Mainstreaming Disaster Risk Reduction in Urban Planning

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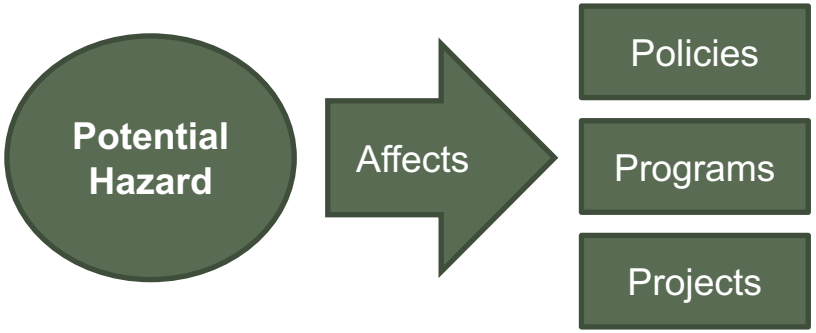
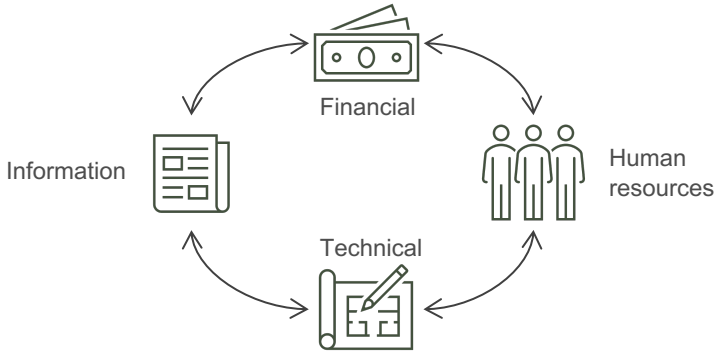
Introduction to Mainstreaming Disaster Risk Reduction

"Mainstreaming" disaster risk reduction into development plans is the key to preventing systemic impacts on development.



- **Mainstreaming requires information about potential hazard** events that impact the performance of policies, programs, and projects that impact vulnerability to hazards.

- The results of effective mainstreaming in DRR are contained in the daily operations of national to local is shown in four-tiered systemic impacts on human, economic, political, and environmental systems.



What is mainstreaming Disaster Risk Reduction

Mainstreaming DRR is a cross-sectoral development effort that is currently being pursued globally.

Mainstreaming DRR in development is a **cross-sectoral issue** that is carried out as a consideration and handling of risk issues in:

- *Medium-term Strategic Development Frameworks*
- *Legislation and institutional structures*
- *Sector strategies and policies Budgetary processes*
- *Design and implementation of individual projects*
- *Monitoring and evaluating*

For example, there is the MDRD program which is carried out in 26 countries in Asia since 2007.

Priority sectors of DRR mainstreaming into:

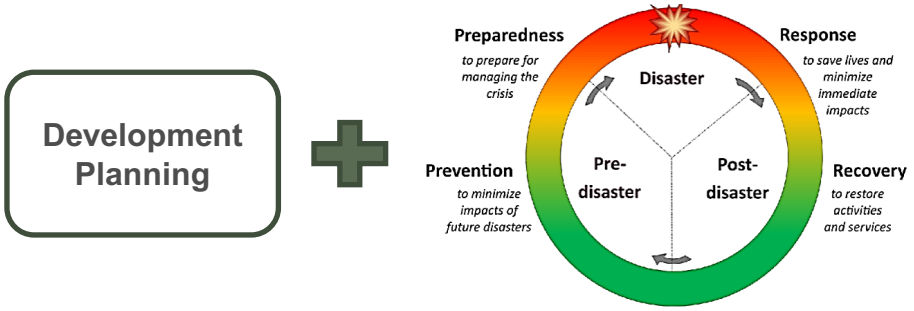
1. Education
2. Environment and Natural Resources
3. Financial services
4. Health
5. Housing
6. Land-use dan Infrastruktur

Why is mainstreaming Disaster Risk Reduction is Necessary

Integrating disaster risk considerations into development is an essential responsibility of the government in ensuring the resilience (welfare and safety) of its citizens.

