



UNDP/GEF PROJECT ENTITLED "REDUCING ENVIRONMENTAL STRESS IN THE
YELLOW SEA LARGE MARINE ECOSYSTEM"

Yellow Sea LME Progress (2006-2007)

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9th LME Consultative Comm. Meeting
10-11 July 2007, Paris

The goals of Yellow Sea LME project

- ❑ Develop ecosystem-based, environmentally sustainable management strategies for the Yellow Sea and its watershed,
- ❑ Prepare Transboundary Diagnostic Analysis (TDA), National Yellow Sea Action Plans (NYSAPs), and Strategic Action Plan (SAP).
- ❑ Establish regional framework for cooperation

Data & information Collection and TDA

- Regional syntheses for the fisheries, biodiversity, ecosystem and pollution components based on national YSLME data and information from China and Republic of Korea were prepared for better understanding of the marine environmental problems in the Yellow Sea.
- Data and information collection of fisheries, pollution, biodiversity and ecosystem from China and Republic of Korea was the major activity during the first two years of project implementation. The draft final reports and data have been submitted, and these data are being used for the regional synthesis and TDA.

Meetings Convened by the Project in 2006 & 2007

2006

- 15 - 16 March First Yellow Sea Partnership Workshop, Beijing, China
- 28 - 30 March The Regional Conference on Parliamentary Roles in Protection of Marine Environment and Sustainable Use of Marine Resources in the Yellow Sea, Qingdao, China
- 25 April Special Meeting of the Project Steering Committee for the UNDP/GEF Yellow Sea Project, Qingdao, China
- 26 - 27 April Second Technical Meeting for the Co-operative Study Cruises In the Yellow Sea Marine Basin, Qingdao, China
- 15 – 16 June 1st Korean NGO Workshop, Ansan, ROK
- 31 August-2 Sept. Expert Technical Workshop on Fate and Transport of Pollutants in the Yellow Sea, Dalian, China
- 4-7 September 3rd Regional Working Group Meeting – Pollution, Dandong, China
- 9 - 12 September 3rd Regional Working Group Meeting – Investment, Dalian, China
- 15 - 16 September 1st YSLME Youth Programme, Ansan, ROK
- 18 - 21 September 3rd Regional Working Group Meeting – Ecosystem, Jeju, ROK
- 25 - 27 September, Training Workshop for Local Government Officers – Coastal Development vs. Protection of Marine Environment: How to Make A Decision? Jeju, ROK
- 19-20, 27 October, 2nd YSLME Youth Programme, Byunsan, ROK
- 20 - 23 October ,3rd Regional Working Group Meeting – Biodiversity, Weihai, China
- 25 - 28 October, 3rd Regional Working Group Meeting – Fisheries, Weihai, China
- 20 - 22 November, 3rd Regional Science and Technical Panel Meeting, Jeju Island, ROK
- 24 - 25 November, 3rd Project Steering Committee Meeting, Jeju Island, ROK

2007

- 6-8 February, Meeting of the Strategic Action Programme Consultation for the UNDP/GEF Yellow Sea Project, Jinghong, Yunnan, China
- 10-12 April, First Meeting of the Strategic Action Programme Ad-hoc Working Group, Hongchun, ROK
- 14-15th May. Gene pool workshop for the UNDP/GEF Yellow Sea Project, Busan, ROK
- 18th – 20th June. The YSLME Symposium and Workshop On the Sustainable Mariculture in the Yellow Sea. Taean, ROK

Small Grant Project in 2006

- Liaoning Ocean and Fishery Department - The flack and education to public for the ecosystem protection and managing mode around the north Yellow Sea area
- Citizens' Institute for Environmental Studies, Korea - Program for exchanging information and experience about reclamation work among local communities in west coast of Korea: For a sustainable Yellow Sea
- Shihwa Lake Saver, Korea - Shihwa marine environmental education course for school teachers and youth groups in the Shihwa Lake region
- Global Village of Beijing, China - Welcome to the green olympics and protect the Yellow Sea surrounding us
- Haimen Ocean and Fisheries Bureau, China - Liyashan oyster reef ecosystem protection
- Dalian Maritime University - Community-based conservation of coastal ecology in Dalian

To Develop Partnership for Public Awareness--

Current Partners



Global Village of Beijing (GVB)

Korea Ocean Research and Development Institute (KORDI)

Marine Stewardship Council (MSC)

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)

The Nature Conservancy (TNC), Beijing

UNEP Regional Seas Programme Northwest Pacific Action Plan (NOWPAP)

UNDP/GEF Yellow Sea Large Marine Ecosystem (YSLME) Project

United Nations Development Programme (UNDP), China

Wetlands International (WI)

Worldwide Fund for Nature – China

Worldwide Fund for Nature – Hong Kong

Worldwide Fund for Nature – Japan

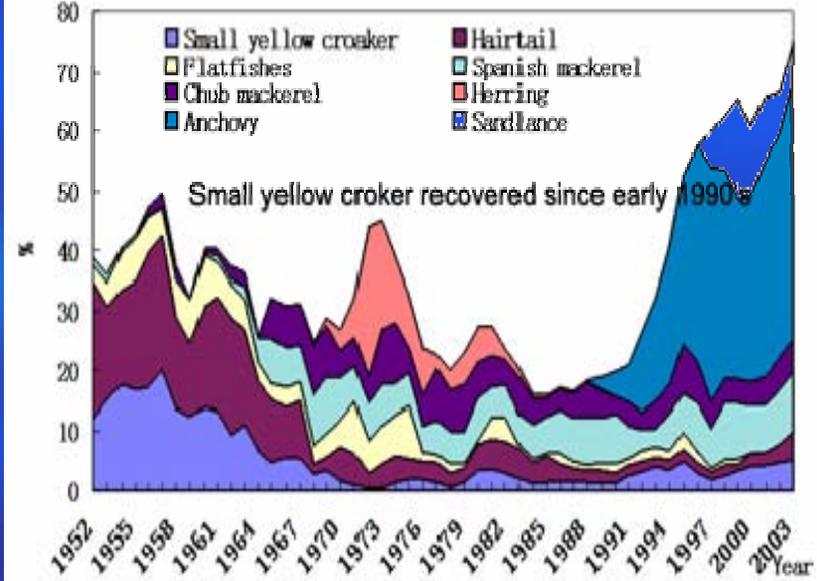
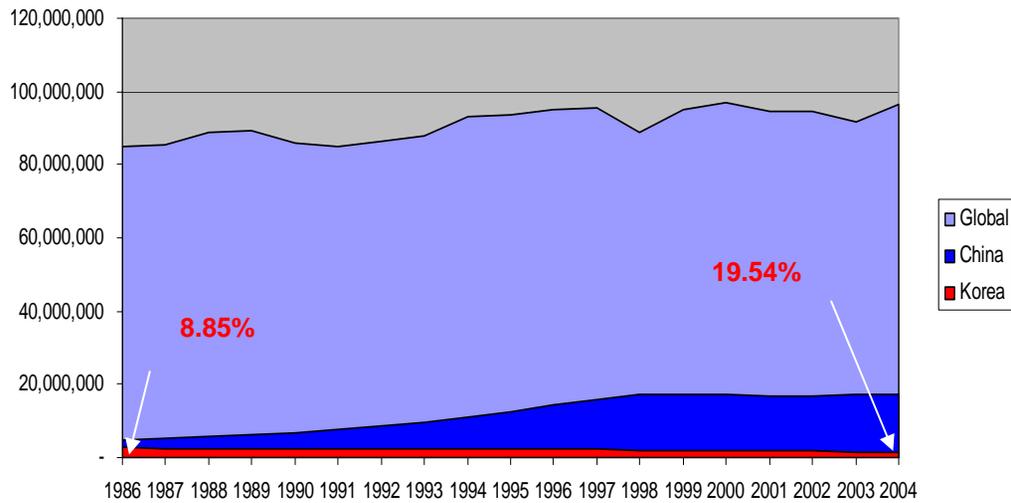
WWF/KORDI/KEI Yellow Sea Eco-Region Planning Programme (YSEPP)

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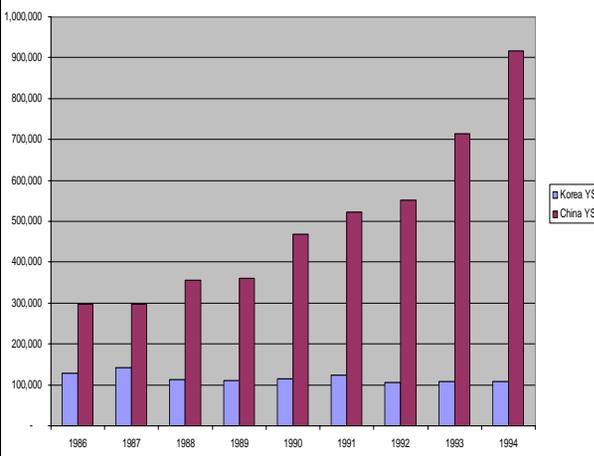


