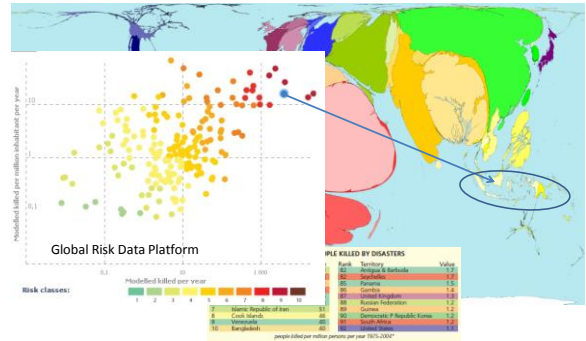


### Introduction: disaster risk context

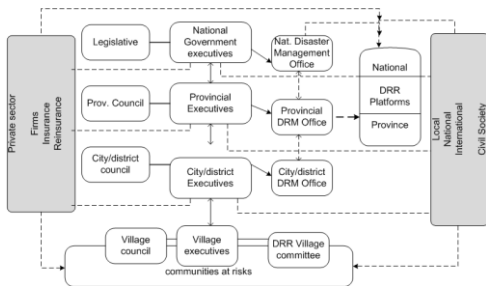
- Merapi eruption 2010: >350,000 IDPs
- West Sumatra 2009: >100,000 IDPs
- IOT 2004: 550,000 IDPs
- Jogja earthquake 2006: 700,000 IDPs?
- Aceh Flood 2006: >100,000?
- Flores tsunami/Eeq. 1992: 70,000 IDPs
- A total of 1.75m homeless since 1975

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### World Map: Killed by Disasters

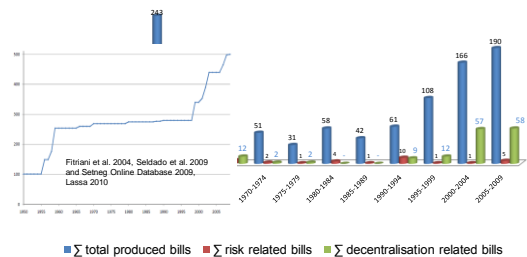


### Indonesia DRM System: A Reform



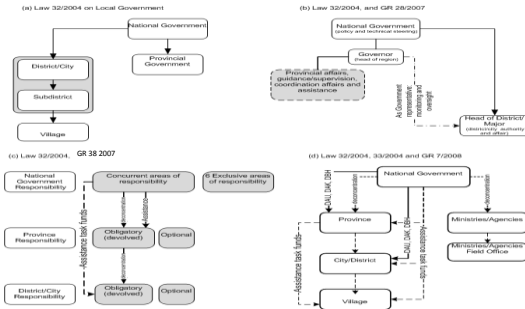
Source: Lassa 2010

### Laws and Risk-Related Laws Produced During 1945-2009



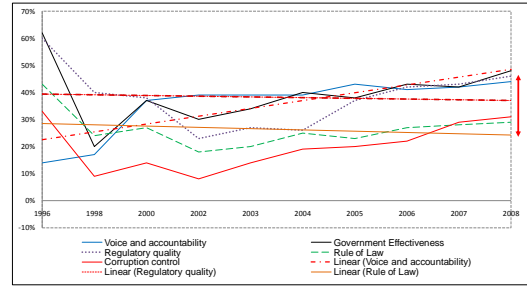
Source: Lassa 2010, data source: Supreme Court Legislation Database

## Missing links in vertical governance



Source: Lassa 2010, Adapted from Sudarmo and Sudjana 2009

## Volatility in governance: how can DRR be independent from it?



Adapted from Kaufmann, Kraay, and Mastruzzi 2009

## Research questions

1. Can Indonesia incrementally reduce disaster risks?
2. Given the missing links in the vertical governance in Indonesia and the volatility of governance – what kind of enforcement scenarios for disaster risk management policy?
3. What can network theory offer in explaining the vision of risk reduction and the future of Indonesia disaster risk management

