

Activities at ESD/UNU

- Disaster Management
 - International Programs
 - Flood Risk Assessment
 - Landslides
- Managing Basin Water Cycle
 - Urban Water Cycle
 - Mekong Basin - Research Network
 - GEOSS/AWCP Capacity Development
- Climate Change
 - Adaptation for global dimming
 - Workshop: Making Adaptation work

Global Initiatives

- Two Global programs on disaster reduction were proposed at the 2005 World Conference on Disaster Reduction.
 - International Flood Initiative
 - Joint program of UNESCO, WMO, UNU and ISDR with ICHARM as the secretariat
 - International Program on Landslides
 - Supported by 6 UN and 2 international Organizations with ICL as the secretariat

INTERNATIONAL FLOOD INITIATIVE

UNESCO • WMO • UNU • ISDR



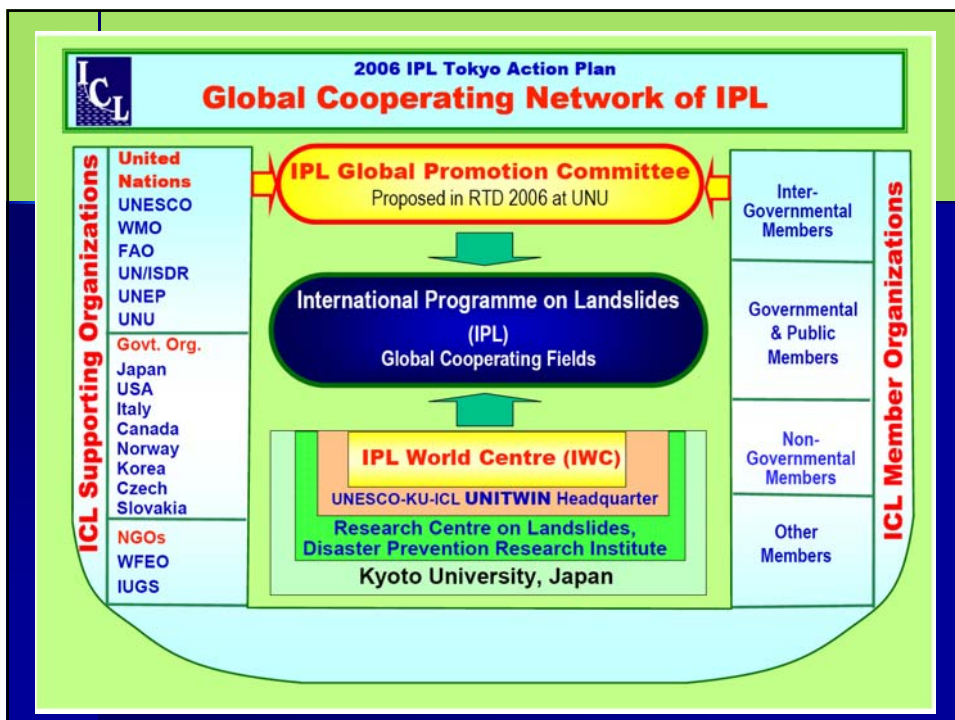





OBJECTIVES
 The overall objective of the initiative is to build capacity in countries to **understand and better respond to floods** by taking advantage of their **benefits** while at the same time **minimizing their social, economic and environmental risks**.

STRATEGIC ACTIVITIES The initiative will focus on **research, information networking, education and training, empowering communities and providing technical assistance and guidance**.

STRATEGIC FRAMEWORK **Vulnerability, Flood Risk Management, Governance and Participation, People centered early warning and emergency management**



Initiative on Catastrophic Flood Risk Reduction

GOAL

To integrate

- **Prior risk assessment (catastrophic flood scenario)**
- **Basic framework for response (action plan)**

into urban development and planning process for sustainable urban futures

Initiative on Catastrophic Flood Risk Reduction

Regional Workshop “Ensuring Flood Security for Sustainable Urbanization in the Asia Pacific Region”, 2003 Bangkok Resolution:

The need for an Asia Pacific Initiative on Catastrophic Flood Risk Reduction, and pledged support for the mission and goals of the initiative by representatives from:

Bangladesh, Cambodia, China, Fiji, India, Indonesia, Lao PDR, Malaysia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam

Organizations

- Organized by UNU
 - Resources from: UNESCO-IHE, Monash University, Australia, Nippon Koei Co., Ltd., AIT, Thailand
- Participants –Professionals from a University and the organization responsible for flood control - trainers
 - China: Tsinghua University, Beijing Municipality
 - Nepal: Institute of Engineering, Department of Hydrology and Meteorology
 - Philippines: University of Philippines, PAGASA (Hydro meteorological Agency)
 - Sri Lanka: University of Peradeniya, Irrigation Department
 - Viet Nam: Institute of Hydrology and Meteorology, Department of Storm Control and Dyke Management

Program

- Phase I (Hands on – 3 weeks)
 - Training on GIS
 - GIS system freely distributed
 - Setting up and application of Rainfall Downscaling and forecasting system (DRF)
 - Setting up Flood inundation modelling and Application (FMS)
- Phase II (Home country 3 months)
 - Transfer to others
 - Model application and verification with historical floods
 - Field survey for data collection
- Phase III(Hands on –b 3 weeks)
 - Risk Assessment: Economic losses and people at risk
 - Mitigation measures

Observations

- Many participants were interested in operational forecasting in addition to extreme scenario modelling.
- Pairing of educational and responsible agency participants proved to be very effective
- The module can be divided in to 3 sub modules and delivered according to the needs of each country.

Challenges

- As urban centers grow and develop, there will always be new risks
 - Increased floods, underground space flooding, etc.
- Ensuring human security in urban areas:
 - Infrastructure development considering vulnerability
 - Guide lines for 'catastrophic flood' resistant urban communities
- Training programs for professionals
 - Rapidly training trainers, especially in preparation for extreme events

