Collaborative governance, disaster risk reduction and climate change adaptation: In the context of urban community resilience building to flood risks in Jakarta

SESSION VI - Disaster Management of Extreme Events: Experience from the health care sectors from the Asia-Pacific Region.

“Disaster and Emergency Management in the Health Care Sector”

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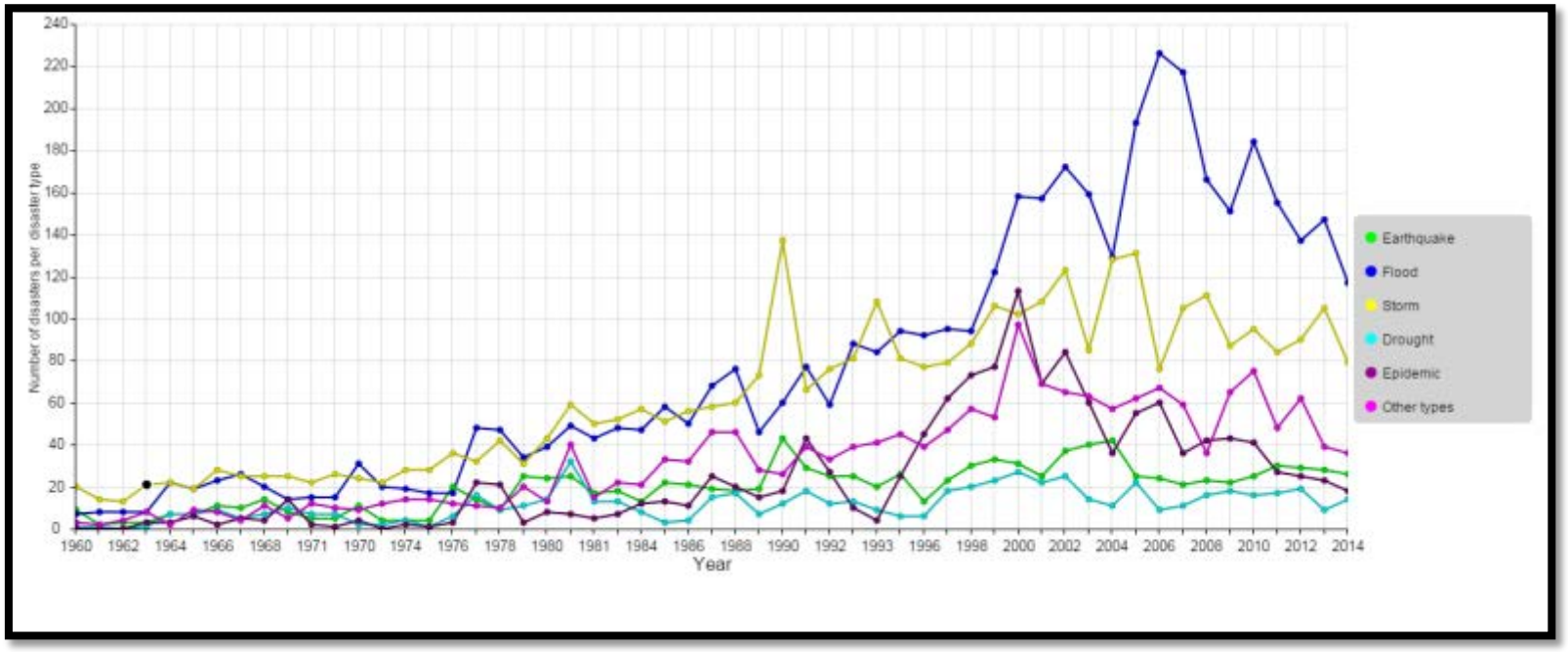
Introduction

- **Climate change** related extreme events, particularly **floods**, present a great challenge to **disaster risk management**.
- Develop a robust strategy and **build community resilience** to deal with flooding is a must, particularly in the light of this climate change era.
- **Multi-stakeholder partnership** is fundamental, especially between disaster risk reduction **(DRR)** and climate change adaptation **(CCA)** related agencies
- However, the two fields **still work largely in separation**, resulting in many incidences
- A research was conducted to investigate the **barriers for collaboration** and opportunities to **enhance the partnership** between the two through a **collaborative governance** concept
- The research took place in a **flood prone city**, **Jakarta**, Indonesia

