

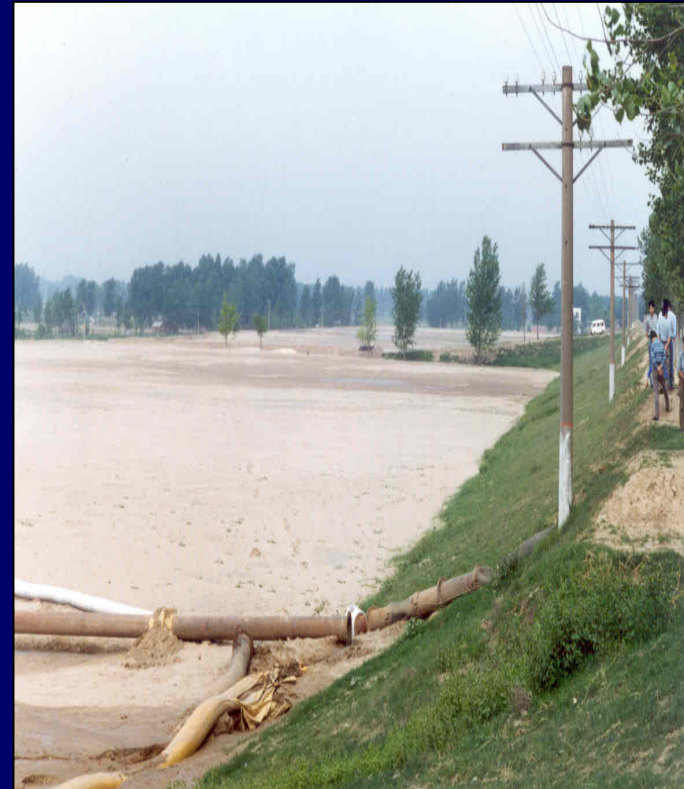
Financing IWRM in River Basins: Challenges and Opportunities

A collage image featuring a child drinking water from a fountain, a water meter, a river, and a person in a boat.

Wouter Lincklaen Arriëns
Lead Water Resources Specialist
Asian Development Bank
1 December 2007

Outline of Presentation

1. **Challenges for IWRM**
2. **Challenges for RBOs**
3. **ADB Water Financing Program (2006-2010)**
3. **NARBO Initiatives**
4. **Water Disaster Management**
5. **Water Knowledge Hubs**

