

MDF - JRF Knowledge Notes

Lessons Learned from Post-Disaster Reconstruction in Indonesia



Adapting Community Driven Approaches for Post-Disaster Recovery: Experiences from Indonesia

Indonesia's experience following a series of devastating natural disasters between 2004 and 2010 clearly demonstrates the many benefits of using large-scale, government-implemented community driven development programs to deliver reconstruction at the village level. In addition to tangible results in delivering quality, cost-efficient physical outputs, the community-based recovery programs implemented in Aceh, Nias and Java have demonstrated less tangible but exceptionally important social benefits in extremely challenging circumstances.

The evidence from Indonesia shows that community driven approaches can be adapted

effectively for post-disaster reconstruction to deliver cost-effective, equitable and sustainable local level recovery. The experiences of community recovery projects implemented under the Multi Donor Fund for Aceh and Nias (MDF) and the Java Reconstruction Fund (JRF) demonstrate that disaster-affected communities are able to manage reconstruction resources and projects to high-levels of quality and satisfaction while benefitting from increased confidence and capacities brought by the consultative and participatory approaches. At the same time, the community driven approach encouraged faster social recovery and built capacities that will last well beyond the reconstruction.

Experiences of the MDF and JRF Community Recovery Projects

After the December 2004 tsunami hit the provinces of Aceh and North Sumatra, the Government of Indonesia scaled up and adapted its two ongoing national community driven development (CDD) programs, the Kecamatan Development Program (KDP) and the Urban Poverty Program (UPP), to meet post-disaster recovery needs. The community-based approach of these programs was also extended to large-scale housing reconstruction through a new program widely known by its Indonesian acronym, Rekompak. Over the next few years the community driven model used for reconstruction in Aceh was adapted for the purposes of local level reconstruction in the wake of other disasters.

Through the five projects in the MDF and JRF programs that adopted a CDD approach, communities were empowered to implement physical reconstruction projects, forming community level groups to design and build homes and local level infrastructure. Building on pre-existing projects and institutional mechanisms, it was possible to begin operations quickly following the major disasters that hit Indonesia between 2004 and 2010. Project outputs were on average of equal quality to those built by professional contractors, and were delivered for the same or less cost. Reconstruction activities were based on collective village mapping and spatial planning processes. The projects have been used to respond to multiple types of disasters,

including earthquakes, tsunamis, landslides and volcanic eruptions, and in a post-conflict context, demonstrating that they are flexible and adaptable to local needs. Other activities implemented by the communities through these programs included disaster risk reduction and preparedness, preservation of cultural heritage, and environmental awareness.

In addition to the impressive physical results constructed through these projects, the MDF and JRF experiences have demonstrated many less tangible social benefits. These include faster social recovery from the impact of disasters and increased confidence and capacities of local actors to engage in local level planning. Most importantly, the community driven approach to reconstruction empowers victims of natural disaster to become key agents in their own recovery.

The CDD approach provided the backbone for the five community recovery projects of the MDF and JRF. Together they accounted for more than US\$260 million, representing over one third of the total of the combined allocations of the MDF and JRF.

The community driven projects of the MDF and JRF faced a number of challenges and obstacles, all of which provide lessons for future interventions. Some challenges related to the difficult operating

Key Principles of Community Driven Reconstruction

All five projects applied the same key CDD principles for delivery of local level recovery and reconstruction. Most important among these principles is that a participatory and consultative approach is used by the communities themselves to:

- Identify needs and verify beneficiaries
- Develop community plans and make decisions
- Implement physical construction projects and provide project oversight
- Manage funds

Additional key Community Driven Reconstruction principles include:

- Facilitation by third party consultant facilitators, hired by government
- On-going engagement with and oversight by local authorities
- Transparent accounting for funds and results
- Broad-based participation with a commitment to increasing the involvement of women and other marginal groups
- Demonstrating good governance by attempting to resolve issues at the most local level and providing robust mechanisms for handling complaints

environments in post-disaster Aceh, Nias and Java, such as the shortage of local facilitators and difficulties in accessing certain areas, factors common to most post-disaster scenarios. Other challenges were related to the community driven approach itself, including difficulties in ensuring the full participation of women and marginalized groups, and in ensuring continued operations and maintenance of project outputs after the projects close.