Project implementation – Fisheries

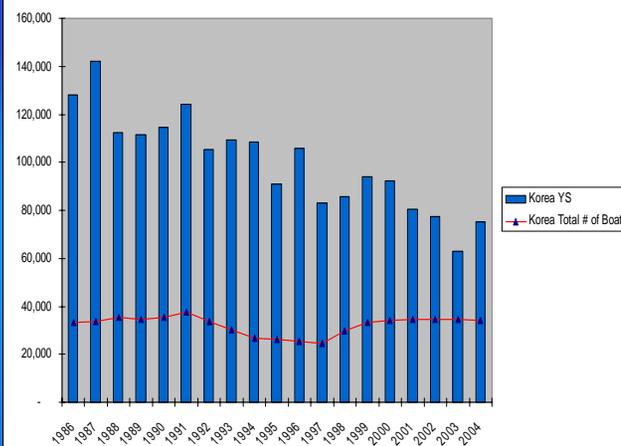
Increased percentage of global capture vs China & ROK



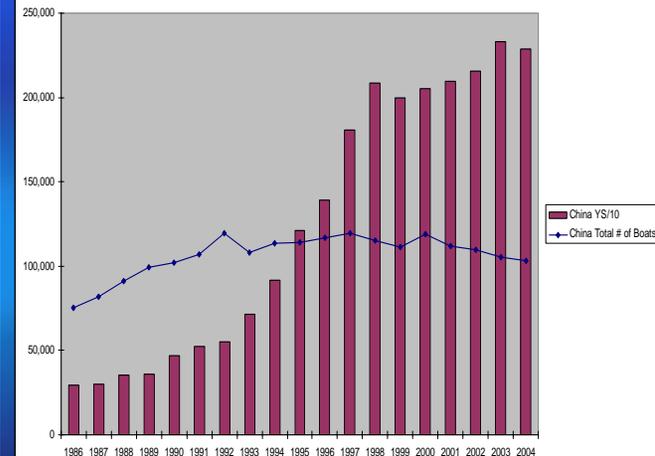
Capture Fisheries in Yellow Sea



Korean total capture vs # of boats

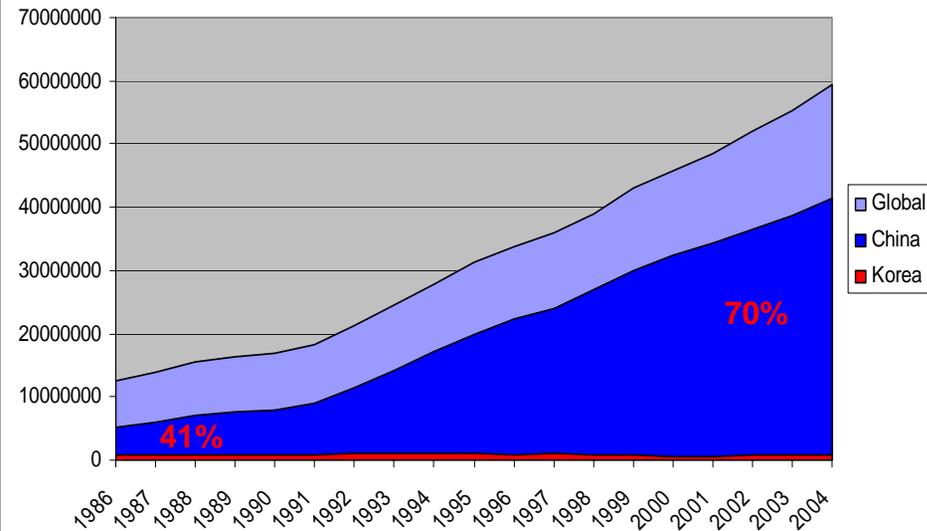


China Total Capture vs # of Boats

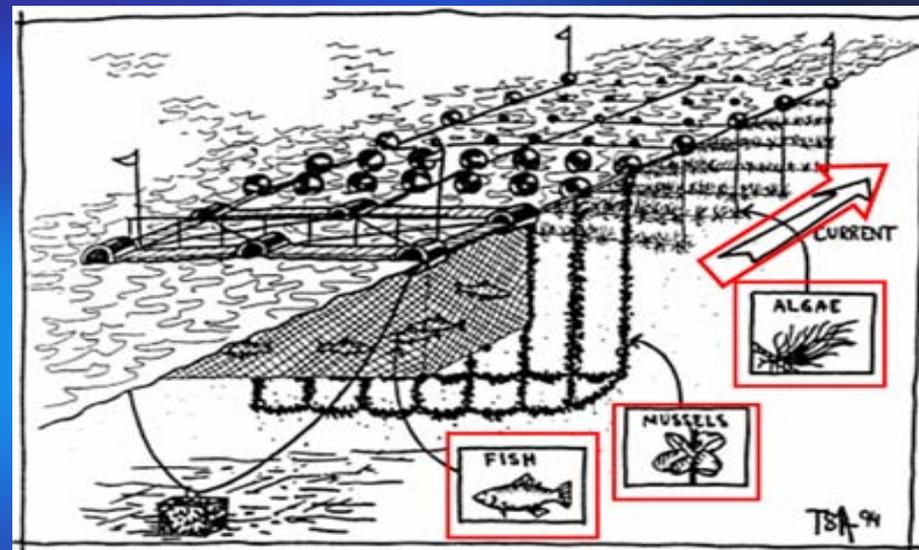
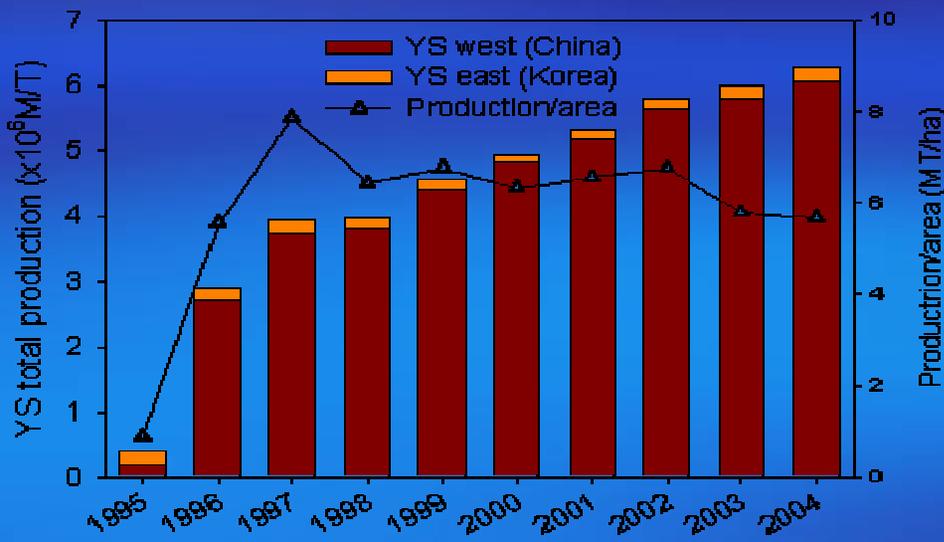
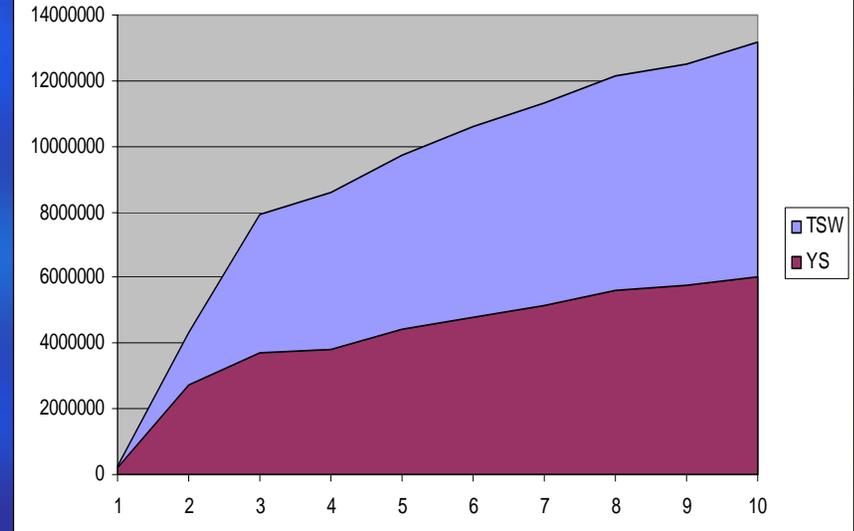


Project implementation – Fisheries 2

Aquaculture Production



Yellow Sea Mariculture vs Total National

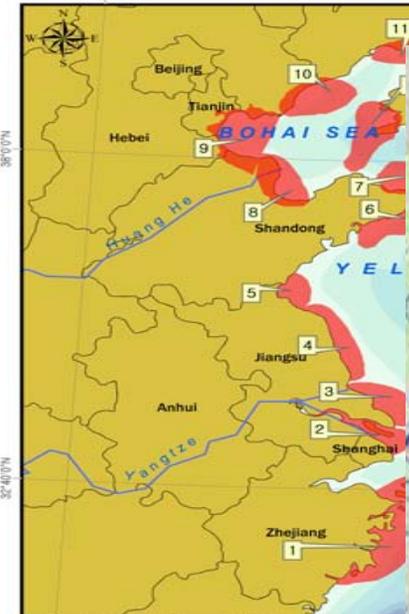


TSA '94

Project implementation – Biodiversity


Potential Priority Areas in Yellow Sea Ecoregion
 (China and South Korea)
 - Yellow Sea Ecoregion Planning Programme -

