

Preventing Marine Litter from Land-Based Activities in China



WU Xianfeng

State Environmental Protection Administration, China

Introduction

- **China has 18,000 Km length coastline. Including the Bohai sea, the Yellow sea, the East sea and the South sea.**
- **The Bohai sea and the Yellow sea are located within the NOWPAP region, and the two seas have a total area about 457,000 km² .**
- **The main rivers which flow to the NOWPAP region are the Songhuajiang River, the Liaohe River, the Haihe River, the Huaihe River and the Yellow River.**



Introduction

Approximately, the source of marine litter in China :

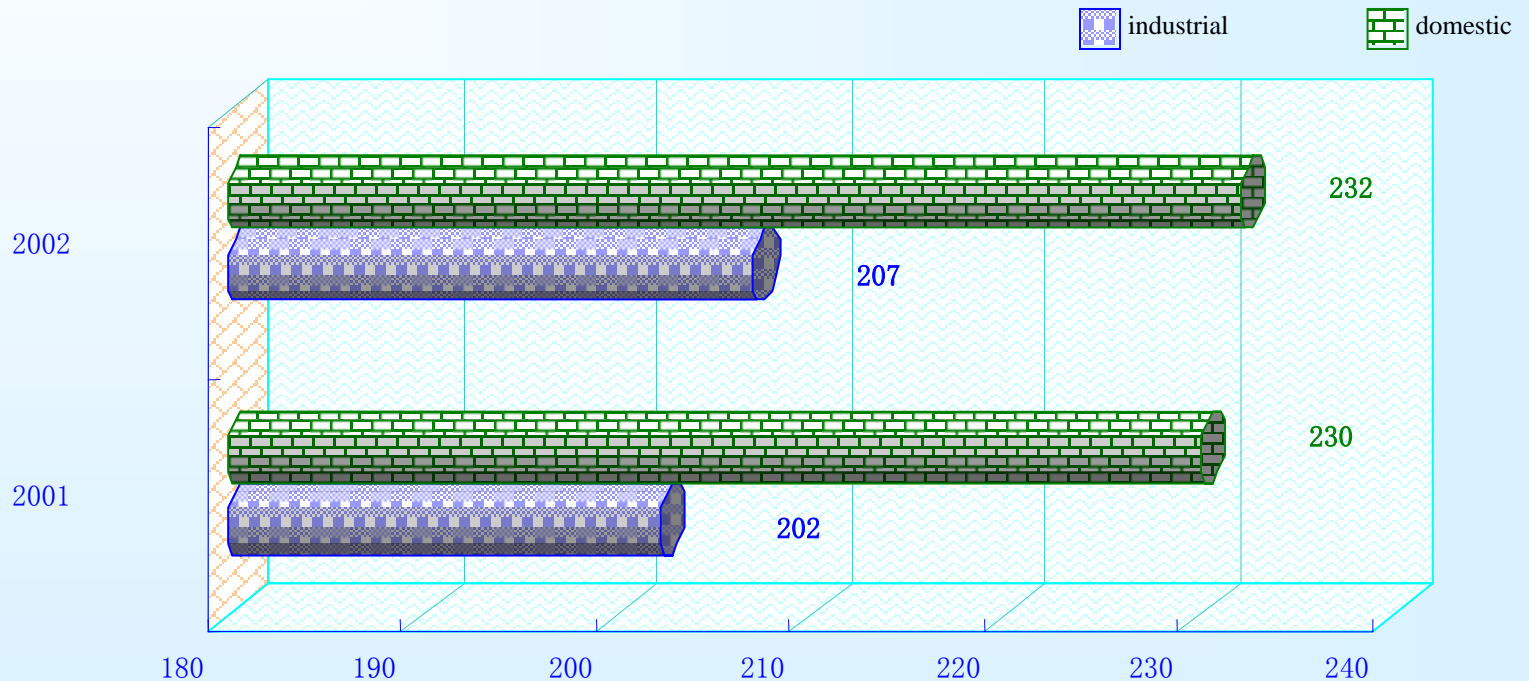
- ☐ 80 percent from land-based**
- ☐ 20 percent from sea-based**

Land-based source of marine litter in China

- ❑ **Human activities in the coast zones**
 - **Industry production**
 - **domestic life**
 - **tourism**
- ❑ **Carried by the river flows from the upper drainages**
(not serious because of some dams on the rivers)
- ❑ **Nature disasters (storm-flood, typhoon)**

Land-based source of marine litter in China

Wastewater generated (*10⁸ ton)



Among that, 108 billion ton wastewater is generated in the NOWPAP regions per year, about 1/4 of the total.

