

## **The role of communities in post-disaster reconstruction. A call for owner-driven approaches**

### **1. Introduction**

The importance of community participation in reconstruction after disasters has been recognised by scholars and relevant agencies for several decades. Ever since UNDR0 declared that “the key to success ultimately lies in the participation of the local community – the survivors – in reconstruction” (UNDR0 1982), most governmental and non-governmental agencies define their approaches as participatory. However, as pointed out by Sliwinsky (2010), while participation gives reconstruction projects a morally legitimate theoretical framework, its impact on practice often remains weak. In this paper I argue that community participation in reconstruction remains little more than a slogan as long as decision-making power and control over resources remains with the reconstruction agency. Only if and when people have control over the building process and over the required resources, the process may be considered as truly participatory and empowering. This is potentially the case of a reconstruction approach that a decade ago was successfully tested on a large scale in Gujarat, India and that became known as ‘owner-driven reconstruction’ (Jha et al., 2010).

When the State Government of Gujarat, India, following the severe earthquake of January 2011, embarked in its ground-breaking owner-driven reconstruction programme, many professionals, scholars, and NGOs reacted sceptically, arguing that people would not have the capacity to build back disaster resilient houses or that they would spend the money for other purposes.

In this paper I will first of all give an overview of different reconstruction approaches, as I defined them for the World Bank Handbook for Reconstruction after Disasters (Jha et al., 2010). Based on research in India, Indonesia, Sri Lanka, Argentina and Nicaragua, I will further explain why in many disaster situations owner-driven reconstruction may be the most effective, efficient, empowering and satisfactory approach to reconstruction. My own research findings are confirmed by several studies and evaluations of the reconstruction experiences of India, Sri Lanka, and Pakistan, which show that ODR leads to the highest levels of citizens’ satisfaction, to a better quality of construction, that it is faster and more cost-effective than other reconstruction approaches, and that it enhances communities’ capacity to build disaster resilient houses. Yet it is important to recognise that also ODR entails some challenges and risks that need to be carefully taken into consideration by implementing agencies. I will thus discuss the determinants for successful ODR and the opportunities and challenges of replicating the positive experiences with ODR in different contexts. To conclude I will underline the importance of developing national and international reconstruction policies in normal times with the aim of ensuring that whenever possible ODR becomes a regular practice for governmental as well as non-governmental reconstruction agencies.

### **2. Overview of different reconstruction approaches**

Post-disaster reconstruction can be undertaken through different approaches, which vary principally in terms of a household’s degree of control over the reconstruction process. With reference to the labels currently used by reconstruction agencies and housing reconstruction literature (see: Duyne Barenstein, 2006a; Jha et al., 2010), a distinction can be made between five reconstruction approaches that may be pursued after a disaster: agency-driven reconstruction in relocated sites (ADRRS), agency-driven

reconstruction in situ (ADRIS), community-driven reconstruction (CDR), owner-driven reconstruction (ODR) and a cash approach (CA). The following sections provide a brief overview of the main features, the advantages, and the disadvantages of each approach with reference to specific disaster contexts in which they were adopted. It needs to be underlined that these approaches are not mutually exclusive and that they should be understood as fluid categories that may be found in some sort of combination.



*Figure 1&2: Contractor-built houses in relocated sites in Jamnagar District, Gujarat (Duyne Barenstein, 2004)*

## **2.1 Agency-Driven Reconstruction in Relocated Sites (ADRRS)**

Agency-driven reconstruction in relocated sites (ADRRS) represents the approach that gives the lowest opportunity to people to participate in the reconstruction of their houses. Under this approach, a governmental or non-governmental agency hires a construction company to build new houses in a new site and the involvement of the house owner and the community is minimal. Houses built with this approach tend to be of a one type-fits all design and do not take into account the livelihood and space requirements of different families. They tend to be alien to the local housing culture, and – in particular in rural areas – incompatible with people's ways of life. Many international NGOs and private corporations opt for this approach because it allows them to have a full control over the reconstruction process, ensure them high levels of visibility, and also because they believe that this is the fastest way to replace the damaged houses.

