

## **Discussion towards Promoting Inter-linkages**

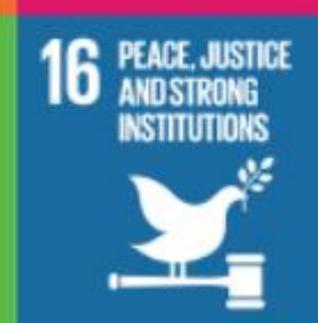
1. Needs, Issues and Benefits
2. Linkage to Regional and Global  
Coordination Framework
3. Building capacity
4. Planning Strategy

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# SUSTAINABLE DEVELOPMENT GOALS



17 Sustainable Development Goals and 169 targets

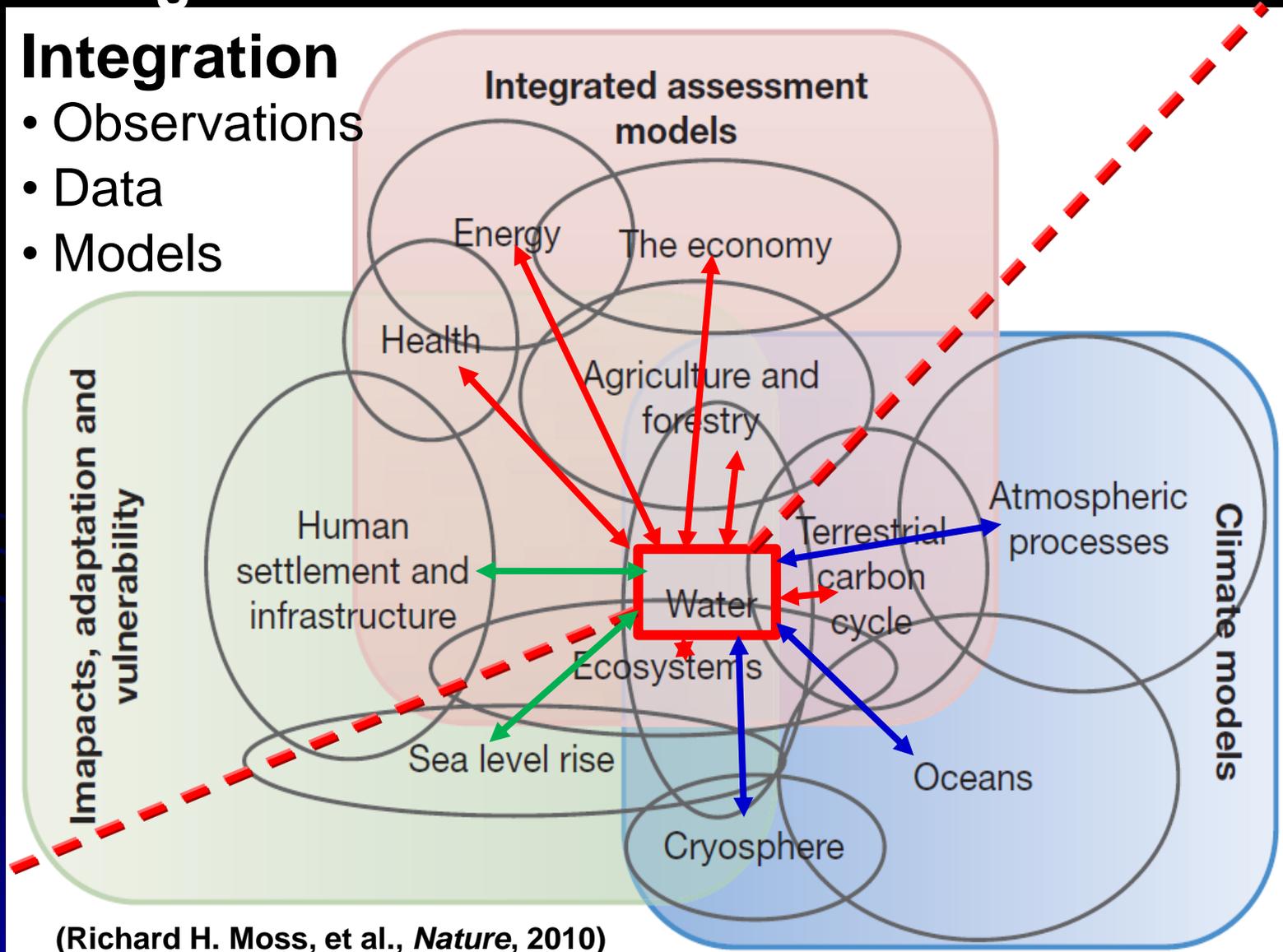
# Holistic, Evident-based, Quality, Quantity

