

GDLN Seminar on Strengthening Disaster Risk Management in East Asia and the Pacific – Summary of December 11, 2008 Video Conference

Post-disaster recovery procedures of the Great Hanshin (Kobe earthquake) earthquake and the Great Sumatra-Andaman earthquake

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Key topics discussed:

1. Immediate Disaster Response
2. Community-based Recovery Planning
3. Financing of Reconstruction Measures and Accountability
4. Lessons Learned and Transfer of Knowledge

Executive Summary

The recovery procedures in the aftermath of the Kobe' earthquake and the Asian tsunami were discussed in the first GLDN seminar.

- **An immediate disaster response is crucial to prevent additional losses, especially in the form of human casualties.**
 - Local residents and volunteer groups promptly engaged in the immediate relief efforts, undertaking significant emergency response activities, especially after the Kobe earthquake.
- **Local authorities must be open to receive and ready to channel international donations.** This is crucial in order to scale-up local response activities in the short run, as well as to build resilient infrastructure to prevent future damages in the longer run.
 - In Banda Aceh, a new agency with a long term mandate was established to facilitate administrative issues for international volunteers and NGOs working on disaster recovery projects within the country.
- **Community-based planning is necessary in the development of recovery plans.** The knowledge and the experience of the local people may help to prevent and mitigate the impacts of future disasters.
- **The type and the amount of funds allocated for recovery and reconstruction originated from different sources in the two sites.** While Banda Aceh benefited from a large amount of support from international donors, Kobe and its regional authorities financed almost all their own expenditures. In both cases, transparency and accountability were the requirements for handling all funds: the goal was to avoid wasteful spending or mismanagement of funds.
 - In Kobe's case, frequent reviews were undertaken and reports were compiled, while in Banda Aceh an anti-corruption unit was established.

Summary

1. Immediate Disaster Response

Kobe and Banda Aceh's experiences highlighted the crucial need to undertake immediate response activities in the aftermath of a disaster. Not only did the prompt response prevent additional losses in terms of human casualties and infrastructures, but also it accelerated the path to recovery. For example, the electric power was rapidly resumed six days after the earthquake in Kobe; gas and water services recommenced for all households within the next three months.

The hard work of local people, the solidarity of their neighbours, as well as the engagement of a large number of volunteers was one of the keys to success in searching for victims, in saving lives in the central part of Kobe, and in cleaning-up the enormous damage, which was estimated around US\$100 billion.

Moreover, the spontaneous reaction from civil society was politically backed up by a quick decision making process. Committees in Kobe and Banda Aceh promptly activated restoration plans and undertook immediate response actions in the first 36 hours after the earthquake and tsunami.

Banda Aceh, previously a no-go area for international actors, suddenly became accessible to donors and international organizations. Ten days after the tsunami –during the ASEAN summit -a UN flash appeal was launched for the amount of US\$6.2 billion. The rapid relief operation, in which some 50,000 people participated, aimed at avoiding further deaths, preventing epidemics outbreaks, emergency shelters as well as taking care of traumatized people.

To tackle the bureaucratic and administrative side of the recovery operation, the government established the [Aceh-Nias Rehabilitation and Reconstruction Agency \(BRR\)](#) in April 2005. The agency - with a four-year mandate and a direct line of reporting to the President- served as a "one-stop-shop" for all foreigners (around 5,000) working in the country for the recovery phase since it was mandated to issue work permits, visas, and to take care of all security issues.

2. Community-based Recovery Planning

While the emergency response effort was ongoing, committees began to work on a comprehensive multi-year recovery plan to ensure mitigation of longer term impacts of the disaster. A bottom-up approach was chosen to foster sustainable solutions. The inclusive process -led by BRR- took into consideration people's view and perceptions and had a twofold aim: 1) to strengthen the civil society's resilience to future disasters; and 2) to develop spatial plans through a shared decision-making process.

In the case of Kobe, some results were already visible in the first six months. The city of Kobe produced a restoration plan, in which local communities took the initiative to participate. Around the same time, the Hyogo prefecture created its own recovery plan, the "*Phoenix Plan*" which aimed at defining development priorities for the subsequent 10 years. Compatibility among local restoration plan and development plans was ensured by city authorities who are mandated to develop spatial development plans.