Climate change and disaster risks

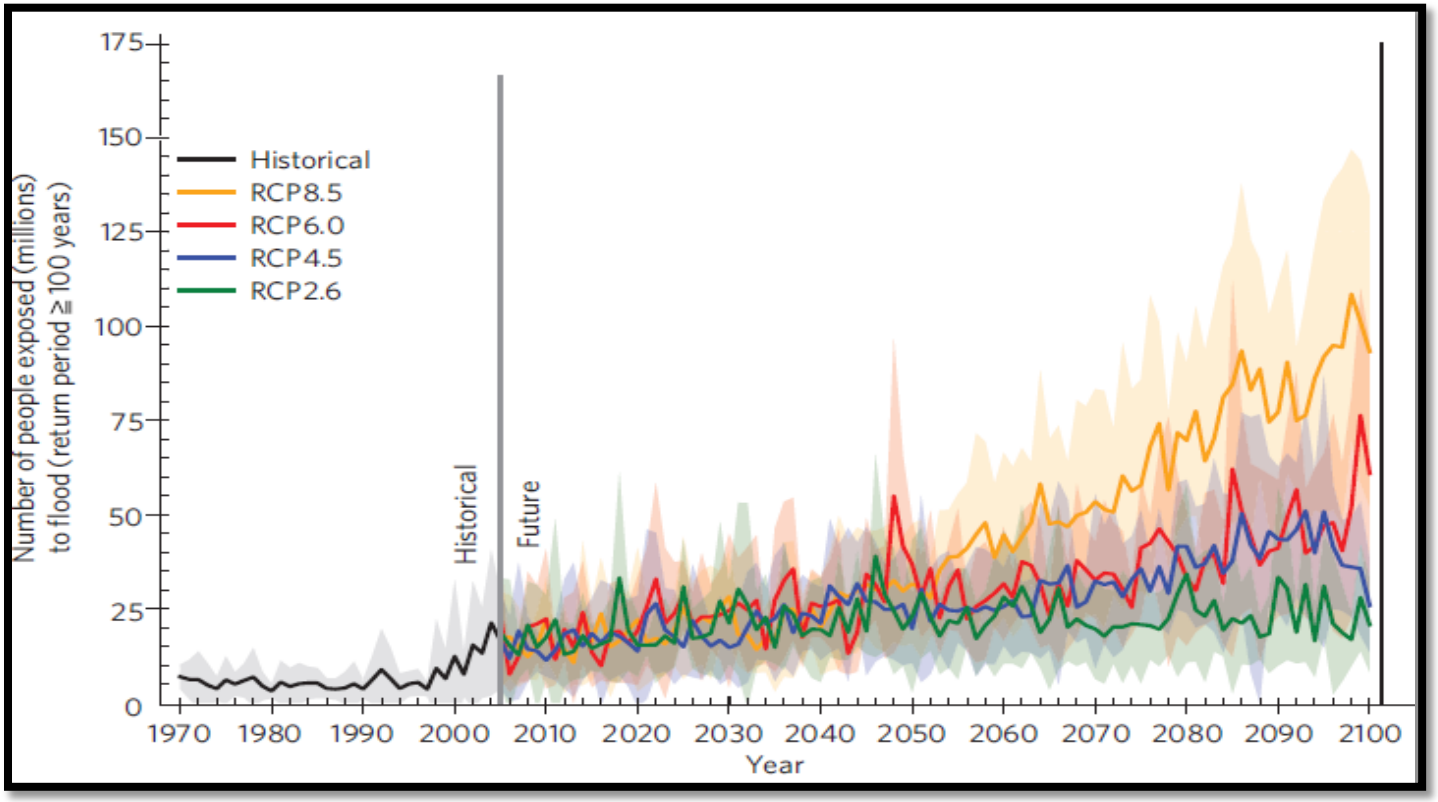


Source: EM-DAT, 2014

- Flood has outnumbered other types of disasters in the world
- More than 226 million people are affected by natural disasters each year, and almost half of them (102 million) are related to flood events *(EM DAT, 2012)*
- Data from 1980-2008, flooding was accountable for 195,843 deaths and US$ 13 billion economic loss every year *(PreventionWeb, 2008)*

Global climate change and flood risks

- Flooding is among climate related disasters those most likely to be sensitive by climate change *(Hirabayashi et al., 2013; Morita, 2011; Seidou, Ramsay, & Nistor, 2012).*

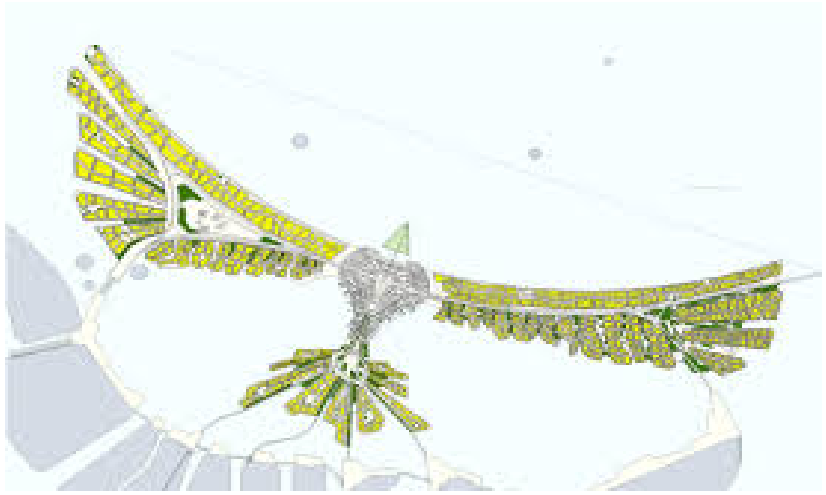


•*Source: Hirabayashi et al. (2013, p. 819)*

Climate change and existing disaster risk management

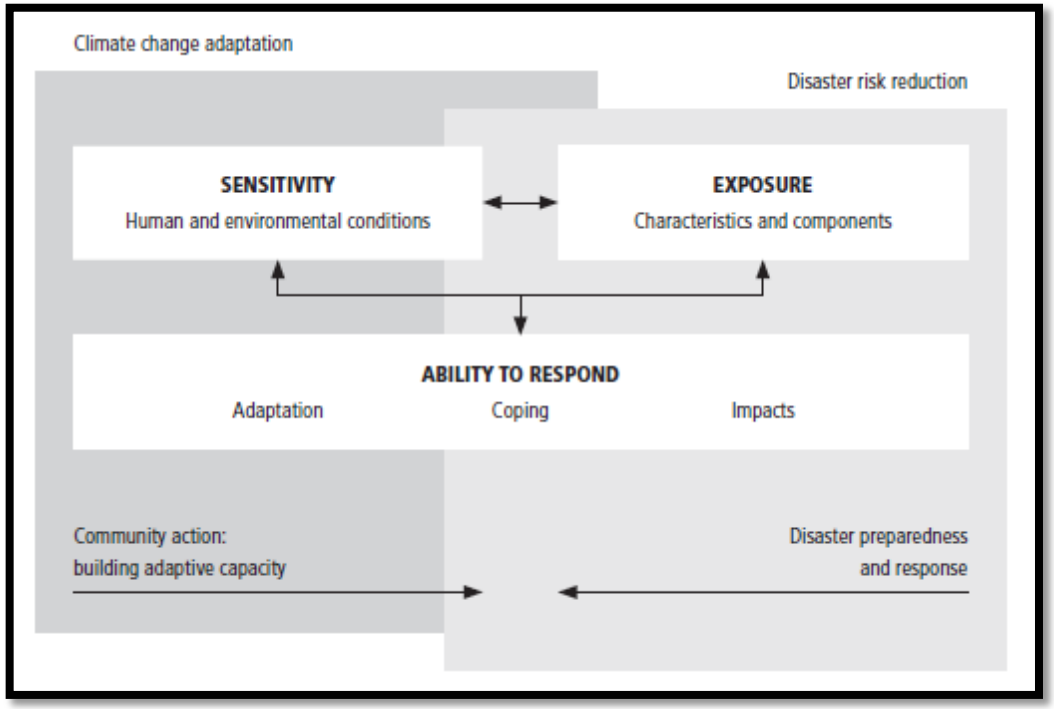
- Climate change introduces new dimensions to disaster risk management system
  - » Uncertainties
  - » More intensity
  - » More frequent

Giant sea wall – the only solution?