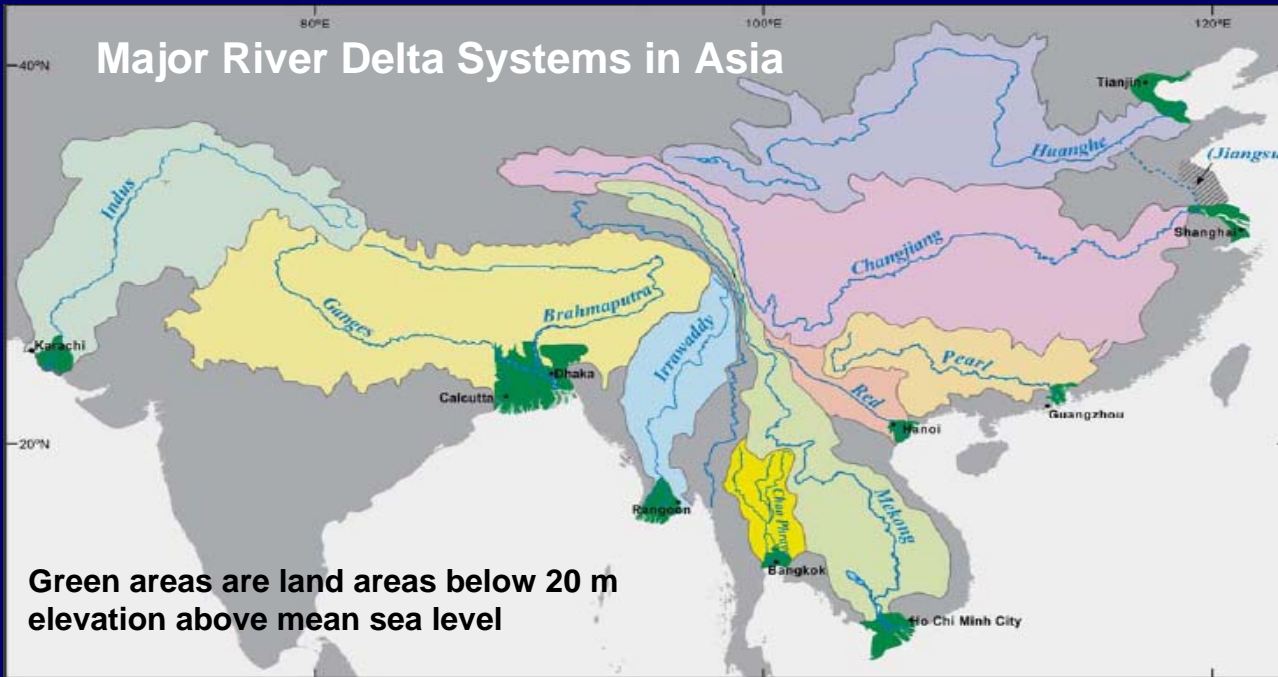


Major Challenges for IWRRM

- Urbanization
- Decentralization
- Cleaning up the environment
- Improving governance
- Reducing vulnerability



