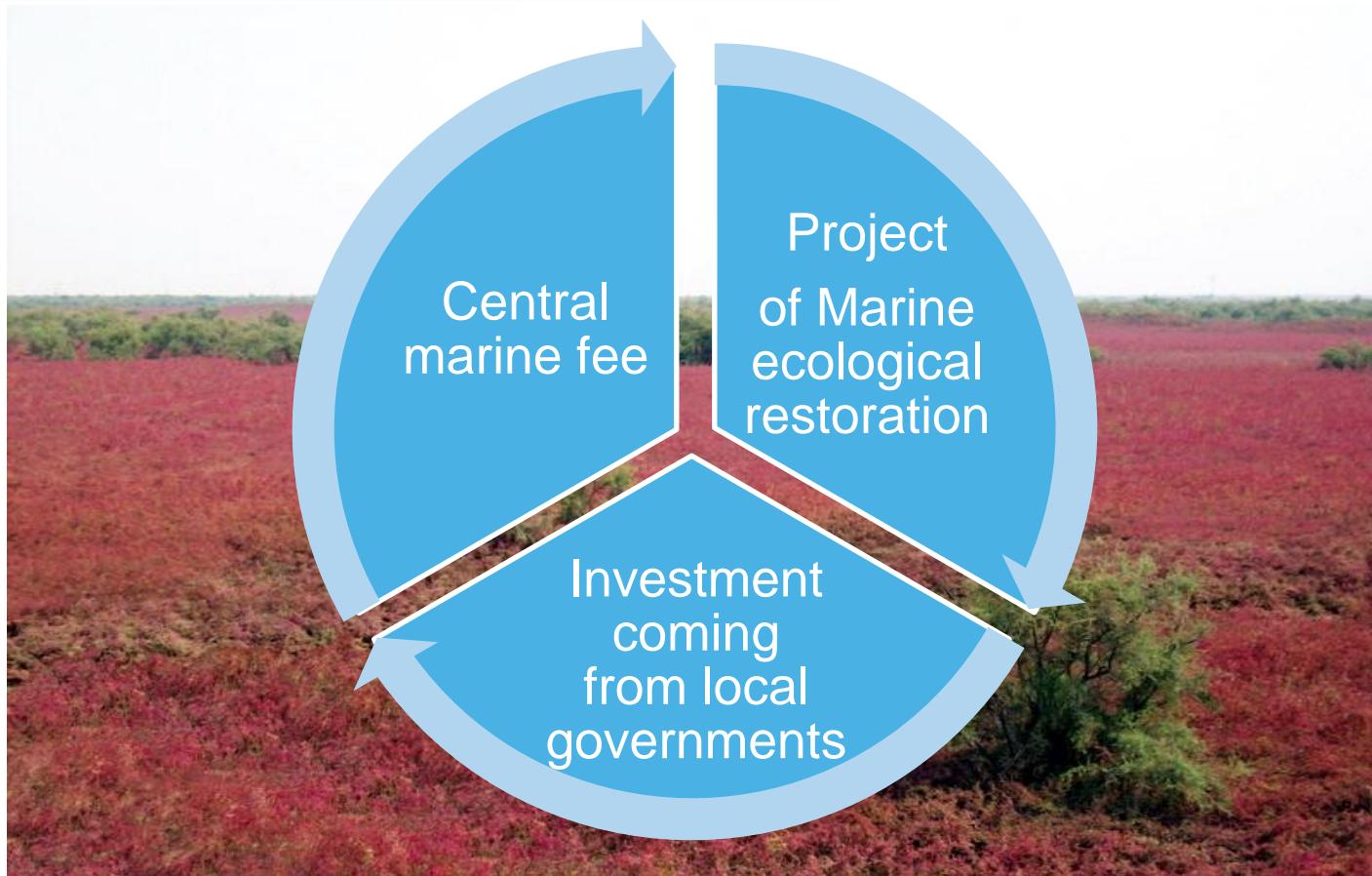


In 2009, the management committee of Changyi National Marine Ecology Special Protected area was licensed. It belongs to public institution and controlled directly by the city government.