## Water is Key

### Dialogue → Platform

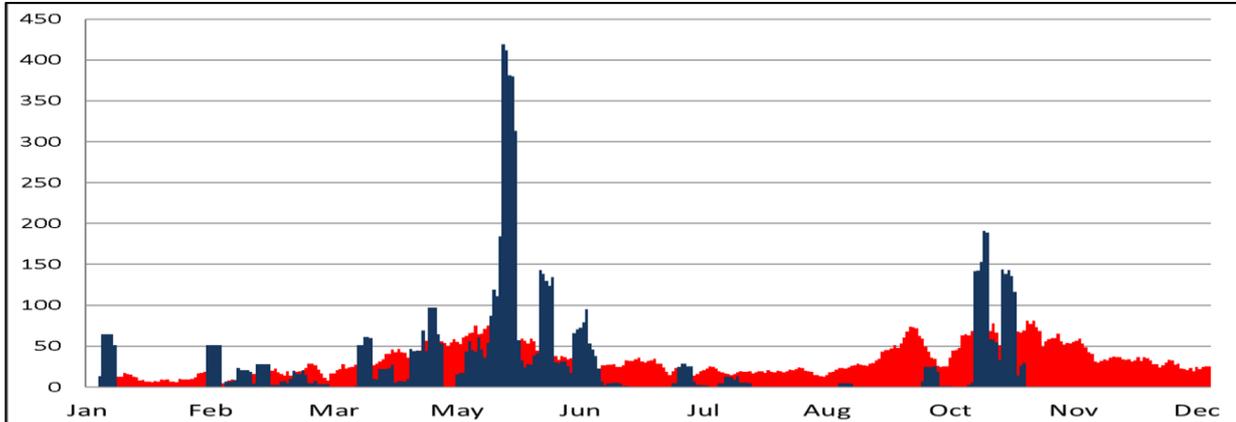
#### Integration

- Observations
- Data
- Models



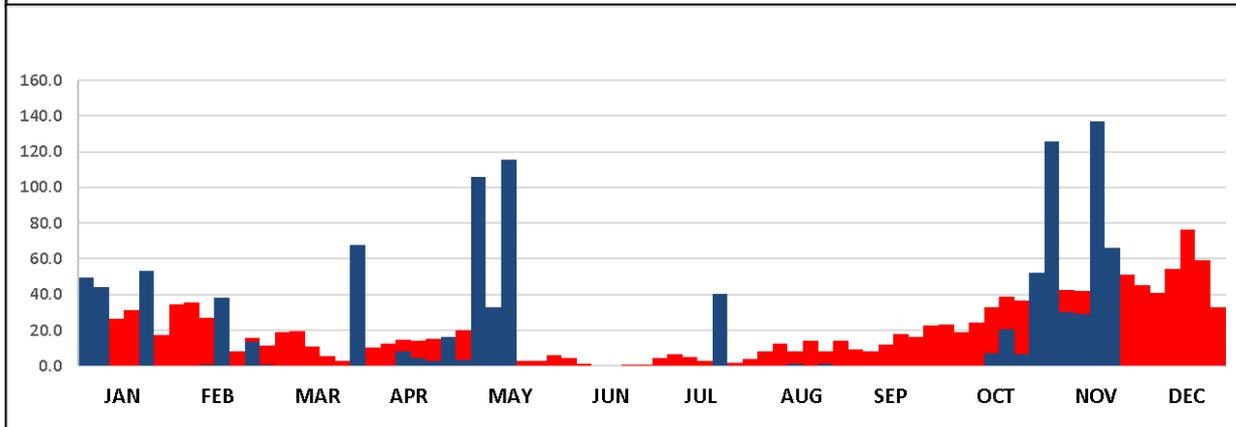
(Richard H. Moss, et al., *Nature*, 2010)

