



# INTERNATIONAL FLOOD INITIATIVE

## Toward “End to End” IFI regional activities in the Asia Pacific region

Tokyo, Japan, 1 March 2016

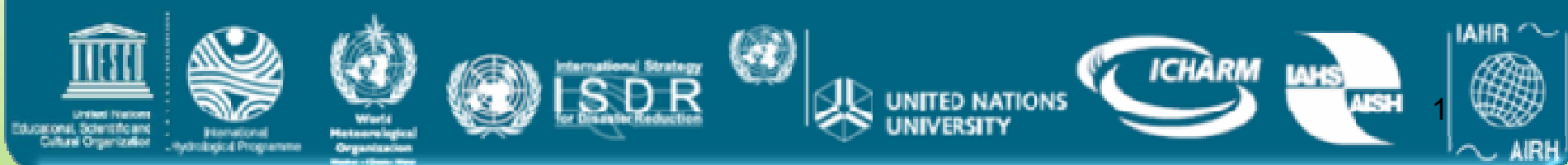
Masahiko Murase, Ph.D

Chief Researcher

International Centre for Water Hazard and Risk Management (ICHARM)

Public Work Research Institute (PWRI)

*In Close Collaboration with:*



# Contents

1. IFI
  - Origin
  - Mission and goals
  - Administration
2. The context of IFI next steps in the Asia Pacific region
  - Sendai Framework for disaster risk reduction
  - Sustainable Development Goals
  - Paris Agreement
3. Excerpts from today's discussion
4. Way forward
  - IFI new strategy
  - End to End practice

# 1. IFI

# The journey of the IFI initiative

May: XIVth **WMO Congress** welcomed the initiative and suggested to establish a joint UNESCO/WMO Committee on Floods. The proposed ICHARM will constitute a global facility for this programme.

**2003**

**2002**

17-22 Jun : **15th UNESO-IHP IGC Resolution** XV-14 on Joint UNESCO/WMO Programme on Floods

**2004**

- > 12-14 Jul : **Preparatory meeting in Tsukuba**. A joint UNESCO/WMO task team (6 members) produced a **concept paper** "The Joint UNESCO/WMO Flood Initiative (JUWFI)"
- > 20-24 Sep : **16th IHP-IGC** approved the concept paper and renamed as "The International Flood Initiative (IFI)".
- > 20-29 Oct : **12th WMO CHy** discussed the Concept Paper

18-22 Jan 2005  
Inauguration of  
IFI at WCDR in  
Kobe  
WMO/UNESCO/  
UNISDR/UNU

# INTERNATIONAL FLOOD INITIATIVE

## MISSION

The International Flood Initiative (IFI) promotes an integrated approach to flood management to take advantage of floods and use of flood plains while reducing the social, environmental and economic risks.

## STATEMENT:

## OVERALL

To build the capacity necessary to understand and better respond to flood hazards, vulnerabilities and benefits.

## OBJECTIVE:

## IFI's GUIDING PRINCIPLES:

*Living with Floods*

*Equity*

*Empowered participation*

*Inter-disciplinarily and trans-sectorality.*

***[www.ifi-home.info](http://www.ifi-home.info)***

**Initiated at UN Global  
Conference for Disaster  
Risk Reduction in Kobe,  
January 2005**

*In Close Collaboration with:*



International Strategy  
for Disaster Reduction  
**ISDR**



UNITED NATIONS  
UNIVERSITY



# IFI Organization Chart



**In Close Collaboration with:**



## IFI from 2004 to now

- **2004: Draft of IFI concept paper**
- **2005: IFI inauguration in Kobe**
- **2007: Finalization of the concept paper in a form of a pamphlet**
- **2008-2010: the implementation of the initiative → activity mapping**
- **Oct 2010: Finalization as an action plan list.**
- **2007, 2008 (May, Oct), 2010: IFI AC and MC with WMO/UNESCO attendance at director level**
- **Nov 2012: pre-AC meeting with WMO and UNESCO to rejuvenate IFI.**
- **Feb 2013: IFI planning workshop.**
- **March 2013: IFI flagships project launching at HELP**
- **March 2013 to now: IFI flagships by ICHARM and BfG, Germany**
- **June 2015 to now: Updating a basic documents (in progress)**
  - Concept and Strategy with an action plan list
  - Regional framework(s)