Land-based source of marine litter in China

Populations and Solid Waste

In 2003

- there are 155 million persons living in the coast zones in the mainland, 57 million persons(about 37% of the total) living in the NOWPAP region.

- 56 million tons waste generated in the coast zones, and 18 million tons in the NOWPAP region, most of theme were collected to dispose.

Wastewater&solid waste generated&disposal in coast zones

(109 cities and 185 counties calculated)

Place	Number	Population (*10 ⁴)	Tap water users(*10 ⁴)	Water provided (*10 ⁴ m ³)	WW discharge (*10 ⁴ m ³)	SW collected (*10 ⁴ ton)
City	109	12418.5	10105.8	1995979	1438405	4358.5
County	185	3078.75	2733.33	377008	269805.5	1306.6
Total	294	15497.3	12839.1	2372987	1708210.5	5665.1

Efforts for preventing marine litter from land-based activities in China

First: Constitute legislations for Marine Environment

- **Law of Environmental Protection**
- **Law of Marine Environmental Protection**
- **Pollution prevention law of solid waste**
- **Law of Fishery**
- **Law of Water**
- **Law of Wild Animals Protection**
- **Law of Water and Soil Conservation**
- **Law of Water Pollution Prevention**

Second: 3R for industry and domestic wastes

- **Promoting cleaner production**
- **Encouraging recycle economy**
- **Increasing reused rate of wastewater through establishment of sewage treatment plants**
- **Controlling and reducing domestic pollution by promoting the building of municipal domestic waste disposal equipments**
- **Disposing hazardous and toxic wastes in municipal solid waste disposal centers**

Third: National program actions in regional areas

□Program I : 33211 project

•In the 10th five-year-plan , there are 10 key National program actions for environmental protection in China(3 rivers, 3 lakes, 2 acid-rain regions,1 sea and 1 city,33211 project).

•In that, all the three rivers(the Liaohe river, the Haihe river and the Huaihe River) , sea (Bohai sea) and city(Beijing) are located in the range of NOWPAP region.

33211 Projects

• **3** rivers

Huaihe, Haihe and Liaohe river

• **3** lakes

Chaohu, Taihu and Dianchi lake

• **2** atmosphere control zones

SO₂&acid rain

• **1** bay

Bohai sea

• **1** city

Beijing city



Water Pollution
Control Plan of the
Basin on Liaohe River
(Circularizing)

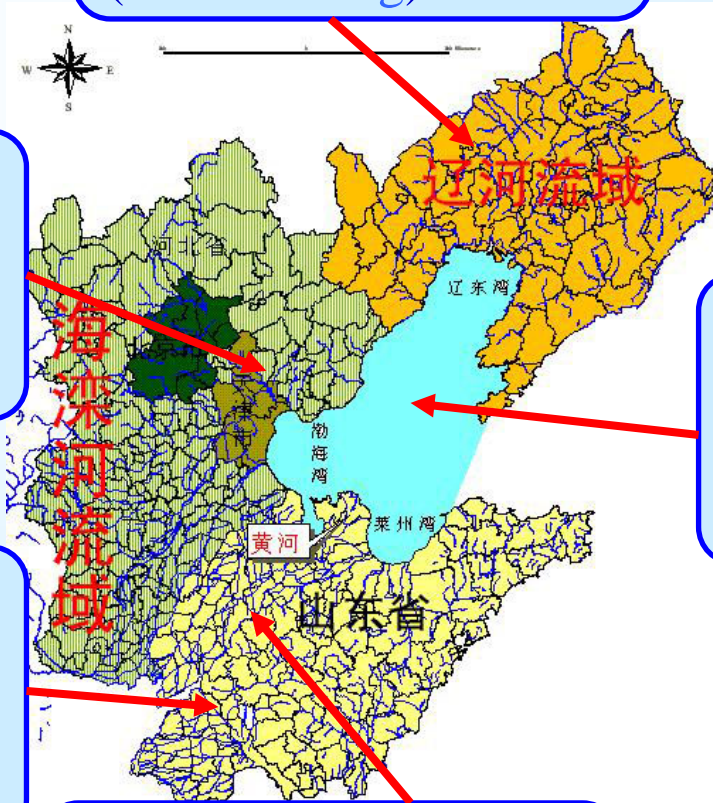
Water Pollution
Control Plan of the
Basin on Haihe River
(Approved)