## RAINFALL IN SRI LANKA DURING THE YEAR 2016 WAS HIGHLY ERRATIC!



COLOMBO IN WET ZONE

**SPELL OF EXTREMELY HEAVY RAIN IN MID-MAY FOLLOWED BY 5-MONTH LONG DRY SPELL UNTIL LATE OCTOBER**

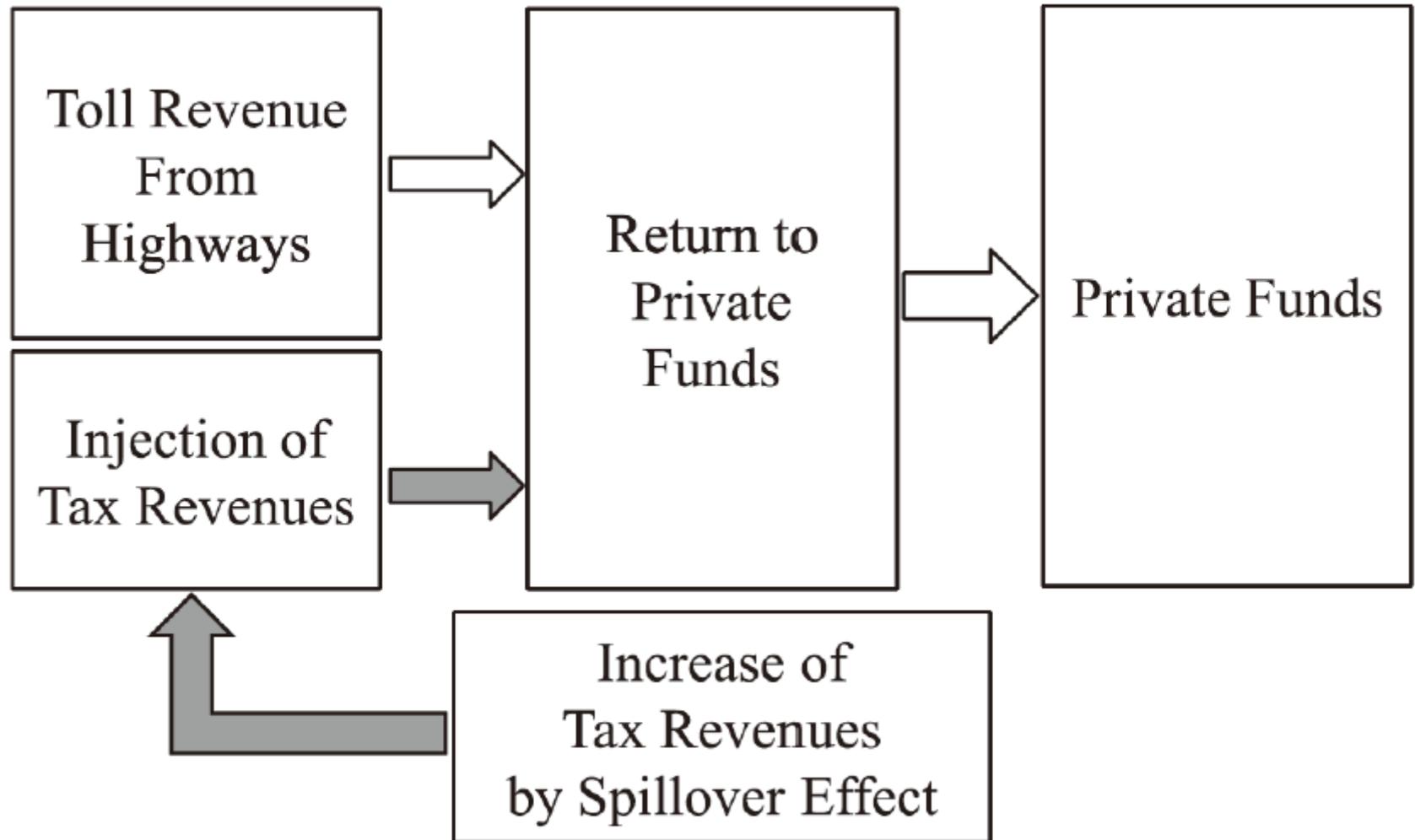


POLONNARUWA IN DRY ZONE

■ RAINFALL IN 2016  
■ NORMAL RAINFALL (81-10)

Figure 4

Injection of a fraction of tax revenues gained from spillover effect



# Spillover effects → Return to investors

	1956-60	1961-65	1966-70	1971-75	1976-80	1981-85
Direct Effect (Kg)	0.696	0.737	0.638	0.508	0.359	0.275
Indirect Effect (Kp)	0.453	0.553	0.488	0.418	0.304	0.226
Indirect Effect (L)	1.071	0.907	0.740	0.580	0.407	0.317
<b>20% Returned</b>	0.3048	0.292	0.2456	0.1996	0.1422	0.1086
<b>%Increment</b>	<b>43.8</b>	<b>39.6</b>	<b>38.5</b>	<b>39.3</b>	<b>39.6</b>	<b>39.5</b>

	1986-90	1991-95	1996-00	2001-05	2006-10
	0.215	0.181	0.135	0.114	0.108
	0.195	0.162	0.122	0.1	0.1
	0.193	0.155	0.105	0.09	0.085
	0.0776	0.0634	0.0454	0.038	0.037
	<b>36.1</b>	<b>35.0</b>	<b>33.6</b>	<b>33.3</b>	<b>34.3</b>

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# HLPW Panel members (as of 3/21/2016)



Kevin Rutte  
*Prime Minister, Netherlands*



János Áder  
*President, Hungary*



Emomalii Rahmonov  
*President, Tajikistan*

*Special Advisors to the Panel*



Dr. Han Seung-soo  
*Former prime Minister, South Korea*



Manuel Pulgar-Vidal  
*Minister, Peru*



Macky Sall  
*President, Senegal*



Enrique Peña Nieto  
*President, Mexico*

*Co-chairs*