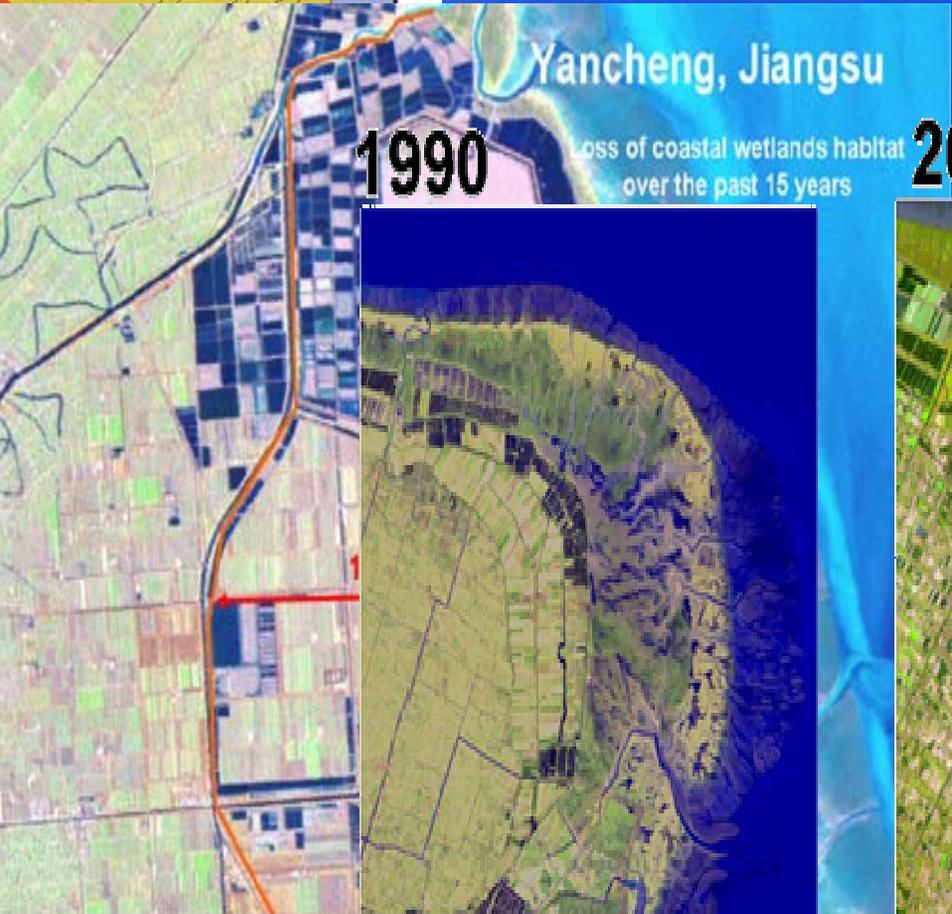


Geographic Coordinate System : WGS-84
Projection : Lambert Conformal Conic

Bathymetry	
Under 200m	
200m - 100m	
100m - 90m	
90m - 70m	
70m - 50m	
50m - 30m	
30m - 10m	
10m - 0m	

Potential Priority Area			
No.	Area Name of PPAs	No.	Area Name of PPAs
1	Zhoukou Anshapitago	7	Yanwe
2	Wetland in Yangtze Estuary	8	Huanghe-Lou
3	Southern Jiangsu Coast	9	Buhaiwan
4	Northern Jiangsu Coast	10	Qinghuangdao
5	Haihou Bay	11	Liaohu River Estuary
6	Gang-shi	12	Huangyashan Islands



1990

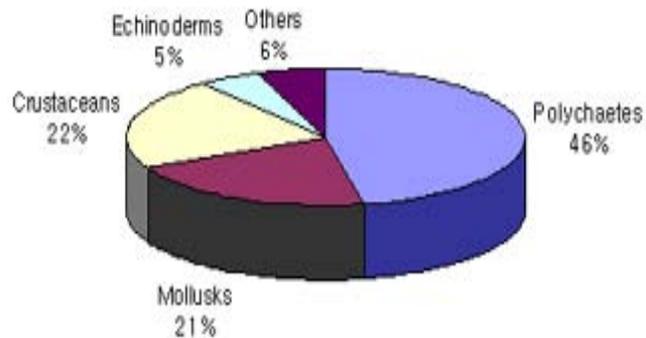
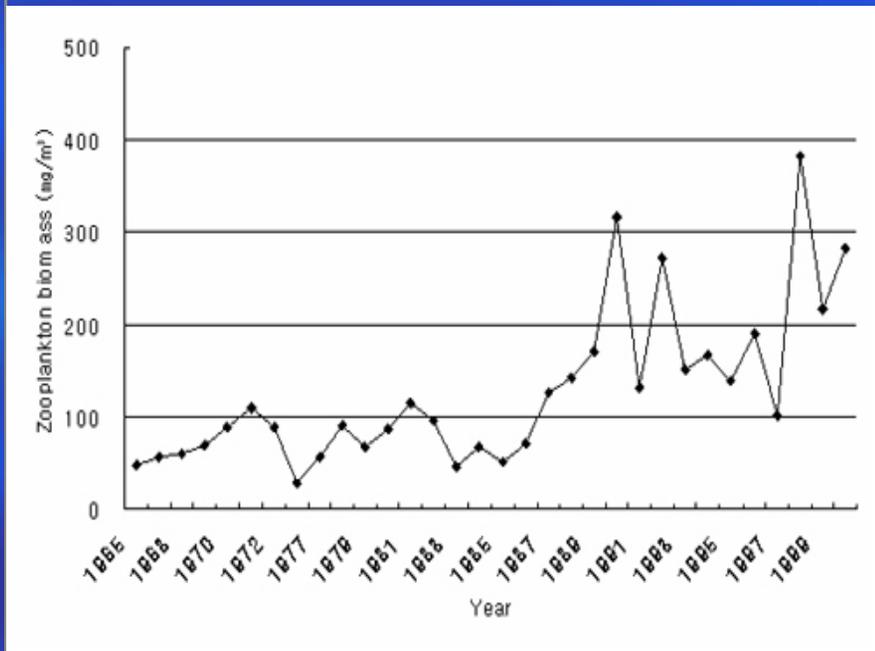
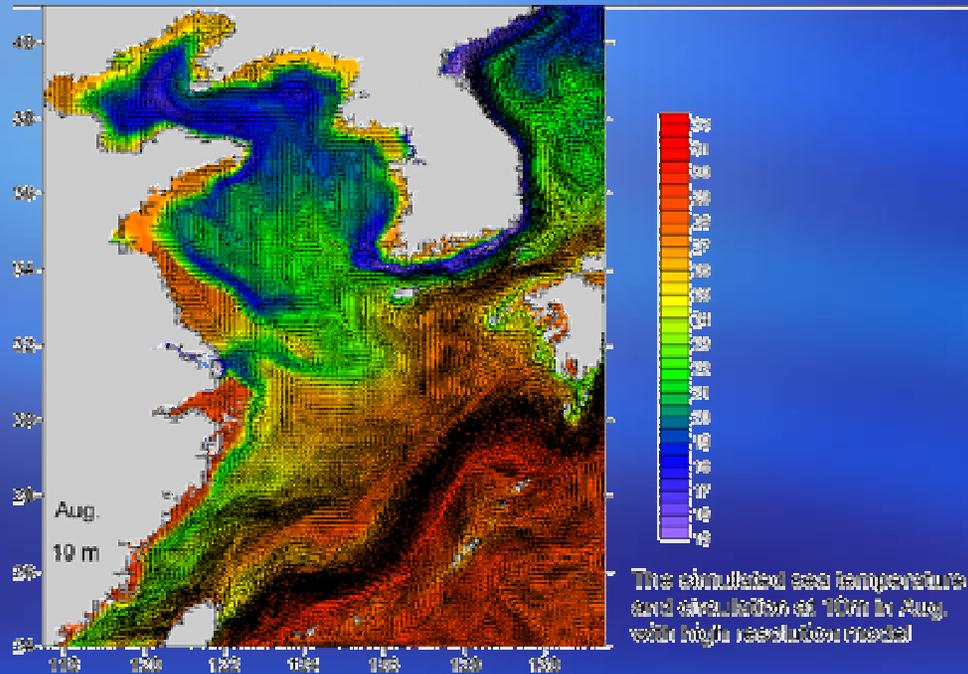
Yancheng, Jiangsu