Water Pollution
Control Plan of the
Basin on Huaihe River
(Approved)

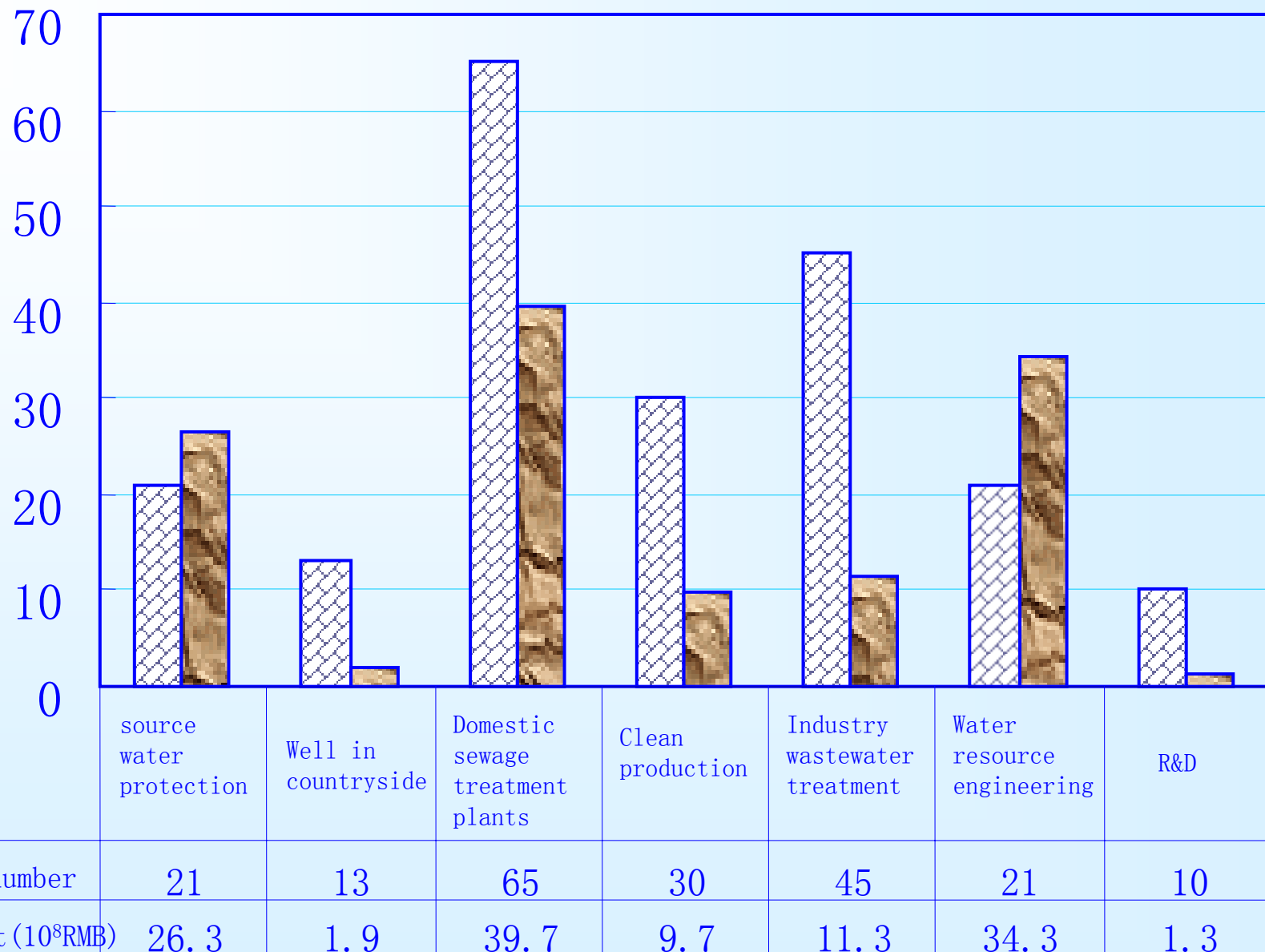
Water Pollution
Control Plan of the
Basin on the Yellow
River
(Preparation)

Blue Sea Action Plan
on Bohai Bay
(Approved)

