

*The Ocean Conference,  
Partnership Dialogue 2*

**Managing, protecting, conserving and restoring  
marine and coastal ecosystems:  
Best practices and recommendations of China  
中国海洋生态保护的实践与建议**

**Deputy Administrator  
State Oceanic Administration (SOA), China  
Mr. Shanqing LIN**

**中国国家海洋局副局长 林山青**

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# Achievements 成就显著

Marine economy is growing rapidly and has become an important pillar for China's open economy.

*China's coastal area is 1% of global land area*

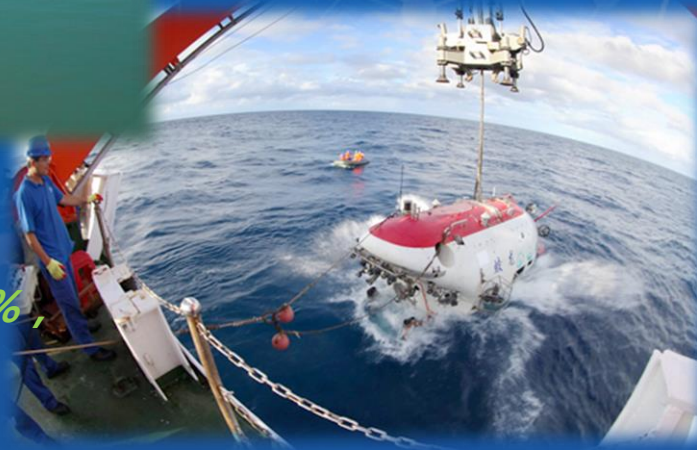
*support 8% of global population*

*occupy 9% of global economic aggregate*

*occupy 7% of international trade volume*

**海洋经济快速发展，成为中国开放经济的重要支柱**

**中国沿海地区面积占全球陆域面积的1%，占全球人口总数的8%，  
产生全球经济总量的9%，国际贸易总量的7%**



# Challenges 面临挑战

Ocean environment protection in China still has a long way to go.

- ◆ *Extensive utilization of marine resources*
- ◆ *High intensity of exploitation of the seas*
- ◆ *Environmental risks and pressures existing*
- ◆ *Overall ecosystem services function decreasing*
- ◆ *Marine ecological security status worsening*

海洋资源利用方式仍显粗放

开发强度依然较大

环境风险压力有增无减

生态系统服务功能总体下降

海洋生态安全形势严峻



2015年9月印发了《生态文明体制改革总体方案》，提出一系列改革举措，是生态文明领域改革顶层设计和部署。

习近平主席在70届联大发言：我们要构筑尊崇自然、绿色发展的生态体系。我们要解决好工业文明带来的矛盾，以人与自然和谐相处为目标，实现世界的可持续发展和人的全面发展。国际社会共同致力于建设全球生态文明，坚持绿色、低碳、循环、可持续发展道路。



New perspective:

Clean waters and green hills are precious treasures.

绿水青山就是金山银山

Five development ideas:

Innovation, coordination, green, open and sharing

创新、协调、绿色、开放、共享

### *Overall Plan for the Reform of Eco-civilization System*

Launched on Sep. 21, 2015 by the central government,  
One of the overarching documents for Eco-Civilization reform

*President Xi's remarks in the 70<sup>th</sup> Session of the United Nations Assembly, Sep. 28, 2015*

We should build an ecosystem that puts Mother Nature and green development first. Efforts should be made to address the conflicts brought by industrial civilization, and take the harmonious existence between human and nature as the goal so as to realize the sustainable development of the world and the comprehensive development of the mankind. The international community should work together on the way towards a global eco-civilization and stick to a green, low-carbon, recyclable and sustainable development path.

*Ocean is important and indispensable part in Eco-Civilization development*

*“Ecological Protection First” principle*

*Marine and coastal ecosystems management, protection, conservation and restoration strengthened*



海洋领域作为生态文明建设的重要组成部分，牢固树立了“生态保护优先”的理念，不断强化海洋和海岸生态系统管理、保护、养护与恢复，取得了大量阶段性成果。

# Best practices and experience

Contributing factors to successfully manage, protect, conserve, restore marine and coastal ecosystems in China

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- ✓ Legal system improvement
- ✓ Spatial management
- ✓ Capacity building
- ✓ Pollution prevention
- ✓ Protection and rehabilitation

我愿意借此机会从海洋生态保护法制建设、空间资源利用、能力建设、污染防治、保护修复等五个方面，和大家分享中国的一些做法和经验。

# Sound legal system for marine eco-protection

- *Marine Environment Protection Law of the People's Republic of China (as amended in 2016)*
- *Environmental Protection Law of the People's Republic of China (2014)*
- *Law of the People's Republic of China on the Administration of Sea Areas (2001)*
- *Island Protection Law of the People's Republic of China (2010)*
- *Law of the People's Republic of China on the Exploration and Development of Resources in Deep Seabed Areas (2016)*

