

# Investing in Water Disaster Management: Before and After

A collage image featuring a child drinking water from a public tap, a water meter, a river, and a worker in a field.

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4 December 2007

# Outline of Presentation

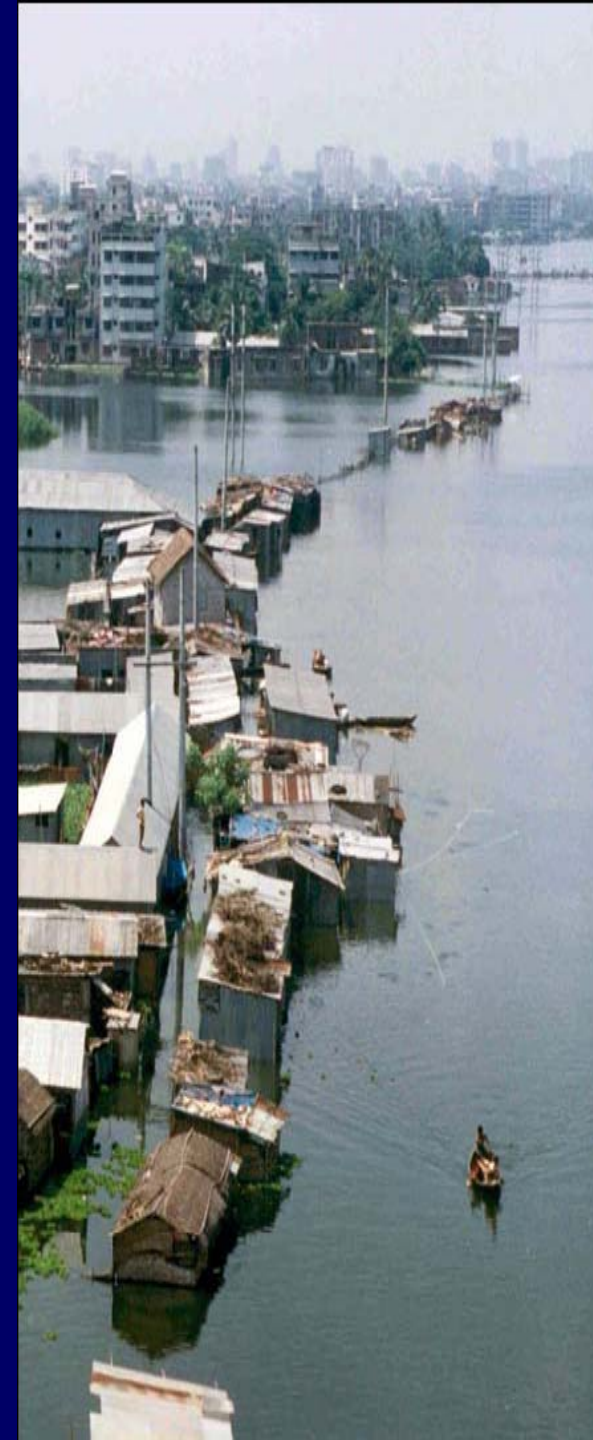
- **Realities and Trends**
- **ADB policy and experience**
- **What ADB offers its members in the Asia Pacific region**