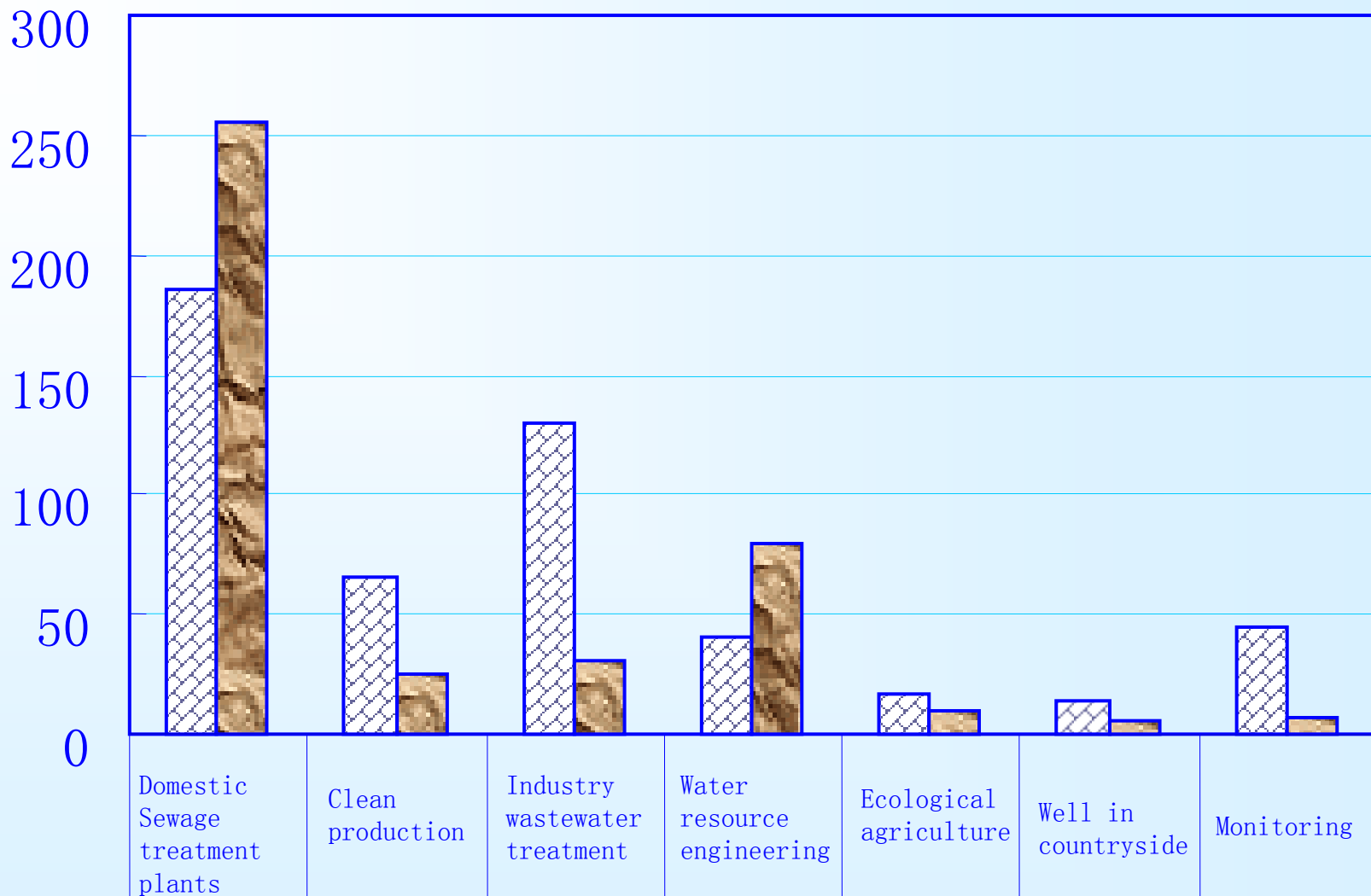
Blue Sea Action is
based on the land
pollution control of
drainage basins