Strengths of the Community Driven Approach to Reconstruction

- **Re-empowers communities devastated by disaster.** By involving communities in the planning and implementation, this approach allows communities to become agents in their own recovery rather than remain simply as victims and recipients of aid.
- **Creates an entry point for local recovery.** The institutional structure of community boards and committees set up through the community driven model provides a platform for communities to engage with outsiders (government, humanitarian organizations, NGOs, etc.) about reconstruction. Other agencies supporting post-disaster recovery were able to leverage the community driven model to engage with communities to identify needs and coordinate resources and activities. Furthermore, the pre-existing project funding arrangements gave central government a mechanism to channel resources directly to local level to meet needs that had been identified by the communities.
- **Serves as an effective tool for identifying beneficiaries and targeting resources.** Community identification of beneficiaries, while a lengthy process, results in the general sense that resources are distributed fairly. This is a great advantage in reconstruction settings where communities often experience sudden influxes of resources at local level at a time when demand is high and coordination is difficult.
- **Leads to average lower cost of outputs.** Community driven reconstruction makes use of local resources, including information, expertise, materials and financial contributions. Furthermore, communities are able to make use of salvaged materials, where contractors are not, resulting in lower unit costs on average.
- **Creates efficiencies in dealing with governance challenges.** Widely publicized complaint handling systems, sophisticated Management Information Systems (MIS) and local level oversight by elected committees can result in a speedy resolution of cases of alleged corruption and fraud and return of misused funds.
- **Offers a valuable reconstruction asset generated through facilitator networks.** The network of facilitators fielded through the projects can be used to collect local information and data for needs assessments and other purposes benefiting the overall reconstruction.
- **Promotes DRR and community preparedness.** The ReKompak program demonstrates how community driven mechanisms can be used to build resilience to future disasters during the reconstruction process. Community processes enforced earthquake-resistant building standards and can bring communities together to map risks and plan for future disasters.
- **Builds local capacities.** Communities can learn practical skills in planning, construction techniques and bookkeeping, and gain a familiarity in interacting with local governments. A more effective relationship between citizens and local government leads to improved local level planning beyond the reconstruction period.

Community Recovery Achievements of the MDF and JRF:

- Over 34,600 houses rebuilt or rehabilitated
- More than 3,350 kilometers of roads repaired or constructed
- Nearly 1,900 kilometers of irrigation and drainage repaired/constructed
- 550 schools rebuilt or equipped
- Over 19,000 meters of bridges repaired or reconstructed
- 515 village halls and government offices rebuilt
- 7,000 loans distributed
- 9,500 scholarships distributed
- Over 3,800 villages involved

Addressing Challenges in the Community Driven Reconstruction Approach

Long Startup Phase: Physical reconstruction of houses or local infrastructure could only begin after communities were mobilized, beneficiaries were identified, facilitators were in place and funds were available, meaning that reconstruction seemed to start later when compared to other models of delivery of reconstruction. However, strong involvement of the communities from the beginning of the process leads them to see the dividends starting at the initiation rather than the completion of reconstruction. Expectations of all stakeholders, including government and donors, need to be managed in this process as well.

Recruitment of Facilitators: In any reconstruction program skilled technical assistance and facilitation resources are in high demand and short supply. Good facilitators are essential to the success of the community driven approach, with project evaluation documentation reflecting a correlation between the quality of the facilitator and the quality of outputs. This challenge was resolved by adapting the compensation arrangements of facilitators to reflect the difficulties of the environment.