Loss of coastal wetlands habitat over the past 15 years

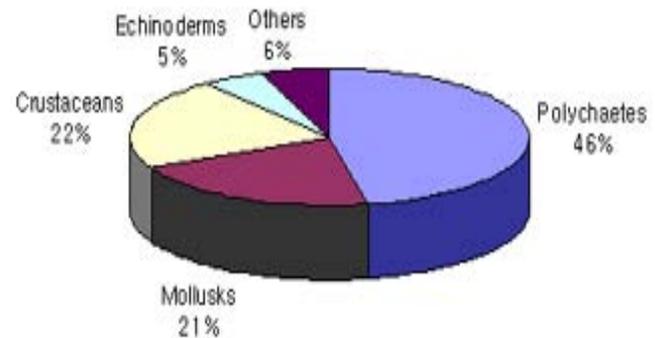
2004



Project implementation – Ecosystem

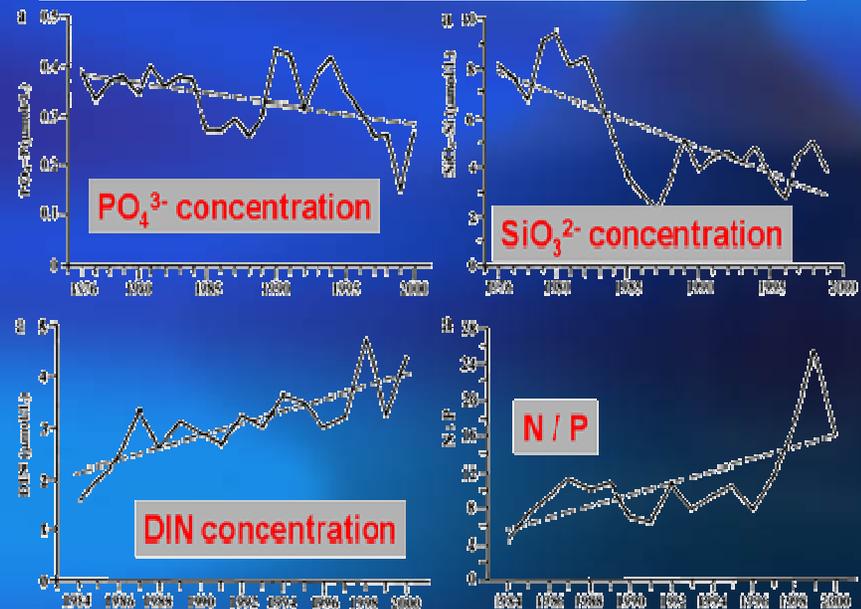
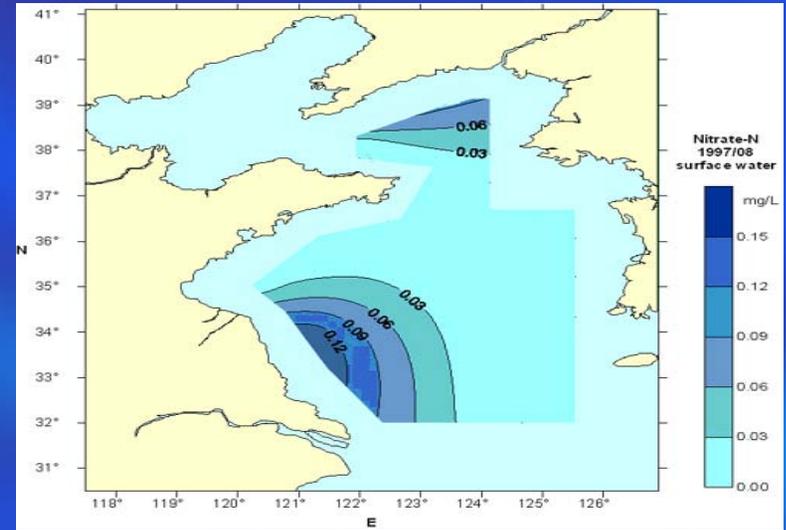
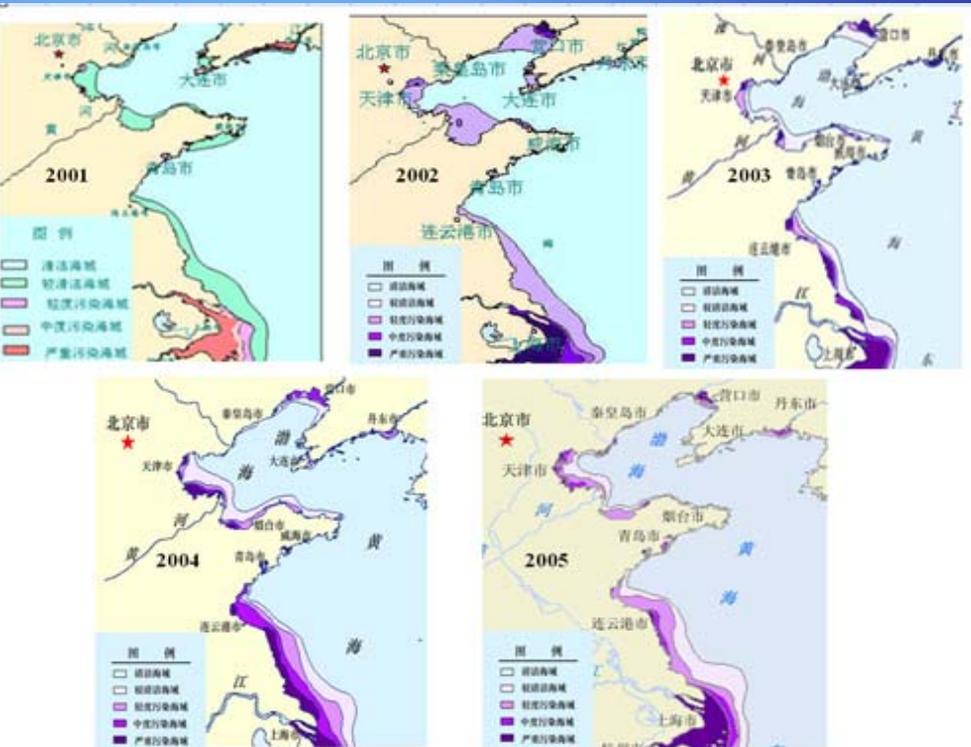


Benthos composition, China

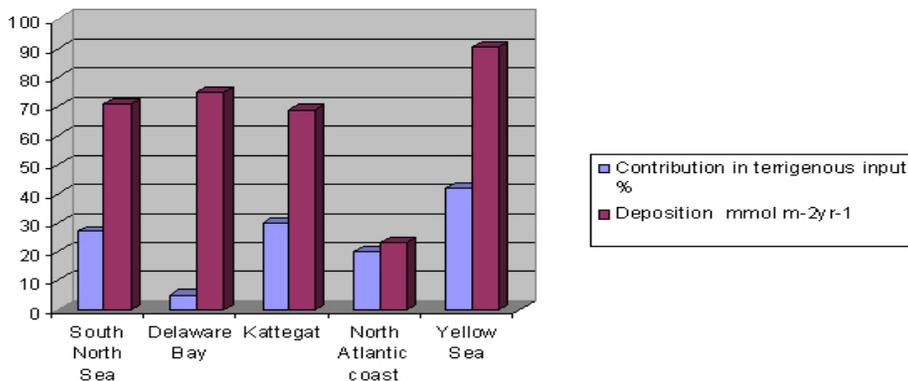


Benthos composition, China

Project implementation – Pollution

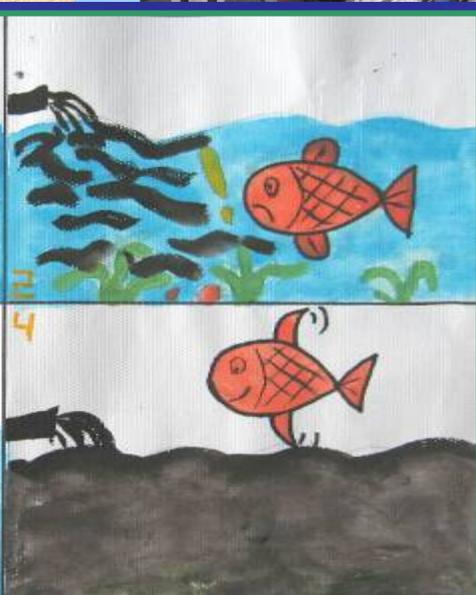


Atmospheric nitrogen deposition



Variation trends of annual mean of the water column average nutrient concentrations and N/P in the Yellow Sea (Lin et al., 2005)

Project implementation – Investment



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活动信息



1. 青岛社区环境教育
2. “拯救黄海”——大型社区宣传活动拉开帷幕

黄海风云



1. 黄海首景
2. 2005年青岛市海洋环境质量公报
3. 中韩共谋黄海监测大计

[更多信息](#)

海洋科普



1. 什么是海洋环境及海洋污染
2. 海域定义
3. 海洋污染有哪些特点

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Co-operative Cruise

All relevant parties have strong willingness to have the cruise

There were 3 technical meetings organised;

There were numbers of negotiations;

There were compromises from both countries;

