



Outline of the International Centre on Water Hazard and Risk Management under the auspices of UNESCO

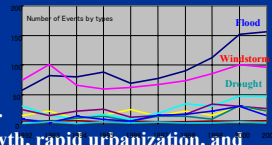
Public Works Research Institute (PWRI)
Tsukuba, Japan

UNESCO-IHP Bureau Meeting
April 1, 2004, Paris, FRANCE



Water hazards as a major challenge

The number of water related
disasters is still increasing.



The water related disasters will be ...

- aggravated by population growth, rapid urbanization, and concentration of human settlements and assets in flood areas;
- hampering sustainable development at global scale.

There are acute needs for R&D and capacity building.



Reduction of water hazards is vital for poverty alleviation.
Immediate actions at scientific/academic fields are needed.



Historical Background

- 2000 2nd WWF (The Hague)
→ “Managing Risk” as major challenge area.
- 2002 WSSD (Johannesburg)
→ Necessity to develop programs for mitigating the effects of extreme water-related events
- 2003 3rd WWF (Kyoto, Shiga & Osaka)
→ Water hazards as one of the 37 main themes
- Awareness on importance of water hazards and risk management was raised.
- Needs to develop technologies and capacity building were recognized.



Objectives of the Centre

On water hazards and risk management...

- Generate and provide scientific and technical information to the world
- Promote research involving international institutions and networks
- Undertake effective capacity-building activities
- Enhance cooperation in order to advance knowledge



Public Works Research Institute (PWRI)

- History 1927: Establishment
1979: Relocation to Tsukuba
2001: Re-organization
- Staff : 220 (including 150 researchers)
- Land area: about 560,000m²
- Number of project themes: around 200
- Budget (FY 2003):
6 billion JPY (55 mil. US\$)



Framework of the Centre

- Proposed to be established within PWRI as a global center under auspices of UNESCO (Category 2) in autumn 2005
- Mission theme:
Water hazard and risk management
- Activities:
Research, Training, and Information networking
- Support from the Government of Japan (MLIT, MOFA, MEXT...)
- Partnership with UNESCO-IHP Networks, UNESCO-IHE & other global/regional institutes, UN agencies and other key organizations of the world

FWRI

Outline of the Centre (at initial stage)

- Staff
 - 10 international and 10 Japanese professionals
 - Support from PWRI and other relevant institutes/ organizations (e.g., NILIM)
- Administrative support from PWRI
- Budget
 - Operational budget: financed by PWRI
 - Project budget: to be financed by various sources from inside & outside of Japan
- Office facility
 - Location and total area : Next to PWRI HQs, around 2,000 square meters
 - Total cost: 200 million JPY (2 million US\$)
 - Construction of the center will be started in April, 2004 and be completed by Autumn 2005

FWRI


Office outlook




Location: Next to the PWRI HQs, Tsukuba
Total area: around 2000 square meters

FWRI

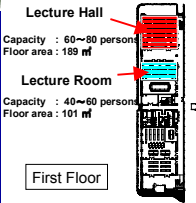
Office design and layout



Lecture Hall



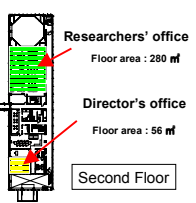
Researchers' office



First Floor

Lecture Hall
Capacity : 60~80 persons
Floor area : 189 m²

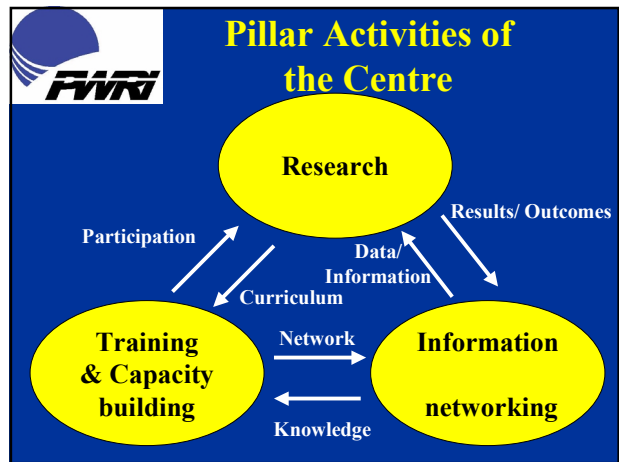
Lecture Room
Capacity : 40~60 persons
Floor area : 101 m²



Second Floor

Researchers' office
Floor area : 280 m²

Director's office
Floor area : 56 m²



FWRI

Research Activities

Conducting scientific and academic research;

- Hydraulic / hydrological prediction, observation, modeling and analysis
- Water-related hazards management technologies
- Climate change assessment study and adaptation technologies
- Contribution to the WWAP
 - • • and others

FWRI

Research Projects (1)

Contribution to the WWAP

- For Phase 1 (WWDR published in March 2003)
 - Technical input
 - Case study of Greater Tokyo
- For Phase 2 (toward 2006)
 - Expansion of the Case Study to country scale
 - Indicator of Risk Management with WMO, ISDR
 - Input to the risk chapter of the 2nd World Water Development Report (WWDR)





Research Projects (2)

Contribute to UNESCO/WMO joint International Flood Programme, including potentially related programmes:

- International Flood Network (IFNet) by actively collaborating to the network expansion and substantially contributing to develop Global Flood Alert System (GFAS)
- Global Cooperative Programme on Water and Climate (CPWC) by contributing through national assessment of Japan and developing the Flood Vulnerability Index (FVI)



Research Projects (3)

Co-operation with IHP risk-management-related programmes and activities

Input of PWRI's expertise to the Centre:

- R&D of hydrological modeling and water resources management system
- Collaboration with IAHS to develop PUBs
- Intensive study of water resources modeling in the Mekong River, etc.
- Contribution to develop GWP Tool Box

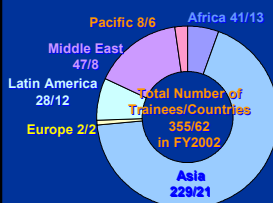
➔ Many other projects will be coming!