Participation of Women: Despite a number of initiatives taken to increase the meaningful participation of women, the quality of women's involvement remained an issue. Obstacles included cultural roles and competing demands on women's time including child care responsibilities. Project designs need to include very practical, prescriptive measures, taking into account local behaviors and practical realities to ensure the active and credible participation of women in all stages of reconstruction.

Inclusion of Marginalized Groups: The consultative and participatory processes of CDD lend themselves to consolidating a general, collective opinion of the majority voice in communities. Special attention is therefore needed to identify the specific needs of vulnerable, marginalized or minority groups.

Operations and Maintenance: Physical assets created through the CDD model that are in the public rather than private domain face challenges related to operations and maintenance, as local governments often do not recognize these community assets as their responsibility or allocate budgets for operations and maintenance. Clear arrangements for ownership of newly-built community infrastructure and appropriate handover of assets to local authorities after completion should be put in place at the beginning of the reconstruction program.

Rising Cost of Materials: A steep rise in the cost of materials during implementation meant that the ReKompak Aceh project had to substantially reduce the total number of units built. Taking a lesson from this experience, the ReKompak project shifted from providing a completely finished house to providing assistance to build a "core house" in response to the 2006 Java earthquake. Core houses were structurally complete and sound houses that met seismic-resistant standards but lacked finishes such as paint, plaster and tiles. Owners themselves then used their own resources to complete and fine tune their houses.



Facilitators are essential to the success of the community driven approach. However, during any reconstruction process, good local facilitation skills are always in high demand and short supply. Photo: KDP Project Team

Key Lessons Learned for Community Driven Reconstruction

1. **Base the design of CDD mechanisms on sound analysis of the social environment.** Project design should consider questions such as: What social units remain in the aftermath of the disaster that can lend themselves to the CDD process? What are the capacities of affected communities to work together and make decisions? How is money managed by local communities? To what extent have local administrations been affected and which local leaders are still in place, capable, and trusted?
2. **Select a multidisciplinary operational team.** A range of skills in community-based approaches as well as technical expertise and knowledge of government systems are needed by operational staff and facilitators.
3. **Empower local communities to carry out planning and decision-making processes for their own recovery.** Providing hands-on opportunities through community planning exercises and the identification and implementation of physical reconstruction activities builds skills and capacity for continued community development.
4. **Invest in good facilitators and support their work.** A network of good facilitators who are available on call is very much worth the investment in human capital, for use in different circumstances and disasters.
5. **Develop clear and simple systems, procedures and guidelines.** It is important to facilitate understanding of how the entire process works, in terms of steps, scope and timing, for all actors, in particular communities themselves.
6. **Develop good communication systems.** Communication helps ensure projects, results, roles and responsibilities, and accountabilities are widely publicized and understood.
7. **Ensure timely distribution of funds.** Minimizing unnecessary delays in disbursing funds to community groups is critical for maintaining motivation to participate and keeping commitment and satisfaction levels high.
8. **Establish systems for ensuring transparency and accountability.** The credibility of the CDD program depends on simple and transparent systems for financial and information management, shared widely and openly among stakeholders.
9. **Develop a highly visible and robust complaint handling mechanism.** Systems should be simple and accessible to all, highly publicized, and responsive, and information on resolution provided in a timely and consistent manner.
10. **Include prescriptive measures for ensuring full participation of women and marginalized groups.** Setting targets for women's participation is a good first step but does not address the quality of participation. Separate groups for women help encourage and support leadership.

Conclusions: Adapting Community Driven Reconstruction in Other Settings

A key lesson from the experiences of the JRF and the MDF is that pre-existing CDD mechanisms are very easily adapted for the purposes of local level reconstruction and can bring significant immediate, short, medium and long-term benefits for communities that have suffered from a natural disaster. In Indonesia, the government is now taking this approach beyond the MDF and JRF and adapting the community driven approach to post-disaster recovery, especially the Rekompak approach to housing reconstruction, into its national disaster response program and ongoing community empowerment program. Even when pre-existing mechanisms are not in place, community driven approaches to reconstruction can be implemented to support local recovery.