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## Conceptual Frameworks

- Risk reduction as multi-level and poly-centric governance efforts: Hyogo Framework for Actions
- Institutional vulnerability concepts
- Disaster risk governance concept
- New networked governance and networked institutionalism

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## Research methods

### Simple statistical analysis

### Unstructured interviews

Face to face

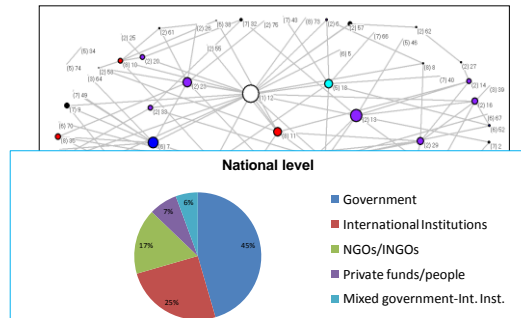
facebook

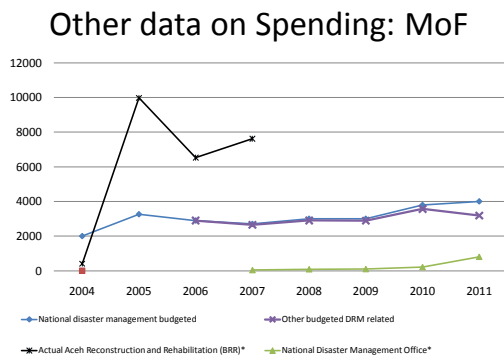
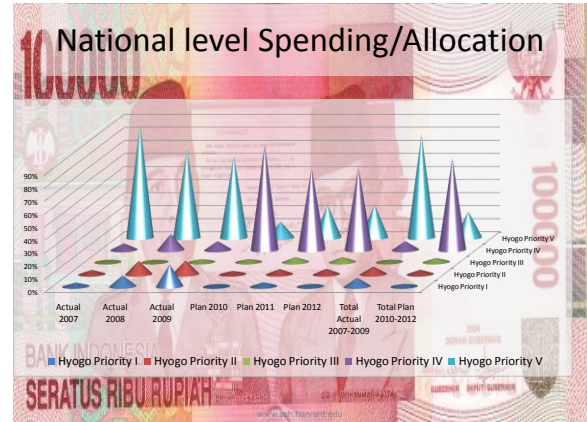
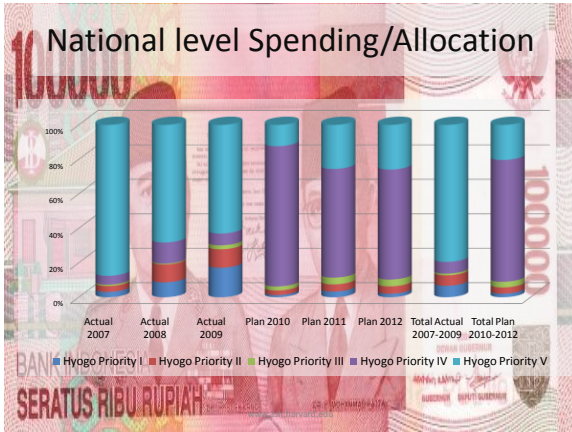
Face to face  
Facebook, wall and messengers  
Unstructured telephone interviews  
Making into facilitated discussions, unfacilitated discussion  
Skype

### Networks Analysis

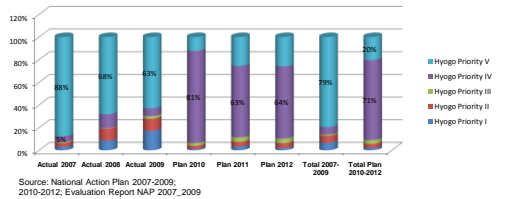
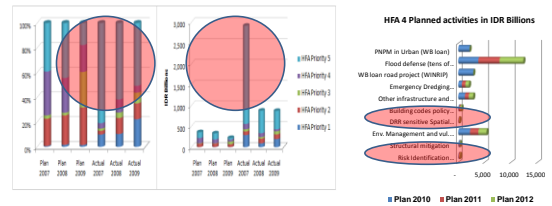
### Formal documents from 45 districts/provinces

