Modern Concept and Implementing Exploration of Water Resources Management

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Basic Natural Resources and Economic Resources

Controlling Factor of Eco-Environment

Key Support and Safeguard of Socio-Economic Development

Food, Petroleum and Water constitute three major strategic resources.

Managing floods, solving water shortage and improving water environment are long-term challenges.

I. Basic Situation of Water Resources and Major Challenges

II. Achievements of Water Resources Management

III. Modern Concept Exploration of Water Resources Management

I. Basic Situation of Water Resources in China

i. Major Characteristics of Water Resources in China

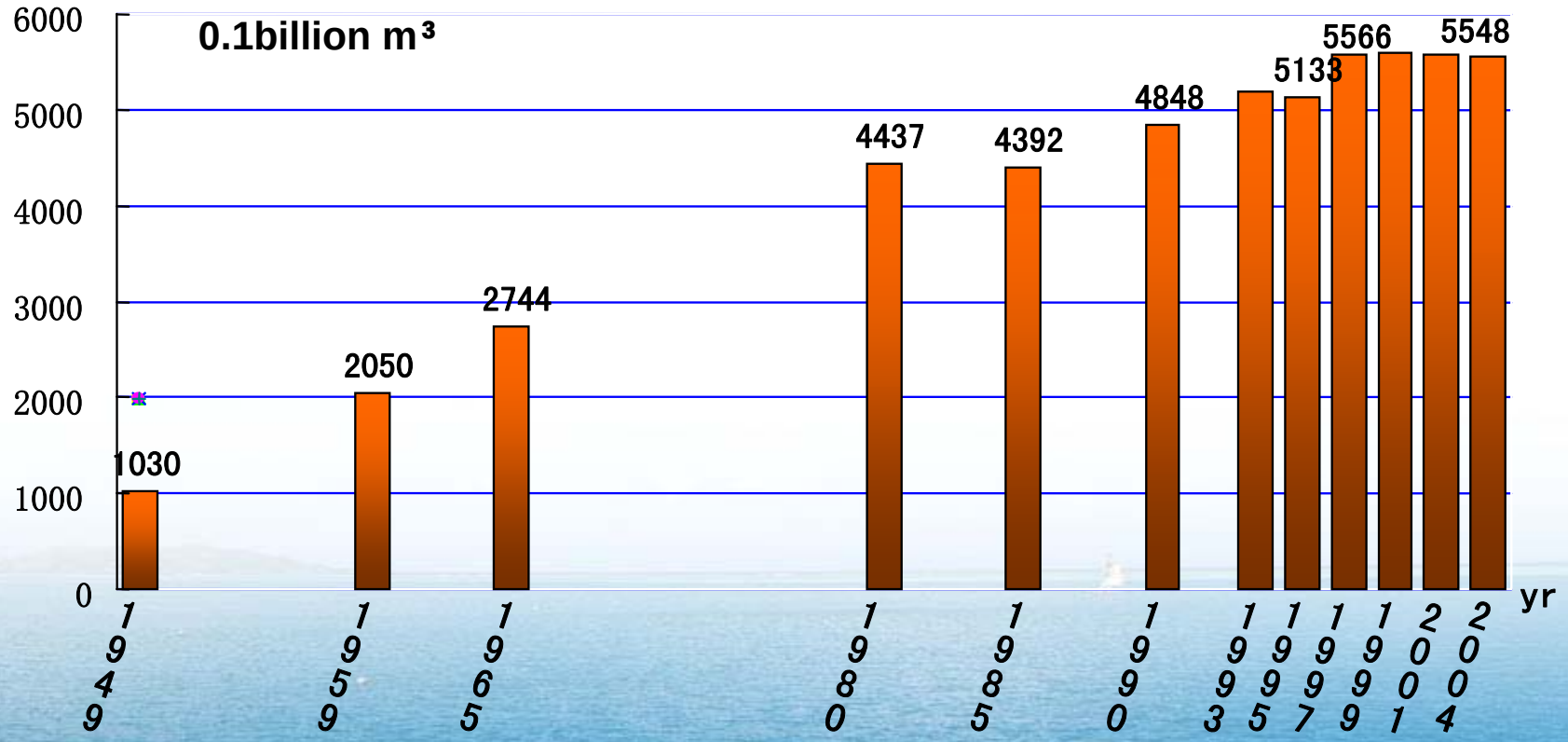
- Low Per Capita Share
- Uneven Temporal and Spatial Distribution
- Geographic Mismatch between Water Resources and Economic and Residential Development