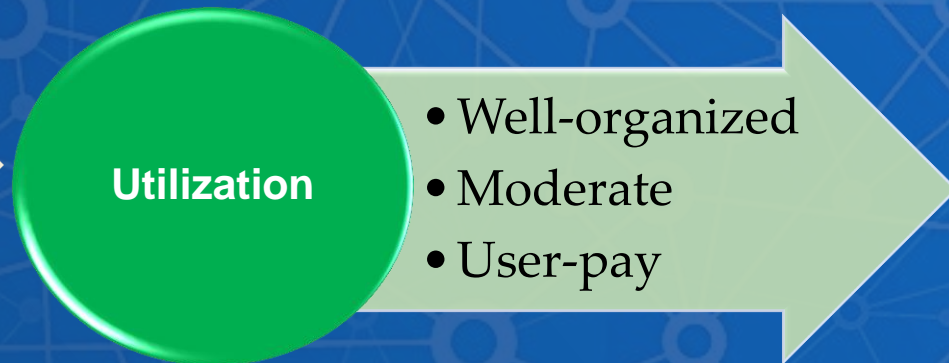
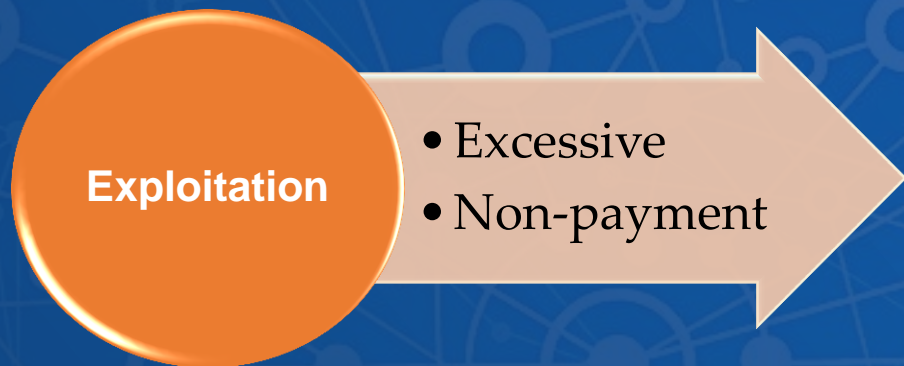
And more than 20 national regulations

一是进一步加强海洋生态保护法制建设。

进入本世纪以来，中国相继出台或修订了《海洋环境保护法》、《海域使用管理法》、《海岛保护法》、《深海法》等法律，以及《防治海洋工程建设项目污染损害海洋环境管理条例》等20余部配套法规，为加强海洋生态保护提供较为完善的法律体系。



# Strengthened marine spatial utilization management



- Marine functional zoning plan  
*Resources and protection covered by spatial plan*
- Marine space user-pay principle  
*For ecological protection and restoration*
- Plan revision process kicks off  
*Protected- and reserved- marine space enlarged, management leveled up*

二是不断强化海洋空间资源利用管理，努力实现由过度、无偿开发向有序、有度、有偿使用转变。

- 海洋功能区划制度  
*将海洋资源环境保护目标纳入海洋空间规划*
- 海域有偿使用制度  
*将缴纳的海域使用金用于海洋生态保护和修复*
- 目前正在启动新一轮海洋功能区划修订编制  
*将进一步提高保护类、保留类海洋生态空间的占比和管理要求*