2.1 Changyi National Marine Ecology Special Protected area

Construction and Management—Funds



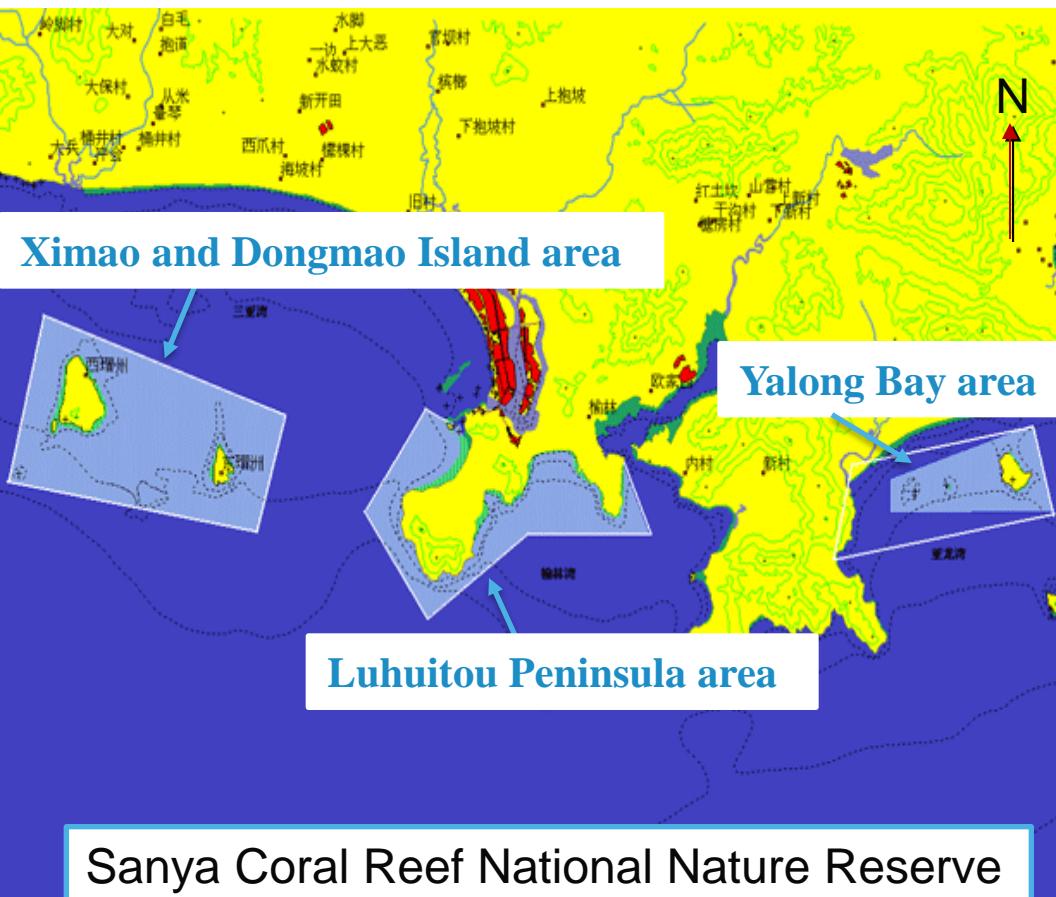
2.1 Changyi National Marine Ecology Special Protected area

Challenges

- Insufficient funds
- Threats from utilization and other activities
- Public awareness