## Indonesian DRR network 2006-2009 (N=87)





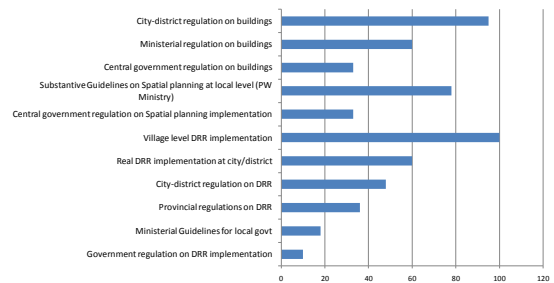
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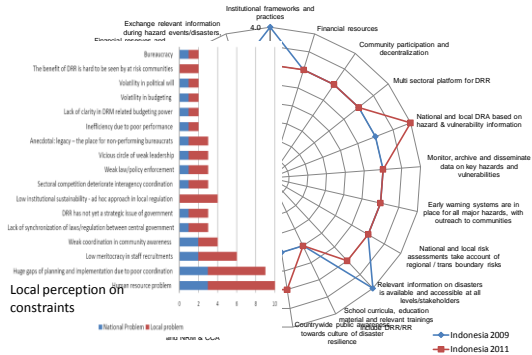
### Evidence of DRR enforcement mechanism

Name of Law	Level of Vertical Enforcement		Horizontal Enforcement at National Level
	Province	City/District	
Spatial Planning Law 26/2007	6*	11*	Enforced e.g. by GR 26/2008 - 10 Mar 2008 on Implementation of Spatial Planning Law, followed by Ministry of Public Works Regulations in 2007
Disaster Management Law 24/2006	18%**	2%*	Enforced by GR 21-23/2008 - all signed on 28 Feb 2008, Presidential Decree 08/2008 on National Disaster Management Office
Building Law 28/2002	90%*	50%*	Enforced by GR 36/2005

### Time asymmetry for enforcing DRR regulations (average months)



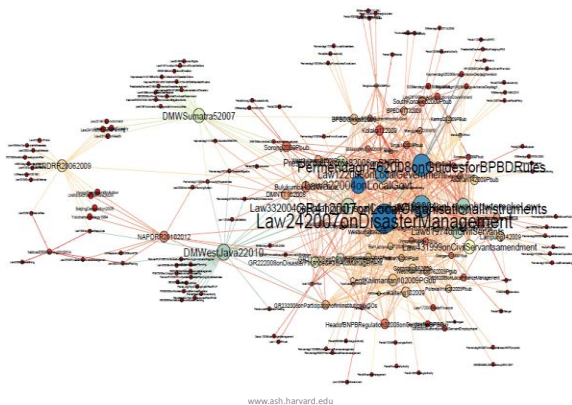
### Hyogo Framework Implementation in Indonesia



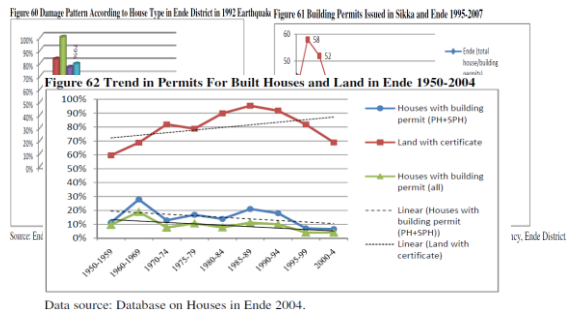
### Network theory: DRR institutions

- DRR laws and regulations as nodes
- Established links between laws/regulations as either reference, enforcement, vision of risks reduction and operational framework for legal enforcement.
- Formal institutions as set of networked laws/regulations spanning from national to locals and vice versa.

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### Micro level evidence: HFA Priority 4



### Conclusion

- Institutional challenges: complexity, decentralization, governance volatility, regulatory quality, implementation gaps, poor vision of risks.
- Decentralization: (dis)incentives for DRR
- HFA demands broader and bolder actions
- Network theory: new understanding of explaining complexity in disaster legislation and regulations.
- New concept of networked institutionalism

