

CAPACITY MANAGEMENT FOR DISASTER RISK REDUCTION: LESSON LEARNED FROM TSUNAMI IN INDONESIA

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Abstract

- Within the last three years, Indonesia has experienced at least six major disasters, which have caused loss and fatalities. Most fatalities were accounted for by the earthquake and tsunami in Aceh and Nias in December 2004, the massive earthquake in Yogyakarta and Central Java in May 2006, the flood disaster in JABODETABEK (Metropolitan Jakarta) in February 2007, earthquake and possible tsunami in Bengkulu and West Sumatera in September 2007, and ongoing mud flow in Sidoardjo, East Java. These disaster may have been caused by natural and man-made hazard, social and physical vulnerabilities; and may also have been worsened by low capacity in government bureaucracies as well as in community as a whole.
- From these experiences, lessons can be learned for various management arrangements for the post-disaster recovery process. The process can be categorized into three stages namely (a) Emergency Response, (b) Rehabilitation and Reconstruction, and finally, (c) Long term Sustainable Recovery Stage. For each stage , the approach and management system should be different. However, an integration effort should be made to promote sustainable development.

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- The emergency response stage starts immediately after the disaster breaks out and lasts for about three months. This stage mostly deals with activities which aim to minimize the dead toll, to provide basic needs for a temporary period and to assure that infrastructure can be operated in order to support the emergency activity. The next stage is the rehabilitation and reconstruction phase, which takes normally up to a minimum of three years. This stage aims to provide infrastructure and economic development to assure that communities, the private sector and the government are able to recover from the disaster and be able to conduct their daily activities at least at a minimum standard of living
- Different management schemes have been adopted by the Indonesian government for the rehabilitation and reconstruction stages, depending on the type of disaster as well as casualties involved. However, the central government still plays an important role to provide main policy and strategy for rehabilitation and reconstruction stages, including financial support. The experiences and approaches used in this stage will become a solid foundation for the implementation of a long term sustainable recovery strategy for the purpose of integrating sustainable economic development in the future.

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- Considering that Indonesia is prone to natural disasters in its geographical context, the government puts its effort to improve the management of post disaster recovery, through the improvement of the management of post disaster recovery, through the improvement of regulatory and institutional frameworks and the introduction of risk management strategy. For the local levels, since disasters occur area and cause difficulties for local communities, the central government aims to strengthen the local government's capacity to improve participation as well as the awareness of the community with regard to the systematic approach in dealing with the disasters and its impact on the respective local society.

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General Feature

- Indonesia is situated at the juncture of four major world tectonic plates; the Asian plate, Indian Ocean plate, Australian plate, and Pacific Ocean plate
- Located on crossing three mountain system: Alpine Sundae, Circum Pacific, and Circum Australia
- More than 500 volcanoes in which 128 volcanoes are still eruptions
- Consist of about 220 million inhabitants, unevenly distributed with mixed ethnicities, community groups, religious denominations, customs and traditions
- 383 out of 456 districts/cities considered as prone areas: high number of population, high density areas with uneven population distribution, high income disparity, decrease of building coverage
- Most of the river banks are used as low-income squatter area with high population density

Recent Great Disaster in Indonesia

- Indonesia ranks as the 7th among countries most hit by natural disaster in 2005 (the International Strategy for Disaster Reduction 2006-2009, World Disaster Reduction Campaign, UNESCO)
- Within the last three years, Indonesia has experienced various significant disasters:

Disaster Event	Date	Number Killed/ House destroyed	Damage & Losses (US \$)
Tsunami Aceh	December 2004	165,708 people killed	4,450 million
Earthquake Yogya- Central Java	May 2006	5,716 people killed/156,662 housings	3,134 million
Tsunami Pangandaran- West Java	July 2006	645 people killed/1,908 housings	138.7 million
Flood Jakarta	February 2007	145,742 housings damaged	967 million (incl. indirect economic losses)

Major Issues on Disaster Management

LACK OF MANAGEMENT CAPACITY ON DISASTER RESPONSE

- Delay in the management of emergency response
- Lack of coordination in planning and programming for post-disaster recovery
- Institutional framework is more focused on emergency response, rather than post-disaster recovery
- Funding emphasizes emergency response

LACK OF UNDERSTANDING IN DISASTER RISK REDUCTION

- Lack of understanding in the preparation of disaster preparedness and risk reduction
- Lack of institutional performance in the management of risk reduction
- Lack of planning and programming for risk reduction
- Lack of incorporating risk disaster mitigation into spatial plans