Liaohu River Basin Water Pollution Control Plan

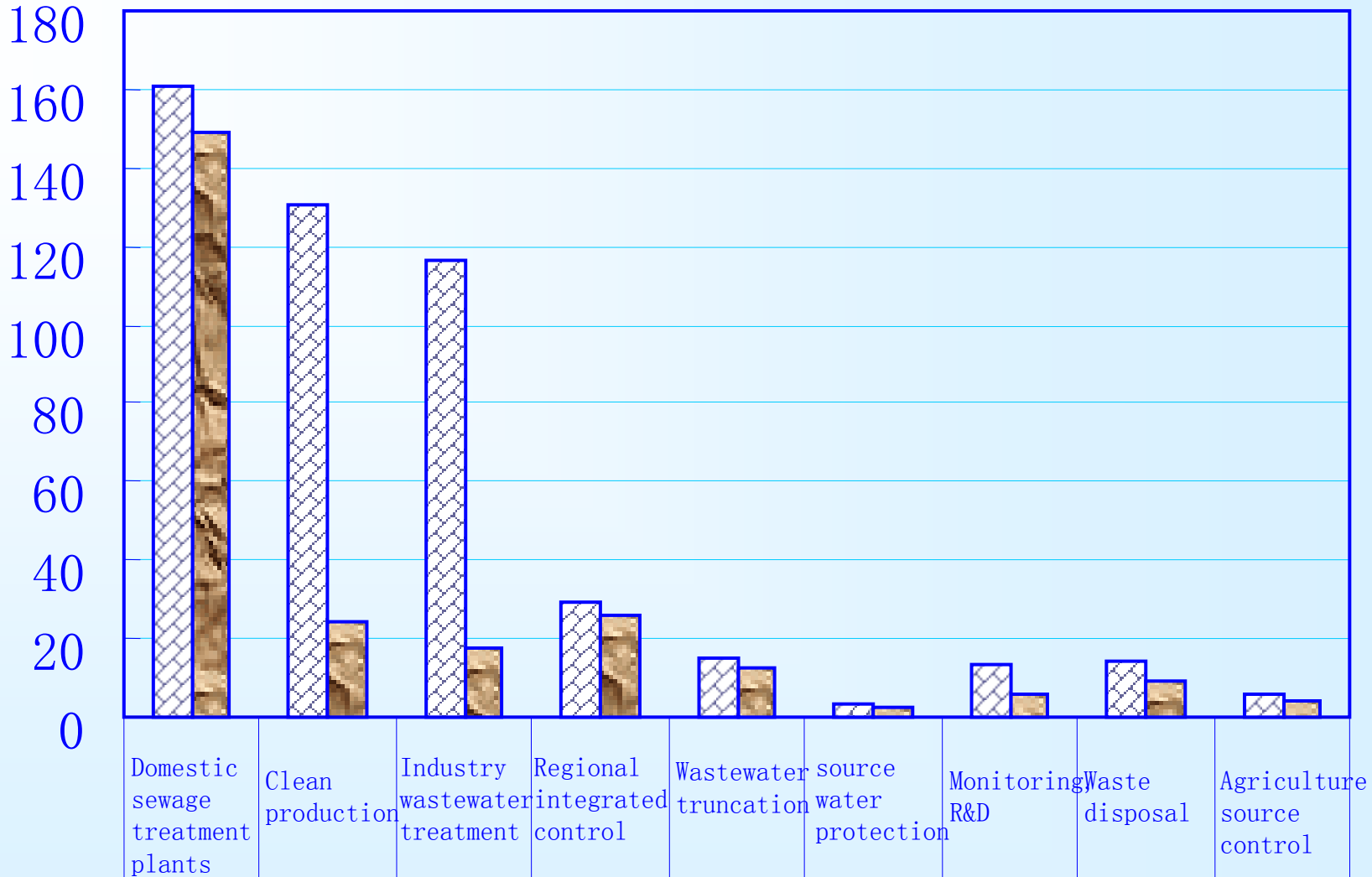


Haihe River basin Water Pollution Control plan



Project number	186	65	130	40	17	14	44
Investment (10 ⁸ RMB)	255.7	25.2	30.3	79.3	9.6	5.3	6.9

