# Community involvement

**Taufika Ophiyandri** and **Dilanthi Amaratunga** say that involving communities in post-disaster reconstruction at all levels from the very start, reaps massive benefits in societal recovery and a return to normality

*Women participation in producing building material; the community-based approach creates a sense of ownership and pride among beneficiaries*

Y Kusworo

**INDONESIA IS A COUNTRY THAT HAS** been seriously affected by the recent global trend of increasing occurrence of natural disasters. According to EM-DAT data for 2009, the most common natural disaster in Indonesia is flooding (39.86 per cent), followed by earthquakes (24.32 per cent) and landslides (17.57 per cent).

Although earthquakes comprised only 24.32 per cent of the total events, they resulted in 97.20 per cent of fatalities. It is therefore unsurprising that in the last 30 years, six out of the ten of the most fatal natural disasters in Indonesia have been earthquakes.

The severity of these events is not just measured in terms of fatalities, but also in the economic losses and the significant damage they cause to housing. It is widely known that the level of destruction of earthquakes in a developing country such as Indonesia is higher than in a developed country, owing to factors such as differences in building codes, styles and density of settlements.

After the Aceh earthquake in 2004 and the Nias earthquake in 2005, 120,000 new houses were needed and economic losses were US$4.1 (€3.16) billion. The 6.3 Richter scale earthquake in Yogyakarta (Central Java) on May 27, 2006, destroyed 157,000 houses and estimated economic losses stood at US$ 3.1 (€2.38) billion.

In 2009, several earthquakes exacted a high toll. On September 2, in Tasikmalaya, West Java, a quake measuring 7.0 on the Richter scale damaged 65,700 houses and claimed 81 lives; in Padang, on September 30, a 7.6 quake killed 1,117 people and badly damaged 135,000 houses. The most recent 7.7 Richter scale earthquake (October 27, 2010), which triggered seven-metre tsunami on the remote Mentawai island off the west coast of West Sumatra, killed 509 people and left 516 houses badly damaged.

In the light of this, it becomes clear that a good strategy for housing reconstruction has to be developed. One option is that of setting up a community-based housing reconstruction programme.

In the context of disaster risk management, 'community' has been defined as a group that may share one or more things in common, such as living in the same environment, similar disaster risk exposure, or having been affected by a disaster. According to United Nations International Strategy for Disaster Reduction (UN-ISDR, 2009) a 'disaster' is a serious disruption of the functioning of a community or a society, causing widespread human, material, economic or environmental losses, which exceed the ability of the affected community or society to cope using its own resources.

This definition infers that 'community' is the most important word; if an event does not affect a community, then it cannot be categorised as a disaster. So every recovery or reconstruction effort designed to bring a community back to normal life should benefit the community itself – a principle that must be put first.

The disaster management cycle generally consists of four main stages: Mitigation; preparedness; response or emergency; and recovery or reconstruction. In the reconstruction stage, especially after an earthquake or tsunami, housing projects are probably the most important of all reconstruction activities. After the emergency stage has passed, those affected want to return to normality, and permanent shelter is vital to this end.

## Crosshead

Evidently, disasters have a major negative effect on a community. On the other hand, they can also highlight positive aspects; disasters can be seen as an opportunity to rebuild better than before, making a community more resilient. This can be achieved in the reconstruction process by creating earthquake resistant housing and enacting better land use planning.

Different models of housing reconstruction strategies after an earthquake have been implemented around the world. Although this process has been acknowledged as the most important factor in the success of reconstruction, problems in providing houses have always arisen.

To speed up the reconstruction after the massive destruction wrought by the earthquake and tsunami in Aceh and Nias,

the Indonesian Government established the Reconstruction and Rehabilitation Agency of Aceh and Nias (BRR) in 2005. Out of a total of 120,000 houses, the BRR's target was to build 48,000 houses and was responsible for co-ordinating the construction of 72,000 units built by NGOs and international agencies. This massive housing reconstruction programme faced many problems, the most common being delays on delivery. This was down to a shortage of human resources, logistical problems, bureaucratic and institutional problems, difficulties in land acquisition, lack of road access and co-ordination. Other issues were that of low quality and those who were housed in the new units being dissatisfied.