# Realities and Trends

Increase in large-scale disasters over the last 50 years

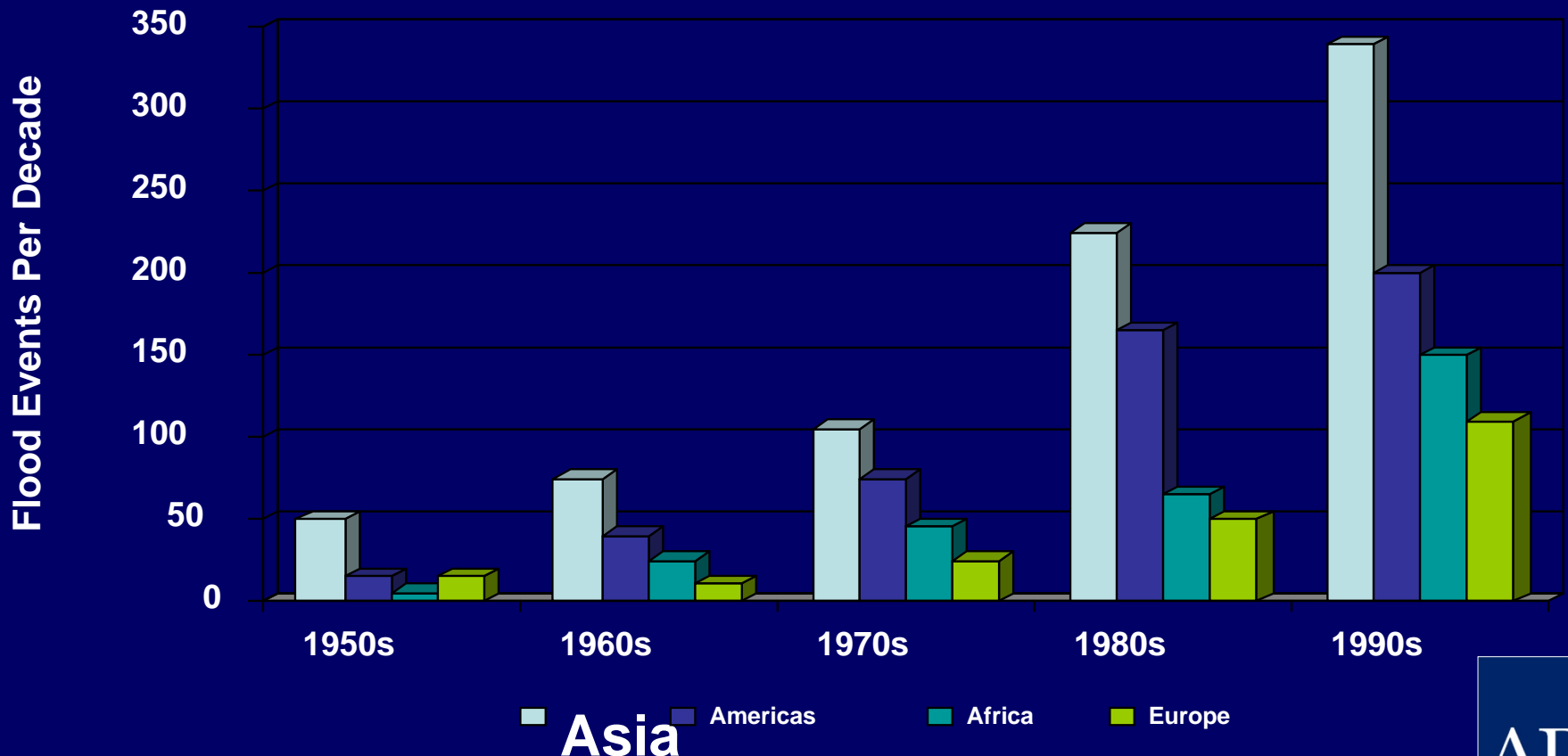
In Asia-Pacific:

- Water-related disasters are increasing faster than others
- Average no. of people killed per year (2001- 2005) is the largest: around 63,000 people, or 91% of the world's total deaths
- Accounts for 49% of the world's total damage due to natural disasters in the last century