Ameenah Gurib-Fakim  
*President, Mauritius*



Jacob Zuma  
*President, South Africa*



Abdullah Ensour  
*Prime Minister, Jordan*



Sheikh Hasina  
*Prime Minister, Bangladesh*



Malcolm Turnbull  
*Prime Minister, Australia*

*Co-convened by:*



Ban Ki-moon  
*Secretary General, United Nations*



UNITED NATIONS



WORLD BANK GROUP



Jim Yong Kim  
*President, World Bank Group*

# HLPW Action Plan “9 Areas of Action”

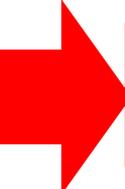
1. Catalyzing Changes, Building Partnerships and International Cooperation
2. Resilient Economies, Societies, and Disaster Risk Reduction
3. Universal Access to Safe Water and Sanitation
4. Sustainable Cities and Human Settlements
5. Water and the Environment
6. Infrastructure and Investments
7. Water Governance
8. Water Data
9. Valuing Water



# **HLPW's Actions: promoting innovative ways of Investment and financing for water-related Disasters**

## **Proposed HLPW/HELP Actions:**

- **Compile good practices and case studies**
  - Validating investment through economic (cost-benefit) analysis
  - Mainstreaming disaster resilient investment
  - Long-term strategy and Innovation/alternatives for financing
  - Water-related disaster risk transfer instruments and insurance
- **Analyze cases leading to establishment of principles and standardized practices and systems**
- **Formulate HELP's recommendation**
- **Lobby and promote inclusion of HELP's recommendation in global agenda**