Large Urban Areas in Deltas

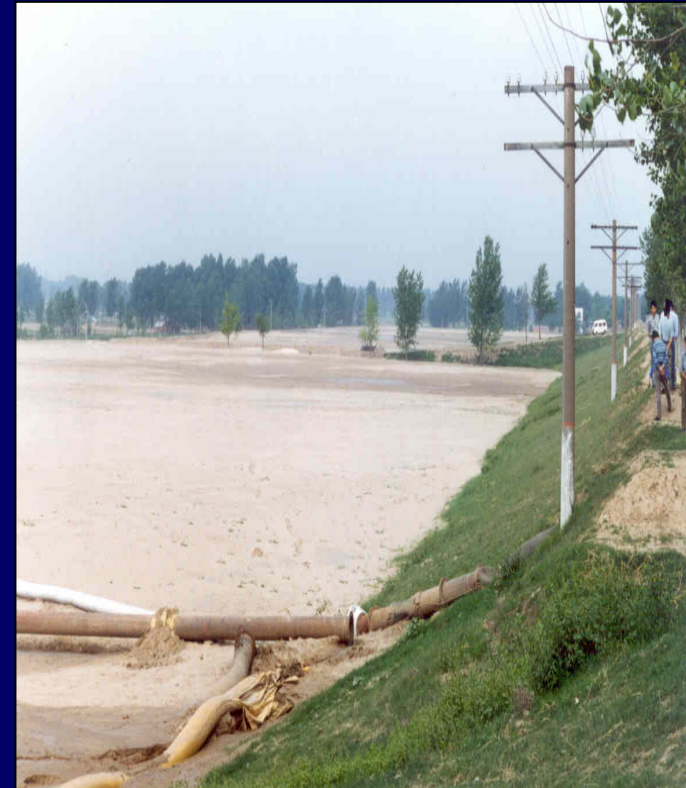


High Susceptibility to Any Flood Regime Change from Land and/or Ocean



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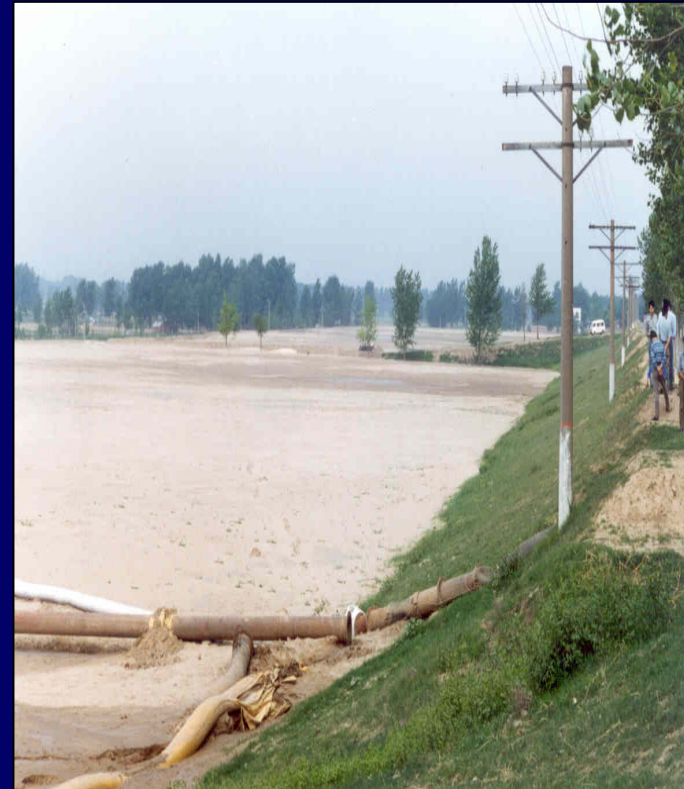
Challenges for RBOs

- Produce better basin assessments with stakeholders for long-term investment programs for IWRM
- Demonstrate practical results and get buy-in from the public
- Develop IWRM facilitator role (see where RBO can add value)
- Mobilize basin councils with leadership and accountability
- Streamline financing procedures for IWRM with local government
- Start climate change adaptation



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Water Financing Program 2006-2010

ADB announced a doubling of water investments

3 key investment areas:

Rural water – improve health and livelihoods

Urban water – sustain economic growth in cities

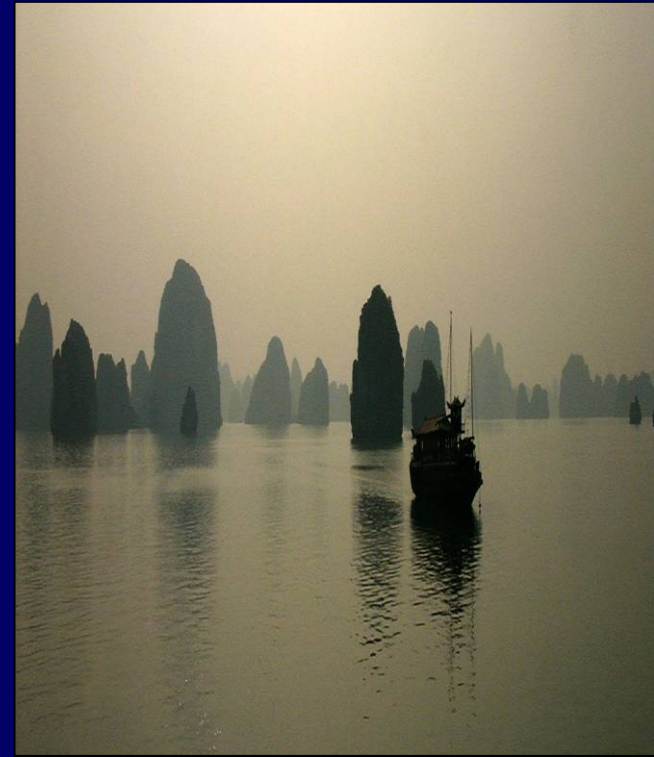
Basin water – promote IWRM and healthy rivers