USD 34 Billion Project (in cooperation with the Dutch) – National Capital Integrated Coastal Defense (NCICD)

There has to be interaction between DRR and CCA



Source: Thomalla et al. (2006, p. 44)

- Conceptual and theoretical integration between DRR and CCA is not enough.
- It wont solve the “wicked” problem
- A number of international forums related to both DRR and CCA mainstreams **have centered on the importance of governance and partnership actions**

Sendai Framework for Action - 2015

- **Priority 1:** Understanding disaster risk
- **Priority 2:** Strengthening *disaster risk governance* to manage disaster risk
- **Priority 3:** Investing in disaster risk reduction for resilience
- **Priority 4:** Enhancing disaster preparedness for effective response to *"build back better"* in recovery, rehabilitation and reconstruction

Means of implementation --> global partnership – including with climate change adaptation

Picture source: /www.iisd.ca/

The Paris Agreement

It calls for more dedicated action to **tackle underlying disaster risk drivers** “such as the consequences of poverty and inequality, **climate change** and variability, unplanned and rapid urbanization, poor land management and compounding factors such as demographic change, weak institutional arrangements, non-risk informed policies…” (*Wahlström, 2015)*

A brief elaboration about DRR and CCA

DRR

- UNISDR
- Yokohama strategy and plan for action 1994
- Hyogo Framework 2005
- Sendai Framework 2015
- Regional Disaster Risk Reduction and Disaster Management
- National Disaster Management Act
- National Disaster Management Committee Agendas
- Local Disaster Management Committee Agendas

CCA

- UNFCCC
- Kyoto Protocol
- Bali Action Plan and Road Map 2007
- Nairobi Work Program 2005-2010
- Regional Frameworks on CC
- National Communication
- NAPA
- National GHG abatement strategies
- Climate change country team agenda

(Gero, 2011; Mitchell, Aalst, Vilanueva, 2010)

CCA

- Weather and related climate-hazard only
- Longer-term view, projection
- Strong science underpinning
- Relatively still few of experiences
- High political engagement

- **Focus on reducing vulnerabilities**
- **and improve resilience**

DRR

- All natural hazards
- Historical and present days view ,
- Originated from humanitarian assistance field
- Well established tools and practices
- High political interest only after disasters

(Schipper, 2009; UNISDR Asia Pacific, 2011)

Advantages of DRR-CCA Partnership

1	Improving comprehensiveness of understanding risks, the root of vulnerability and exposure – *Dwirahmadi, et al (2013); Gaillard et al (2013)*
2	Providing an integrated framework to build resilience towards climate extreme and disasters – *Birkmann & Pardoe (2014); Few et al (2006)*
3	Strengthening coordination between actors involved - *(Birkmann & von Teichman (2010); Chakrabarti (2010)*
4	Improving the information and knowledge base for decision making process - *Godden et al., 2013; Tanner, Mitchell, Polack, & Guenther, 2009)*
5	Enhancing stakeholder engagement and participation - *Vogel, Moser, Kasperson, & Dabelko, 2007*
6	Promoting efficiency and effectiveness in resource management - *Handmera et al., 2014; Mercer, 2010; Mitchell & Aalst, 2008)*
7	Enabling cross learning environment between different actors - *Howes et al., 2013; Mercer, 2010*
8	Developing no-regrets solution and robust adaptation - *Tanner et al., 2009; Wilby & Dessai, 2010*
9	Improving disaster risk management strategies - *Prabhakar, Srinivasan, & Shaw, 2009; Sperling & Szekely, 2005*

But, why its difficult to collaborate?

- Despite some mechanisms established to encourage collaborations, the DRR and CCA still work largely in separation, resulting in many incidences:
  - Duplication of efforts,
  - Administrative inefficiencies,
  - Lack of coordination, and
  - Confusion within the community
- This in return hindered the process of resilience building.

Application of Collaborative governance concept

- Governance is ***the way things get done***, *rather than the things that are done* - *McLellan (2011, p. 2)*

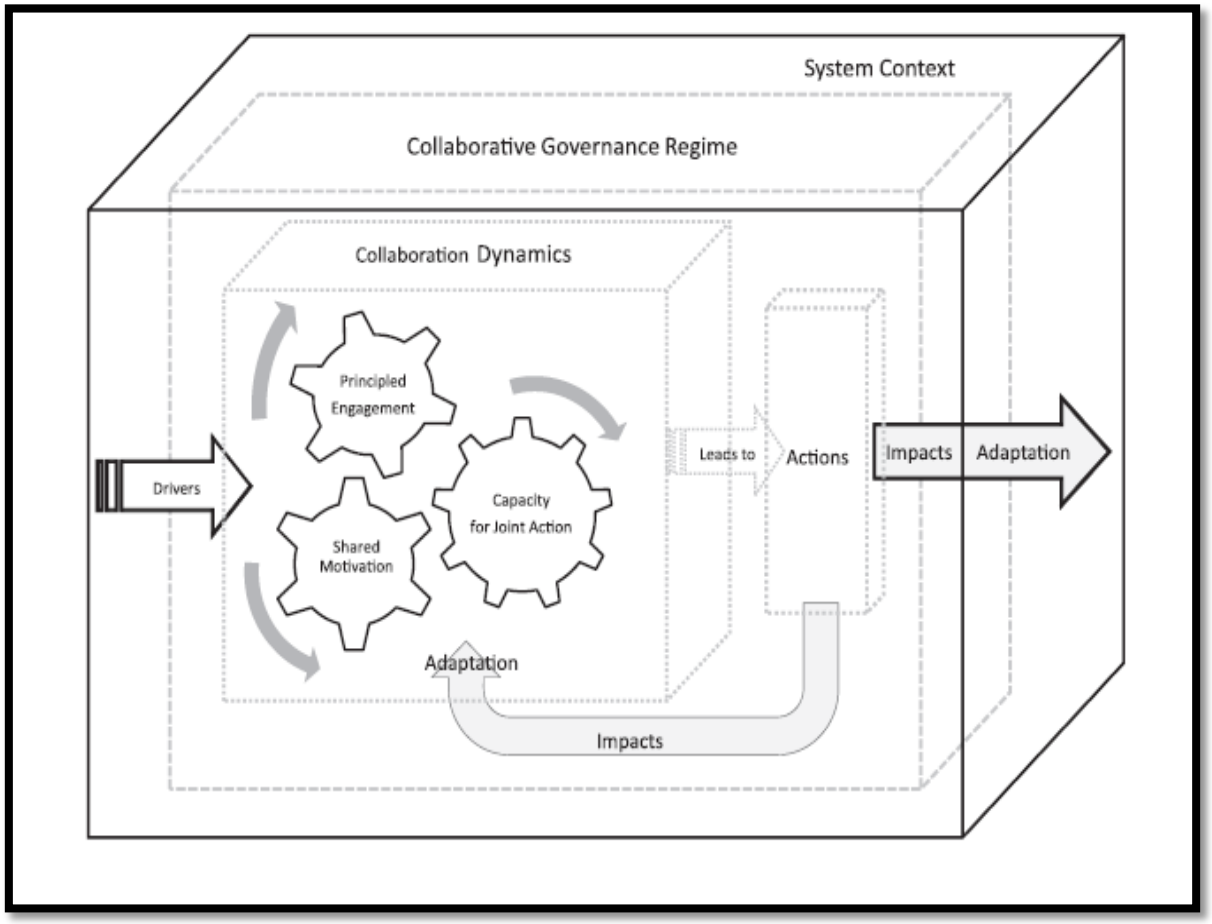
- CG → *the process and structures of public policy decision making and management that* ***engage people constructively across the boundaries of public agencies****, levels of government, and/or the public, private, and civic spheres in order to carry out a public purpose that could not otherwise be accomplished* - *Emerson et al. 2012 (p. 2).*

- The concept of collaborative governance has been widely utilized to address a number of so called 'wicked' issues that require **a multi-actor, multi-level, and multi-sector solution approach** - *Gollagher & Hartz-Karp, 2013; Rigg & O'Mahony, 2012.*

- **Three critical issues** for collaboration:
  - (1) preconditions factors that make collaboration possible or not (e.g. inter-organizational problem domain),
  - (2) the collaboration process itself, and
  - (3) outcomes.