# Flood Disasters By Decade and Continent

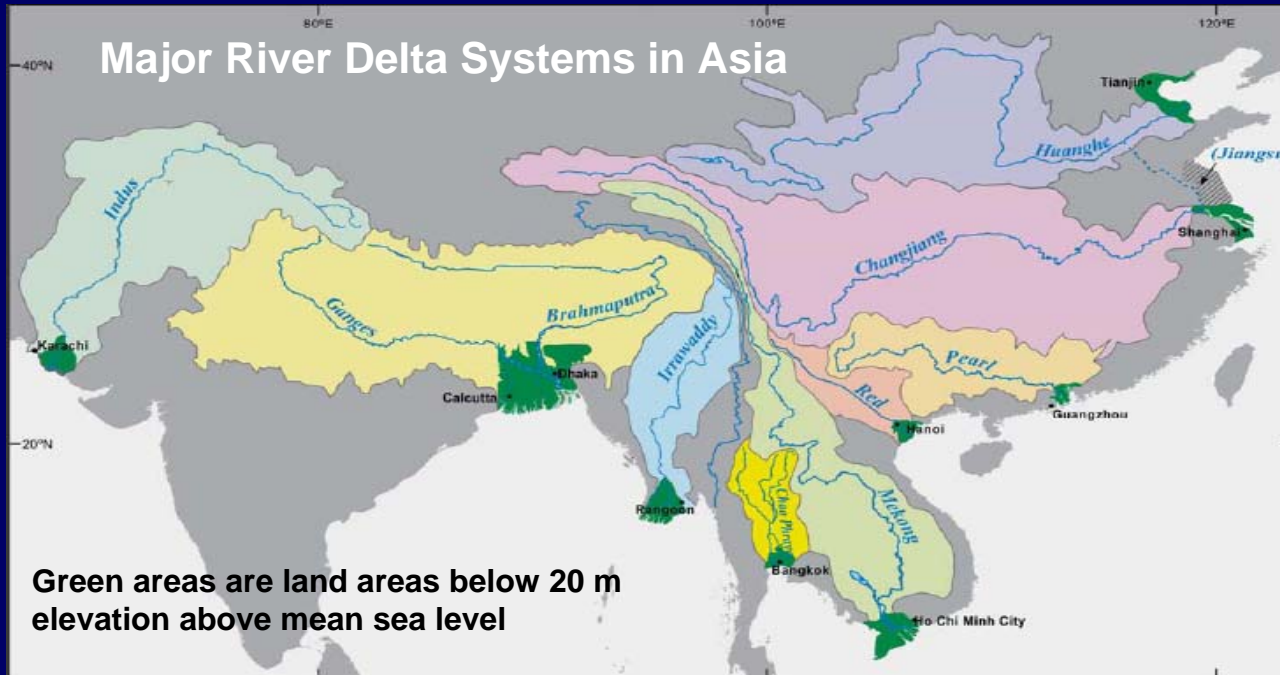
Flood events per decade



Source : ICUS/INCEDE April/June Newsletter (2003)



# Major Asian Cities Located in Deltas



High susceptibility to climate change impacts in flooding

# **City Vulnerability Assessments in connection with climate change**

- **ADB recently decided to support disaster vulnerability assessments in Ho Chi Minh City and Karachi**
- **Can explore with other cities too**

# Key Messages

**Countries and communities need to:**

- Update vulnerability assessments**
- Improve their disaster preparedness**
- Protect high-value assets**
- Manage floods**
- Learn to live with floods**

“Flood management involves taking measures to avoid floods from becoming disasters

Flood control is a structural means to keep a river within its channel, and reflects the idea that floods are bad. “

*Ian Fox, former ADB staff*



# What Asian leaders

say:

*“Total flood control is not possible.”* – State Office of Flood Control and Drought Relief, PRC

*“Total flood control in Bangladesh is neither feasible nor desirable.”* –  
Local Government Engineering Department,  
Bangladesh

*“China is now updating its concept from flood control to flood management.”* -- China Institute of Water Resources and Hydropower Research, PRC

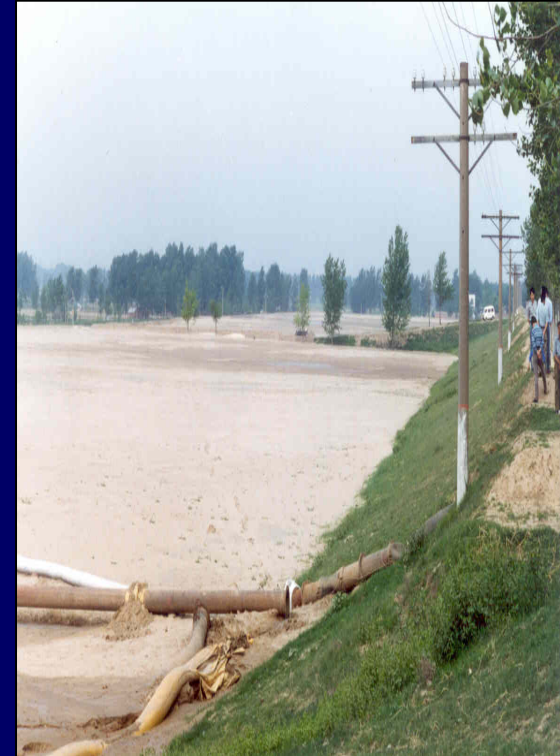
*“Flood waters have inundated the area for the past three seasons – this is a long enough period to review our approach.”* – Agriculture Minister, Viet Nam

ADB



# Flood Management Approach

- **Manage rather than react to floods**
- **Provide emergency evacuation measures for vulnerable communities**
- **Use affordable flood control embankments, mindful of risk and long-term maintenance costs**
- **Protect urban areas to high standards**
- **Protect rural areas to minimum standards**



# Living with floods



Floating school that moves with seasonally changing level of Cambodia's Tonle Sap Lake.