Stages for Disaster Response

- Emergency Response as the first stage; starts immediately and lasts for about three months with objectives of minimizing the dead toll, providing temporary basic needs and rebuilding the infrastructures.
- Rehabilitation and Reconstruction stage which take up to, a minimum of three years and aims to provide infrastructure and economic development for community business sector, and government to conduct daily activities
- Long term Sustainable Recovery stage, which follows right after the second stage with the purpose of integrating sustainable economic development

Lesson Learned from Indonesia Experiences

- **Aceh-Nias Tsunami**

Coordinated by Bappenas (National Planning Agency) supported by donors, no active involvement from local governments

- **Yogya-Central Java Earthquake**

Coordinated by Bappenas, local government actively involved, supported by donors

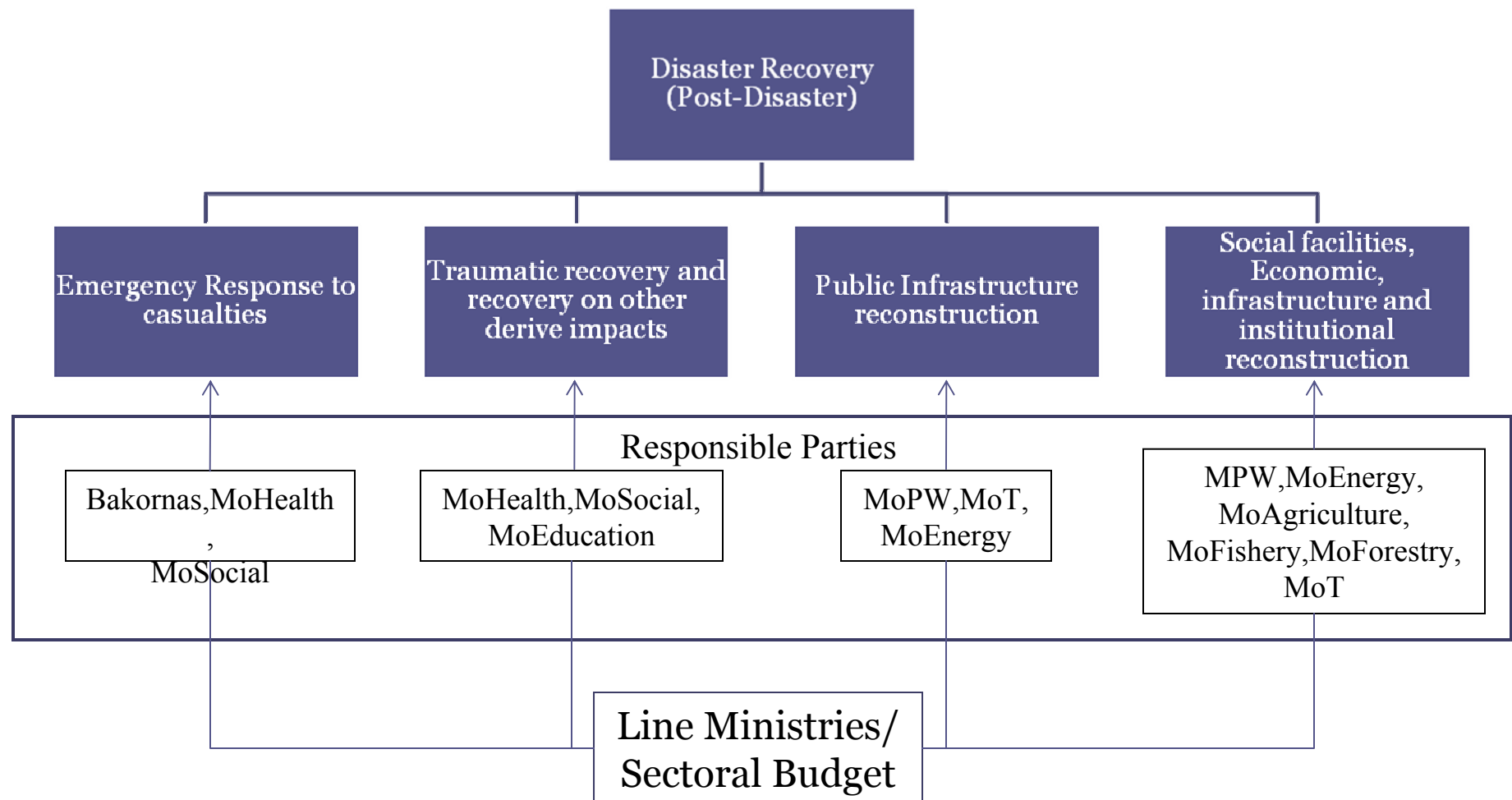
- **South Java Tsunami**

Coordinated by Bappenas, local government actively involved, no donor support

- **Other disasters**

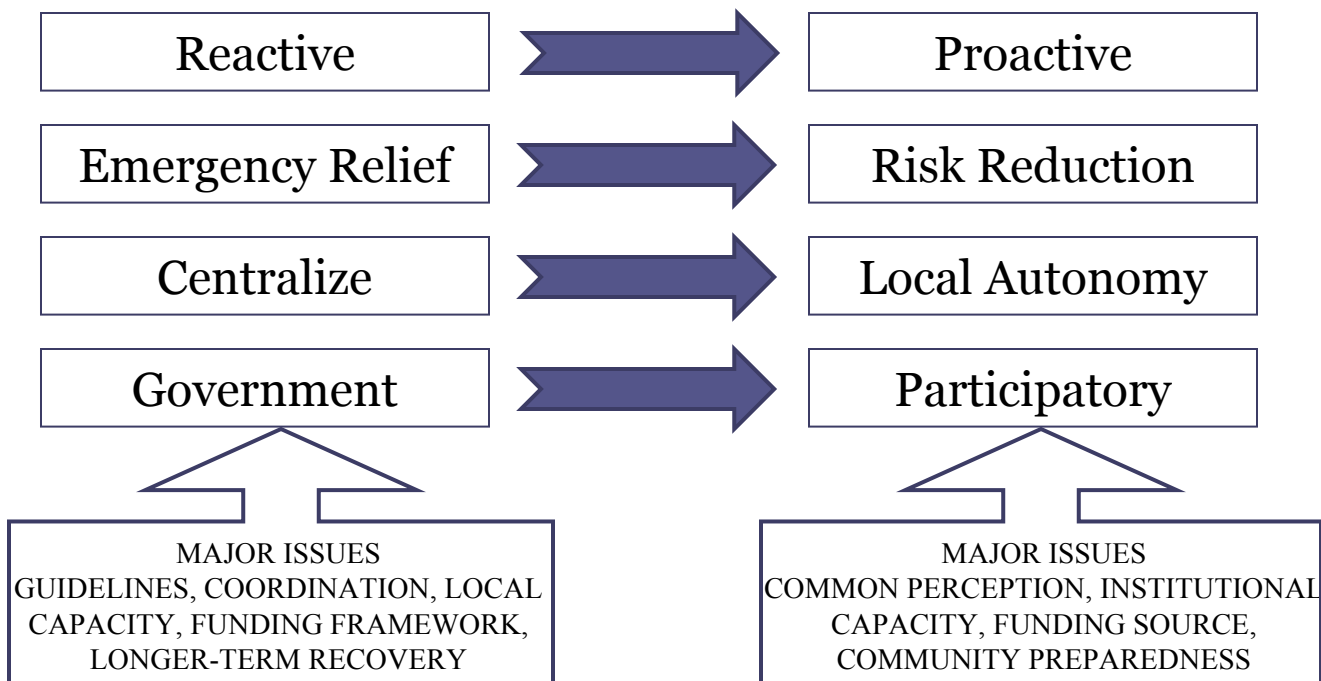
Coordinated by Coordinating Ministry for People Welfare (Menko Kesra) and Bakornas PB (Coordinating Agency for Disaster Management), assessment conducted by local government, verified by Menko Kesra and Bakornas

Comprehensive Planning and Funding Arrangement for Disaster Recovery



New Paradigm on Disaster Management

1. Recognizing the right for dignified life and livelihood and that the government is responsible for ensuring protection from disaster, which can be avoidable and with no risk creation in the recovery process
2. Reducing disaster risk factors from unsustainable development practices that have been worsened by the impact of climate change
3. Being accountable to the risk community and/or disaster-affected community and sensitivity to gender, participatory, equity and justice perspective



Regional Strategic Framework and Building Local Government Capacity

- To support the provincial and district/city governments in mainstreaming Disaster Risk Reduction (DRR) into annual and medium-term development plans
- To build awareness among the executive and legislative branches of the government and other relevant stakeholders on the importance of DRR
- To facilitate provincial and district/city governments in the establishment and institutional building of Disaster Management institution at their respective level and the conduct of capacity building for DRR mainstreaming
- To facilitate coordination and cooperation among local stakeholder involved in setting-up the appropriate Disaster Management institution