  (Ansell & Gash, 2007)

Collaborative governance concept and framework



- Principled engagement
  - » include discovery, definition, deliberation, and determination
- shared motivation
  - » mutual trust, mutual understanding, internal legitimacy, and shared commitment), and
- Capacity for joint action
  - » institutional arrangement, leadership, and knowledge

Emerson et al. (2012)

Group	Institution	Code	Scope of work
Government	Jakarta Regional Board for Planning and Development (Bappeda)	Ins-01	DRR & CCA
	Jakarta Regional Disaster Management Board (BPBD)	Ins-02	DRR
	Jakarta Regional Health Office	Ins-03	DRR & CCA
	Jakarta Regional Public Work Office	Ins-04	DRR & CCA
	Land use planning agency for Jakarta Province	Ins-05	DRR & CCA
	Jakarta Regional Board for Environmental Management	Ins-06	CCA
	Indonesian Climate Change Trust Fund (ICCTF)	Ins-07	CCA
International Organization / Donor	World Bank	Ins-08	DRR & CCA
	DFAT – Australia	Ins-09	DRR & CCA
	ASEAN Humanitarian Centre	Ins-10	DRR
Red Cross Red Crescent Movement	American Red Cross	Ins-11	DRR & CCA
	International Federation of Red Cross Red Crescent Societies (IFRC)	Ins-12	DRR & CCA
	Indonesian Red Cross	Ins-13	DRR & CCA
Community Based Organization	Gerakan Ciliwung Bersih	Ins-14	CCA
	Jakarta Ready	Ins-15	DRR
Private Institution	Disaster Resource Partnership	Ins-16	DRR
	Zurich Insurance	Ins-17	DRR & CCA
Multi-platforms institution	National Platform for Disaster Risk Reduction (Planas PRB)	Ins-18	DRR
	National Council for Climate Change (DNPI)	Ins-19	CCA
Research institution / University	Faculty of Public Health, University of Indonesia	Ins-20	CCA
	Indonesian Institute of Science (LIPI)	Ins-21	DRR
	Centre for Climate Risk and Opportunity Management, Bogor Agriculture Ins	Ins-22	CCA
	Research Centre for Disaster Management – National Development Uni.	Ins-23	DRR
Non-governmental organization	Indonesian Disaster Management Society	Ins-24	DRR
	Mercy Corps Indonesia	Ins-25	DRR & CCA
	Catholic Relief Service	Ins-26	DRR & CCA

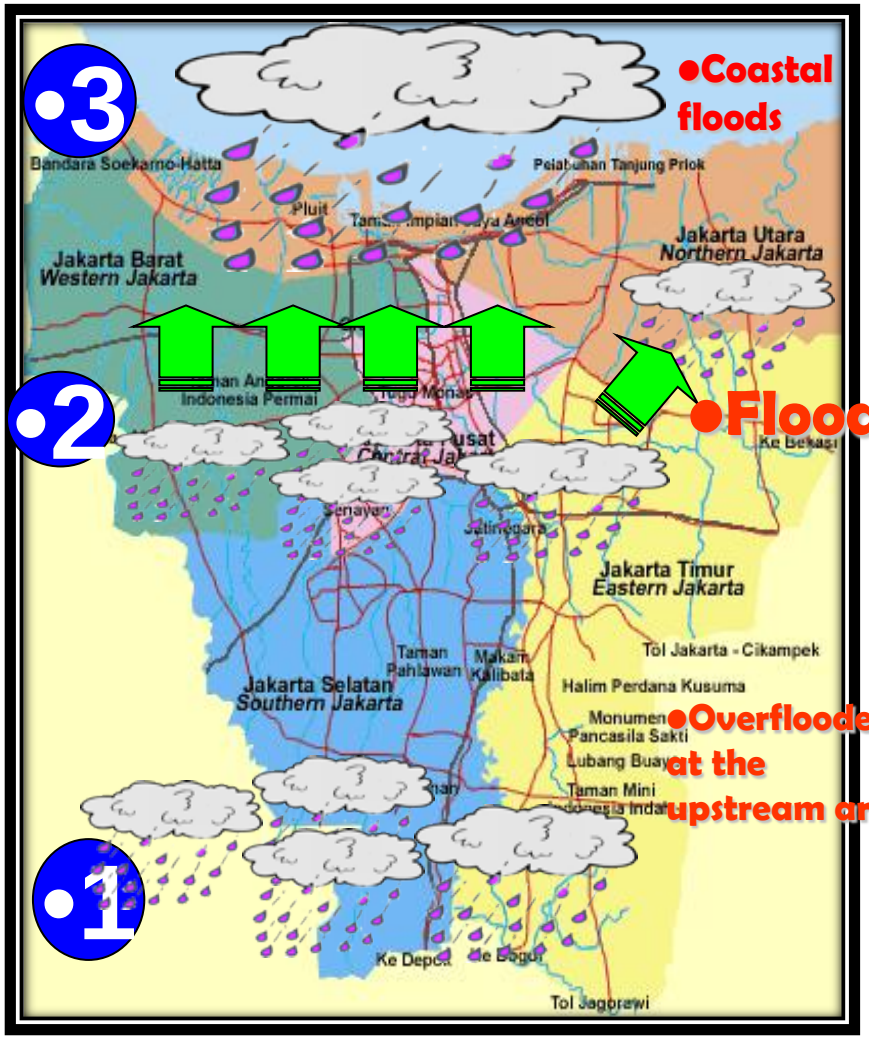
Data collection – Qualitative

- **In-depth interview**
  - » Field research – Dec 2012 to February 2013
  - » Criteria: Head or vice head of office, program manager, or project coordinator.
  - » FGD was not possible to be conducted – due to extremely busy key informants
- **Literature review**
- **Participant observation**
  - » Series of meeting to develop DM planning for Jakarta Province
  - » Series of meeting to develop climate change adaptation planning for Jakarta Province