2.2 Sanya Coral Reef National Nature Reserve



Year designated: 1990

Conservation status: MNR

Area: 8500 hm²

Range: 109°20'50"E-109°40'30"E,
18°10'30"N-18°15'30"N

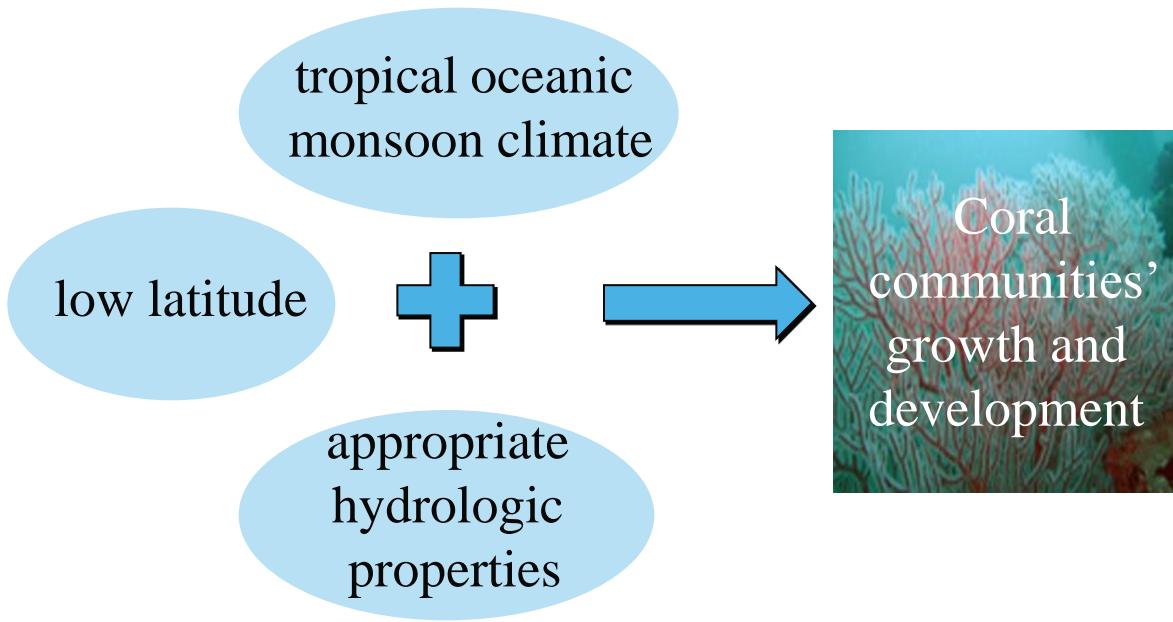
Location: Sanya, Hainan Province

Key Protected species: Coral reef
and the marine ecological system

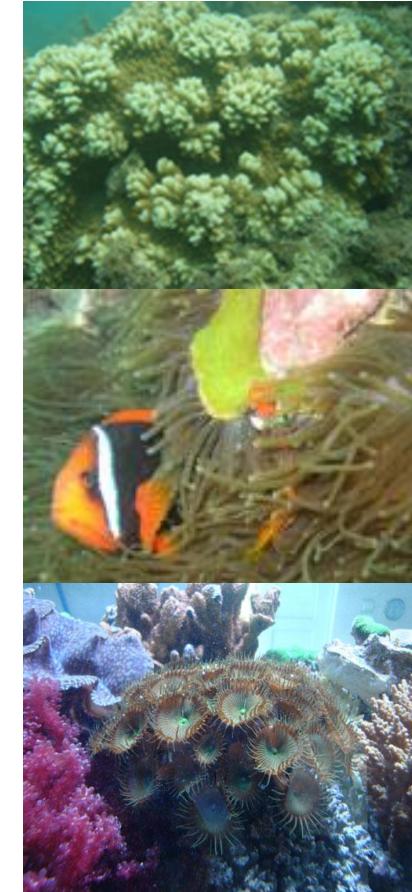


2.2 Sanya Coral Reef National Nature Reserve

Feature of nature reserve



- Coral Reefs
- Marine organism living with coral reef



2.2 Sanya Coral Reef National Nature Reserve

Part of main coral species



Gorgonian



Sinuosa



Elegans



Scabridula



Porites pukoensis



Cactus

Sanya Coral Reef National Nature Reserve <http://www.sycoral.com.cn/>



2.2 Sanya Coral Reef National Nature Reserve

Construction and Management——Monitoring and Research

- Research on biodiversity of coral reef
- Monitoring of coral reef around projects
- Study on the influence to coral reef after breeding and releasing of fish
- Basic research on morphological characters and habits of marine animals