Community-based Participation for Disaster Preparedness and Risk Reduction

Disaster Preparedness and Risk Reduction

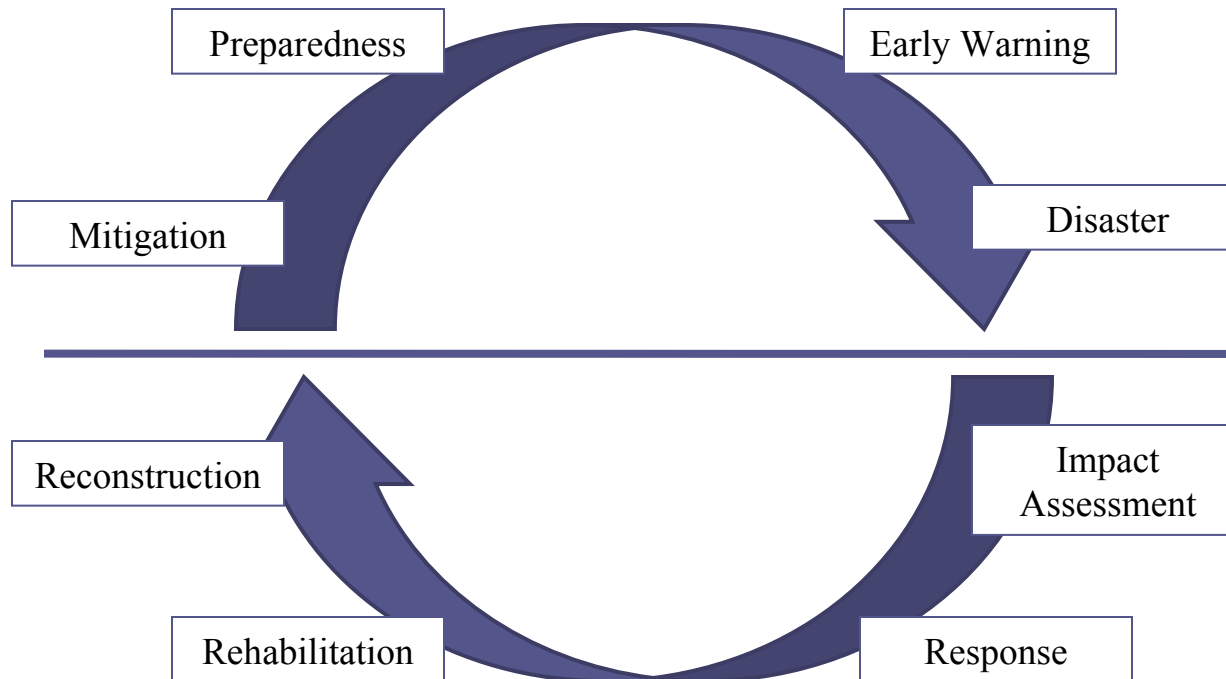
- To formulate locally appropriate manuals produced for earthquake resistant construction
- To develop multi-hazard (volcanoes, floods, land slide, earthquake) risk assessment maps and community response plans at the community level

Development of Multi-stakeholder Community-based Disaster Risk (CBDRR) Initiatives

- To develop Community-Based Disaster Risk Reduction (CBDRR) initiatives involving the multi-stakeholders
- To support cooperation and coordination among the governments, the civil society and other relevant stakeholders in developing Community-Based Disaster Risk Reduction (CBDRR)
- To formulate joint action plans to build the resilience of the communities towards disasters within the CBDRR framework
- To provide guidelines for disaster mitigation, promotion of safe construction practices, building codes, guidelines for retrofitting, training for construction workers, development of community-based early warning system

Disaster Management Cycles

RISK MANAGEMENT



CRISIS MANAGEMENT

Closing Remark

- Post-disaster needs assessment is the most important step towards an effective post-disaster recovery process
- Needs assessment will be instrumented in the formulation of recovery plans, therefore it needs to be simple, flexible, adoptable, and adjustable to the real needs for further recovery process
- The master plan or action plan for recovery process is the most important document towards a better and effective execution of rehabilitation and reconstruction as well as an efficient funding disbursement for the activities
- To guarantee the recovery process as assessed and planned, it is required to develop and implement a monitoring and evaluation system for the post-disaster recovery process
- The assistance from respective donor agencies, such as the UNDP, DFID, World Bank, and other respective parties will be required for the implementation of the recovery process in the post-disaster areas in Indonesia, in particular in Yogyakarta (through Early Recovery Assistance Programme)



THANK YOU

UN, New York, April 14-18, 2008
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