Research methodology – Research setting - Jakarta

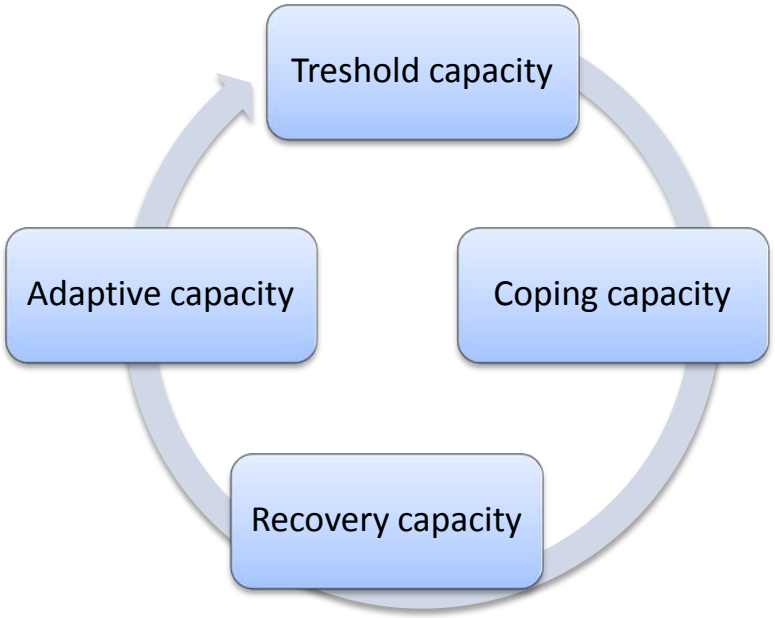
DRR is lead by the Disaster Management Agency (*Badan Penanggulangan Bencana Daerah – BPBD)*

CCA is lead by the Environmental Management Agency (*Badan Pengelolaan Lingkungan Hidup Daerah – BPLHD)*



Some illustrations of flooding in Jakarta

A flood resilience wheel



Community resilience wheel to urban flood risks – *Jha et al (2012)*

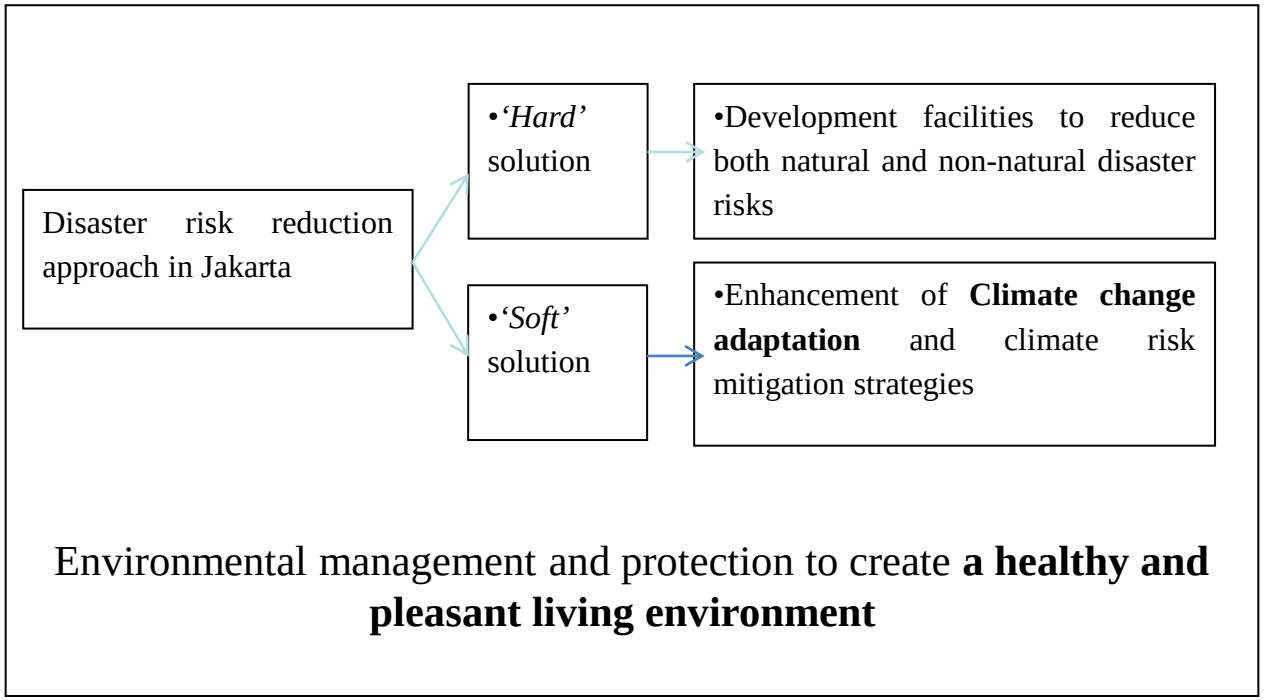
Aspects to build community resilience

Main and common aspects of community resilience building	(Mayunga, 2007)	(DFID, 2011)	(Resilience Alliance, 2010)	(Keim, 2008)	(Rose, 2007)	(Oyane, 2010)	(Wilhelm, 2010)	(Farhan & Lim, 2011)	(López-Marrero & Tschakert, 2011)	(Poortinga, 2012)	(Bahadur et al., 2010)	(Berkes, 2007)	(Milman & Short, 2008)	(Schelfaut et al., 2011)	(Trærup, 2012)	(Manyena, 2006)
Physical / technical																
Technology to reduce the loss and damage	√	√				√		√	√							√
Proper and sufficient physical infrastructure development to limit the risks (e.g. drainage system)			√					√	√							√
Proper and adequate basic facilities to support basic life	√			√	√			√					√			√
Equipment to response to disaster events		√		√		√										
Human																
Increase knowledge (what to do during disaster events)	√			√		√			√		√	√				√
Proper basic education	√	√														
Public Health preparedness	√	√		√												
Skills (basic survival skills, household entrepreneurship)	√	√		√							√					
Awareness (potential hazards and disaster risks)		√		√					√		√					√
Culture (trash disposal habit, etc.)			√						√							
Economic / financial																
Disaster insurance	√	√					√								√	
Access to financial soft loan (cooperative institutions)	√	√			√		√								√	
Household savings (microeconomic level)	√		√		√		√									
Social																
Neighbourhoods scheduled activities (linking)						√			√	√						
Trust between community members (bonding)	√					√				√					√	
Norm/values	√		√			√				√						
Networks within communities (bridging)	√	√	√			√			√	√				√		
Social sensitivity			√			√				√						
Natural																
Environmental conditions (e.g topography, etc)	√		√					√								
Resources stocks	√		√										√			
Land and water	√		√										√			
Political / institutional																
Risk governance and management		√	√						√					√		
Collaboration and multi-stakeholder partnerships		√	√						√	√	√	√		√		
Capacity building local institution (local preparedness)									√		√	√				
Strengthening Volunteers management			√						√							
Informal leadership within the community										√						

Main findings of the research

1. Common grounds for DRR-CCA partnership
2. Core components of and barriers to collaboration dynamics
3. Key challenges to collaborative governance for DRR and CCA
4. Key strategies to enhance collaborative governance for DRR and CCA

"Mainstreaming DRR and CCA into regional planning documents" – *Environmental issue* as the glue factor



RTRW DKI Jakarta 2030, Chapter 4, Article 6, Point 8

"…well I guess everyone agrees that environmental degradation is one of the factors that increase the risks of flooding in Jakarta. Both DRR and CCA approaches are concerned about environment. I believe we can work together in partnership on this issue" (INS-04).