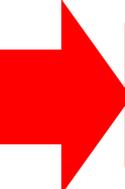


**IFI is invited for **substantial contribution****

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# UN International Decade for Action, “**Water for Sustainable Development**”, 2018-2028

- Adopted by UN General Assembly on December 20<sup>th</sup>, 2016 -

- HLPW, under Championship of Tajik President, has been actively promoting adoption of new International Decade on Water.
- The resolution of the Decade was proposed by over 170 states, and unanimously adopted by UN General Assembly on December 20<sup>th</sup>, 2016.
- The new decade focus on the **entire water goals and targets in SDGs particularly integrated management of water.**
- The resolution also decided not only the new decade on water but start of new discussion process on global water architecture.

# Opportunities and Challenges for collaboration

- **Target:** SDGs is common with global community. Especially the World Bank (WB) aims to end extreme poverty and boost shared prosperity;
- **Role:** The World Bank is a vital source of financial and technical assistance to developing countries around the world. Not a bank in the ordinary sense but a unique partnership to reduce poverty and support development;
- **Motivation:**
  - Influence on global agenda
  - Expectation to get lacked/missing experience and expertise within WB;
  - Keen to learn innovative approach. (e.g. many BBLs on spatial data).
- **Challenge:**
  - Variety of expertise within WB;
  - Quick delivery and solid achievement.

Always question is **how to apply to WB operations concretely.**

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# Possible Collaboration

Collaboration with AWCI might be considered in the areas:

- 1 Jointly facilitate “**Integrated River Basin Management**”, or “**River Basin Approach for Integrated Water Resources Management (IWRM)**” which, especially in Asia, should include **flood and drought disaster risk management**;
- 2 Select **pilot river basins** where **holistic approach for water related disaster risk management** would be conducted;
- 3 Identify needs of **institutional and human capacity development** for participating country/basin and then produce **Knowledge Products** and conduct **Trainings**

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# Policy Framework and Key Directions

## National Disaster Risk Reduction and Management in the Philippines

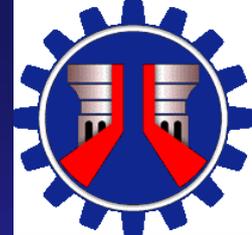


### 1. Legal Framework

- Republic Act 10121 or the Philippine Disaster Risk Reduction and Management Act (May 2010)
- Created in response to the global call of mainstreaming Disaster Risk Management and Climate Change Adaptation
- It is a holistic, integrated, proactive and collaborative approach to Disaster Management
- Vision: Safer , Adaptive and Disaster Resilient Filipino Communities towards Sustainable Development (National Risk Reduction Plan 2011-2028)
- The agency who shall coordinate amongst other concerned agencies for the attainment of this goal is the National Disaster Risk Reduction and Management Council (NDRRMC)