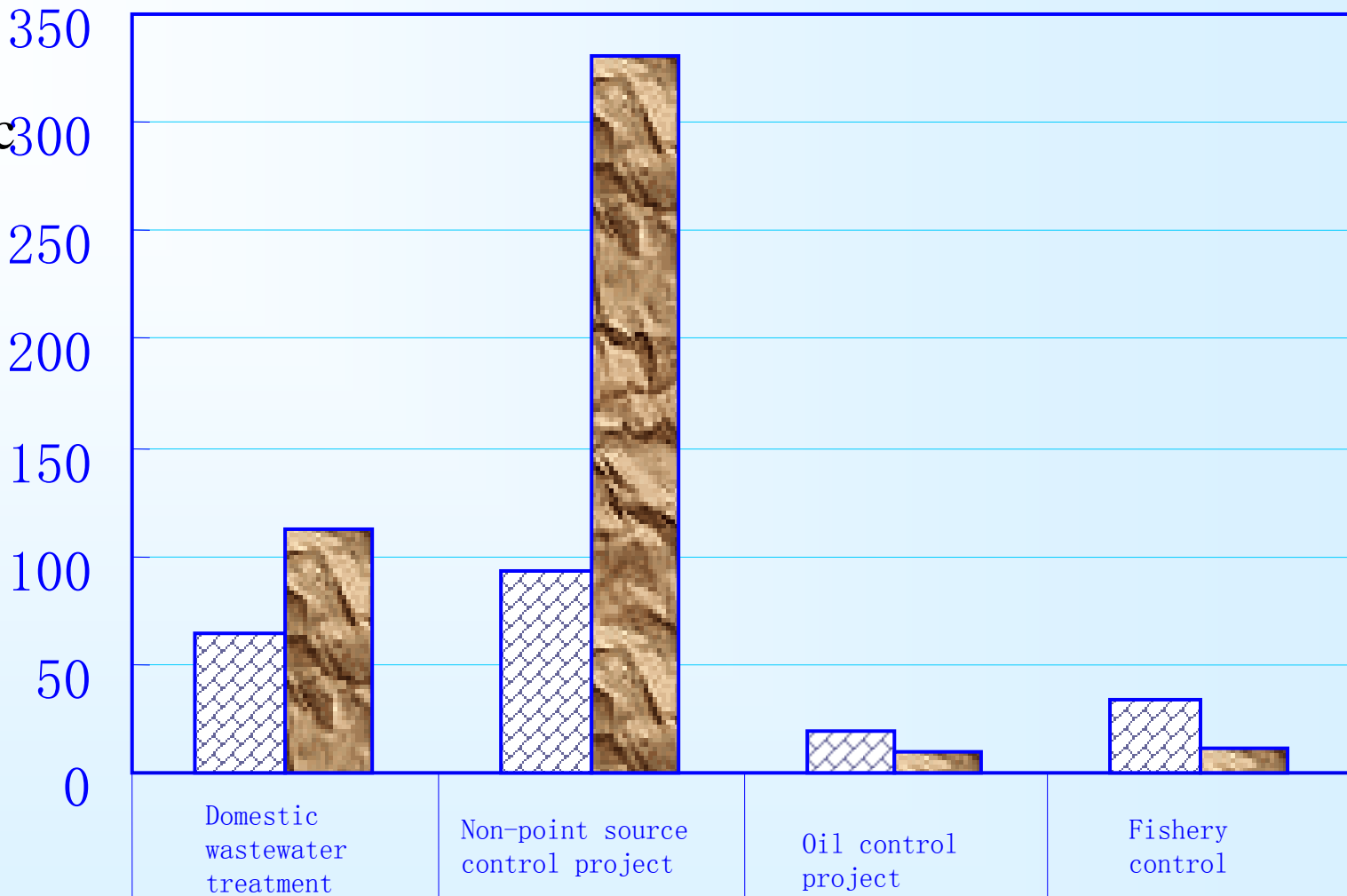
Huaihe River basin Water Pollution Control plan



Project number	161	131	116	29	15	3	13	14	6
Investment (10 ⁸ RMB)	148.9	24.0	17.3	25.8	12.5	2.8	5.9	8.9	3.9

Blue sea action for Bohai sea (during 2000-2005)