Development of specific DRR and CCA planning document for Jakarta – *another potential glue factor*

The Jakarta Adaptation Planning 2013-2017

The Jakarta Disaster Management Planning 2013-2017

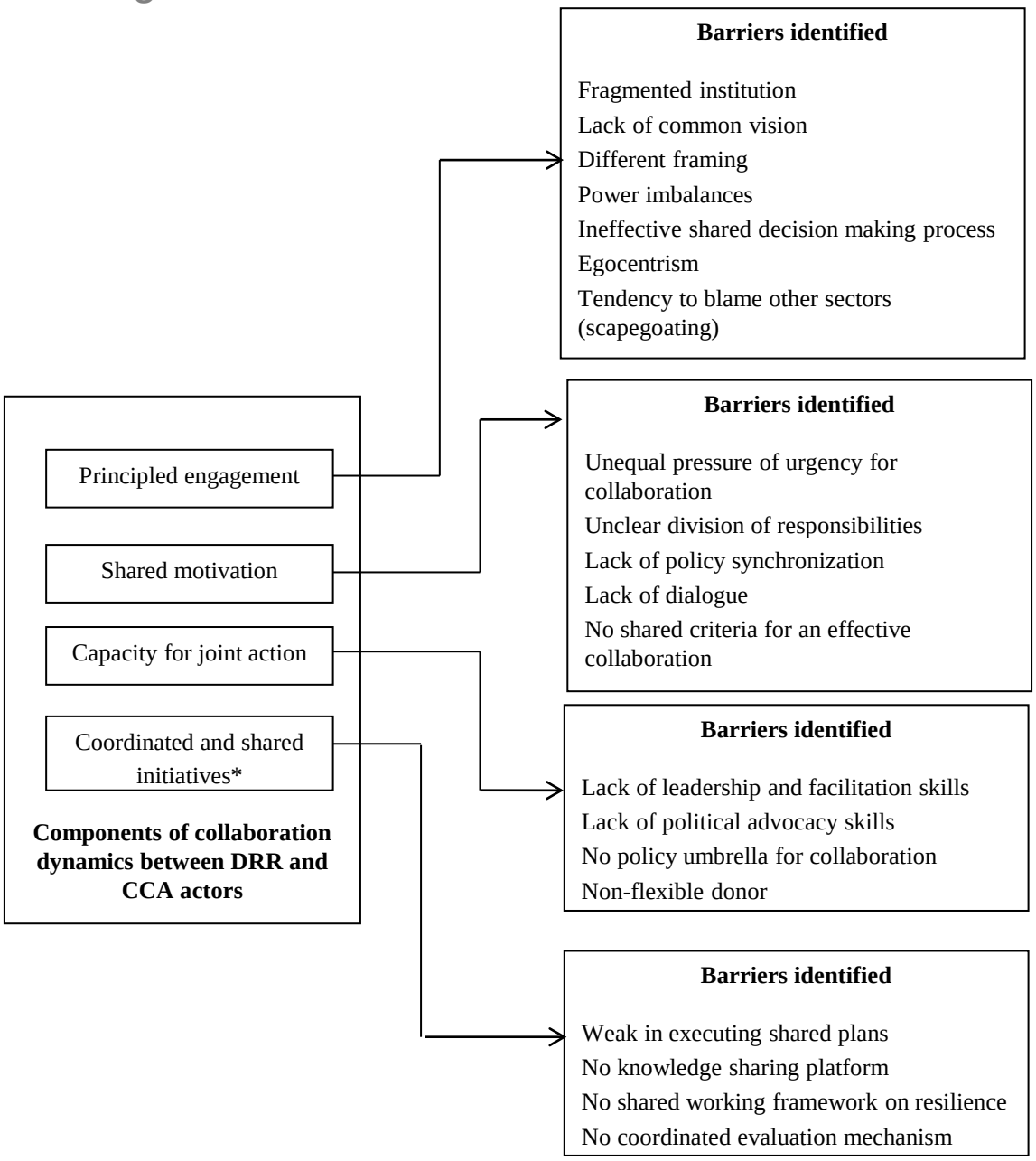
Adaptation strategy
- Enhance adaptive capacity
- Limit climate sensitivity
- Limit climate vulnerability

Disaster reduction strategy
- Enhance coping capacity
- Limit disaster sensitivity
- Limit disaster vulnerability