See <http://adb.org/Water/Operations/WFP/default.asp>



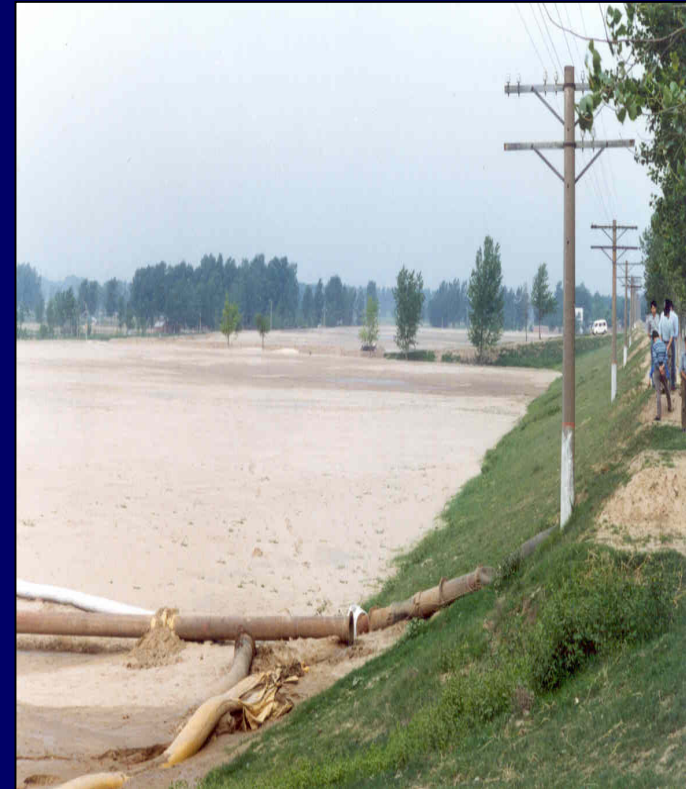
Basin Water Targets

- Reduced risks to flooding for 100 million people
- IWRM introduced in 25 river basins
- Pipeline 2008-2010 is growing (currently almost \$2 billion)
- Ongoing basin projects in:
Cambodia, Central Asia, Indonesia, Lao PDR, People's Republic of China, Viet Nam
- Guide to IWRM elements and generic roadmap for introducing IWRM



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NARBO Initiatives

- RBO performance benchmarking and peer review (4 completed), expand to 10 or more
- Explore performance benchmarking of river basins (work of Kei Saiki)
- Share knowledge on water rights, and water disaster management
- Proposed project: Managing Water in Asia's River Basins: Charting Progress and Facilitating Investment through Roadmap Advisory Service for RBOs



RBO Performance Benchmarking

Indicators

| | | |
|---|--|--|
| | Stakeholders Customer Involvement Customer Feedback Environmental Audits Basin Livelihood | |
| Internal Business Process Planning Maturity Water Allocation Data Sharing | MISSION RBO Status Governance | Learning and Growth HRD Technical Development Organization Development |
| | Finance Cost Recovery Financial Efficiency | |

Basin Performance Benchmarking

Proposed Indicators¹

- Water Utilization
 - water quality
 - raw water supply
- Disaster Vulnerability
 - flood vulnerability
 - chemical spills
- Environmental conservation
 - water quality
 - biodiversity



Disaster Management

- 1st workshop: Yogyakarta, Indonesia, 26-29 November 2007
- Participants from: Bangladesh, Viet Nam, Sri Lanka, Pakistan, Thailand, Philippines, Lao PDR, Indonesia, Malaysia, Viet Nam and India
- Objectives
 - identify and analyze the characteristics and issues on water-related disaster management
 - identify strategies and solutions to address the issues



Proposed Project:

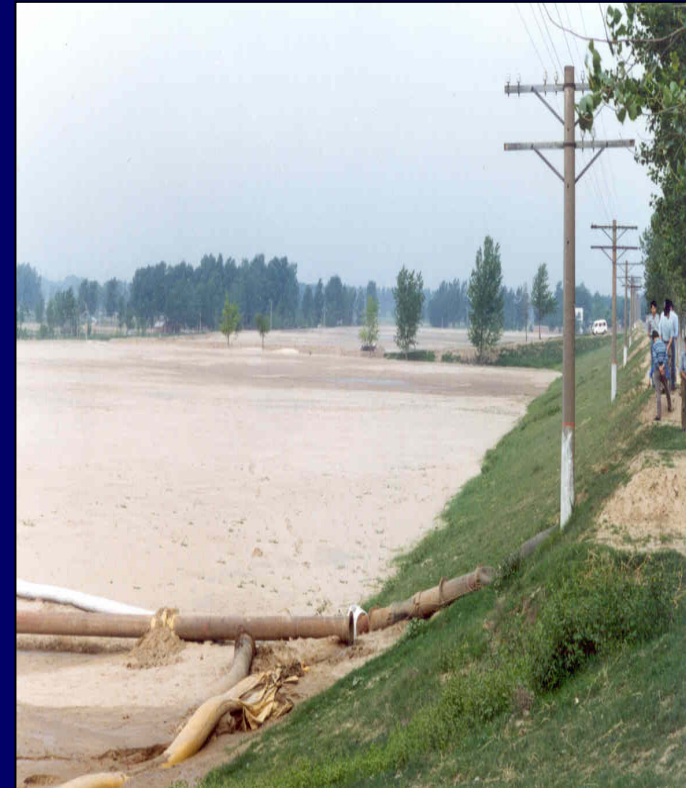
Managing Water in Asia's River Basins: Charting Progress and Facilitating Investment