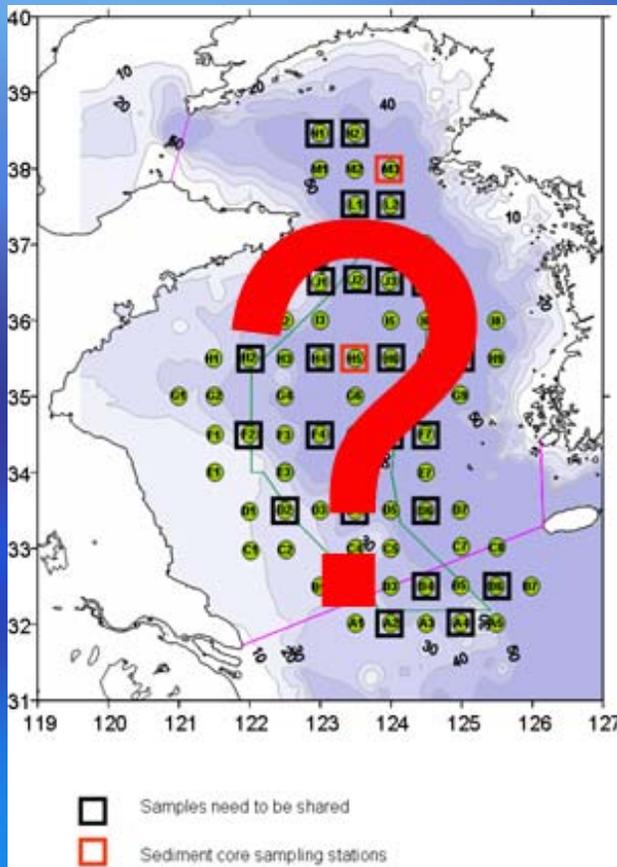
However,

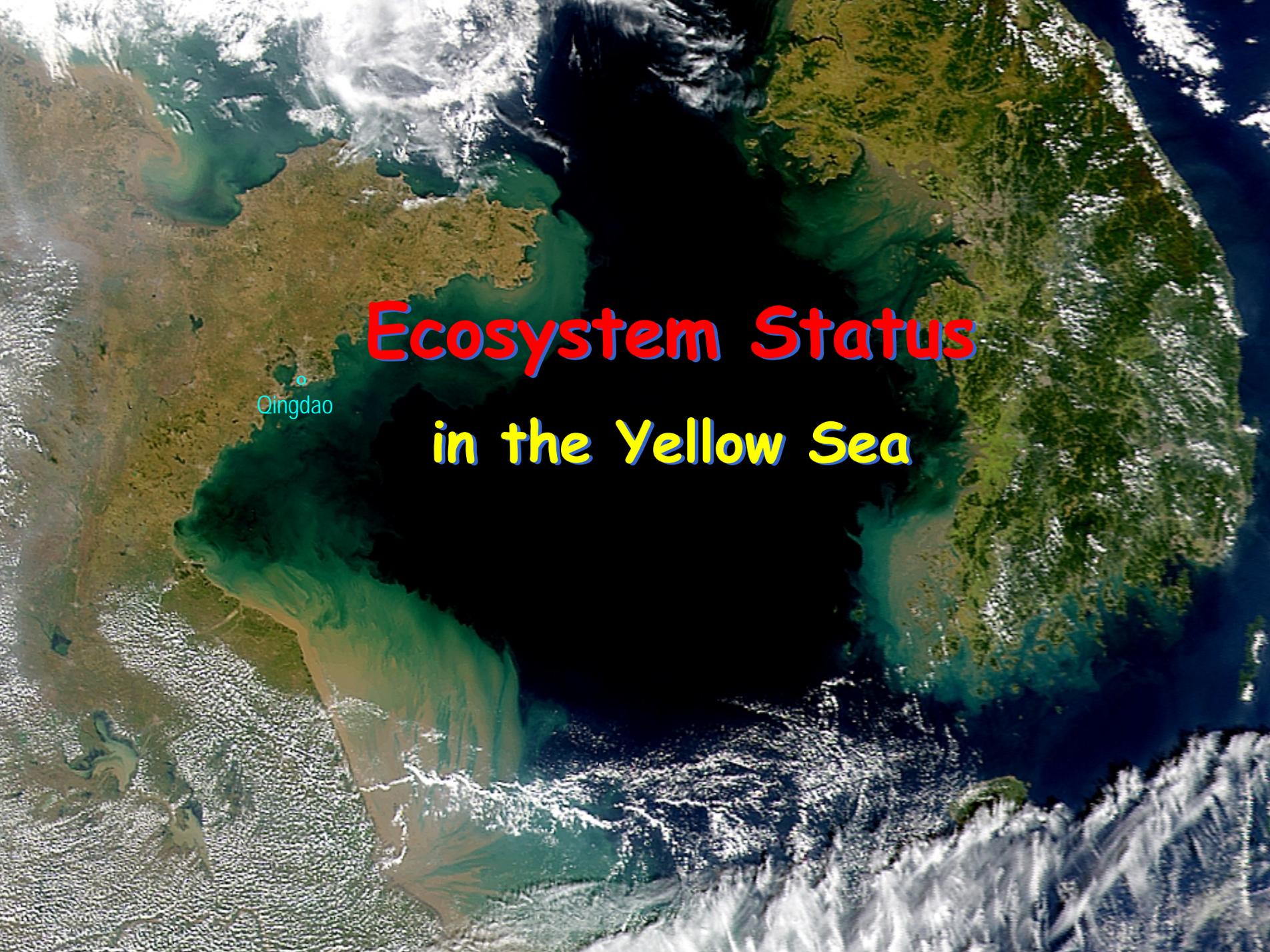
There were different approval mechanism;

There was misunderstanding on the approval procedures

Finally,

The summer cruise could not be carried out as planned.

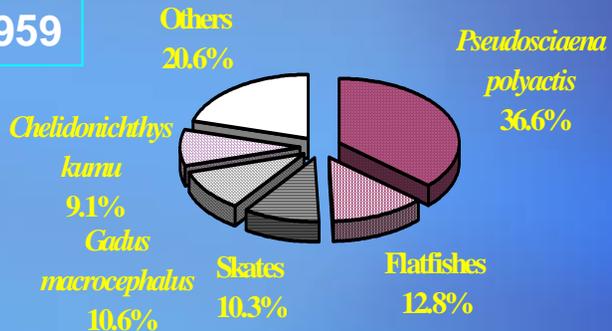


A satellite-style map of the Yellow Sea region, showing the Korean Peninsula to the north, the Bohai Sea to the west, and the East China Sea to the south. The water is depicted in various shades of blue and green, indicating different depths and sediment levels. A small red dot on the Korean coast is labeled 'Qingdao'. The title 'Ecosystem Status in the Yellow Sea' is overlaid in the center in large, bold, red and yellow letters.