Limiting impacts: Loss and damage

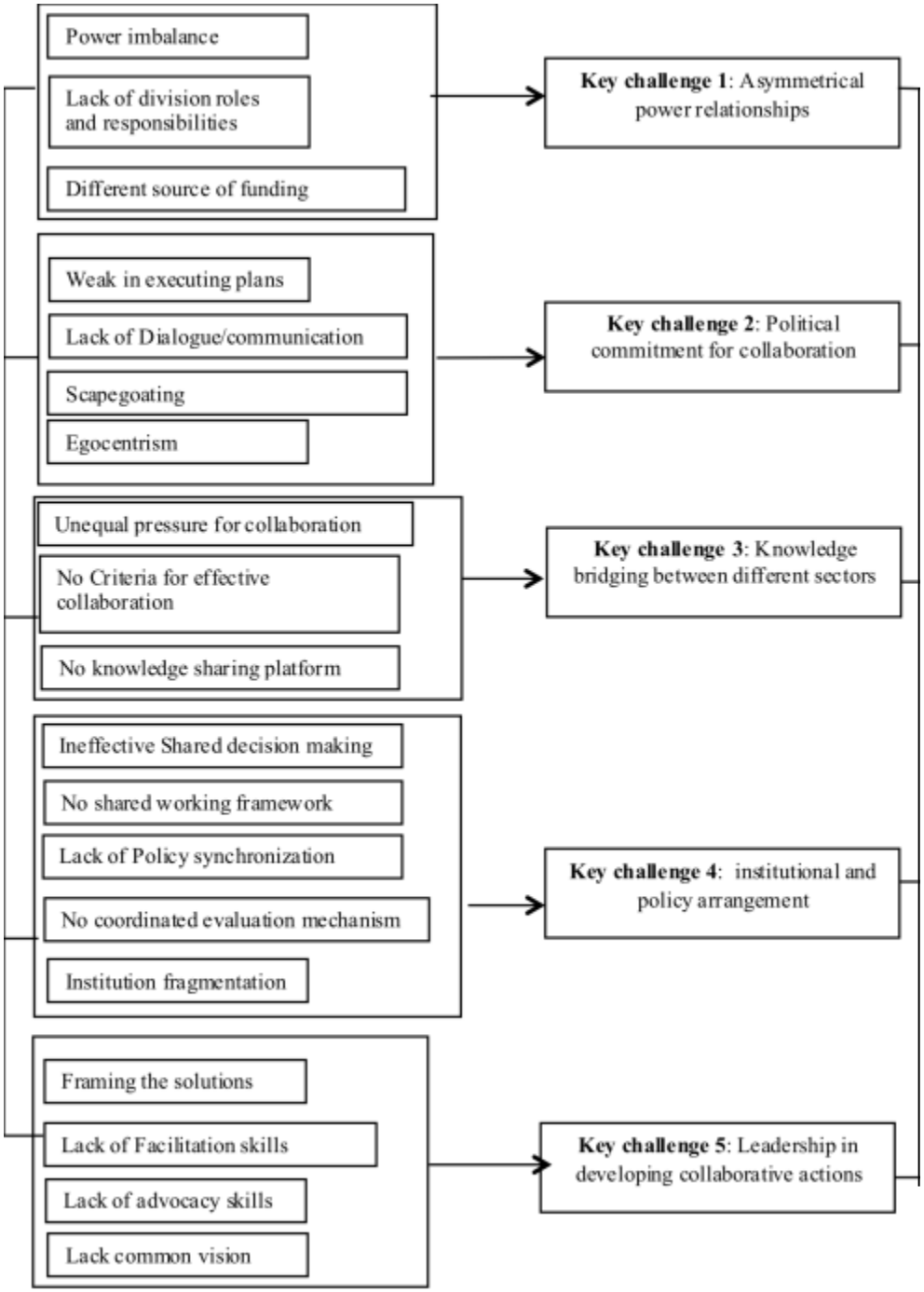
Potential glue factor for joint action

HEALTH CARE SECTOR



Identified barriers within collaboration dynamics

"The bottleneck is that all agencies are fragmented. Coordination line does not work. Integration between DRR and CCA is easy in theory. But in practice, we have to deal with institutional arrangements. This is not an easy task both at national and provincial arena" (INS-07)



Challenges for collaborative governance

- Since ministries of Environment often tend to have limited power and resources within government decision-making (Jones et al 2007), it is difficult for them to coordinate the activities of other, more powerful portfolios.
- DRR and CCA in Jakarta, some key informants raised an issue of power imbalance
- Although the need to adapt to a changing climate has started to receive serious attention at a national level, this is not always the case at provincial level

Power imbalance – asymmetrical power relationship

	DRR	CCA
Specific mandate for the leading agency	It is established in PERGUB No 26/2011 that BPBD leads the DRR related plan and implementation	No specific regulation for BPLHD to lead CCA planning nor implementation
Specific regulation for assessment tools/methods	Disaster risk assessment is regulated by BNPB Chair's Decision (PERKA)	No specific regulation (yet)
5 year planning document	The 5 year disaster management Planning is endorsed by PERGUB No 143 / 2015	No PERGUB endorsement (yet)

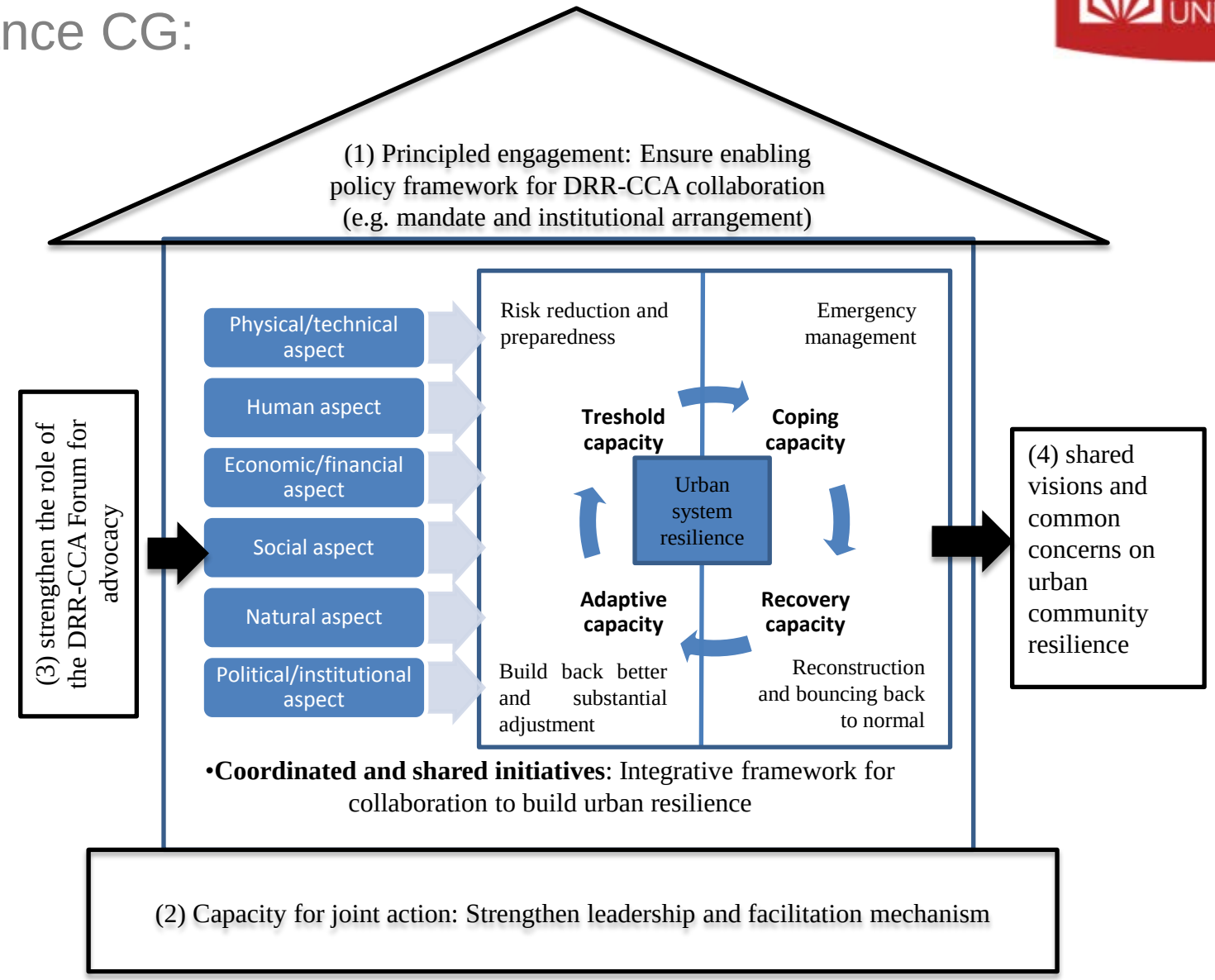
- *With a clear mandate, we could have a better position to coordinate the adaptation initiatives of all sectors (INS-06)*
- This research observed a feeling of powerlessness of the adaptation group, in particular those from the government sector, the BPLHD