# Living with floods cont'd

The floor level of this school, 5km from the shoreline of Cambodia's Tonle Sap lake, is 10 m above dry season water level. This is above maximum water level for most floods.



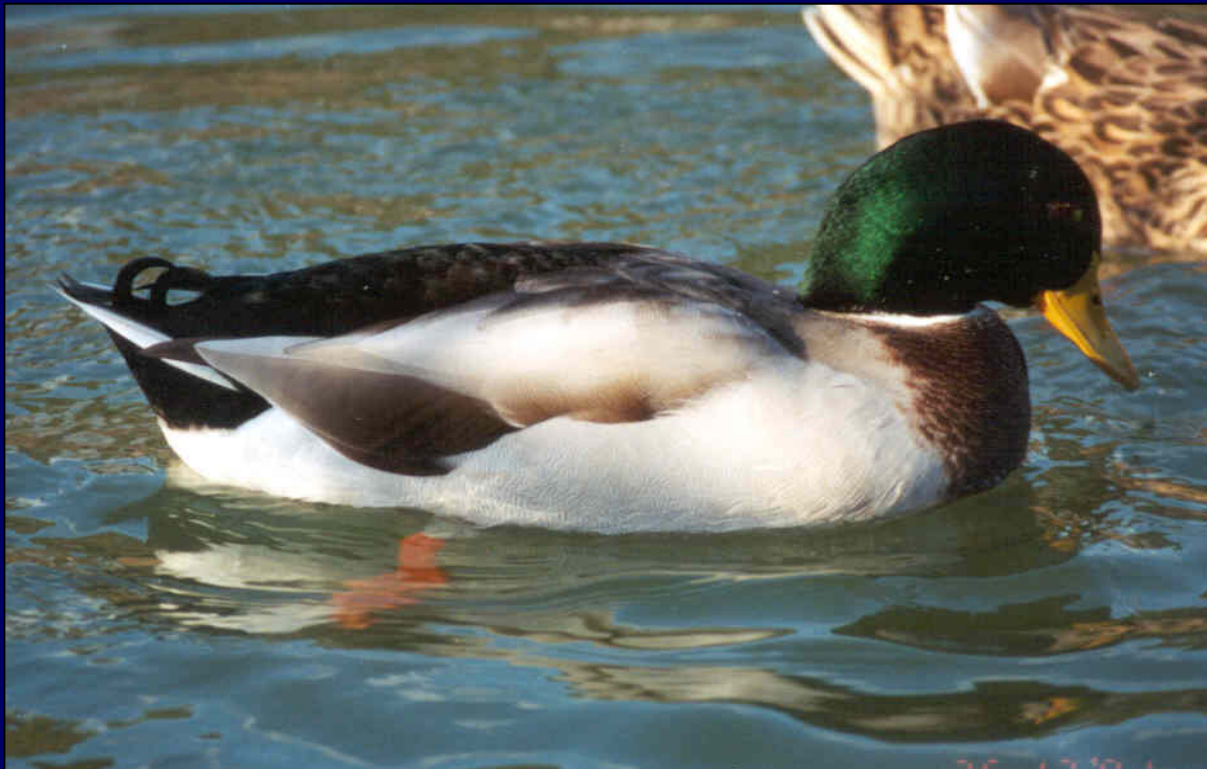
# Living with floods cont'd

In the flood corridor of China's Yellow River, villages are being relocated on raised platforms...



# Living with floods cont'd

Maximize the beneficial impacts of floods  
and conserve wetlands.