国家海洋局第三海洋研究所

Third Institute Of Oceanography, State Oceanic Administration



2.2 Sanya Coral Reef National Nature Reserve

Challenges

- Global Changes in Oceans
- Environmental pollution
- Threats from human activity
- Insufficient funds



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems



Year designated: 1990

Conservation status: MNR

Area: 7000 hm²

Range: 110°26'50"E-110°32'06"E,

18°37'06"N-18°43'54"N

Location: Wanning, Hainan Province

Key Protected species: Swiftlet, its habitat and the marine ecological system



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

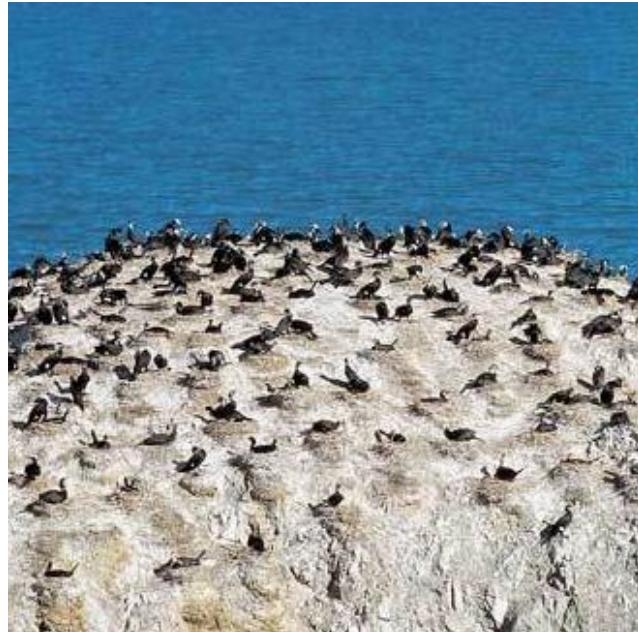
Feature of nature reserve

- Typical marine ecosystem of Island
 - Be abundant of plant resources
 - Be rich of animal resources, especially the swiftlet
 - Marine organism around the Island
- Swiftlet has been the endangered species.
 - Dazhou Island provides them habitat environment.
- Swiftlet's nests are famous as the eastern curiosity and rare medicine.



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Swiftlet and the marine ecological environment



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Construction and Management—— Management authority

- ◆ In 1992, administration of National Nature Reserve of Dazhou Island Marine Ecosystems was established.
- ◆ There are 8 staff currently.
- ◆ It belongs to Hainan Provincial Oceanic & Fishery Administration.



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Construction and Management——Management system

In 1992, Regulations on the Nature Protection Regions of Hainan Province

In 1992, Announcement on reinforce the management of National Nature Reserve of Dazhou Island Marine Ecosystems