## 2. The context of IFI next step in the Asia Pacific region





## WCDRR-UN World Conference on Disaster Risk Reduction in Sendai, 14-18 March 2015



(g) Substantially increase the availability of and access to **multi-hazard early warning systems** and disaster risk information and assessments to the people by 2030

(a) Substantially reduce **global disaster mortality** by 2030, aiming to lower average per 100,000 global mortality between 2020-2030 compared to 2005-2015

(b) Substantially reduce the **number of affected people** globally by 2030, aiming to lower the average global figure per 100,000 between 2020-2030 compared to 2005-2015

Sendai Framework for Action: 7 global targets to guide action on DRR and DRM over the next 15 years:

(f) Substantially enhance **international cooperation to developing countries** through adequate and sustainable support to complement their national actions for implementation of this framework by 2030

(c) Reduce direct disaster **economic loss** in relation to global gross domestic product (GDP) by 2030

(e) Substantially increase the number of countries with national and local disaster risk reduction **strategies** by 2020

(d) Substantially reduce disaster **damage to critical infrastructure and disruption of basic services**, among them health and educational facilities, including through developing their resilience by 2030





## UN General Assembly 25 September 2015

### 17 Sustainable Development Goals (SDGs)

e.g.

- Target 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.





# UN Climate Change Conference of Parties (COP 21), 11 November 2015

## Paris Agreement

### Paragraph 7 (Article 7, 8):

- (c) Strengthening scientific knowledge on climate, including research, systematic observation of the climate system and early warning systems, in a manner that informs climate services and supports decision-making;
- (d) Assisting developing country Parties in identifying effective adaptation practices, adaptation needs, priorities, support provided and received for adaptation actions and efforts, and challenges and gaps, in a manner consistent with encouraging good practices;



### 3. Excerpts from today's discussion

# This morning session on Today

- What kind of gaps:
  - damage **data** including normal situations, information
    - lack of coherence, quality, availability, accessibility, incentives
  - knowledge**, predictability, function-ability
    - uncertainty, lack of climate shift, adaptation, sector disconnect
  - social and economics** context
    - lack of integrated approach, citizen ownerships
  - vicious cycle** of disaster risk management
    - shortage of finance from lack of risk assessment, political wills
- How do we fill the gaps:
  - Data** use capacity, open resources, sharing
  - Partnerships, institutionalizing**, area BCP, strategic mapping
  - Disaster finance (currently only 3%) **mitigation**
  - Evidence base** decision, hydro-diplomacy, **operational** needs
  - Scale-up** project, **redundancy**, safety net
  - Global Observation** from space, e.g. APRSAF, CEOS



# This afternoon session (1)

- AWC member countries' report -technical, institutional +deficiency; **quality of data and models** (Indonesia, Mongolia, Philippines, Thailand), structural and non-structural measures (Japan), observation limitation (Korea, Nepal), lack of **multi-stakeholders' coordination** (Pakistan), capacity of modeling for EWS (Myanmar, Sri Lanka), **less investment** for emergency, capacity of dissemination (Thailand) , etc.
- NARBO member countries' report –management and cooperation; Soft (incl. community based) and hard measure in Brantas and Bengawan Solo river, IWRM and community FM in Asahan and Jratunseluna river basins, Structural and non-structural measures including academic cooperation and UNSPIDER but still challenges for **climate** and uneven **allocation of water**, lack of **knowledge** in Vietnam, 7 dams operation example in 2013 in Japan. NARBO efforts for IWRM in Asia, mentioning SDGs #6.





# This afternoon session (2)

- Flood Early Warning System:

How to deal with limited **data**, provide appropriate **models**, and support local **capacity** building for IFM with **reliable simulation models and global data** (satellite) combined with in-situ data? ICHARM projects (IFAS and RRI models with capacity building); JAXA Sentinel Asia in Myanmar, DEM, GSMaP, quality of data and models; PMD Flood Warning System, Maps using IFAS and RRI in trans-boundary river by GSMap; Uto-kyo GSMap application in Sri Lanka, Philippines (Angat dam); Yangon TU, limited reservoir capacity, SATREPS for data-lack supplement; timing data and model development including remote-sensing technology.



