

# The monitoring and management of marine litter in China

### **Cong Bailin**





### 1. Policies, Regulations and Monitoring standards

#### The Laws



### 中华人民共和国 固体废物污染环境防治法

- 🌀 中国劳动社会保障出版社
- Environmental Protection Law -- Implemented on January 1, 2015
- Solid Waste Pollution Prevention and Control Law -- Implemented on April 1, 1996, revised version on November 7, 2016
- 中华人民共和国海洋环境保护法



- Water Pollution Prevention and Control Law -- Implemented on January 1, 2018
- Marine Environmental Protection Law --Implemented on November 5, 2017

### 1. Policies, Regulations and Monitoring standards

#### **The Regulations**

- Regulations on the Management of Marine Dumping -- Implemented on April 1, 1985
- Marine Environmental Pollution
  Prevention and Control Regulations Implemented on August 1, 1990
- Implementation plan for marine
  ecological civilization
  construction(2015-2020)

- The program is China's first special overall plan for the construction of marine ecological civilization, providing a road map and timetable for the construction of marine ecological civilization during 2015 to 2020.
- Ecological civilization construction has become an important assessment index for governments of all levels.
- Explore the new strategy to enhance the management of marine litter.
- The demonstration of marine litter control has been carried out and spread the successful measures.

### 1. Policies, Regulations and Monitoring standards

The Monitoring Standards

- Technical Standards for Monitoring and Evaluation of Marine Waste -- Implemented on December 18, 2015
- Technical Standards for Monitoring and Evaluation of Marine Microplastics -- Under consultation
- Guidelines for monitoring and evaluation of sea beach -- Under consultation

These technical standards make marine litter monitoring unified, detailed and scientifically

### **River Chief Regulation**

a. Wastes from the land is the main source of Marine waste through the river importing, so the control of landbased pollutants and wastes should play an very important role in the management of Marine litter.

b. *The River Chief Regulation* refers to all levels of governments as the main person responsible for the basins management in order to enhance the environmental conservation. This can very clearly determine the environmental governance coordinator and legal liabilities. It pioneered by Wuxi City, Jiangsu Province in 2007.

c. On december 2016, Central Government has proposed the full implementation of the *River Chief Regulation* in China.

d. Local governments are required to implement the *River Chief Regulation* as an important measure to promote the construction of ecological civilization and the river management system will be fully established by the end of 2018.

e. The River Chief Regulation strictly prohibits the importing of land-based wastes into the sea.

#### Scene of phytoplankton bloom in Taihu Lake





May, 2007

September, 2013

#### **Bay Chief Regulation**

In March 2017, at the press conference of the 2016 China Marine Environment Bulletin, Sun Shuxian, Deputy Director General of SOA said that SOA would introduce the Bay Chief Regulation to promote marine pollution control. On September 14, 2017, Qingdao took the lead in implementing the "Bay Chief Regulation" in China.

#### The importance of the Bay Chief system:

- The Bay Chief Regulation can clarify the marine environmental quality objectives and implement different tasks effectively, which also can solve the coordination problem of different government departments and clarify the responsibilities.
- Draw the successful experience of The River Chief Regulation, make it possible to achieve systemic management both on the land and sea.

#### **Bay Chief Regulation**

The control of Marine litter is an important part of Bay Chief Regulation, which strictly controls the import of wastes, regularly carry out the cleaning of floating debris, beach and submarine wastes. It will work with River Chief **Regulation to establish a new mode of** environmental management that combines land and sea administration and co-governance.







October 2018

September 2012

### **Ecologically protected red line**

Ecological protected red line refers to delimit boundaries in important marine ecological functional areas, marine ecological sensitive areas and marine ecologically fragile areas where prohibit any construction activities.

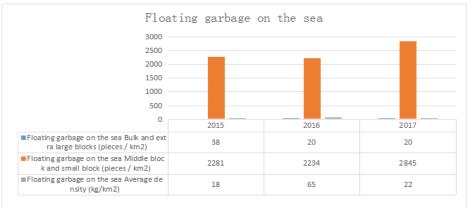
In the ecological protected red line areas , implement the restoration measures to keep the original ecological functions and construct the regular marine litter monitoring and clean-up system to dispose marine litter effectively.

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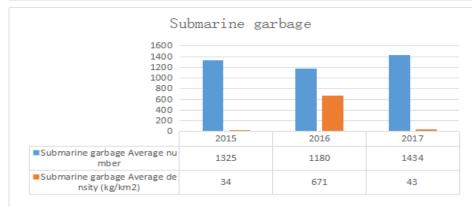
This regulation launched in Shandong on 2012, it has been piloted in all coastal areas at present.

#### Monitoring

#### 2015 -- 2017 annual change of Chinese marine litter as shown:



Floating garbage on the sea Bulk and extra large blocks (pieces / km2)
 Floating garbage on the sea Middle block and small block (pieces / km2)
 Floating garbage on the sea Average density (kg/km2)

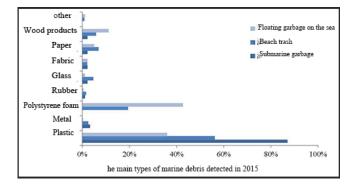


Submarine garbage Average number Submarine garbage Average density (kg/km2)



These figures suggest that in the past three years, China has suppressed the increase of marine litter with high-speed development of economy. In 2017, China has made great progress compared with last year in the management of beach wasts.

#### Monitoring



#### 2015 - 2017 Regional monitoring of marine litter

The main types of marine debris detected in 2016

other

Wood pro

Paper

Fabric

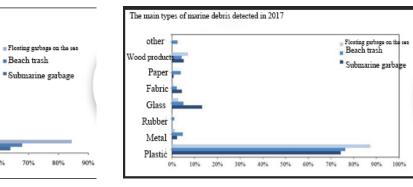
Glass

Rubber

Metal

Plastic

0%



#### 2008-2017 Marine litter dumping volume in China



These figures suggest that plastic waste is the main marine litter. Marine litter dumping volume remained steady in the past three years, especially the GDP of China increased by \$21,241 trillion on the duration. This shows that our policy on the management of marine litter has played a positive role.

### 3. Global Marine Environment Governance

#### **Bilateral agreement**

- On July 2016, China and the United States signed the Memorandum on Cooperation of Marine Waste Prevention between the Partner Cities.
- China and Canada issued a joint statement to address marine litter and plastics on November
  14, 2018 in order to control marine litter.





### 3. Global Marine Environment Governance

#### The International activities

- I. In 2012, UNEP adopted the "Global Partnership for Marine Waste" plan.
- 3. At the 2017 World Ocean Summit, the United Nations Environment Program announced the launch of the "Clean Ocean" campaign to "declare war" on marine debris.
- 4. The G20 Hamburg Summit in 2017 passed the "G20 Marine Waste Action Plan" to raise the issue of marine plastic waste and micro-plastics to global governance.
- 5. Participation includes the "Northwest Pacific Action Plan (NOWPAP)" and the East Asia Sea Area Environmental Management Regional Cooperation Plan. (PEMSEA)" and other international environmental conventions.



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