The government, especially at the local level, as the body **responsible for the long-term development of its territory and the welfare and safety of its citizens**, must have objectives:

- Reducing disaster risks accumulated from previous developments
- Avoid creating new disaster risks in the future
- Build capacity effectively in dealing with emergencies

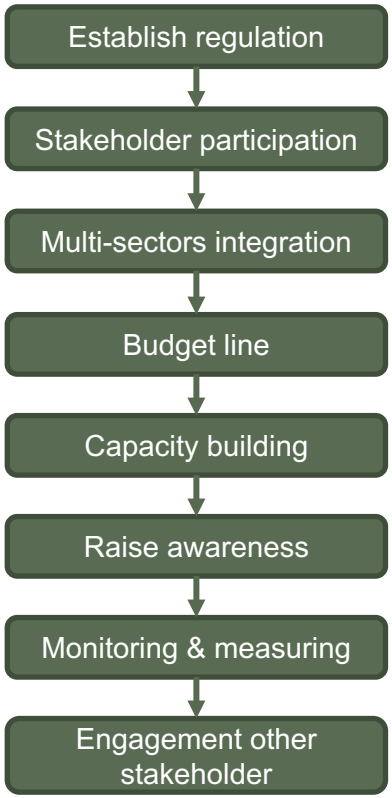


Disaster Risk Considerations in Development Planning

Integrating disaster risk consideration into development policies, planning, and programming at all levels with particular emphasis on disaster prevention, mitigation, preparedness, and reduction of vulnerability must be done.

How can Disaster Risk Reduction be Mainstreamed into Local Development

It is necessary to carry out stages starting from forming regulations to involving stakeholders to work together.



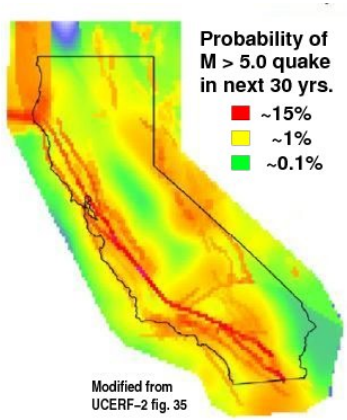
To realize DRR mainstreaming is done through:

1. Establish enforceable laws and regulations at the local level
2. Stakeholder active participation in the implementation
3. Institutional arrangements to strengthen horizontal and vertical integration at various levels of government and multi-sectors
4. Establish a budget line for mitigation and preparedness and an emergency response fund.
5. Capacity building, human resource skills and tools to support disaster risk reduction
6. Outreach to raise awareness
7. Monitoring and measuring progress against performance indicators to measure success
8. Identify possible assistance and engagement of other stakeholders at the local level if needed.

Key sectors of mainstreaming disaster risk reduction in Urban Planning

Land-Use Planning

Land use planning should already be mapped, showing zones with different levels of risk. This is important because the location of settlements and infrastructure is a significant vulnerability factor.



Building Codes and Disaster-Resilient Construction

Including hazard-resistant measures in building codes reduces vulnerability by considering future risks. Failure to implement this often exacerbates disaster loss and damage.