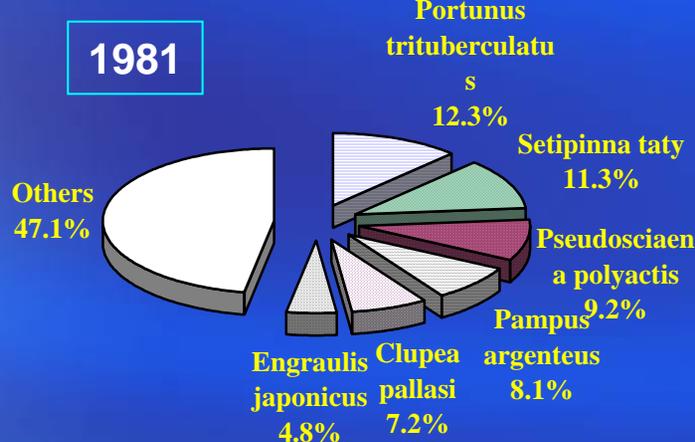
Ecosystem Status in the Yellow Sea

Qingdao

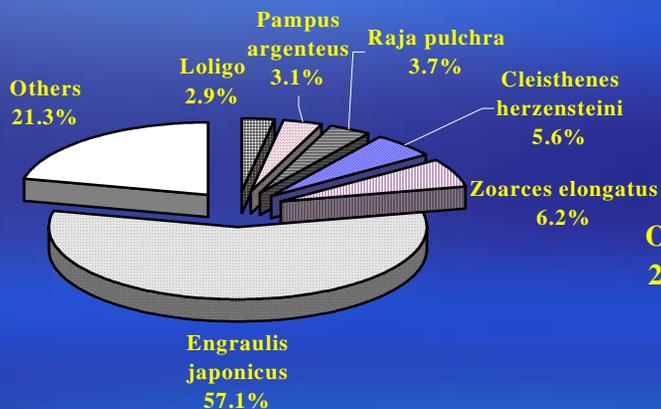
1959



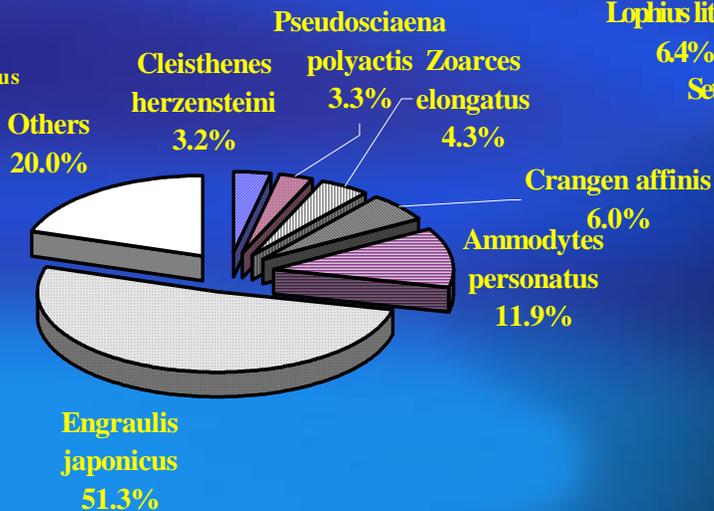
1981



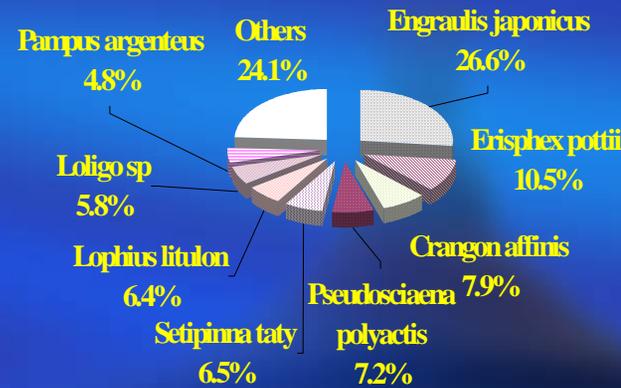
1986



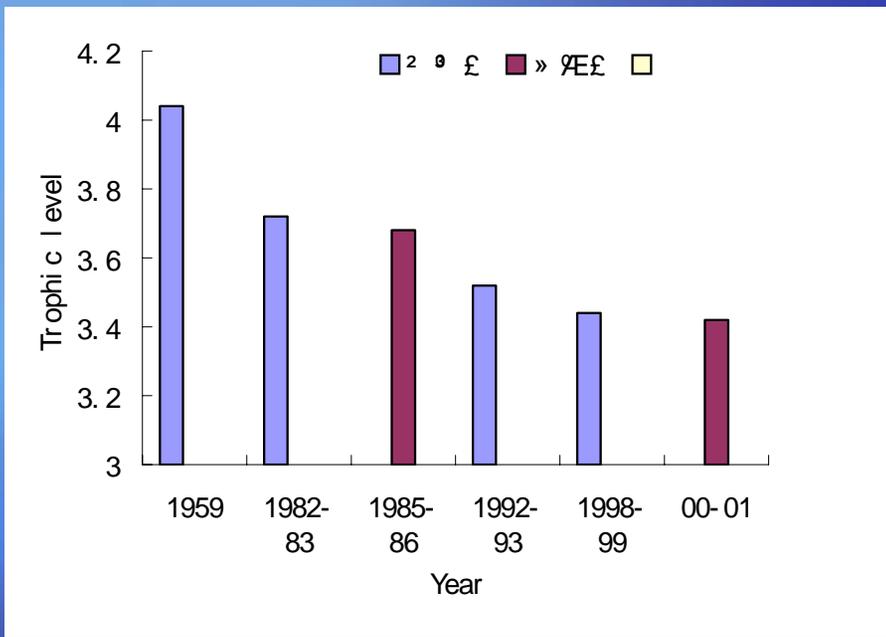
1998



2005



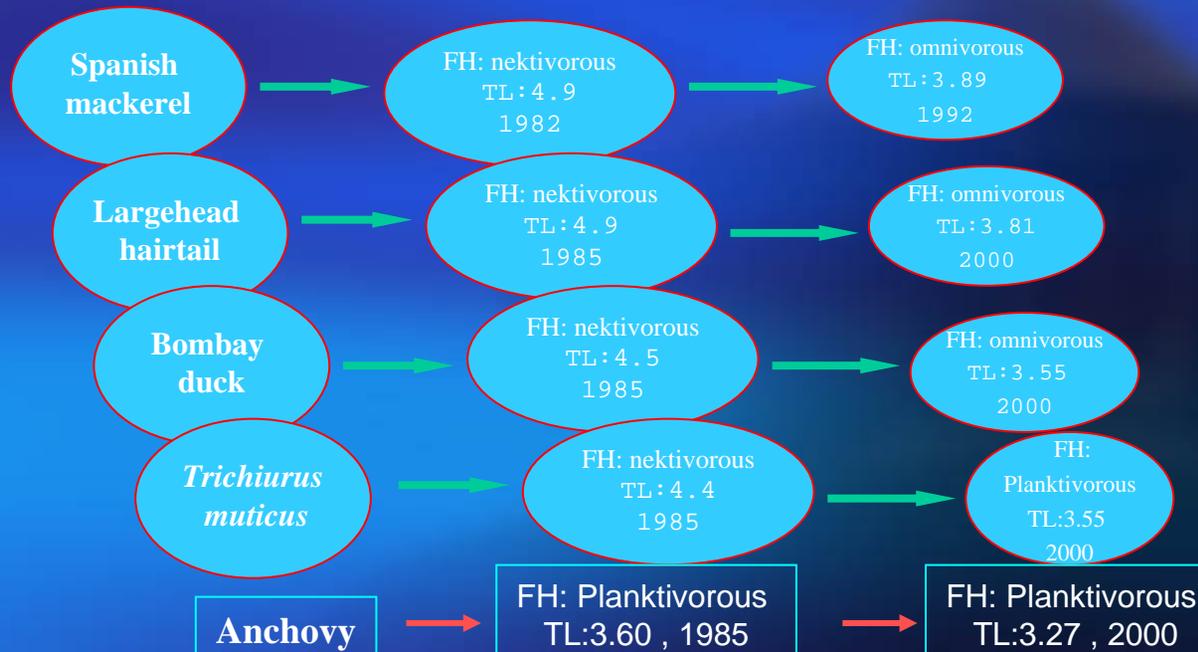
Species compositions in biomass yields Yellow Sea (Spring)



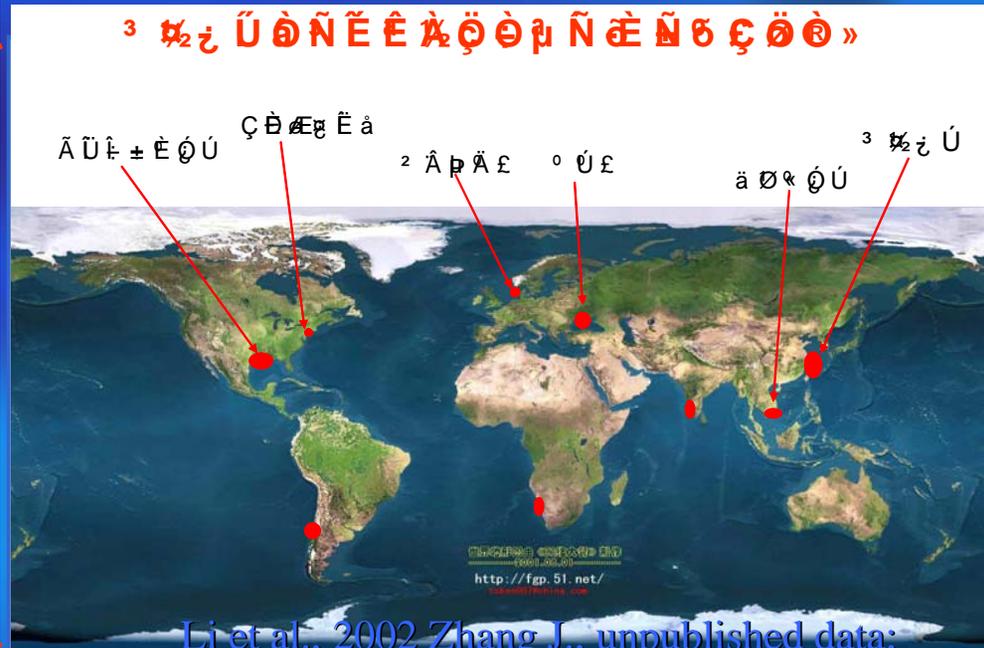
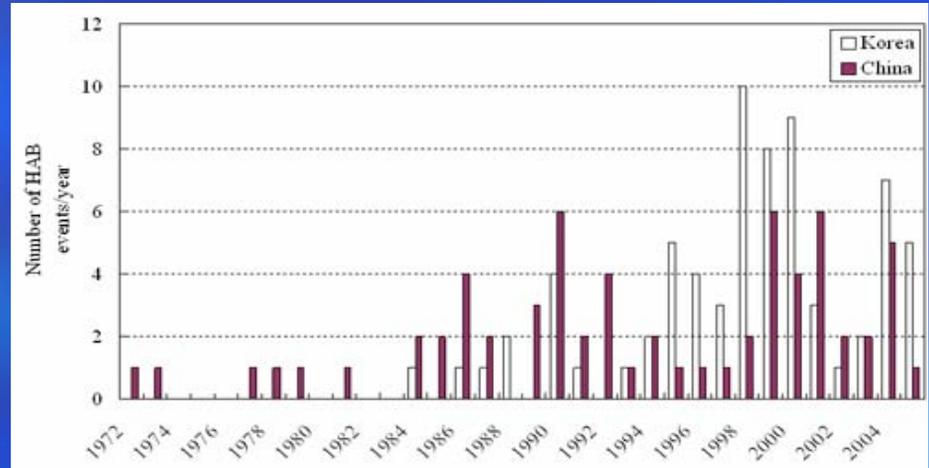
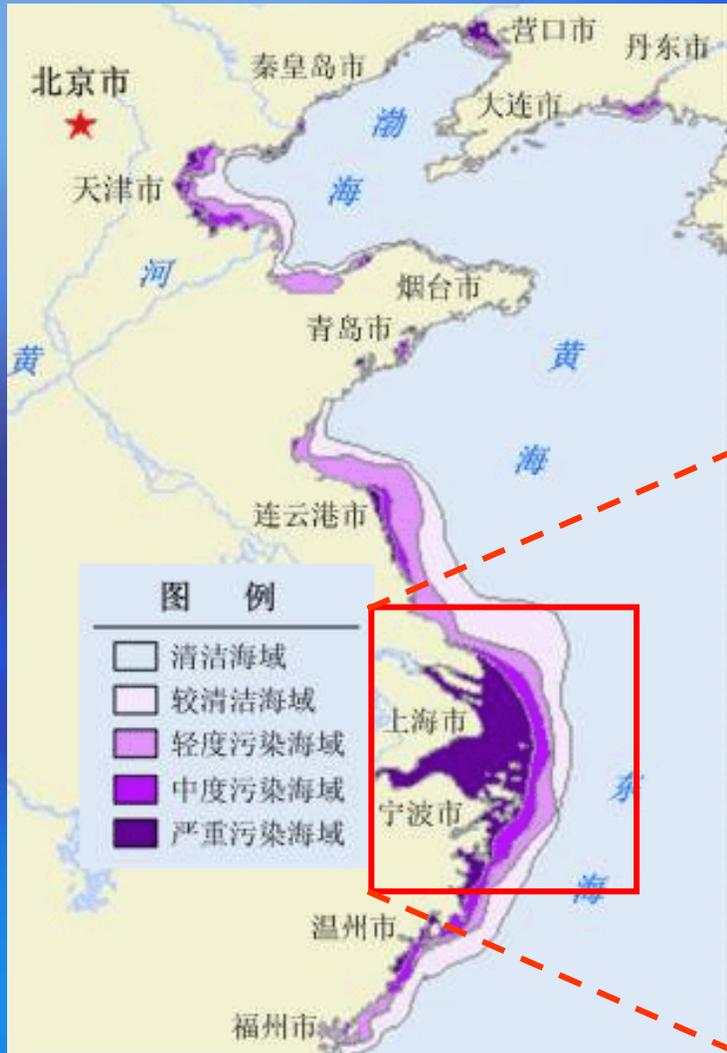
← Trophic level (TL) of important species declined obviously from 4.1 in 1959~60 to 3.4 in 1998~99, the Bohai Sea; from 3.7 in 1985~86 to 3.4 in 2000~01, the Yellow Sea .

