

3.1.4 Rehabilitation/Reconstruction

India

Post-Disaster Reconstruction and Recovery: Issues and Best Practices

Background

Development is a dynamic process, and disasters offer the opportunity to vitalize and/or revitalize this process, especially in the generation of local economies and the upgrading of livelihoods and living conditions. This is especially relevant to the context of the developing nations. Post-disaster reconstruction and rehabilitation is a complex issue with several dimensions. Government, nongovernmental and international organizations have their own stakes in disaster recovery programs, and links must be established among them, as well as with the community. In other words, post-disaster rehabilitation and recovery programs should be seen as opportunities to work with communities and serve local needs.

Post-Disaster Phases and Stakeholders

The standard time frames for rescue, relief and rehabilitation are defined as seven days, three months and five years respectively. The rescue operation starts with local residents immediately after the earthquake, and is later supported by trained and skilled staff from the Search and Rescue (S-R) government departments. These activities can be complemented by non-governmental organizations (NGOs). International Relief Teams arrive in the later stages, usually after 24 hours, depending on accessibility, and political relations with the country. The rescue phase usually lasts for the first 48 hours after a disaster when the rate of survival of trapped victims is high.

Stakeholders \	Rescue	Relief	Recovery
Government	●	●	●
Non government	●	●	●
International Organizations	●	●	●
Community	●	●	●

The relief phase follows immediately after the rescue phase, and may last between one and three months depending on the severity of the earthquake and the resources of the government. Government is usually the central point, followed by additional resources from NGOs and international organizations.

During the recovery phase, social and other infrastructure is restored and the economy revitalized. The rehabilitation/reconstruction phase typically starts at the end of the relief phase and may last for several years. The short-term plans for the recovery process are clearance of debris, building housing units, and restoration of lifelines and infrastructure, while the long-term objective is to build a safer and sustainable livelihood. Past experiences show that these efforts are sustainable only with community-government partnership, while the role of NGOs and international organizations is reduced after a certain period.

The Gujarat Experience: Background

The earthquake of 26 January 2001 (magnitude 7.7, USGS) devastated Gujarat State in Western India with an unprecedented and widespread loss of life and property. More than 13,000 people lost their lives, and thousands were injured (GSDMA, 2002). The earthquake affected an area stretching over more than 400 km, including urban, semi-urban and rural areas. Several villages close to the epicenter were completely destroyed. Over 300,000 buildings collapsed and more than twice that number were severely damaged. This was a tragic blow to a region that was suffering from drought and the aftermath of a cyclone in the previous three years.

After the earthquake, the Sustainable Environment and Ecological Development Society (SEEDS), NGOs Kobe, the United Nations Centre for Regional Development (UNCRD), and the Earthquake Disaster Mitigation Research Center (EDM) started a joint reconstruction and recovery program in a village called Patanka in the Patan district of Gujarat. A project called PNY (Patanka Navjivan Yojna) was formulated. PNY was conceived as a model program right from its inception stage. It sought to empower the affected community to such an extent that it would become sufficiently resilient against any future disasters. It attempted to link immediate response in the form of relief to mainstream development. An important

aspect of the initiative was to establish a framework of mutual cooperation among different stakeholders in the post-disaster scenario. Most importantly, it aimed at successively reducing the role of external agencies in local rehabilitation action until the point at which the local community completely took over the functions so far performed only by the external agency. The work was done by a Project Team, which consisted of representatives of the different organizations listed above.

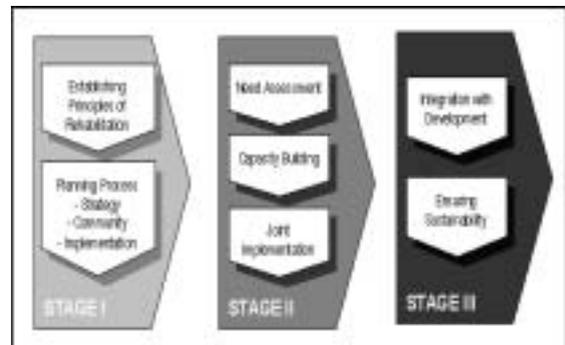


The Gujarat Experience: Process of Reconstruction and Rehabilitation

The Process of Rehabilitation had three major stages: I: Principles and Planning, II: Implementation and III: Ensuring Sustainability.

Stage I: Principles and Planning

The first task was setting up the basic principles for planning the rehabilitation intervention. The intervention had to be participatory, with a gradual increase in the involvement of the community. The program should be flexible with sufficient buffers for time and resources allowed in the overall project schedule. Rehabilitation should be empowering. The Project Team would not, and should not, remain with the community forever. In such a case, the community who were the first responders should be sufficiently equipped to cater to their immediate needs. A well-planned rehabilitation exercise could significantly increase the capacity of the community for a more effective response.



Incorporating the principles stated above, an overall plan evolved. This plan had three parts: the Strategy Plan, the Community Action Plan and the Implementation Plan. The role of the Project Team was to facilitate the reconstruction process. The composition of the team was therefore very important.

Stage II: Implementation

This Implementation Stage of the project consisted of three steps:

(1) Need Assessment, (2) Capacity Building, and (3) Implementation. In Step 1, emphasis was placed on the following features: (1) recognizing the community’s needs, 2) prioritization of needs as per the available resources, and 3) translating needs into appropriate action jointly with the community. The role of government at this stage of the exercise provided a recognized legal basis for working in the community. Step 2 aimed to translate the plan into action. Step 3 focused on joint implementation. Project implementation components include reconstruction of houses and infrastructure as well as training programs. One significant part of the training program was the half-size shake-table testing with different building materials, which aimed to increase people's confidence in earthquake-resistant construction practices.

Stage III: Ensuing Sustainability

The effort initiated by the Project Team needed to be sustainable long after the interventions were over. In effect, intervention should be designed to ensure that the community was able to take care of its development needs and was resilient against future disasters. For this, strengthening local institutions was necessary.

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