Establishing mechanisms for community driven reconstruction in the aftermath of a disaster may not appear to deliver immediate benefits due to the investment of time required. However, by engaging

communities from the beginning of the process, community driven reconstruction mechanisms allow them to experience the reconstruction dividends even before physical works are completed, and are beneficial throughout subsequent stages of reconstruction and beyond. Therefore, the establishment of community driven reconstruction mechanisms should be considered in any major reconstruction program.

The MDF and JRF experiences have shown that local level recovery using a community driven approach can result not only in cost-effective physical outputs, but also empowered communities, with greater capacities and more prepared to face future disasters. Based on Indonesia's experience, community driven reconstruction should be considered by policy makers in other contexts as an efficient and effective option for delivering local level recovery and achieving sustainable social benefits for communities affected by disasters.



About the Disasters

Between 2004 and 2010 Indonesia experienced a series of devastating natural disasters:

- **December 26, 2004:** A massive earthquake measuring 9.1 on the Richter scale hit Aceh and parts of North Sumatra, followed by the deadliest tsunami in history. In Aceh, 221,000 people were killed or missing. Over 500,000 were left homeless. The scale of physical devastation and human suffering was enormous.
- **March 28, 2005:** Another massive earthquake struck the Nias Islands and parts of Aceh, killing about 1,000 people and leaving thousands homeless. It caused severe damage, destroying about 30 percent of all buildings on the island of Nias.
- **May 27, 2006:** An earthquake in Yogyakarta Special Region and Central Java claimed more than 5,700 lives. Over 280,000 homes were destroyed and the local economy was severely affected, especially the large number of home-based industries.
- **July 17, 2006:** An earthquake triggered a tsunami causing widespread damage along the south coast of West Java. About 650 people died, and over 28,000 were displaced.
- **October 26 to November 11, 2010:** Mount Merapi, an active volcano located between Yogyakarta and Central Java, erupted repeatedly, causing serious damage to housing and infrastructure. About 750 people were injured or killed, and about 367,000 displaced.

About the MDF

The Multi Donor Fund for Aceh and Nias (MDF) was established in April 2005, in response to the Government of Indonesia's request to coordinate donor support for the reconstruction and rehabilitation of affected areas following the December 2004 earthquake and tsunami, and the subsequent March 2005 earthquake. The MDF pooled US\$655 million in contributions from 15 donors: the European Union, the Netherlands, the United Kingdom, the World Bank, Sweden, Denmark, Norway, Germany, Canada, the Asian Development Bank, the United States of America, Belgium, Finland, New Zealand and Ireland. The World Bank serves as Trustee of the MDF. Under the MDF portfolio, 23 projects were financed in six outcome areas: (1) Recovery of Communities, (2) Reconstruction and Rehabilitation of Large Infrastructure and Transport, (3) Strengthening Governance and Capacity Building, (4) Sustaining the Environment, (5) Enhancing the Recovery Process, and (6) Economic Development and Livelihoods.

About the JRF

Following a request from the Government of Indonesia, the Java Reconstruction Fund (JRF) was established to respond to the May 2006 earthquake which struck near Yogyakarta, and the tsunami that hit the southern coast of West Java province in July 2006. Seven donors supported the JRF, with contributions totaling US\$94.1 million. The donors are: the European Union, the Asian Development Bank and the Governments of the Netherlands, United Kingdom, Canada, Finland and Denmark. The World Bank serves as Trustee of the JRF. Following government's priorities, the JRF supports the recovery of communities and livelihoods and increasing disaster preparedness.

Cover Photo: Women building a community road in Nias. Credit: Akil Abduljalil



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 Jl. Jendral Sudirman kav. 52-53
 Jakarta 12190, Indonesia
 Tel : (+6221) 5299-3000
 Fax : (+6221) 5299-3111