- Catalyze further basin water investments under the WFP
- Demonstrate good practices in introducing IWRM in river basins in Asia
- Four components
 - project development facility
 - RBO knowledge service
 - country performance assessments
 - RBO performance improvement
- Pilot a basin Roadmap Advisory Service in 5 basins



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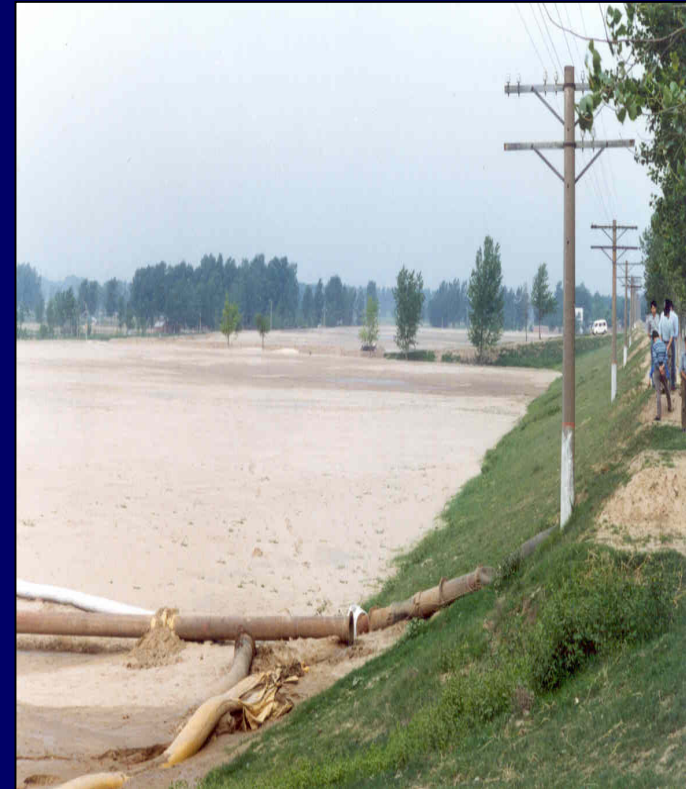
Water Disaster Management

- Part of IWRM elements and strategy
- Collaboration with ICHARM
 - to reduce flood risk for 100 million people under ADB's Water Financing Program 2006-2010
 - to support investment projects and regional cooperation for integrated flood management in Asia Pacific, starting 2008
- Symposium on Integrated Approach to Water-Related Disaster Management, Social Welfare Hall, 2 December



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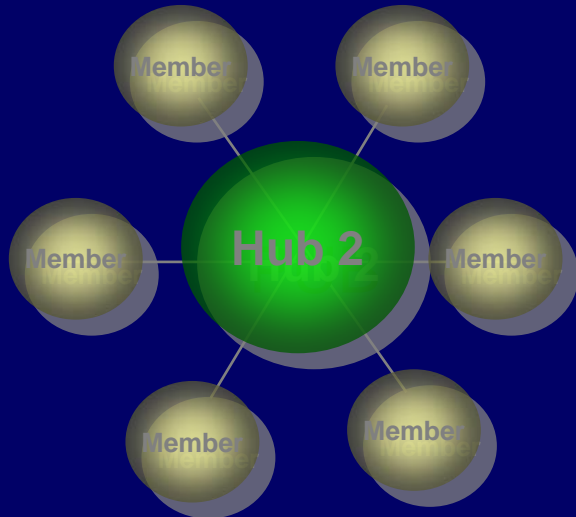