ii. Water Resources Amount in China in Recent 10 yrs

- Average annual rain fall:*635.4mm*;
- Average annual surface water resources amount: *2672.2 billion m^3*;
- Average annual ground water resources amount: *830.2 billion m^3*;
- Average annual water resources amount:*2778.6 billion m^3*.

iii. Current Situation of Water Use

Total Quantity of Water Use



iiii. Water Resources Management Organization

Ministry of Water Resources, P. R. C.

Province-level Water Conservancy (Affairs) Department (Bureau)

County-level Water Conservancy (Affairs) Department (Bureau)

- Yangtze River Water Resources Commission
- Yellow River Water Resources Commission
- Huaihe River Water Resources Commission
- Haihe River Water Resources Commission
- Songliao River Water Resources Commission
- Pearl River Water Resources Commission
- Taihu Basin Authority

Combination of River Basin and Administrative Region Management

II. Challenges

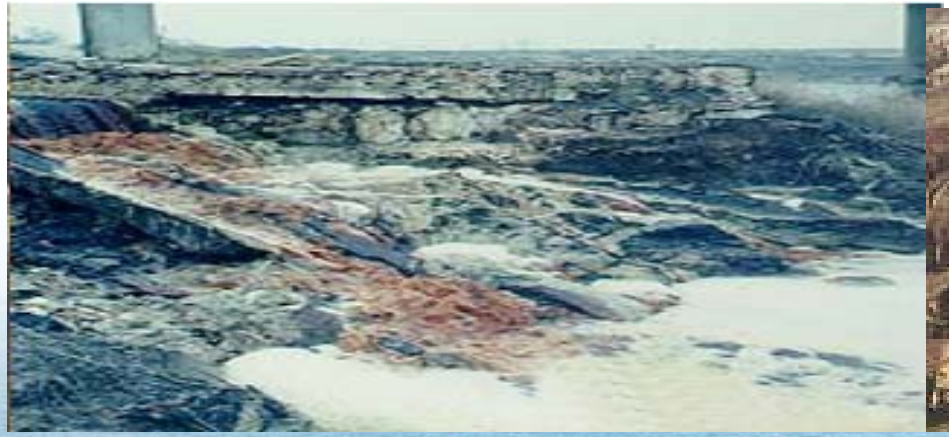
i. Four Big Problems

ii. Requirements on Water Resources Management Posed by Socio-economic Development

1.Four Major Water Problems

Flood

Water Shortage



Water Pollution

Soil Erosion

The major problems of China's water resources are demonstrated as two "contradictions".

- **The contradiction between water resources and the need of sustainable development of economy and the society.**

- **The contradiction between the extensive economic growth mode and the actual conditions of water resources and water environment.**

The Basic Judgment of the Current Problems in China's Water Resources.

ii. Requirements on Water Resources Management Posed by Socio-economic Development

- High Standards for Water Quality
- Effective Supply of Water
- Reasonable Distribution among Industries
- Sufficient Concern on Ecology

I. Basic Situation of Water Resources and Major Challenges

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- Water resources allocation project construction is steadily underway, and water supply capability has been obviously increased.

Fix assets investment of national water conservancy infrastructural construction completed: RMB362.5 billion yuan from 2000 to 2005.

By the end of 2006

Reservoirs:85,849

River Dikes:280,800km

Lock: over 39,000

Irrigation Area:
over 53million ha

✦ Water resources pollution control has been strengthened, and eco-environment degradation is gradually restrained.