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- Realities and Trends
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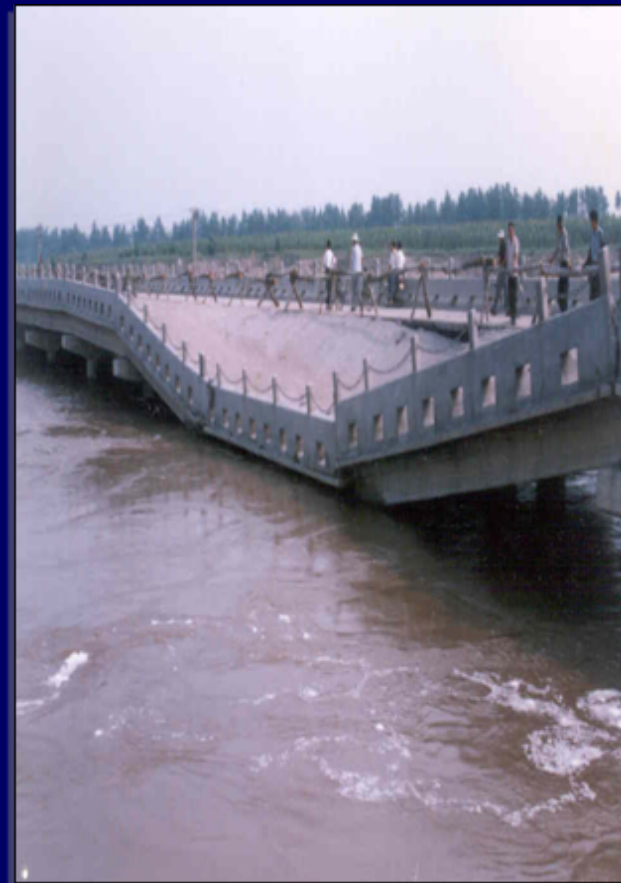
# ADB's Disaster and Emergency Policies: Historical Perspective

Date	Title	Description	Trigger
1987 (R74-87)	Rehabilitation Assistance to Small Countries Affected by Natural Disasters	Simple repair to pre-disaster status  Projects completed within 3 years	South Pacific proposal to establish special facility to assist DMCs affected by tropical cyclones
1989 (R191-88)	Rehabilitation Assistance After Disasters	Policy extended to all developing member countries	IDNDR* (1990), Bangladesh floods, Nepal earthquakes, Philippine typhoons, Sri Lanka conflicts
2004 (R71-04)	Disaster and Emergency Assistance Policy (DEAP)	Strategic assistance; disaster and post-conflict; 2 or 3 year project completion	ADB Long-Term Strategic Framework (2001-2015) - poverty reduction focus

\* IDNDR: International Decade for Natural Disaster Reduction

# Scope of the Policy

- **Emergency assistance after a natural disaster and conflict event**
- **Post-disaster rehabilitation projects**
- **Disaster mitigation and preparedness projects**
- **Development projects with mitigation features (e.g., flood management schemes)**