Based on a review of international experiences with this approach, the World Bank Handbook for Reconstruction after Disasters (Jha et al., 2010: 89) recognises that ADRRS has the following risks and disadvantages:

- Difficulties and delays in finding appropriate land;
- Negative socio-economic impacts and disruption of livelihoods from relocation may cause occupancy rates to remain low;
- Poor site selection may cause negative environmental impacts or recreate vulnerability of original location;
- Construction quality is often poor;
- Loss of local building culture and capacity;
- Disruption of access to common property and to natural and cultural heritage sites;
- Settlement layouts, housing designs, and building technologies, can be alien to local communities and culturally inappropriate, particularly in rural areas;
- Repair and extensions to houses built with exogenous building technologies may be unaffordable;
- Contractors may encourage communities to demand additional benefits from reconstruction agencies;
- Lack of community participation or oversight may result in poor targeting, unequal distribution of houses, and elite capture.

These disadvantages were clearly confirmed by our research in Gujarat, which covered three villages reconstructed by an international NGO that pursued this approach (Duyne Barenstein, 2006a). In these

villages, dissatisfaction with the quality of materials and construction was very high (96.5%) and people regretted that the new houses and settlements did not conform to their rural lifestyles, as there was no privacy for women and no space for cattle, fodder and agricultural implements. People also resented that their village was rebuilt in a new site near the old village, a decision that was taken by the NGO with the support of the local elite without any community consultation. In spite of the fact that the cost per housing under this approach was by far the highest (over three times higher than the financial assistance provided by the government's ODR programme), most people could not see any positive feature in their new houses. As a result of the diffused dissatisfaction with the new villages combined with an oversupply of houses (82.3 per cent more houses than before the earthquake, resulting in an average of 2.76 units per household), occupancy rate of the new houses was very low. In fact, many families preferred to rebuild their old houses at their own expenses than living in the costly NGO houses they had received for free. For many families this required taking loans from the informal credit market at high rates of interest and/or the sale of agricultural land. As a result, many people in these villages reported that their economic situation was worse than before the earthquake, which was not the case in any of the villages reconstructed with an ODR approach.

Particularly problematic about this approach is that communities are relocated. Although resettlement after disasters is sometimes unavoidable, in the case of villages we studied in Gujarat this decision was merely taken because it was more convenient for the reconstruction agency, as they did not have to deal with the complexities of land tenure, with removing the rubble, and with fitting their grid-patterned village plans, in the pre-disaster settlement layout.



*Figure 3&4. Contractor-built houses in relocated sites in Hambantota District, Sri Lanka (Duyne Barenstein, 2008)*

Also Sri Lanka, following the tsunami of December 2004, represents a case where some reconstruction was carried out with an ADRRS approach and some with an ODR approach. This dual approach towards reconstruction was related to the government's decisions to impose a no-construction 'buffer zone' of 100-200m. A year later due to communities strong opposition to relocation and to the difficulties in finding adequate land for relocating the high number of people affected by this policy, the government decided to reduce the buffer zone to 35-50m. In 2008 we carried out a research on the impact of post-tsunami relocation on communities' livelihoods in Sri Lanka. Our household survey in 17 relocation sites in Hambantota district revealed that resettlement had severe negative impacts. In their pre-tsunami homes many families had goats, cattle and poultry; homestead gardens and coconut trees and free access to fish. These were important for food security and constituted critical assets in case of financial emergencies. In addition, many women carried out some home-based income-generating activities. This changed dramatically in relocation sites, where people were not able to keep animals and kitchen gardens and women had no access to markets for their products. For example, the number of animals owned by the sample households decreased from 6,400 before the tsunami to only 107 after relocation. People also reported that they were consuming less fish, vegetables, and fruits. Relocation led to a reduction of earning opportunities, in particular for women and the poor. The distance to markets from the

relocation sites meant that the small incomes generated from micro-business in their homes, such as food processing, were now not sufficient to cover the transport expenses from their new homes to the market. As a result, there was a 59 per cent decrease in the number of family members who were contributing the households' earnings among the 211 household sample (Duyne, 2012). In Sri Lanka, many people affected by the tsunami were not interested to move to the relocation sites even when the quality of housing was comparatively good. Many houses (in some places 100 per cent) in relocated villages ended up being given to people who were not affected by the tsunami. Also in the case of Sri Lanka, a large scale evaluation found that ADRRS houses were significantly more expensive and of poorer quality than ODR houses (Aysan et al., 2006; Karunasena, 2010). Poor quality of construction and low-occupancy rates also characterised many of the settlements reconstructed with an ADRRES settlements in Aceh (Duyne Barenstein, 2008).