- **Since 1998, treasury bonds earmarked for water pollution control has exceeded RMB110 billion yuan; 15,000 high-consumption and heavy-pollution enterprises has been shut down, which helped reduce the pollution to water body; water diversion and compensation has been actively launched in regions with poor eco status.**

- **Water resources use efficiency and benefits have been obviously raised, and nation water use growth speed has been effectively controlled.**

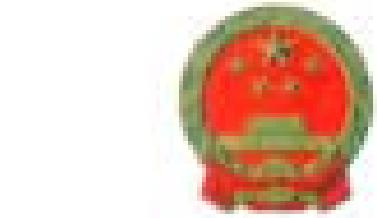
  - **Pilots for Water-Saving Society Construction:**

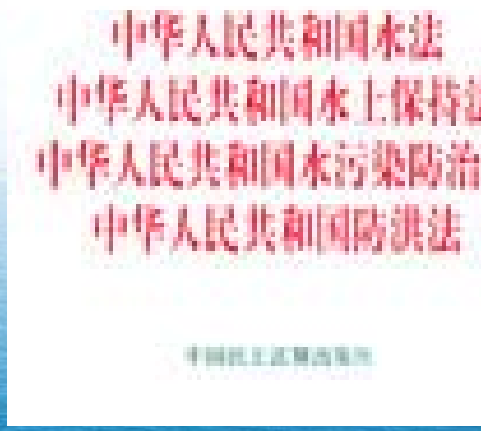
National level:42; Provincial level: over 130.

  - **Based on the constant price in 2000, during the "Tenth-Five" period, per 10,000 yuan GDP water consumption reduced from 554m^3 to 357m^3, and per GDP water consumption decreased by 35.6%.**

- **The legislative system is being perfected, as well as water resources technical standards.**

Relatively perfect water-related regulation system has been established, with Water Law, Water and Soil Conservation Law, Flood Control Law, and Water Pollution Control Law included, which helps to realize water harnessing, management and consumption according to laws and regulations.





I. Basic Situation of Water Resources and Major Challenges

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I. Background of Forwarding the Water Management Concept for Sustainable Development

- The economy and the society have undergone profound changes.
- The water resources has become the bottleneck for rapid economic development, and seriously influenced the continual progress of the society.
- Water authorities of all river basins and all-level governments has launched a series of exploration and practices.

II. Implication of Water Management Concept for Sustainable Development

To take people as the foremost, and put the people's livelihood at top priority.

To stick to harmonious coexistence of human beings and the nature, and strengthen ecologic civilization construction.

To stick to water resources sustainable utilization, and strengthen the conservation and protection of water resources.

To stick to over-all planning, take all factors into consideration, seek both temporary and permanent solutions, and strengthen the coordinated development of water conservancy.

To stick to reform innovation, and strengthen the legislative system construction.

To stick to the direction of modernization, and strengthen the promotion of modern water conservancy technology through information-based system construction.

III. To implement the modern concept of water management, and solve water resource problems.

Water shortage	Establishing water-saving society
Flood disaster	Giving way to floods
Water and soil erosion	Bring the restoration capacity of nature into full play
Water pollution	Develop the “green economy”

To establish a water-saving society, and raise the efficiency and effectiveness of water use, to fundamentally resolve the problem of water shortage in China.

To find way-out for floods, and solve the problem of flood disasters in China.

It is neither necessary nor possible for human beings to control floods of all scales.

The more controls on floods by human beings, the more revenges to human beings by floods.

To moderate human activities to leave more space for flood storage and drainage.

To bring the restoration capacity of nature into full play, and solve the ecologic problems such as water and soil erosion.

The ecology is self-balanced, and the power of human beings is limited in front of the nature. To address the problem of soil erosion, fully relying on the self-restoration capacity of nature should be taken as core guiding principles, by protecting the nature, implementing mountain closure, returning farmland to forestry or grassland.

To develop green economy and strictly discipline the pollution discharge right management to solve the problem of water pollution.

- **Green economy from macro scope: to transform the economic development mode, regulate the economic development structure, and radically solve the problem of water pollution.**

- **Circulative economy from middle scope: to take the waste stemmed from the previous production link to be the raw material for the next link, so as to raise the efficiency of resources use.**

- **Clean production from micro scope: to guarantee the cleanness of each production link, and minimum the pollution discharge.**


Thank you!
Special Thanks to GIES Organizing Committee !