Building Codes Save

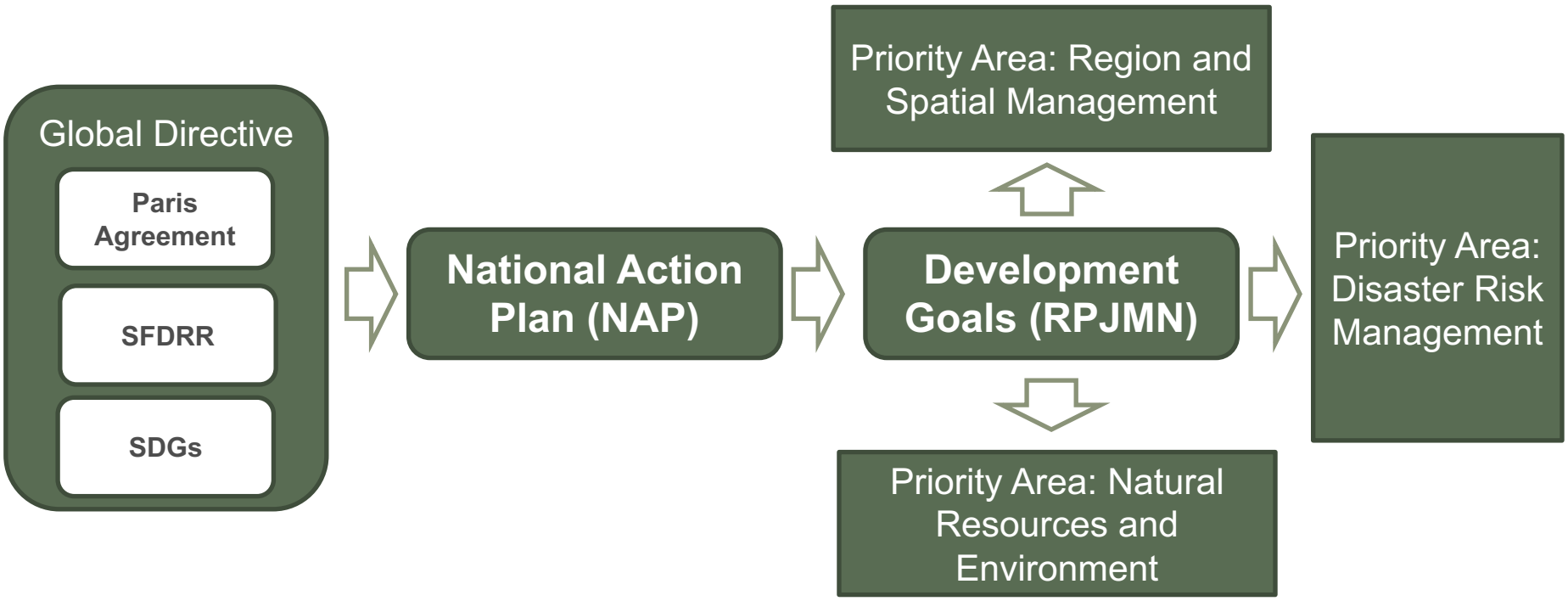
National Findings of Modeled I-Codes® Savings

Total Losses Avoided Based on building and content damages	Number of Post-2000 Structures	Money Saved annually, on average
Flood	786k	$484 million
Seismic	2.4m	$60 million
Hurricane Wind	9.2m	$1.1 billion