Changes in feeding habits in the YS

The results indicated that feeding habits of some species changed significantly over past 20 years.

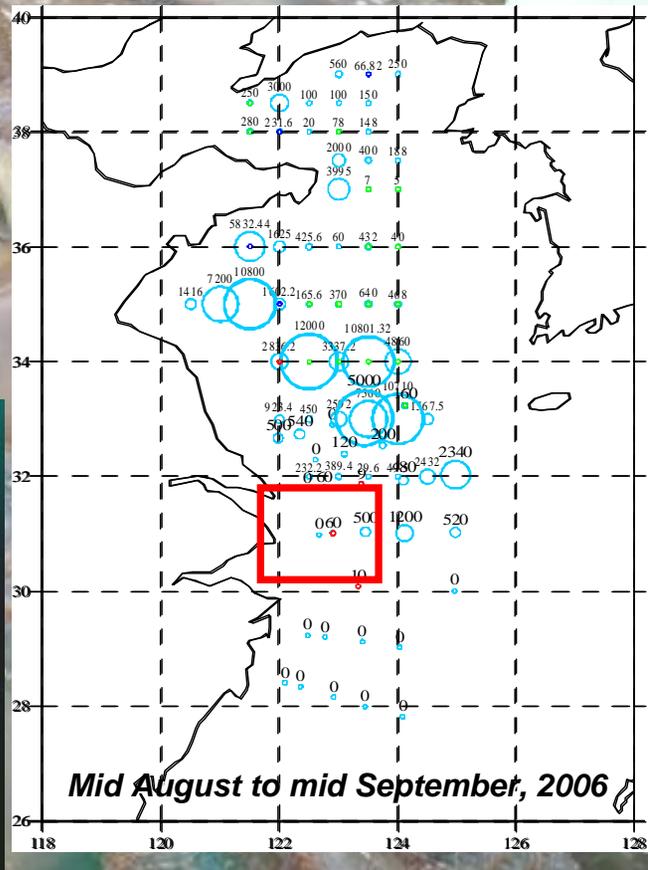
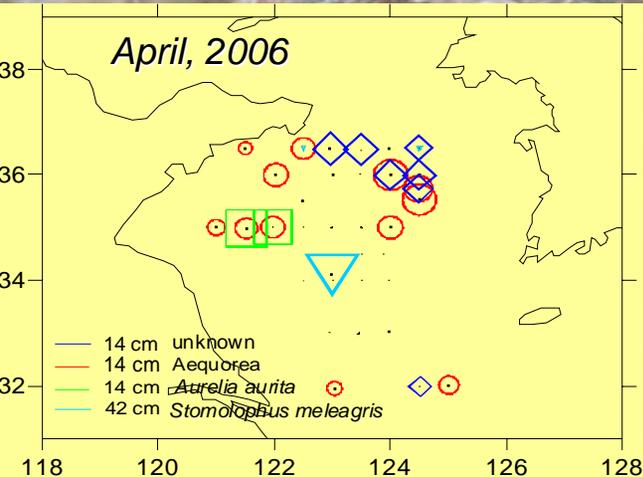


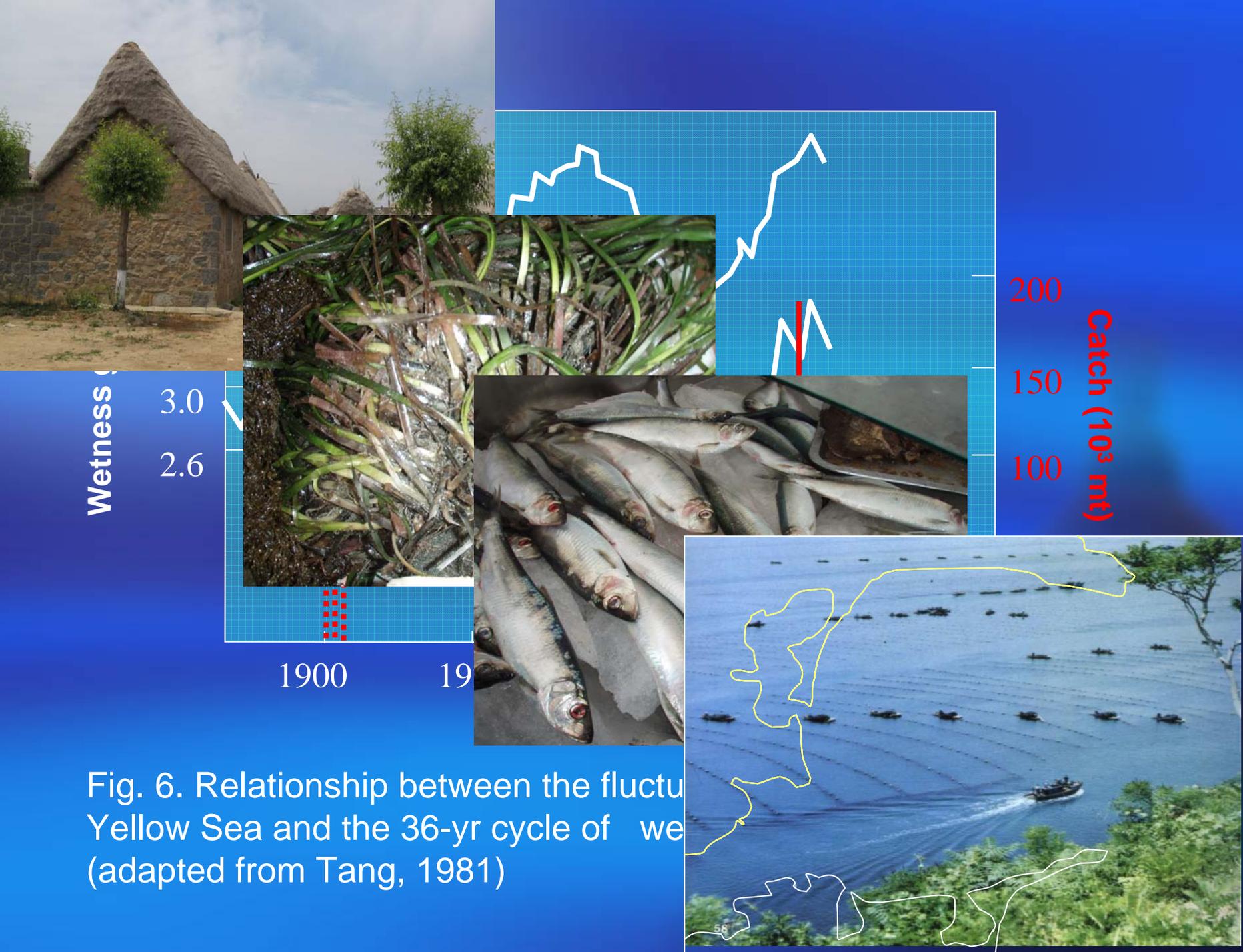
Serious Eutrophication in Coastal Seas



Dead Zone Offshore of the Changjiang Estuary

Jellyfish in the Yellow Sea





GEF Focal Area and Strategic Program in IW

STRATEGIC PROGRAM I: Restoring and sustaining coastal and marine fish stocks and associated biological diversity;

STRATEGIC PROGRAM II: Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters in LMEs consistent with the GPA;

STRATEGIC PROGRAM III: Balancing overuse and conflicting uses of water resources in transboundary surface and groundwater basins;

STRATEGIC PROGRAM IV: Adapting to melting ice in high altitude basins and polar systems.