APWF Water Knowledge Hubs

- region faces unprecedented challenges in water management
- new approach is needed for knowledge partnerships and networking
- knowledge hubs can pursue excellence by adopting key operating principles
- water knowledge hubs will collaborate to improve performance
- regular review meetings will provide an efficient governance framework

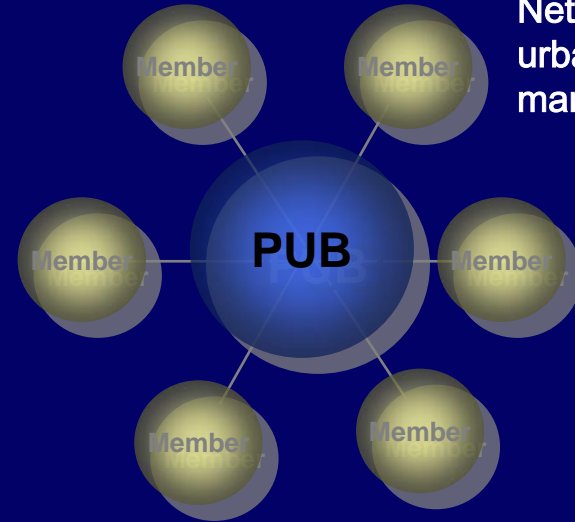
Each Knowledge Hub Manages a Network

Network for Topic 2

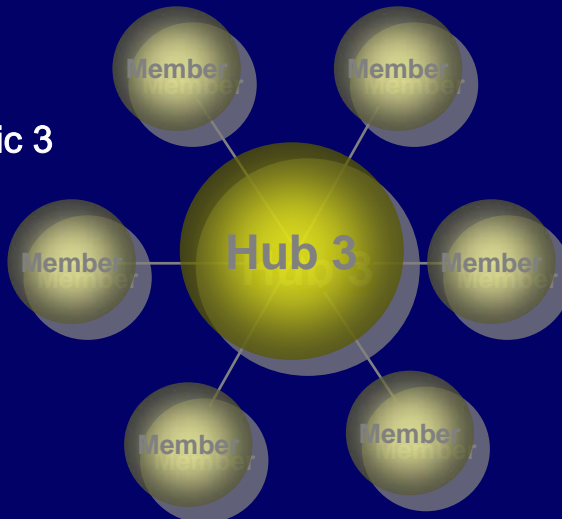


Network members include clients and knowledge partners

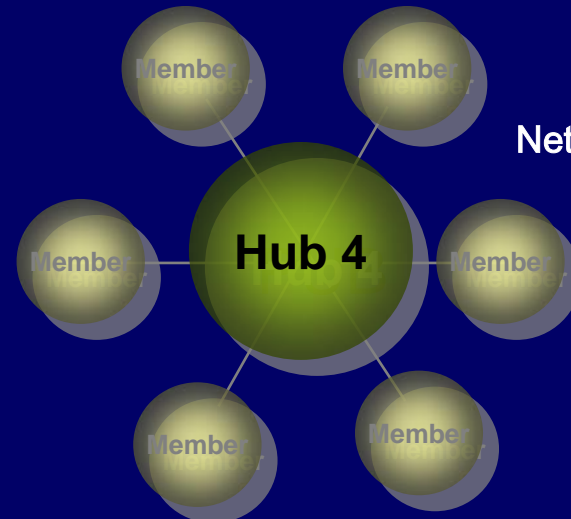
Network for urban water management



Network for Topic 3



Network for Topic 4



Some Candidate Hubs

- **International Centre for Water Hazard and Risk Management (ICHARM)** disaster risk reduction and flood management
- **Ministry of Public Works (MPW) Indonesia** for river basin organizations and management (in collaboration with Japan Water Agency as NARBO Secretariat)
- **National Hydraulic Research Institute of Malaysia (NAHRIM)** for climate change
- **K-Water** for water quality management in river basins
- **PUB Singapore**, for urban water management
- **Yellow River Conservancy Commission (YRCC)** for decision support systems for river basin management (Hydro-informatics)



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