# ADB Water Disaster Management Projects

## 1972- Oct 2007

- \$3.41 billion
- 57 projects in 22 countries

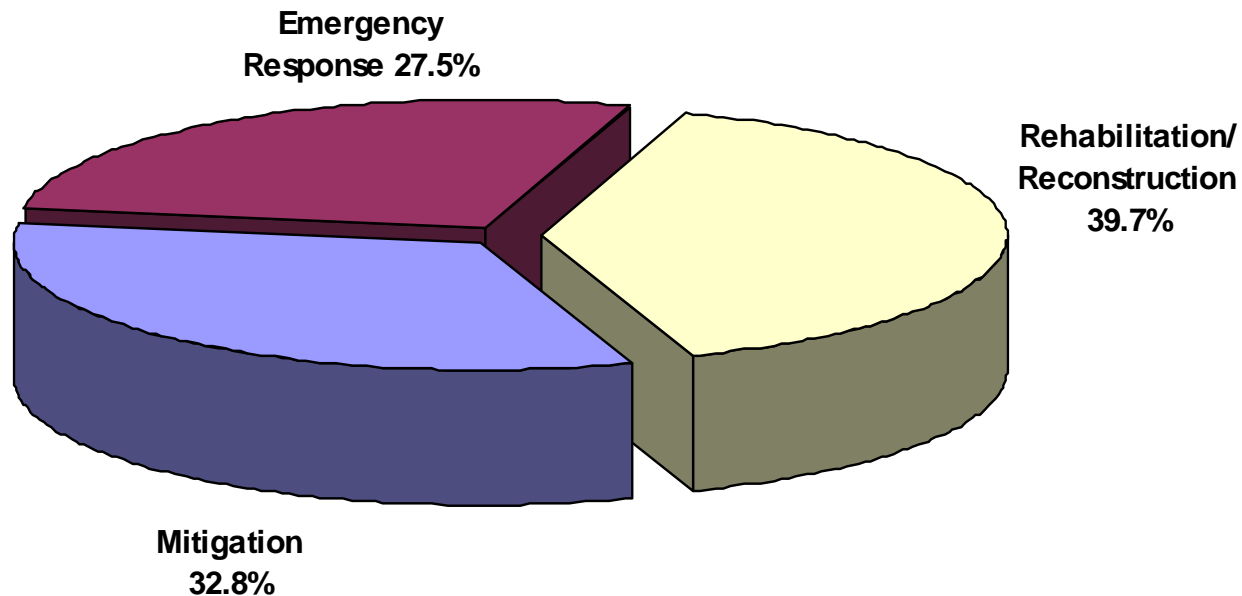
## 2008-2010

- \$1.19 billion
- 9 projects in 2 countries



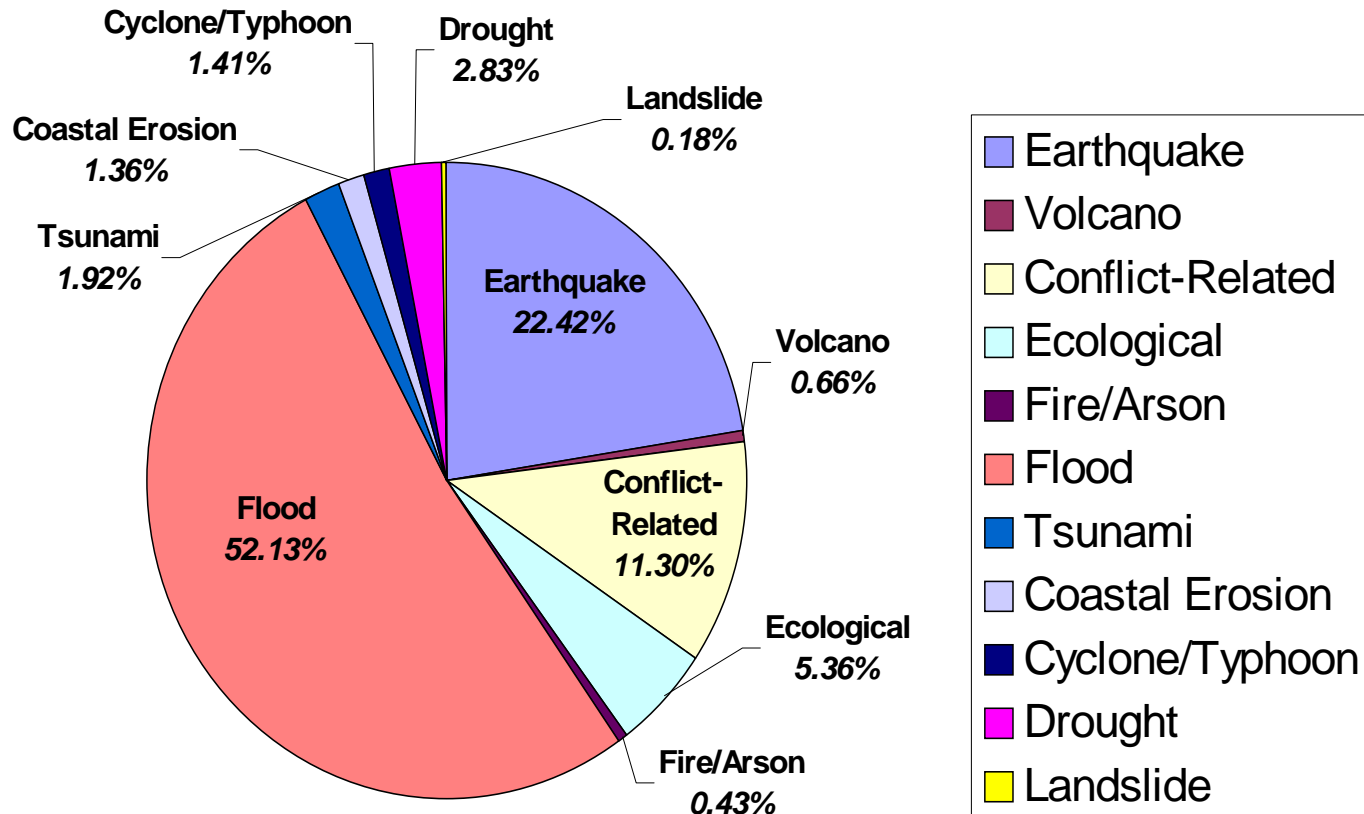
# Assistance Before and After

## ADB Assistance by DRM Area (June 1987–August 2007)



# Flood Assistance > 50%

Disaster-Related Loans (June 1987-August 2007)