Training Activities (1) -experiences of PWRI-

PWRI's long experiences through conducting JICA training courses for over 35 years, including:

- river and dam engineering
- landslide engineering



Training Activities (2)

- Group training course
 - New training courses on "water hazard mapping" (in cooperation with JICA)
 - Improvement of the existing training courses to respond to the mission of the new Centre
- Long- & short-term training for experts/ practitioners
 - Students/ professionals exchange from academic institutes worldwide
 - Internship for the future generations



Information Networking (1)

Creating knowledge base and information networking :

- Collecting, compiling and providing useful information and practices relevant to risk management, particularly through co-operation with International Flood Programme and WWAP
- Contacting UN-systems and all other international resource organizations in collaboration with IHP networks and WWAP
- Interaction with the existing global/ regional network (IFNet, JWF, etc.)

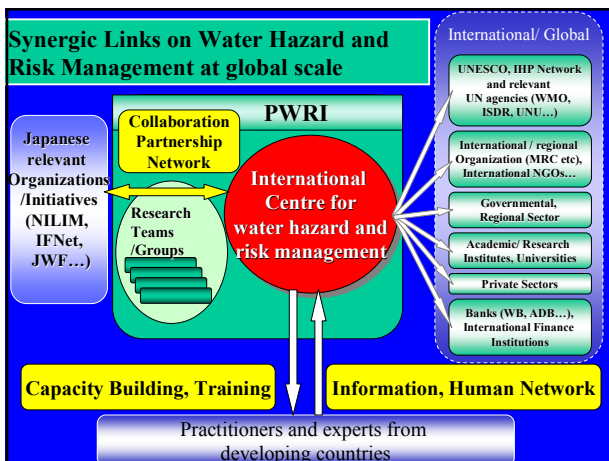


Information Networking (2)

Information networking will be synergized with research and training activities in order to enhance integration and coordination:

Through the information network...

- Research output will be widely disseminated
- Feedbacks from countries and regions will be given to research projects
- Trainees will develop domestic links in their own countries/ regions
- Local needs for training items will be informed




Preparatory activities (1)

July 2003

- Preparatory Committee for the UNESCO Centre
Chair: Masato Seiji, Director General, River Bureau, MLIT
- Preparatory Working Team for the UNESCO Centre
Chair: Akira Kitagawa, Executive Director, PWRI
Vice Chair: Kenzo Hiroki, National Institute for Land and Infrastructure Management, MLIT
- Strategic Meeting of the IHP Centres/Chairs at Delft

October 2003

- 32nd UNESCO General Conference
→ Announcement of intention to establish the Centre by the representative of Government of Japan



Preparatory activities (2)

October 2003

- RSC in Southeast Asia & Pacific and in Latin America & Caribbean
→ Resolutions strongly supporting the establishment of the Centre

January 2004

- International technical workshop at PWRI
→ Experts from Asia, Africa, East & West Europe, and North & South America
→ Summary Report on directions of the Centre
- International Symposium in Tokyo

March 2004

- WWAP risk management workshop at WMO



Preparatory activities (3)


- Participation in the international conferences/ meetings
 - August 2003: Stockholm Water Week (Stockholm, Sweden)
 - November 2003: Southeast Asian Water Forum (Chiang Mai, Thailand)
 - January 2004: ADB Water Week (Manila, Philippines)
 - February 2004: ISDR Asian Meeting (Siem Reap, Cambodia)
- Networking in Japan
- Coordination among MLIT, MOFA, MEXT and other water ministries and the IHP sub-committee, Japan National Commission for UNESCO



Where we stand...

- Started constructing the office/facilities
- Established a special department devoted to the preparatory activities (headed by Akira TERAOKAWA, Director)
- Launched the special Website linked with IHP website

Preparatory works will be proactively continued.



Budget status

- Budget for preparatory activities in 2003
40 million JPY (400,000 US\$) spent for...
 - Organizing International Workshop and Symposium
 - Preparatory Research
 - Collecting Information
- Ministry of Finance approved the FY 2004 budget for Centre preparation
- FY 2004 budget will be spent for active continuation and progress of the preparation



Future milestones

Key events to progress the preparatory works:

- March 31-April 2, 2004: UNESCO-IHP Bureau at Paris
- April 2004: CSD 12 (New York, USA)
- Autumn 2004: UNESCO-IHP Intergovernmental Committee (IGC)
- Autumn 2004: Executive Board
- January 18-25, 2005 : World Conference on Disaster Reduction (Kobe, Japan)
- Spring 2005: CSD 13 (New York, USA)
- Autumn 2005: 33rd General Conference



Launch the TSUKUBA Centre!



**We greatly appreciate
your suggestions and supports!**