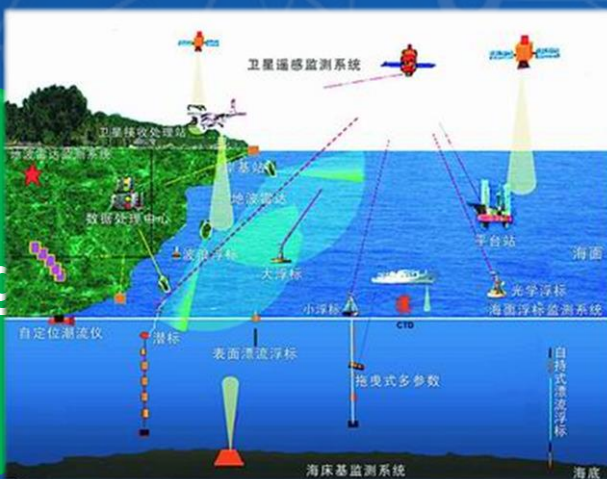


# Enhanced marine monitoring capacity building

Pollution



Ecology



三是大力加强海洋监测能力建设，努力实现由单一污染监测向海洋生态综合监测转变。

- 235 marine monitoring institutions nationwide
- 8000 stations monitored, 2.4 million data collected per year
- 18 marine ecological monitoring areas
- 23 red-tide disaster monitoring areas
- Devices - Radars, buoys, satellites, etc.
- Factors - Pollution, ecology, environment, disaster, risk, etc.
- 目前已在全国设立235个海洋监测机构；
- 开展8000余个站位的监测，年均获得监测数据达240万余个；
- 在全国建立18个海洋生态监控区，23个赤潮监控区；
- 采用雷达、浮标、卫星遥感等多种手段，实现对海洋和海岸生态系统的实时、立体监视监测；
- 进一步丰富监测要素，涵盖了污染、生态、环境、灾害、风险等8大类16小类监测项目。

# Advanced marine pollution prevention and management

Single-way prevention

- *Emission control*



Integrated management

- *Land and sea coordination*

Total Emission Quantity Control system in key sea areas

*Principle: Sea determines land*

*Goal: Source emission control, Quality improvement of marine environment*

*Pilot area: Bohai Sea*

Integrated coastal management and integrated watershed-sea area management

*Xiamen City “land area – watershed – sea area” collaborative prevention and management mode*

四是加快实施海洋污染防治，努力实现由单一浓度排放控制向陆海统筹的海洋污染综合防治转变。

- 大力推动重点海域排污总量控制制度,以确保海洋环境质量为目标确定陆源污染排放总量
- 开展海岸带综合管理和流域-海域综合管理。例如，福建“厦门模式”——“区域-流域-海域”污染协同治理。

# Country Example I

## Pollution prevention and management coordinating land and sea

### Integrated marine and coastal management in Xiamen City 厦门市海洋与海岸带综合管理

## 国家案例一

## 陆海统筹的污染防治

- ✓ Nine rivulets flowing into the sea were comprehensively managed, thus effectively reducing agriculture and other land-based pollution.
- ✓ Bay area of Jiulong river was collaboratively managed, 0.23 billion yuan is allocated for this program annually. A pilot Total Emission Quantity Control working program is being drafted as well.



- ✓ 开展入海九条溪流综合整治工作,区域合作推动九龙江流域污染治理
- ✓ 以区域经济发展、海洋环境和生态系统保护以及社会公平为目标,推动包括强制推进垃圾分类,实行垃圾入海减量等行动的“区域-流域-海域”污染协同治理,成为海洋生态系统管理的创新性举措。

《把清澈还给海洋》

# Comprehensively management of Huandong , XIAOMEN 厦门环东海域综合整治



Before ( 整治前 )



Planning ( 整治规划 )



New coastal city After Restoration

整治后形成约100平方公里的滨海新城

# Comprehensively management of Xinling Bay , XIAOMEN 厦门杏林湾整治

## Before ( 整治前 )



## After ( 整治后 )



# New coastal city After Restoration



# Comprehensively management of Yandang Harbor , XIAOMEN 厦门筲筍湖整治



Yandang Harbor in 1954

1954年的筲筍港



During Restoration in 1990s

20世纪末大规模整治筲筍湖



Today's Yandang

今日的筲筍湖

# Promoted marine ecological protection and restoration

Discrete protection;  
Government-led investment

Area protection;  
Systematic restoration;  
Multi-source investments

## Marine ecological red-line scheme established

- *More than 30% of the managed sea area and 35% of the continent coastline are covered by the scheme*

## Marine Protected Areas (MPAs)

- *Enhanced MPAs network;*
- *More than 250 sites of MPAs, with total area of 120,000 km<sup>2</sup> selected*

**五是大力推进海洋生态保护修复，努力实现由点状保护、政府单一投入向面状保护、系统修复、多元投入转变。**

## 海洋生态红线

- **初步将全国30%以上的管理海域和35%的大陆岸线纳入红线管控范围**

## 海洋保护区

- **选划海洋保护区250余处，总面积达12万平方公里**



- Land reclamation suspended in the Bohai sea
- *“Field to Blue”* action – return aquaculture area/dyke to beaches/wetlands/sea
- Key rehabilitation projects
  - *“Blue Bay”* Project
  - *“South Mangrove, North Tamarisk”* Project
  - *“Ecological Island”* Project, and
  - *Other programs for bays, estuaries, islands, beaches, etc.*
- Triple mechanisms
  - *Collaborative protection*
  - *Multi-source investments*
  - *Rewards and punishments*