*Figures 5&6: Contracto-built houses in relocated sites Aceh, Indonesia (Duyne Barenstein, 2008)*

## 2.2 Agency-Driven reconstruction in Situ (ADRIS)

Agency-driven reconstruction in situ (ADRIS) refers to an approach in which a governmental or non-governmental agency hires a construction company to replace damaged houses in their pre-disaster location. Typically also in this case, designs, materials and expertise are imported from outside the community. A contractor is hired by the reconstruction agency and is not accountable to the community. The houses, however, are in principle built more or less on the same site occupied by the community before the disaster. Yet, exogenous and standardised house designs and building materials often do not fit into the pre-disaster space and, accordingly, it may not be possible to fit the new houses in the old settlement or to modify them later. Therefore, even reconstructed villages in situ tend to lose the beauty and harmony typical of vernacular villages when the process is agency-driven.

Nevertheless, this approach allows people, formally or informally, to have some degree of control and participation because they know which will be their house. House owners may start suggesting or making themselves modifications already during construction. Hence, houses may have a higher upgrading potential than those built in a relocated site (see figures 7 and 8).

Agency-driven reconstruction in situ was the approach pursued by many NGOs in Tamil Nadu after the tsunami of 2004, but in this case people did not know which would be their house and there was hardly any scope for house owners' participation in reconstruction. In addition, many contractors refused to start construction before the land was completely cleared from trees and pre-disaster houses. This led to the demolition of hundreds of undamaged vernacular houses and to cutting down thousands of trees to houses and settlements that are almost unliveable due to lack of thermal comfort that used to be ensured by trees and local housing styles (Duyne Barenstein, 2006b, 2011a, and 2011b; Naimi-Gasser, 2012).



*Figure 7&8: Contractor-built houses in situ in Kutch district, Gujarat: as left behind by contractor (left) and after homeowner's upgrading works (right) (Duyne Barenstein, 2004)*

The World Bank Handbook (Jha et al., 2010: 89) recognises that ADRIS has the following disadvantages:

- Contractor's construction modes, designs, and settlement layouts are often not compatible with existing sites.
- Remaining built and natural environments may be considered an obstacle to reconstruction, leading to unnecessary house demolition and tree removal, causing high social and environmental impacts and conflicts;
- Exogenous building technologies may be used that have negative impacts and do not meet local requirements;
- Community participation may be more difficult to incorporate or may be limited to community leaders, resulting in disproportionate benefits for elites;
- Construction quality is often poor due to inexperience of agency with housing reconstruction, among other reasons;
- Contractors may encourage communities to demand for additional benefits;
- Corruption and exploitation by contractors.



*Figures 9&10: Owner-built pre-tsunami houses in Tamil Nadu that were demolished in the reconstruction process (Duyne Barenstein, 2005)*

All these risks and disadvantages were clearly confirmed by our research in Gujarat. Although some of them could be mitigated, for instance, through an independent third party audit system and by requiring contractors to use local building materials, the Handbook recommends to avoid ADRIS if local building capacity is available.