# Policy Framework and Key Directions

## The Mandate of the Department of Public Works and Highways

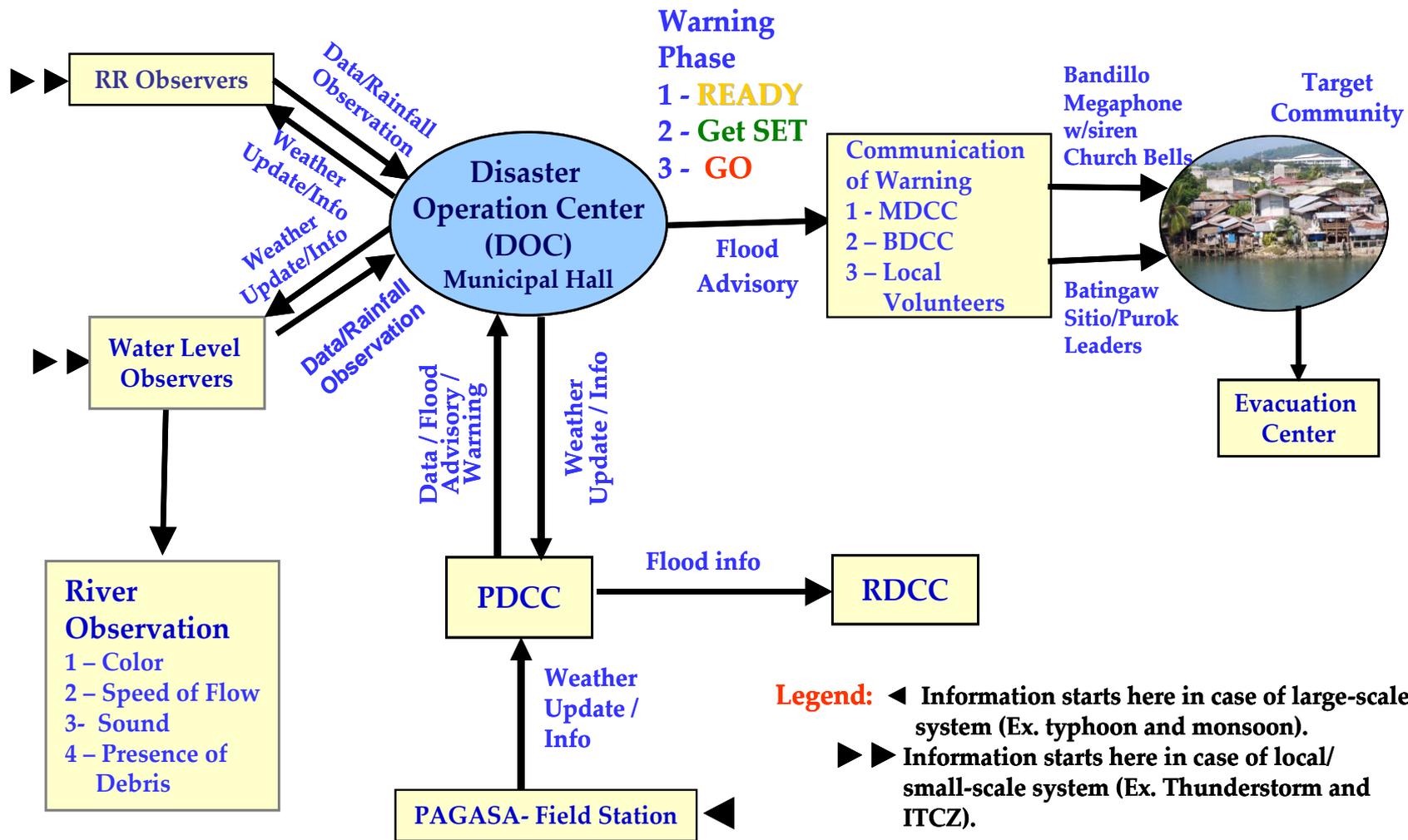


### Thematic Area 4: Disaster Rehabilitation and Recovery

Overall responsible agency: National Economic and Development Authority (NEDA)

Outcome	Lead agency(ies)
20. Damages, losses and needs assessed	OCD
21. Economic activities restored, and if possible strengthened or expanded	Agency to be determined based on the affected sectors
22. Houses rebuilt or repaired to be more resilient to hazard events; safer sites for housing	National Housing Authority (NHA)
23. Disaster and climate change-resilient infrastructure constructed/reconstructed	DPWH
24. A psychologically sound, safe and secure citizenry that is protected from the effects of disasters is able to restore to normal functioning after each disaster	DOH and DSWD