33 domestic
waste
disposal
equipments
have been
built



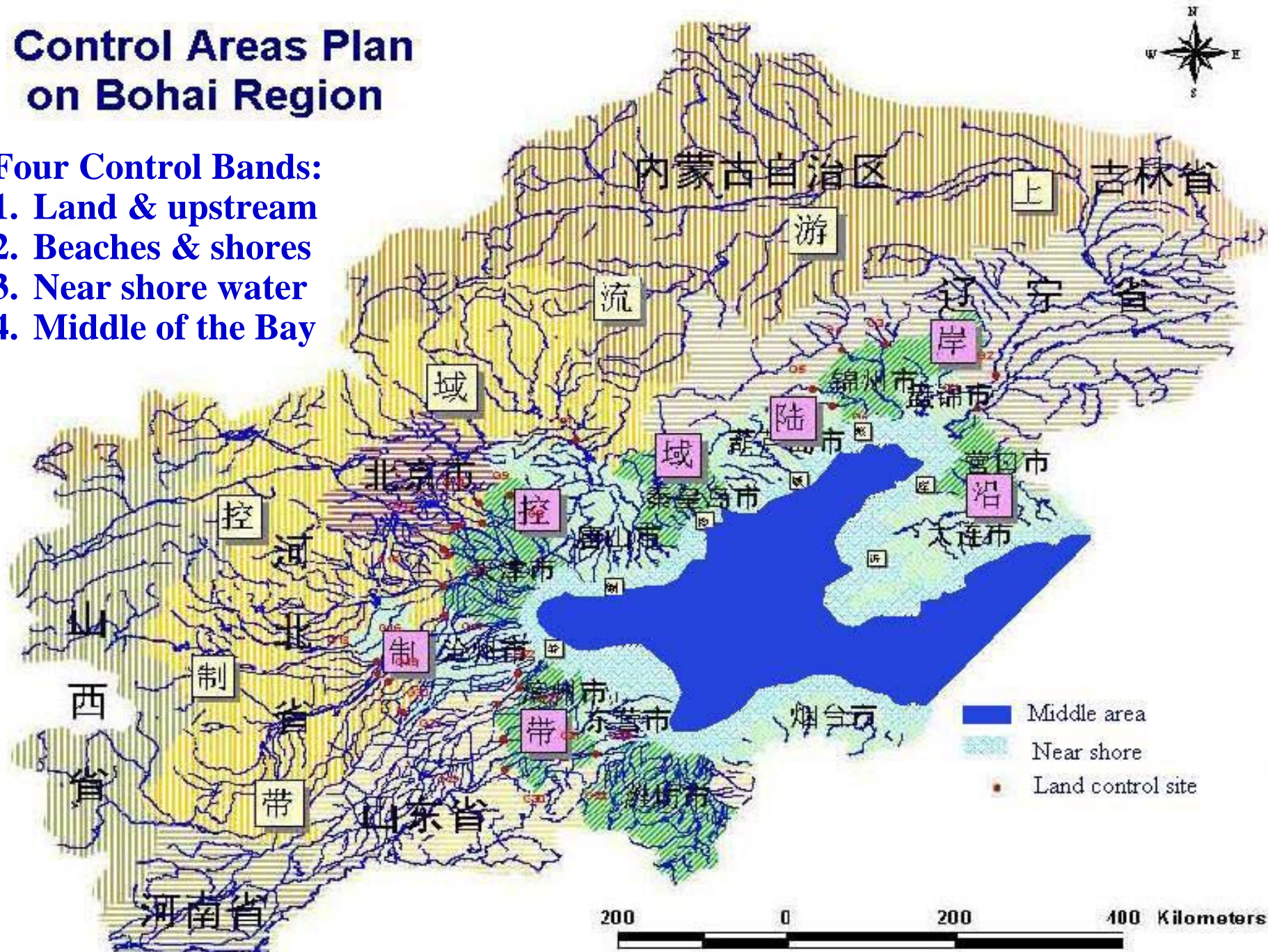
Project number	83	93	19	33
Investment (10 ⁸ RMB)	112.2	331.2	9.4	11.7



Control Areas Plan on Bohai Region

Four Control Bands:

1. Land & upstream
2. Beaches & shores
3. Near shore water
4. Middle of the Bay



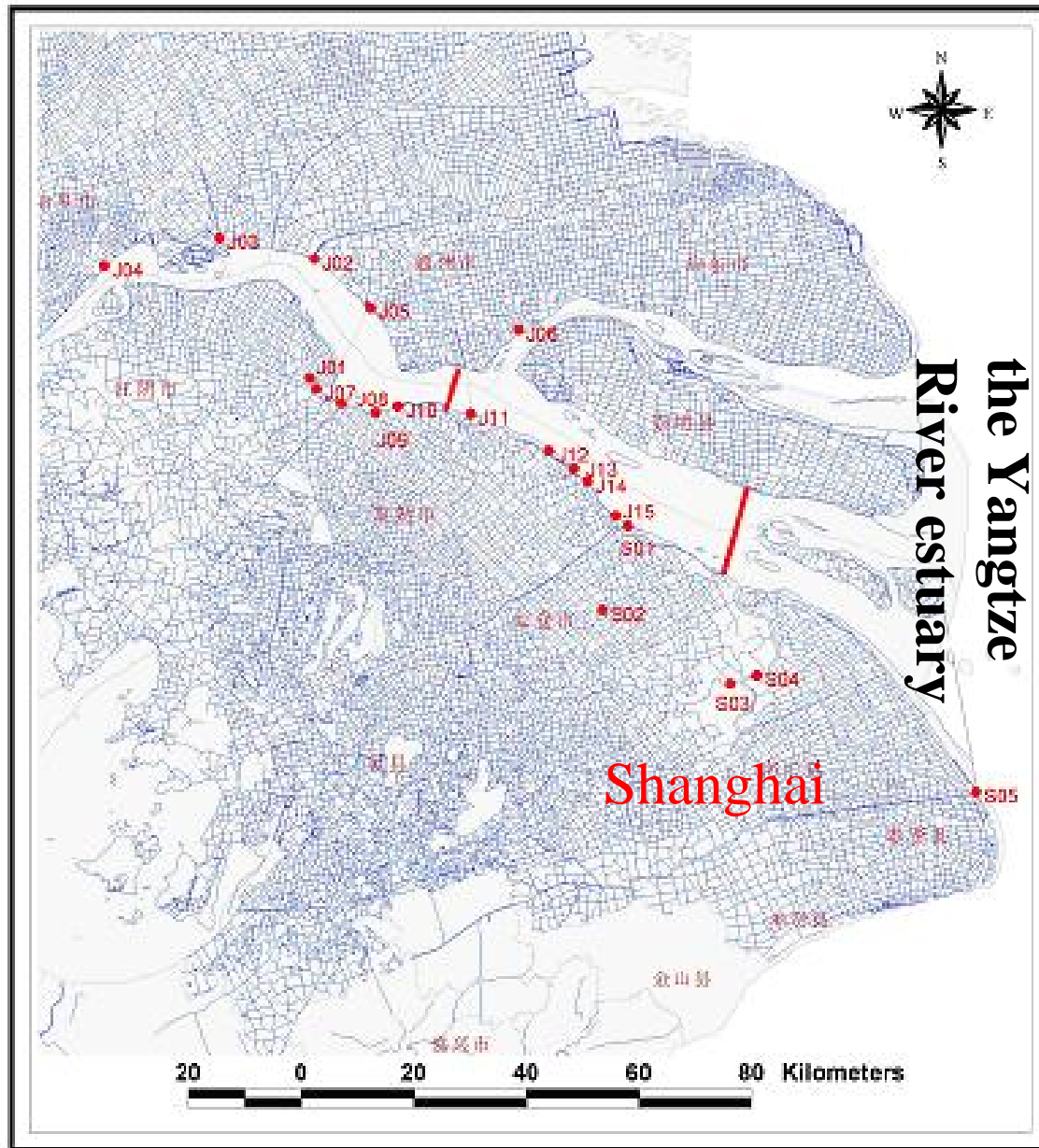
Third: National program actions in regional areas(continued)

□ Program II : Blue Sea Action for the Yangtze River estuary and nearby oceans

Main actions:

- Waste water treatment project
- Solid waste disposal project
- Ecologic agriculture and forest
- Coastal zone management
- Port planning and Oil spring emergency
- Beach and gulf litter cleaning
- Monitoring

the Yangtze River estuary



Offshore monitoring



图 1 监测站位位置分布图

Third: National program actions in regional areas(continued)

□ Program III: Blue Sea Action for the Zhujiang River estuary and nearby oceans

Main actions:

- Waste water treatment project
- Solid waste disposal project
- Ecologic agriculture and forest
- Coast zone management
- Port planning and Oil spring emergency
- Beach and gulf litter cleaning
- Monitoring

Fourth: International program actions

GPA:

- **Qingdao Workshop (Jan. 2004)**
- **Xiamen forum (Oct. 2005)**
- **2th National Government Reviewing meeting (NGR2) (Beijing, Oct. 2006)**

Summary

- **Chinese government pays great attention to marine environmental protection all the while**
- **In China, human activities in coastal zones is the main cause for marine litter**
- **China is solving the problems through legislation ,industry pollution control, municipal waste disposal, integrated management from hilltop to ocean and tourism resource protection and so on**
- **Public involvement is encouraged for coast cleaning-up action**

Suggestion: Marine litter, which is easily movable, will bring damage to each other, so it is necessary to be cooperation in global.

Thanks for your attention