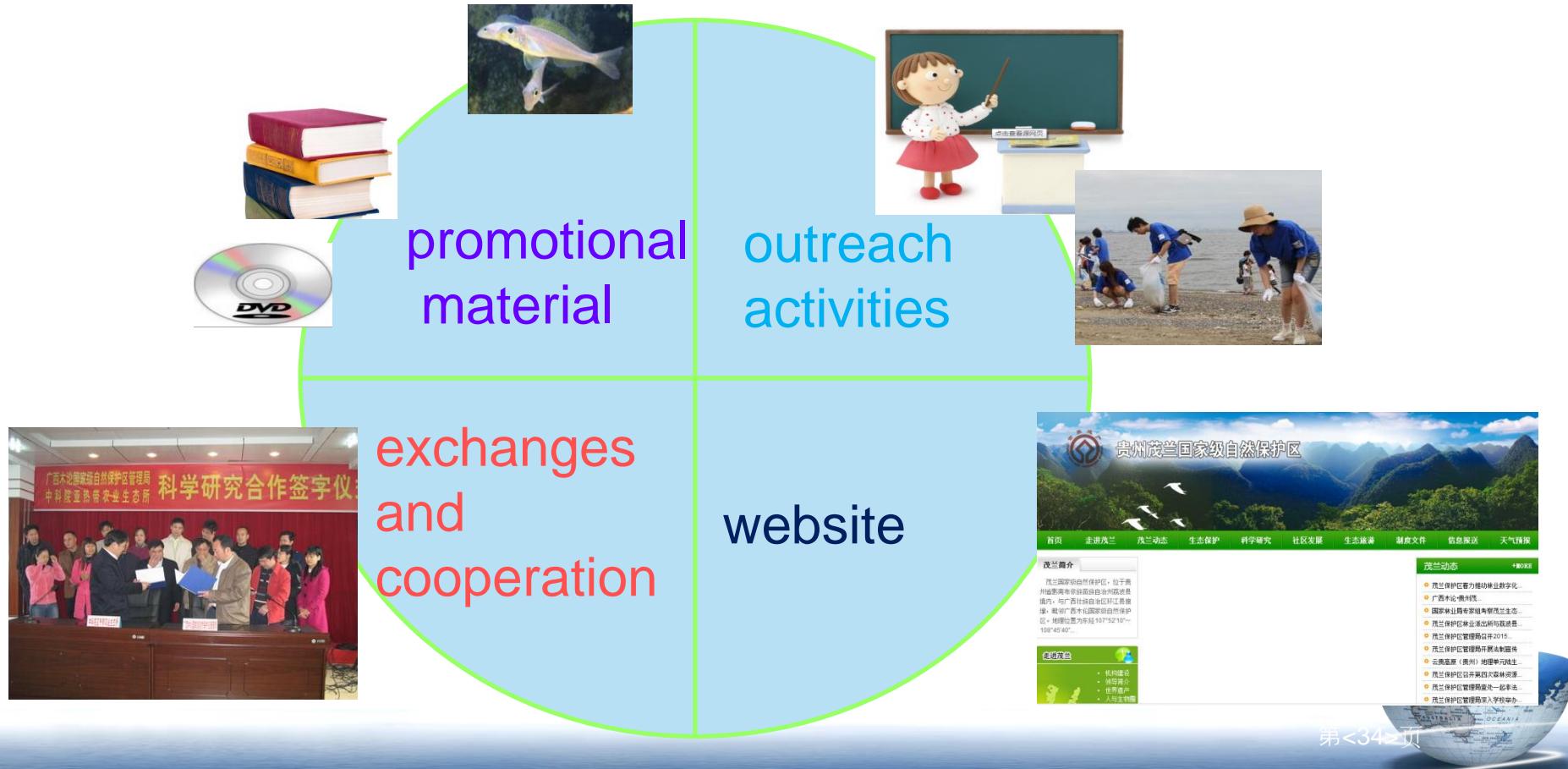
In 1994, Regulations on the Nature Protection Regions of the People's Republic of China

In 1995, Regulations on the Nature Protection Regions



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Construction and Management—— Education and Training



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Construction and Management——Monitoring and Research



Study on behavioral ecology and species of swiftlet



Research on biodiversity of plants in the island



Research on marine ecology around the island



海南师范大学
HAINAN NORMAL UNIVERSITY



海南大学
HAINAN UNIVERSITY



2.3 National Nature Reserve of Dazhou Island Marine Ecosystems

Challenges

- Insufficient funds
- Overfishing around the island
- illegal tourist



Thank you