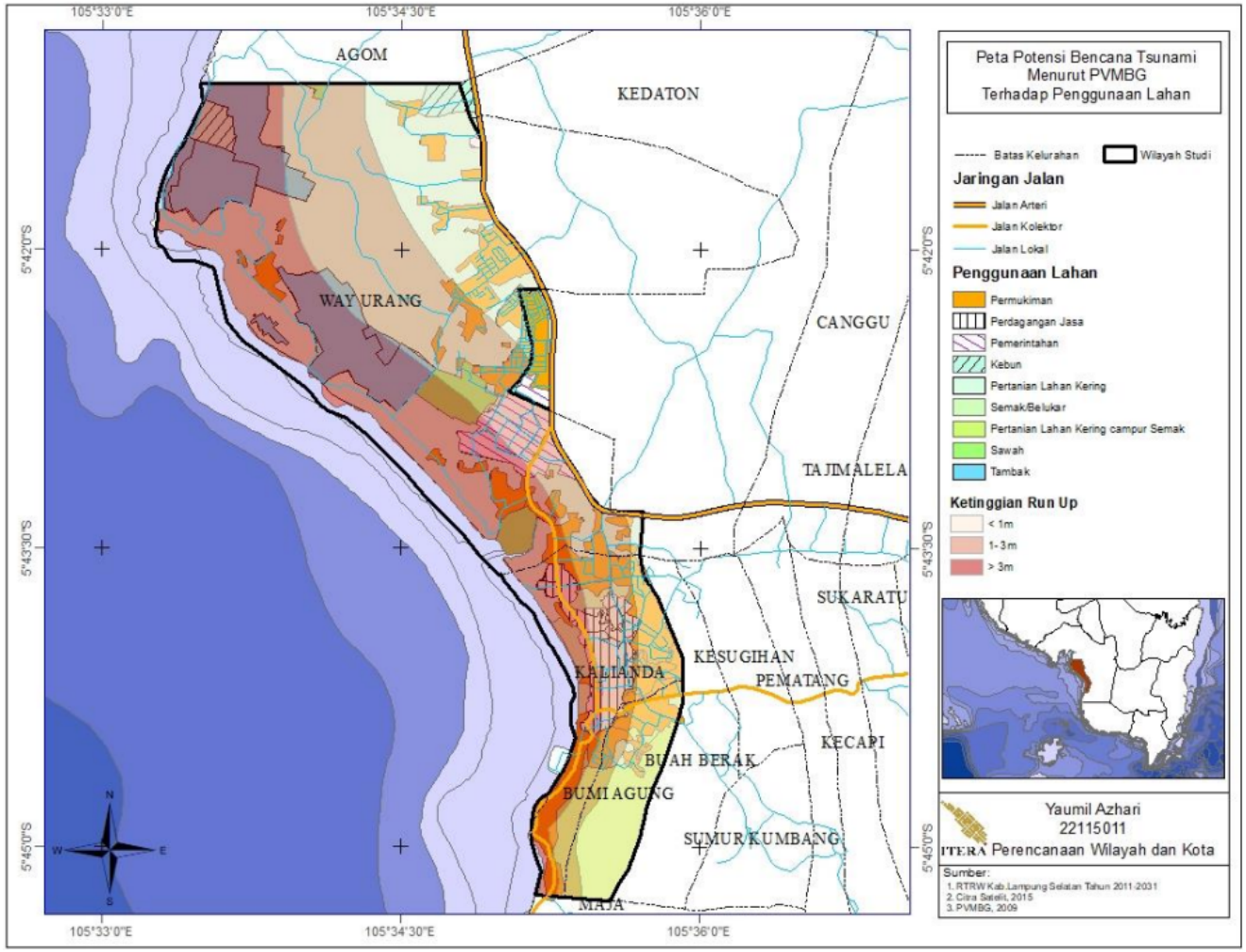
Local Government Sectors

Local governments are expected to provide a range of services and functions, including Budget allocation, tax collection and construction and maintenance of urban service infrastructure (drainage, water supply, electricity, gas, etc.) Information and communication and welfare s

Study case: How Indonesia Develop Disaster Risk Reduction into Regional Planning



Study case: Land-Use Planning with Disaster Risk Reduction



ICG IOTWMS WG1 Mainstreaming disaster risk reduction into urban planning and resilience

Funded by HUD and ITB

- The main purpose of this study is to understand how urban planning and development can be used to mitigate tsunami risk and develop a set of principles that can inform urban planning and development in tsunami prone areas. The results of the study will inform a guideline on urban planning and development to address tsunami risk that is being developed by the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) of The Intergovernmental Oceanographic Commission of UNESCO (IOC/UNESCO), Working Group 1: Tsunami Risk, Community Awareness and Preparedness
- Output so far:
  - Briefing paper for Sri Lanka done
  - Briefing paper for Indonesia on going
- Guideline on urban design to address tsunami risk – WG1 of ICG/IOTWMS

Thank you …