3. Financing of Reconstruction Measures and Accountability

The earthquakes in both Kobe and Banda Aceh had negative economic impacts. In Kobe, the financial cost of visible physical damage was estimated at US\$170 billion and budgeted in some 660 different projects for Kobe and its surroundings. Almost 90% of these funds were disbursed by the government and by regional institutions. In the end, a total of US\$163 billion was spent for recovery, with the number of projects in Kobe almost doubled.

In terms of accountability, the Kobe city restoration plan was designed as a 10-year plan to be reviewed every 5 years. The review mechanism was crucial to examine whether the restoration objectives had been met (e.g. rebuilding of houses, infrastructure).

Given the abundance in agricultural land, the cost of physical damage in Banda Aceh was estimated at of US\$7.1 billion. The government provided a total of US\$2.1 billion, while some US\$5 billion was disbursed by [international donors](#) in order to finance about 12,500 projects. Due to the large amount of donations –which cumulatively were higher than Banda Aceh’s normal fiscal budget- an accountability system was put in place and an anticorruption unit was mandated to address any mismanagement of funds.

Although the flow of foreign aid created a “bubble economy,” the current fiscal budget is almost at the same level as it was in the immediate aftermath of the disaster. If peace sustains in the region, the economy will be unlikely to deteriorate and the current path of delivering sustainable development solutions is likely to persist.

4. *Lessons Learned and transfer of knowledge*

- ✓ **It is important that local communities participate in the recovery planning process.** An inclusive process is more likely to achieve sustainable and shared solutions and to create safer neighborhoods. This recognition is in line with the local-level community-based approach emphasized in the [Hyogo framework \(2005\) guide](#).
- ✓ **Recovery plans should be flexible and allow for updates/adjustments during the reconstruction process.** For example, 120,000 housing units were planned after the Kobe earthquake; in the end the total number of units built reached 169,000. Similarly, in Banda Aceh, 60,000 ha of agricultural land were targeted for re-development, but the total area developed was 93,000 ha.
- ✓ **Volunteer groups are a viable source of support for disaster relief in the immediate emergency response phase.** In Kobe, prior to the disaster, only some 27.4 percent of private citizens were taking part in volunteer disaster response groups. After the earthquake, the number markedly increased to reach approximately 95.7 percent of the population in 2007.
- ✓ **Community level activities in which both the local administration and the local people participate and cooperate** (e.g. drills) **are good preventive measures** against future disasters. They contribute to promote a share understanding of preparedness which is more likely to be successful and sustainable.
- ✓ In the aftermath of a natural disaster, local authorities constantly face the **problem of efficiently allocating limited and short-term resources to finance large reconstruction budgets**. When

donations are secured for longer term periods, the availability of money allows for some flexibility and some adjustments are possible during the implementation of recovery projects. This is very important since local authorities are not ready to immediately scale up their capacity in order to implement large scale recovery operations.

- ✓ An **early warning system** for tsunamis (and possibly earthquakes, if the technology becomes available) should be established and should serve as a soft mitigation measure against future disasters.

Further Information

For more information on the two disasters and for general information on disaster risk management, please visit the following links:

Kobe earthquake:

- Kobe University Library provides a lot of information as facts and reports: <http://www.lib.kobe-u.ac.jp/eqb/e-index.html>

Banda Aceh:

- Aceh-Nias Rehabilitation and Reconstruction Agency (BRR): <http://www.e-aceh-nias.org/home/>
- World Bank Tsunami & Earthquake Reconstruction: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/INDONESIAEXTN/0,,contentMDK:21142853~pagePK:141137~piPK:141127~theSitePK:226309,00.html>
- Multi Donor Fund: <http://www.multidonorfund.org/>

General information:

- UNISDR, Hyogo Framework for Action 2005-2015 (2005): <http://www.unisdr.org/eng/hfa/docs/Hyogo-framework-for-action-english.pdf>
- UNISDR, Hyogo Framework, Words into Action (2007): <http://www.unisdr.org/eng/hfa/docs/Words-into-action/Words-Into-Action.pdf>