# Communication Scheme of a CBFEWS



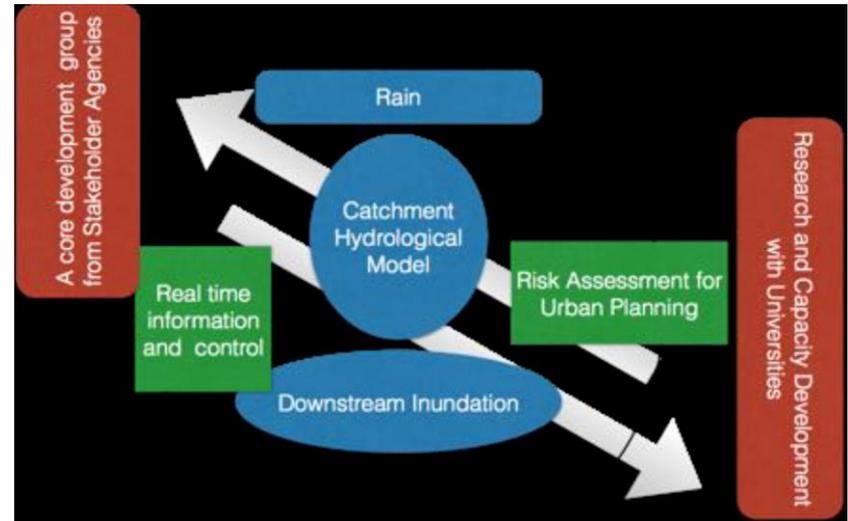
After several rounds of discussions, it was decided to develop a **Prototype Integrated Flood and Water Management System** for the Kelani river basin by an inter-agency working group.

The agencies involved are,

- Irrigation Department – *mandated for riverine floods*
- Department of Meteorology – *mandated for weather forecasting*
  
- Sri Lanka Land Reclamation and Dev. Corp (SLLRDC) – *flash floods*
- Disaster Management Centre
- National Water Supply & Drainage Board
- Water Resources Board
- Colombo Municipal Council

## The major functions of the Integrated Flood and Water Management System are,

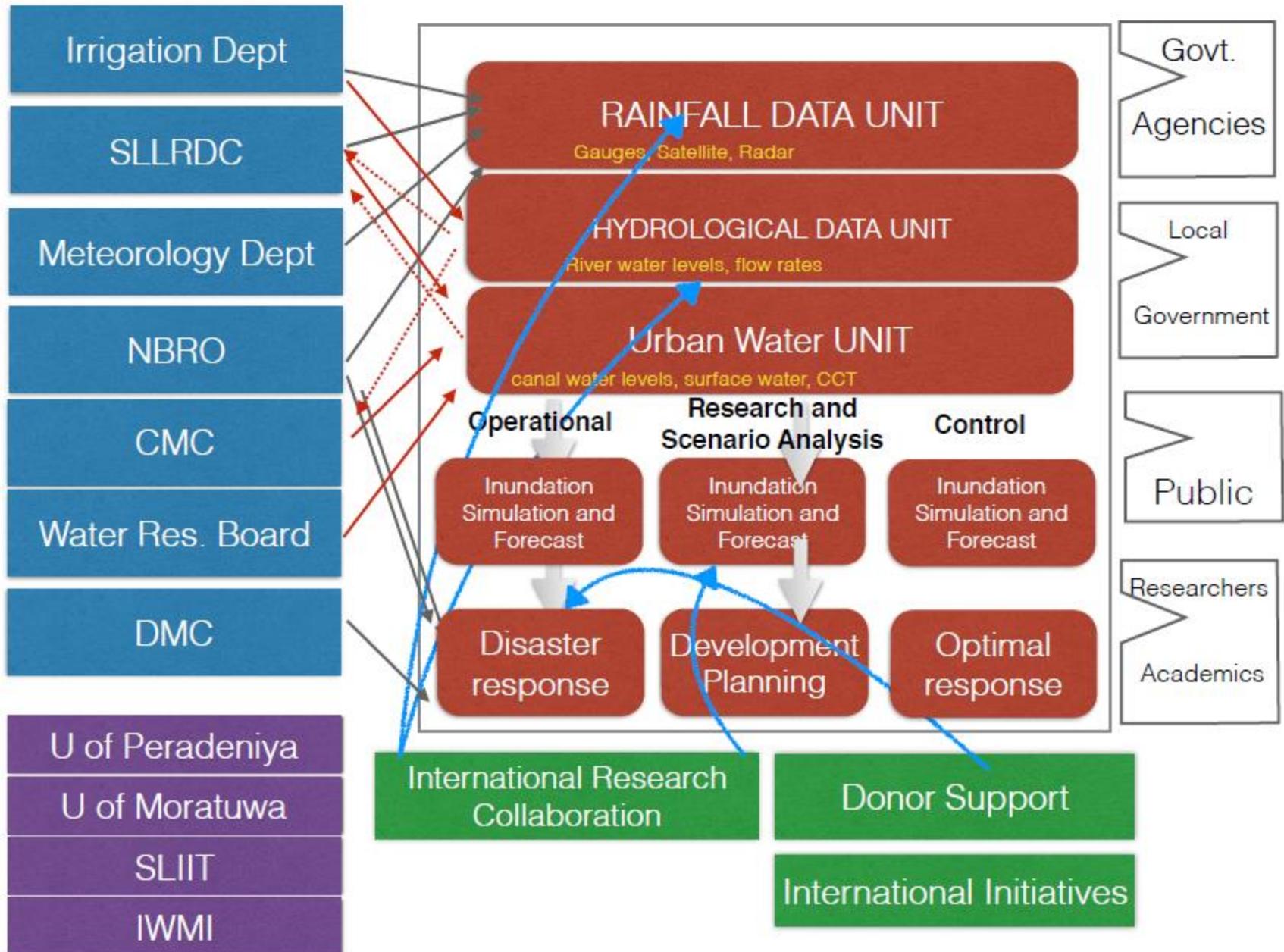
1. Monitoring
2. Collection and integration of data
3. Simulation and forecasting
4. Real time dissemination
5. Short and long term risk assessment