# This afternoon session (3)

- Flood Disaster Risk Reduction:

**Evident-based FDRR practice** in Calumpit, the Philippines.

ICHARM summarizes FDRR, contingency planning projects with assessment using IFAS and RRI models, applied to preparedness (markers, period of flooding), questioned 1) current data/information, and 2) their requirement. PAGASA, observation and prediction, 1) **political, mislead**, impact-based hydromet warning, 2) **integrated approach**; OCD, secretariat of national DRR council as well as operation, 1) **threshold** values and **consistency** for actions, 2) **statistics, damage data, climate** data collection and analysis, **simplified** data; Bulakan, community FM projects (preparedness, rescue operation), 1) **more support, coordination, partnerships**, 2) **more information, assistance**; Calumpit, communities assistance, local rescue, NGO coordination, 1) limited **funds**, political **leaderships**, 2) **understandable** data for decision. Missing link with local government, localized materials for education.





## 4. Way forward

## IFI Strategic Structure

Integrated Water Resources Management (IWRM)

### Integrated Flood Management (IFM)

**Minimizing**  
social, environmental and economic risks

**Maximizing**  
net benefits from the use of flood plains

Sendai framework  
SDGs  
UNCCC COP21

### IFI implementation steps

climate change, changes in anthropogenic activities

inter-disciplinary, trans-sectoral and basin-wide approaches

#### Understanding of current status

- magnitude of flood hazards
- impact of development  
(changes in exposure, vulnerability)
- shortage of resources
- shortage of political will

#### Planning

- stakeholder participation
- cultural diversity
- impact & cost/benefit assessment
- decision making

#### Implementation

- early warning systems
- land use management
- effective infrastructure development
- increasing people's awareness
- institutional frameworks
- building back better

#### Follow-up

- risk re-analysis
- clarifying problems
- identifying areas to be strengthened

### IFI supporting tools

#### database

(statistics of flood damages/benefits and flood management knowledge)

#### science & technology

(monitoring technology, simulation tools, risk assessment methodology, clear indices)

#### local, national, regional initiatives

(IFI-AP, IFI-LAC etc.)

#### capacity building

(training courses)

#### financial mechanisms

(economic analysis tools and methods)

### Focus Areas

Monitoring

Hazard Assessment

Exposure Assessment

Vulnerability assessment and capacity building

Finance and investment

### Expected Stakeholders

IFI promoters  
(international organizations etc.)

Academic Society  
(universities, research institutes etc.)

Government  
(water, disaster)