*Figures 11&12: Contractor-built houses in situ in Nagapattinam District, Tamil Nadu (Duyne Barenstein, 2007)*

## 2.3 Community-Driven Reconstruction

Community-driven reconstruction refers to an approach whereby financial and/or material assistance is channelled through community organisations that are actively involved in decision-making and managing reconstruction. The community may be involved in decisions regarding housing design and building

materials, production of building materials such as bricks, distribution of building materials, or other forms of housing assistance, and/or housing reconstruction. This approach was adopted by several national NGOs in Gujarat, by the municipal government of the city of Ocotal in Nicaragua after Hurricane Mitch, and by national and international agencies in Aceh. Under this approach, people are extensively involved in the reconstruction process, though their degree of participation and effective control over reconstruction may vary between and even within agencies. The advantage of this approach as implemented by some agencies in Gujarat and Aceh is its flexibility, local accountability, and a relatively high degree of control of the house owner over reconstruction. In city of Ocotal, where community-driven reconstruction was adopted for building a new settlement for people that had to be relocated from high-risk zones, the plan was explicitly designed to foster social cohesion among people from different neighbourhoods and communities, and to enhance their sense of ownership of the new settlement (Leemann, 2011). This approach also has generally a high capacity building component.



*Figures 13&14: Houses built with a community-driven approach in Patan district, Gujarat (Duyne Barenstein, 2004)*

Figures 13 and 14 show the houses built with this scheme by a national NGO in Gujarat. They indicate that when people have a say in reconstruction, they tend to choose designs and materials familiar to them. Indeed, the only way one could recognise a house built with the support from the NGO from a house built by the people themselves is the inclusion in NGO houses of a roof rainwater harvesting system (left picture). This feature was highly emphasized by the funding agency, but was not really considered useful by local communities. Figure 17 and 18 show CDR houses sponsored by different agencies in Aceh. In this case, the house designs were developed by the agency in consultation with communities, which were also extensively involved in construction. An important role was given to construction committees. This approach worked very well in some cases, but in other cases construction committees were hijacked by small local contractors. In some cases (in particular in urban contexts) people were very satisfied with the house design proposed by the agencies, but in others they would have liked different designs and were for that reason busy with adapting the houses to their own tastes and requirements.



*Figures 15&16: Houses built with a CDR approach in Ocotal, Nicaragua (Duyne Barenstein, 2007)*

This approach has the advantage that generally it is often also linked to community development activities and to people's participation in the reconstruction of collective facilities such as water supply systems, schools, and recreational spaces. But although it is more empowering than agency-driven reconstruction,

it still has a number of disadvantages: overheads may be high because of intensive agency involvement; agencies may leave little room for individual preferences by imposing standard designs and materials; local contractors may capture community construction committees that manage large amounts of resources; real participation may be limited due to elite capture of the reconstruction process; and excessive reliance on community leaders (Jha et al., 2010: 87).



*Figures 17&18: Houses built with a community-driven approach in Aceh, Indonesia (Duyne Barenstein, 2008)*

## 2.4 The Cash Approach

The Cash Approach (CA) to reconstruction refers to an unconditional financial assistance without technical support. A CA is appropriate for reconstruction after disasters that have a relatively limited impact and where housing damages were not caused by shortcomings in local construction practices.

Emphasis with the CA is placed on the distribution of financial assistance, with minimal attention given to enabling measures. This approach may give affected people the choice to use the assistance based on their own priorities, which may not necessarily be housing. Although the CA in some cases may be considered the most cost-effective and rapid delivery of aid to households, it also has a number of disadvantages and risks: it may reproduce pre-disaster vulnerabilities; it does not foster improvement of the building skills, nor offer the opportunity to introduce new building technologies; vulnerable people may be unable to handle repair and reconstruction without assistance; and, in case people use the financial assistance to meet other requirements, houses may remain unrepaired.

A CA was adopted by the Government of Argentina in the city of Santa Fe to assist the families affected by the severe floods of 2004 in repairing their houses. The approach was fairly successful considering that local building skills are good, that damages were not caused by poor construction quality, and that most houses were only partially damaged (Marti, 2010; Duyne and Marti, 2012). Cash approaches to compensate people for their losses are also typically adopted in India after floods. For instance, after the severe floods in Bihar of 2008, the Government of Bihar gave cash compensations to the flood victims who lost their houses. Two years after the floods the Government of Bihar realised that the cash compensation did not allow people to build back disaster resilient houses and thus recently started a large-scale owner-driven housing reconstruction programme.