Strategic Program 1: Restoring and sustaining coastal and marine fish stocks and associated biological diversity. (entire program joint with Biodiversity focal area)

* (a) Africa Regional LME Component (joint with Biodi), (b) Latin America/ Caribbean Regional LME Component (joint with Biodi), and (c) Global Component (joint with Biodi, with attention to East Asia/Pacific and reducing invasive species in ship ballast water).

Strategic Program 2: Reducing nutrient over-enrichment and oxygen depletion from land-based pollution of coastal waters of Large Marine Ecosystems consistent with the GPA.

* (a) East Asia Regional LME Component (joint with Land Degradation) (b) Mediterranean Sea LME Component (IW/ POPs/ Biodi) and (c) Global Component

Strategic Program 3: Balancing overuse and conflicting uses of water resources in surface and groundwater basins

* (a) South America Basin Component (joint with Climate Change Adaptation and in the Pantanal basin, joint with Biodi and possibly Land Degradation), (b) Groundwater component including NENA Regional Component (joint with Land Degradation), and (c) Global Component

Strategic Program 4: Adapting to melting ice in high altitude basins and polar systems

* (a) Polar and melting ice component (joint with Climate Change Adaptation) and (b) PTS reduction component (joint with POPS).



黄海水产研究所

Thank You!

The strategy of the project

Four major components were developed for the project

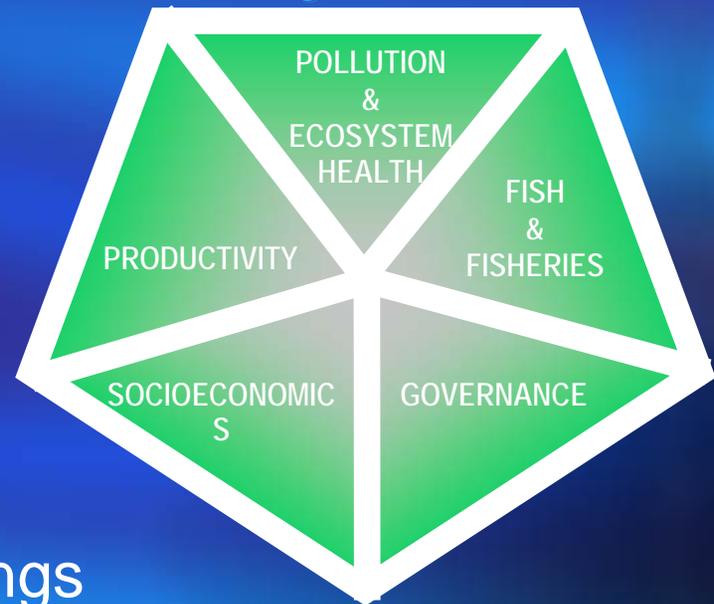
- ❑ The first component, “Regional Strategies for Sustainable Management of Fisheries and Mariculture”,
- ❑ The second component, “Effective Regional Initiatives for Biodiversity Protection”,
- ❑ The third component, “Actions to Reduce Stress to the Ecosystem, Improve Water Quality and Protect Human Health”,
- ❑ The fourth component, “Development of Regional Institutional and Capacity Building”.

■ The strategy of the project

The project is conducted by 5 Regional Working Groups in the implementation plan

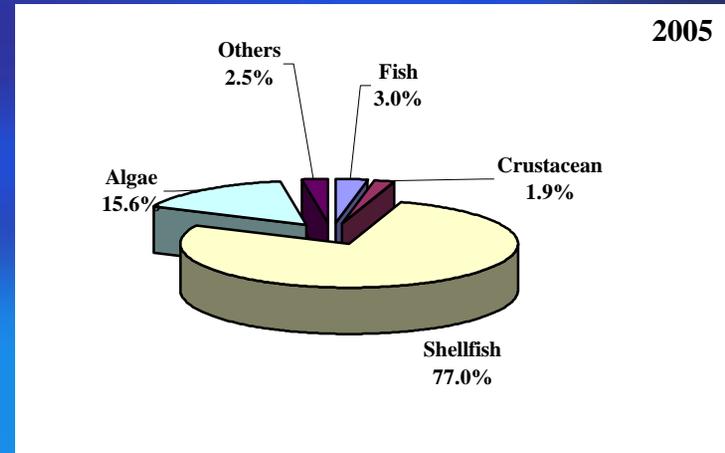
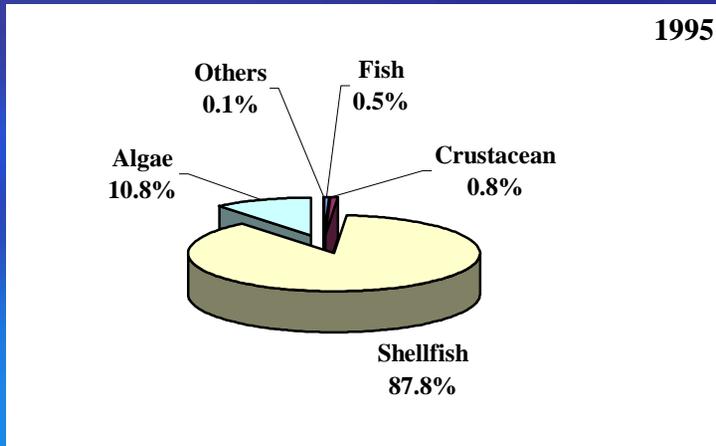
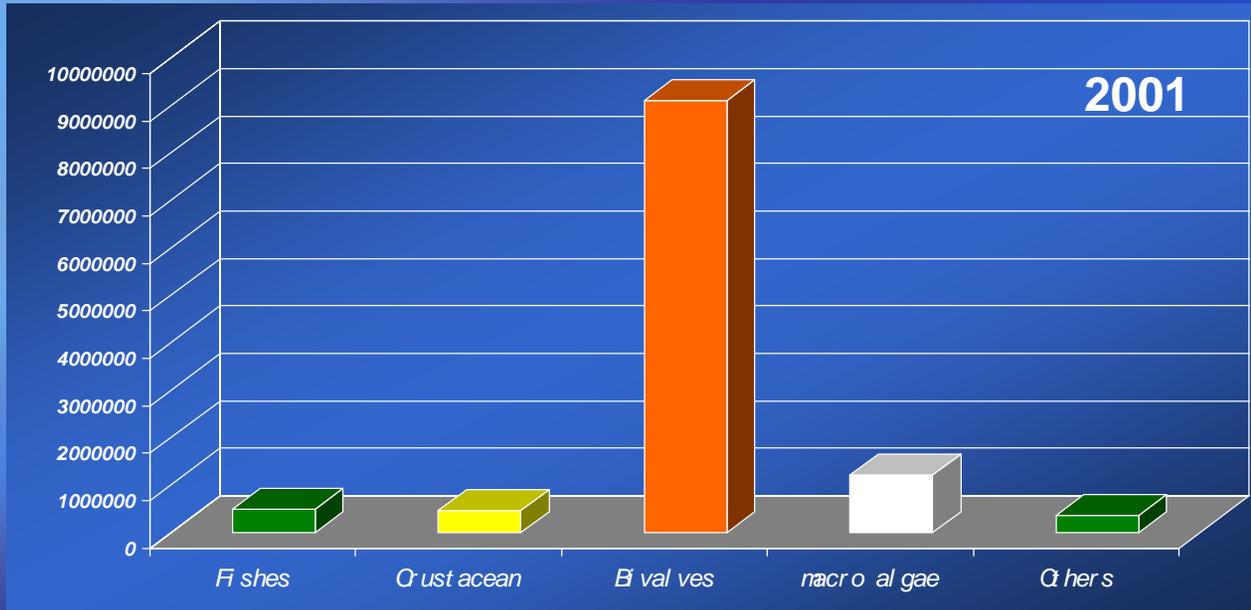
- ❑ Fisheries
- ❑ Biodiversity
- ❑ Ecosystem
- ❑ Pollution
- ❑ Investment

5 Module for the Monitoring, Assessment and Management of LMEs



Activities in 2005-2006

- ❑ Two PSC meetings
- ❑ Two regional technical meetings
- ❑ Ten meetings of the Regional Working Groups (RWG)
- ❑ One special technical meeting for the co-operative study cruises



Species composition of mariculture in the Yellow Sea



Ecosystem Studies in the coastal ocean of China

- ❑ **China-GLOBEC I:** Ecosystem Dynamics and Sustainable utilization of Marine Living Resources in the Bohai Sea , 1997-2000; Budget: US\$ 0.6 Million.
- ❑ **China-GLOBEC II:** Ecosystem Dynamics and Sustainable utilization of Marine Living Resources in the East China Sea and Yellow Sea , 1999-2004; Budget: US\$ 4.5 Million.
- ❑ **China-GLOBEC III /IMBER I:** Key Processes and Sustainable Mechanisms of Ecosystem Food Production in the Coastal Ocean of China, 2006-2010; Budget: US\$ 4. Million.

Chief Scientist: Qisheng Tang (ysfri@public.qd.sd.cn)



First Announcement

The Second Global Conference on LMEs will be held in Qingdao, China on September 11-13, 2007

Convener:

Dr. Kenneth Sherman and Prof. Qisheng Tang