The poor quality was caused by low contractor capacity – in some cases agencies had limited or no experience or expertise on housing reconstruction projects, and were poorly supervised. Low satisfaction rate among beneficiaries was caused by the fact that local people had not been involved in the reconstruction process. Although many organisations claimed that their programmes were community-based, many were not because participation of the affected community was very limited.

In post-disaster housing reconstruction projects, Davidson et al developed the 'ladder of community participation' (Figure 1). The community's level of control is reduced from the top rung to the bottom. If the level of participation reaches the bottom rung, this means that the community has little or no power to control the reconstruction process. In such cases people might be consulted about their needs and expectations, but with no assurance that these concerns will be taken into account. They might merely be informed about the shape the housing project will take, or could even be manipulated into taking part in the project.

On the top of ladder, empowerment and collaboration can offer communities much more control. These two levels should be the minimum level at which a housing reconstruction programme could be called 'Community-based' or 'Community-driven' programme. In practical terms, this means that people can act as the owner, supervisor or even as the contractor of their own housing reconstruction project.

Community participation can be introduced from the very beginning of the reconstruction process. Starting from damage assessment reports, members of the community can work together with government by providing a list of fatalities and of building damage in their area. This will speed up the damage and loss assessment report and help plan the reconstruction strategy.

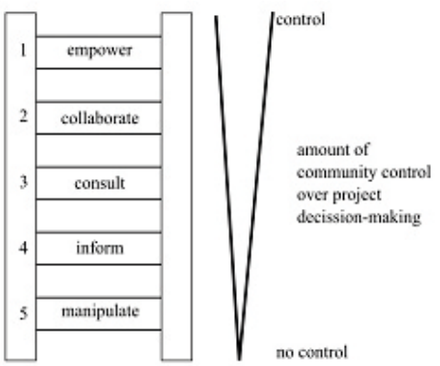
After that, the community can contribute by providing a list of eligible beneficiaries. In many cases, identification those who are entitled to replacement housing can lead to delays as the process can be manipulated easily, leading to corruption. Involving the community in this process ensures the housing fund goes to those in true and legitimate need. As a result, vulnerable groups such as women, elderly people and children will not be marginalised.

The community can also provide input into housing design. People know what is best for them and their needs. In many countries, there are still cultural and religious aspects that have to be considered in designing and building a house. These can vary from country to country, or even from area to area: only local knowledge can provide relevant information.

It has often been proven that ignoring input into housing design from the affected community has led to low occupancy and high dissatisfaction rates among communities. In the construction stage, communities can help as labour for their own housing project. Even if they do not have any knowledge or experience as a builder, training can be provided. Many organisations include this activity in their housing reconstruction project and have produced high quality housing. Engaging beneficiaries as labour gives affected communities a source of income and signals a return to normality.

If communities cannot be involved as labour, they can monitor and supervise their own housing projects. Those involved can be trained in how to produce materials for reconstruction, such as high quality bricks. Making a community work together and keep busy can help relieve trauma, restore social capital, increase a sense of belonging and unite communities to work together.

Turning back to the Aceh and Nias housing reconstruction programme, generally two models of housing reconstruction were adopted – a contractor-based and community-based approaches. The community-based housing reconstruction has proven to be superior in terms of construction quality, beneficiary satisfaction and accountability index. CRJ

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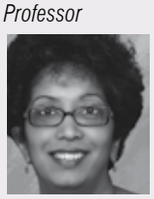
## Authors

**Taufika Ophiyandri** *is a lecturer at the Department of Civil Engineering, University of Andalas, Padang, Indonesia. He completed his BSc in Civil Engineering from the same university and awarded MSc in Construction Management from the University of Birmingham, United Kingdom. Currently he is a full time doctoral student at the School of Built Environment, the University of Salford, UK. Professor*



**Dilanthi Amaratunga** *is the Professor of Disaster Management at the University of Salford, UK, where she leads the University's Centre for Disaster Resilience. She is also the Associate Head of International Development for the School of the Built Environment. As a member of the Royal Institution of Chartered Surveyors, she leads several of their disaster management initiatives www.dilanthiamaratunga.net*