# Some Key Lessons Learned

- **Combine structural and nonstructural measures in a comprehensive flood management approach**
- **Address operation and maintenance of project assets**
- **Increase engineering investigations before and during detailed design to avoid very costly structural failures**
- **Make space for public participation in project planning**



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# Water Financing Program 2006-2010

ADB goes for doubling of water investments

3 key investment areas:

Rural water – improve health and livelihoods

Urban water – sustain economic growth in cities

Basin water – IWRM, flood management,  
healthy rivers

**Target:** Reducing flood risk for 100 million people



# What ADB Offers its Members

1. Responsive emergency assistance policy
2. Lessons learned from 57 projects over 35 years
3. Comprehensive focus on preparedness, response, and rehabilitation
4. Investment through TA and Loans before and after disasters
5. Focal point for disaster management
6. Regional cooperation and partnerships for knowledge and capacity development



# What ADB Offers its Members cont'd

## In-Country Assistance (TA and Loans)

- Vulnerability assessments
- Preparedness and mitigation projects
- Emergency assistance loans for restoration
- Rehabilitation loans for longer term
- Capacity development and innovation

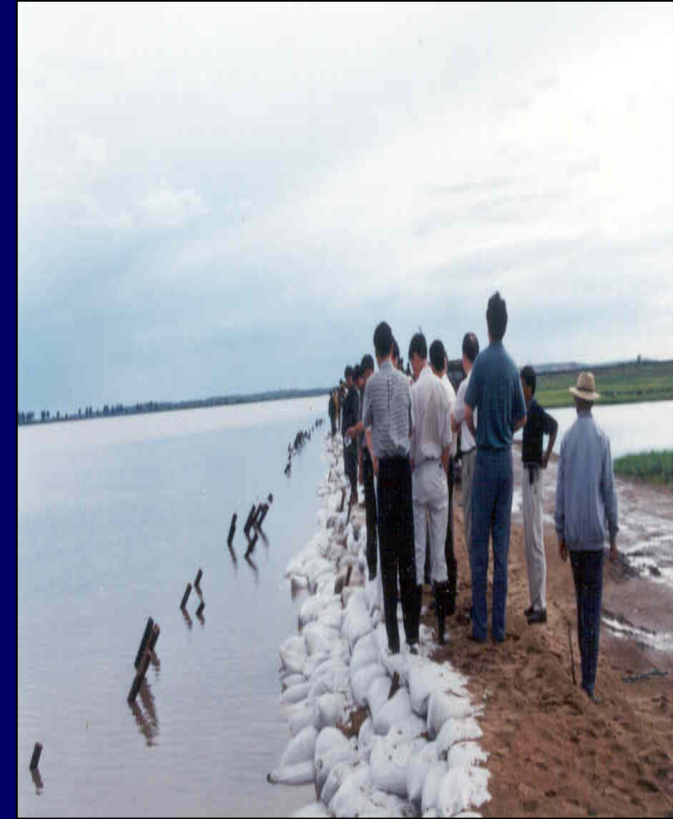
## Regional Cooperation (Regional TA)

- Improve disaster risk reduction as part of IWRM in river basins, through NARBO
- Collaborate with regional knowledge hub (UNESCO-ICHARM) and its partners, through APWF
- Support knowledge sharing within subregions
- Support standards / performance benchmarking
- Support climate change adaptation work on floods and droughts



# ADB-ICHARM Collaboration

- Plan to work together in country projects to help reduce flood risk for 100 million people under ADB's Water Financing Program 2006-2010
- Support Asia Pacific regional cooperation for integrated flood management and disaster preparedness
- Aim to conclude cooperation agreement and start work in early 2008



# **ADB – Japan Partnership**

- 1. Collaborate with JICA / JBIC in studies, capacity development, and project investments**
- 2. Collaborate with MLIT for regular dialogue, and for G8 meeting preparation and follow-up**
- 3. Collaborate with University of Tokyo to support internships for project-related research**
- 4. Collaborate with UNESCO-ICHARM as APWF's candidate regional knowledge hub for disaster risk reduction and flood management**
- 5. Collaborate with Japan Water Forum as APWF Secretariat**



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