Power imbalances

Dimensions of power	DRR related key agencies (represented by BPBD)	CCA related key agencies (represented by BPLHD)
Authority	Domain, roles and responsibilities are specific to disaster (in this case flood as a disaster)	Domain, roles and responsibilities are general to environmental management and not specific to flood as a climate change impact.
Resources	Funding for disaster risk reduction measures is regulated at Government Regulation No 22 year 2008, Dedicated staff within emergency agencies Volunteers on the ground to assist and empower the community (eg. CBAT – Community Based Action Team program and Community Contingency Planning Program)	There is no specific regulation yet in regards fund channelling for adaptation measures at provincial level. Has few people on the ground
Legitimacy	Has a direct, well recognised mandate to conduct risk reduction measures and to enhance community resilience to a disaster event (Disaster Management Law No 24 / 2007)	Does not have a direct mandate to do adaptation nor enhance community resilience.

- *With a clear mandate, we could have a better position to coordinate the adaptation initiatives of all sectors (INS-06)*
- This research observed a feeling of powerlessness of the adaptation group, in particular those from the government sector, the BPLHD

Key strategies to enhance CG:



DRR-CCA Collaborative governance framework for urban community resilience building

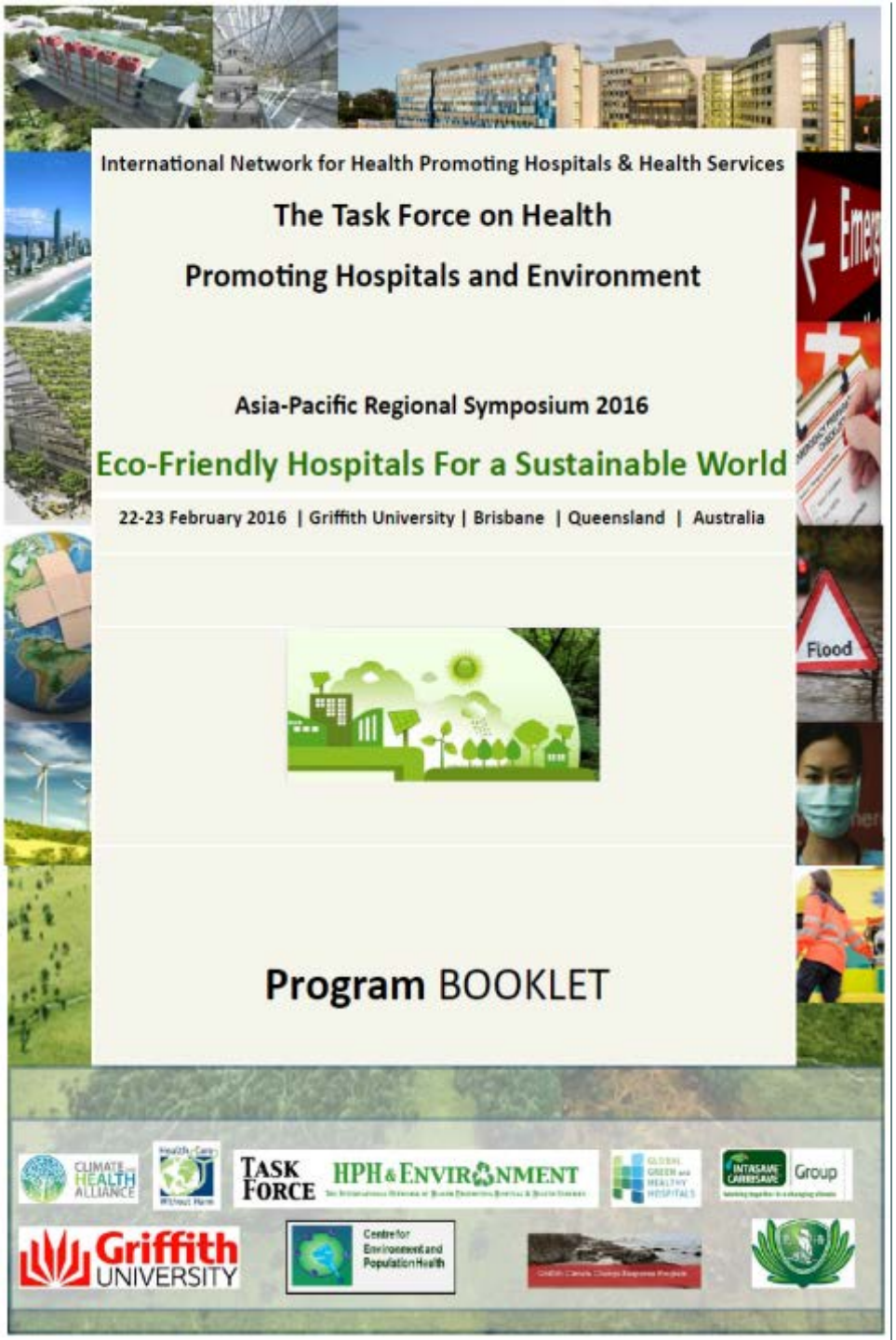
One last important message

- The Lancet says **Resilience** is the silver bullet to deal with uncertainties and increasing disaster
- The weapon to shoot with is: multi-stakeholders partnership

Thanks – *no matter what, don't forget update your status*

Title: Jakarta flood in 2014

Source: Media Indonesia, 15 January 2014



AN INTERNATIONAL FORUM ON

"DISASTER and EMERGENCY MANAGEMENT in the HEALTH CARE SECTOR"

TUESDAY, Feb 23rd 2016

Griffith University, Southbank Campus

Hosted by Centre for Environment and Population Health, Griffith University and co-hosted by Tzu Chi Medical Foundation, Tzu Chi University

Venue: Griffith University South Bank Campus, Griffith Graduate Centre Building (S07) Room 1.23

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