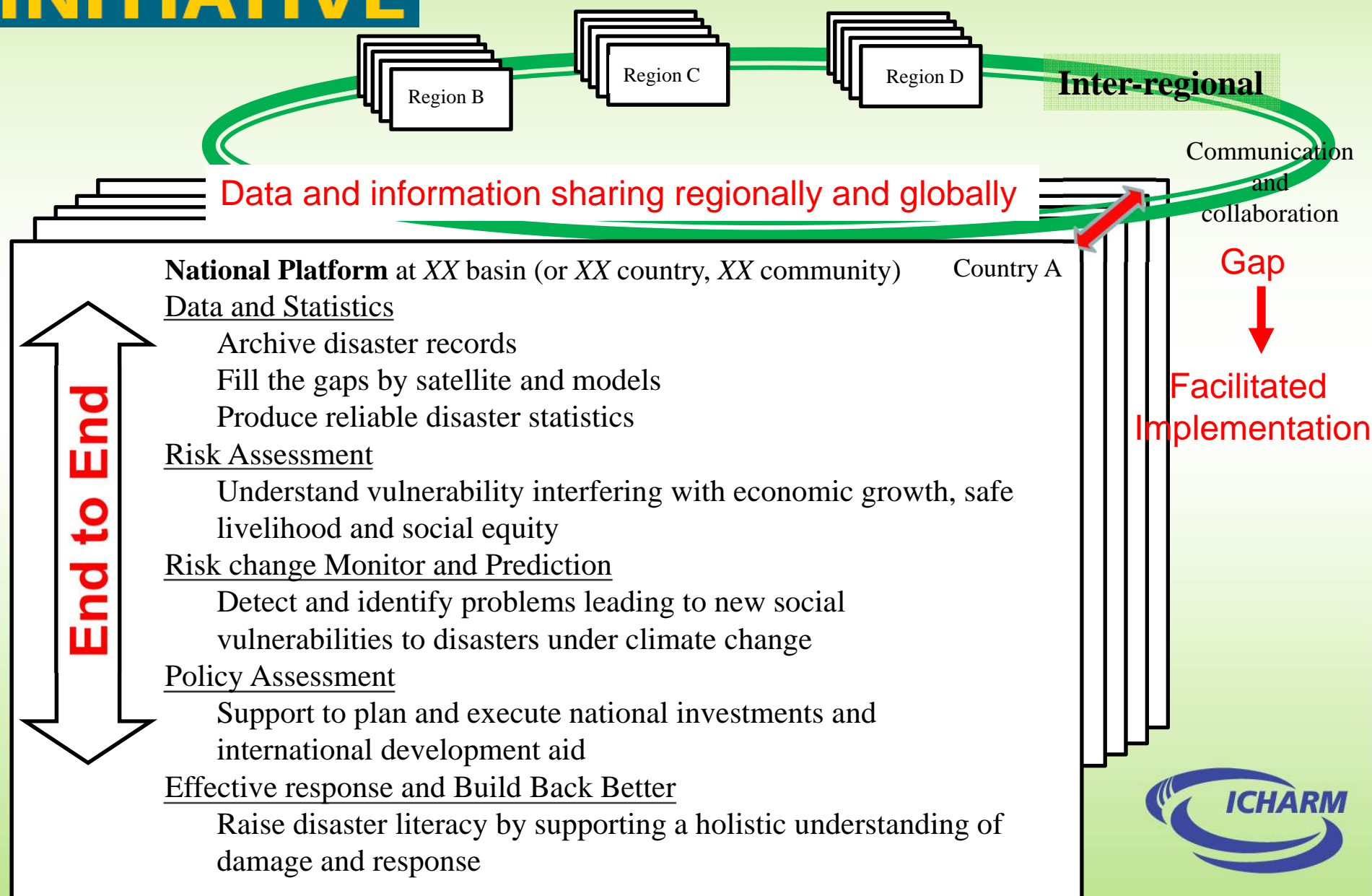
Funding Agencies  
(ODAs, Banks, UN etc.)

DB operational supporters

Project investors & owners

# INTERNATIONAL FLOOD INITIATIVE

## End to End from concept to practice



## Timeframe

**14-18 Mar. 2015 UN WCDRR in Sendai, Japan**

**12-17 Apr. 2015 WWF7 in Daegu, Korea**

**25 Sep. 2015 SDGs at the UN General Assembly**

**21 Oct. 2015 UNESCO-IHP RSC in Medan, Indonesia**

**11 November 2015 Paris Agreement**

**21 st session of the UN Climate Conference of Parties (COP 21)**

**17 Nov. 2015 HELP in NY, USA**

**18 Nov. 2015 Second UN Special Thematic Session on Water and Disasters  
in NY, USA**

**18-19 February 2016 G-Science, Science Council of Japan, Tokyo, Japan**

**1-2 March 2016 Asia Water Cycle Symposium, Tokyo, Japan**

**26-27 May 2016 G7, Ise-shima, Japan  
UNESCO IHP-IGC, WMO Chy, ICFM7 etc.**

Thank you for your kind attention.

# INTERNATIONAL FLOOD INITIATIVE

Please visit: [www.ifi-home.info](http://www.ifi-home.info)

*In Close Collaboration with:*



International  
Hydrological Programme



World  
Meteorological  
Organization



International Strategy  
for Disaster Reduction  
ISDR



UNITED NATIONS  
UNIVERSITY



21