## Agreed sequence of development of the System,

1. Develop a water information and communication system
2. Implement real time control and implementation of risk based response procedures
3. Improving current level of flood safety through structural and non-struct. measures

# System Implementation



How to promote to establish and strengthen a flood (IWRM) platform as a part of national platform?

How to confirm the IFI implementation plan?

1. To engage advanced S & T

- Data integration, in-situ, satellite and models
- Integrated assessment and change identification
- Co-design and co-production among policy-makers, practitioners and citizen society

2. To learn from Regional Knowledge and Experiences:

- Identify one or two target(s)
- Establish a senior level discussion framework in collaboration with IFI Partners

3. To leverage high level discussions:

- High Level Panel on Water
- New Water Decade, ““Water for Sustainable Development”

4. To collaborate with development agencies and donors:

- Capacity building framework: knowledge partnership function
- Funding steps: demonstration funding for preparation for full operation projects
- Mainstreaming DRR, strengthening DRR governance

## **How to promote to establish and strengthen a flood (IWRM) platform as a part of national platform?**

There is a need to link with the National Disaster Management Mechanisms ? these mechanisms normally include standard operating procedures under different levels of floods. A key component of IWRM upward spiral approach is stakeholder participation in decision making processes at all levels. Perhaps national IFI committees in pilot countries linked with existing UNESCO-WMO and other water related coordination mechanisms.

**Thank you, Prof. Khan!**

IFI will need to work with major water related agencies. Especially those managing water resources and floods and make an effort to bring them together. Disaster management can be reactive, rather than preventive, in many developing countries, due to many constraints, including political. Incorporation of science and technology for reducing risks can be easier in water management and weather agencies which usually have a better technological capacity

**Thank you, Prof. Herath!**

## **How to confirm the IFI implementation plan?**

We need confirmed intentions and work plans of the pilot countries for a given period with clearly identified milestones and deliverables to help prepare a regional plan. The national stakeholders need to sign off on the country plans and overall IFI Implementation plan could be endorsed by the partners through an MOU under the existing IFI framework.

**Thank you, Prof. Khan!**

This should be a two way process. IFI should have specific objectives and indication of resources and support that it can provide. Then subsets of pilot country programs and IFI objectives can be identified and strengthened.

**Thank you, Prof. Herath!**

# GEO-Water under Three Key Global Agendas in 2015

Understanding    Governance    Investment    Implementation



**Concerted Action is Required**



**Sustainable Development**