## 停止在渤海的围填海活动

- 实施“退养还滩（湿）、退堤还海”等方式，使受损的海岸和海洋生态系统得到恢复并休养生息。

## 开展重点生态修复工程

- “蓝色海湾”工程
- “南红北柳”工程（南方以红树为主，北方以芦苇、碱蓬为主的生态恢复工程）
- “生态岛礁”工程

建立协同保护、多元投入、依据保护和使用情况进行奖罚等三方面机制



South Mangrove, North Tamarisk  
南红北柳



Blue Bay  
蓝色海湾



Ecological Island  
生态岛礁

Since 2010, more than 180 key rehabilitation projects implemented

- 270 km<sup>2</sup> coastline managed
- 130 ha. beaches rehabilitated
- 5000 ha. coastal wetlands restored
- 160 ha. mangroves, 1100 *Suaeda heteroptera* and 5 million tamarisks grown
- 11 billion yuan invested by central government

Liaohhe estuary – Return back to 1980s

269 species of birds, 1980s

2010年以来，实施重大项目180余个，仅中央政府投入资金已累计超过110亿元人民币

- 规划整治修复岸线270余公里
- 修复沙滩约130公顷
- 恢复滨海湿地5000余公顷
- 种植红树林160余公顷、翅碱蓬约1100公顷、柽柳500余万株

以辽河口湿地为例：辽河口湿地鸟类已达到269种，基本恢复到上世纪80年代水平



## Country Example II 国家案例二

### Marine and coastal ecosystem restoration 海洋与海岸带修复

#### The Red Beach National Marine Park at Liaohe Estuary

#### 辽河口红海滩国家海洋公园

Located in Panjin, a southeastern city of Liaoning province

- ✓ 2013~2015, 35.2 km<sup>2</sup> tidal flats and wetlands were restored, including 20.5-km<sup>2</sup> *Suaeda heteroptera*. 14.7 km<sup>2</sup> reclaimed aquaculture ponds were dismantled.

2013-2015年，通过开展辽河口滨海湿地修复工程，共恢复滩涂湿地35.2平方千米，其中，修复翅碱蓬20.5平方千米，拆除围海养殖池塘14.7平方千米。



Restoration of *Suaeda heteroptera*



Before (修复前) Midst (修复中) After (修复后)

## Country Example II 国家案例二

### Marine and coastal ecosystem restoration 海洋与海岸带修复

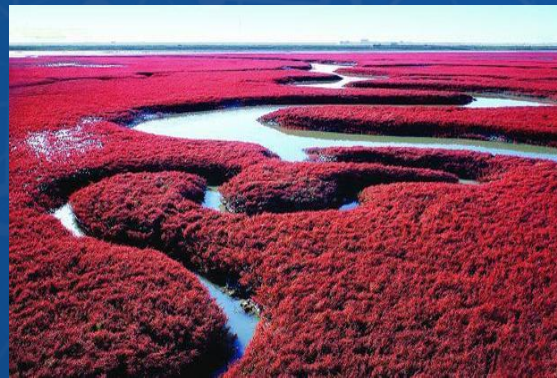
#### The Red Beach National Marine Park at Liaohe Estuary

#### 辽河口红海滩国家海洋公园

Located in Panjin, a southeastern city of Liaoning province

2016年以来，种植翅碱蓬6.7平方千米，恢复湿地33.3平方千米，不断提升湿地服务功能。

- ✓ From 2016 to now , 6.7 km<sup>2</sup> *Suaeda heteroptera* has been grown, 33.3 km<sup>2</sup> wetlands restored.



生态与景观价值

Ecological and landscape value

# Recommendations

# 中国的建议与倡议

## China's actions and call to co-action

### □ Continue to follow the “Ecological Protection First” principle

- *protection of coastal and marine biodiversity, ecosystems and endangered species*
- *restoring key habitats including coastal wetlands, mangroves and coral reefs*
- *reducing land-based and marine pollution and curbing their damage to marine ecosystems*

### □ Strengthen international cooperation

- *marine science and management practices sharing*
- *deepening policy dialogues and practical cooperation*
- *collaboratively addressing challenges from marine pollution, ocean acidification, marine ecological protection and restoration, marine disaster, etc.*

### □ Promote marine sustainable development and shoulder due responsibilities and obligations

### □ 中国将继续贯彻“生态保护优先”的理念

- **加强沿海和海洋生物多样性、生态系统与濒危物种的保护**
- **对滨海湿地、红树林、珊瑚礁等关键生态环境进行修复**
- **降低海洋和陆上活动产生的污染物，遏制其对海洋生态系统的损害**

### □ 中国将进一步加强国际合作

- **分享在海洋领域的科学和管理实践**
- **深化政策对话与务实合作**
- **共同应对海洋污染和酸化、海洋生态保护与修复、海洋灾害等方面的挑战**

### □ 中国将全面推动海洋可持续发展,承担应尽的责任和义务,支持发展中国家的能力建设,共建美好蓝色家园!



**MANY THANKS FOR YOUR ATTENTION!**  
**感谢您的关注**