*Figures 19&20: Houses rebuilt with cash approach in Santa Fe, Argentina (Duyne Barenstein, 2008)*

## 2.5 Owner-driven reconstruction

Owner-driven reconstruction refers to an approach that provides conditional financial and/or material assistance, accompanied by regulations and technical support aimed at ensuring that houses are built back better. This approach enables people to have a leading role in the reconstruction of their houses. Furthermore, the World Bank Handbook for Reconstruction after Disaster recognises that ODR is the most empowering and dignified approach for households, and that it should be used whenever the conditions are suitable. It is sometimes assumed that ODR entails that house owners are directly involved in construction. This is not necessarily correct. House owners may undertake the construction or repair themselves by employing family labour, a local contractor, and/or local labourers. In fact, the main feature of ODR does not relate to who is building the houses, but to who controls the money to pay the builders. In an ODR programme, the house owners pay the contracted masons only if and when they are satisfied with the construction. This allows avoiding one of the main pitfalls of agency-driven reconstruction characterised by contractors not being accountable to communities, which is one of the main issues related to poor quality of construction.

It is sometimes believed that ODR can only work in rural areas, but is not suitable for urban areas. This assumption is fuelled, for example, by the Pakistan case whose ODR reconstruction programme was highly successful in rural areas, but less so in the cities. The poor reconstruction outcome in cities, however, was not so much related to the ODR approach per se, but to the fact that the Government of Pakistan failed to recognise that housing in urban areas was more costly than in rural areas, and that also urban citizens needed appropriate enabling mechanisms in order to rebuild their houses (Stephenson et al., 2011). Although the amount of financial assistance and the type of technical assistance in urban area may be different from rural areas, the approach is viable for both house and apartment owners. In this latter case, the construction would be managed, for instance, by a condominium association or a cooperative society (Jha et al., 2010: 85).

ODR was the approach pursued by the government of Gujarat after the earthquake of 2001, where people could choose between the governmental ODR programme and various types of housing assistance offered by NGOs. Given the choice, over 73 per cent of the people opted for this solution. According to our survey, ODR led to the highest level of overall satisfaction; whereas only 22.8 per cent of the people were satisfied with their ADRRS houses, the level of satisfaction with the ODR houses was of 93.3 per cent. In Gujarat, people who opted for ODR were able to move back to their houses earlier than those who opted for agency built houses. Our detailed assessment of a sample of 136 ODR houses indicated that the quality of construction in most cases was good, complying with the building codes, and seismically safe. The ODR villages in Gujarat also managed to preserve their cultural identity and traditional character (Duyne Barenstein, 2006a).



*Fig. 21 & 22: Owner-built houses in Gujarat (Duyne Barenstein, 2004)*

Also in Sri Lanka and Pakistan, several authors found that the ODR approach was very successful in terms of reconstruction speed, quality of construction, and cost-effectiveness (Aysan, 2006; Karunasena, 2010; Ratnayake and Rameezdeen, 2007; van Leersum et al., 2011; Duyne Barenstein, 2006a). A large-scale ODR programme was recently commenced by the Government of Bihar to support the people affected by the severe floods of 2008 in rebuilding better houses, after a pilot project carried out by the ODR Collaborative in two villages demonstrated that with adequate enabling mechanisms even very poor communities are able to build back good quality houses (ODRC, 2010; World Bank, 2010). Also in Haiti, following the earthquake of January 2010, the reconstruction policy developed by the Interim Haiti Recovery Commission (IHRC, 2010) strongly recommends agencies to pursue an ODR approach and a number of these have already adopted this approach in supporting urban communities to rebuild their houses. The positive experience with its application in different contexts has led the World Bank Handbook for Reconstruction after Disasters to recognise the following inherent advantages of ODR:

- Households are mobilised to take an active role in rebuilding, which speeds recovery from psychological trauma;
- Assistance can be adjusted to the needs of the household related to income, family size, livelihoods, socio-cultural requirements, etc.;
- It is consistent with normal incremental housing construction practices;
- Repair of houses and use of salvaged and local building materials is encouraged;
- Local building industry is involved, thereby contributing to restoration of local economy and livelihoods;
- It helps preserve community's cultural identity by ensuring continuity in local building tradition and architectural style;
- People can 'top-up' housing assistance with their own savings and build a house reflecting their specific needs and aspirations;
- It is viable for dispersed and remote settlements (such as Pakistan and Gujarat)
- It is less subject to disruptions caused by unstable political situation (such as the eastern provinces of Sri Lanka)



*Fig. 23&24: Owner-built houses in Bihar, India (Duyne Barenstein, 2011)*

#### **4. Determinants for successful owner-driven reconstruction**

The previous sections of this paper discussed the multiple advantages of ODR over other reconstruction approaches. But it is equally important to underline that ODR is no panacea for successful reconstruction. Whether or not ODR leads to positive outcomes depends on several contextual factors, on agencies implementation capacity, and on the enabling mechanisms set in place to support people in the process of rebuilding their houses. A pre-requisite for successful ODR is an effective and participatory land use and physical planning; for people to be able to participate in planning their settlements and to take a lead in the reconstruction of their houses they must be able to live in or near their village or neighbourhood. To this aim, they may require support for the removal of rubble and for building temporary shelters (Thiruppugazh, 2010). This means that a well-managed owner-driven reconstruction approach is only one

of several factors that determine the positive outcome of reconstructions. In Port-au-Prince, Haiti, for example, the huge volume of rubble is one of the main factors impeding people to return to their neighbourhoods and consequently in their participation in planning the reconstruction of their settlements. Housing reconstruction is further complicated by the high percentage of people who used to be renters and/or living in informal and highly vulnerable settlements.

As mentioned above, the success of ODR is contingent upon appropriate enabling mechanisms, such as access to affordable building materials, building codes that reflect local building technologies, building skills of local masons, and home owners' capacity to supervise construction and to judge its quality. In Sri Lanka, for instance, although there is a consensus that the ODR approach led to higher levels of satisfaction, the enabling mechanisms set in place by the government were not sufficient. Whereas the Government of Gujarat took measures to prevent inflation and to ensure access to good quality building materials, this was not done in Sri Lanka. As a consequence, in less than two years the material and labour costs almost doubled. In some places, NGOs intervened to top up the financial assistance provided by the government with an additional grant that allowed people to complete their houses. In many places, however, this was not the case, and as a result, the number of incomplete houses was very high in some areas (Aysan et al., 2008).

Without good standards and oversights the quality of construction may be poor and pre-disaster vulnerabilities are likely to be reproduced. If building codes are too rigid and biased towards alien housing technologies, people can have trouble complying with requirements even with oversight. These requirements were taken very seriously by the government of Gujarat, which appointed 1,500 engineers for providing technical guidance to people in rebuilding their houses. ODR may also be more difficult to implement in case resettlement is unavoidable or with poor communities with no building experience, such as urban squatters or very poor rural households who could never afford anything close to a hazard resilient house before the disaster. Likewise, elderly people and other vulnerable groups may face difficulties in managing reconstruction alone to reach milestones required to receive subsequent disbursements.

This was the case of some poor rural communities in Gujarat (Duyne Barenstein, 2006a) and of the inhabitants of Muzzaffarabad, Pakistan (Stephenson et al., 2011). Although ODR may be suitable for contractor-built multi-family and high-rise-building reconstruction, and for the restoration of damaged cultural heritage buildings, in such situations it requires specialised and highly technical oversight. To summarise, the effectiveness, sustainability, and equitability of ODR thus depends on the following factors that need to be carefully addressed by any reconstruction programme:

- Rubble is removed, people are back in their villages and neighbourhoods;
- Collective needs, environmental issues, and disaster risk reduction are addressed through careful and participatory land use and physical planning;
- Financial assistance is disbursed in instalments and precautions are taken to limit related transaction costs;
- Building codes are based on local building technologies and materials;
- Measures are taken to ensure access to high quality building materials and to mitigate the risk of inflation;
- A technical support system for homeowners that is responsive to local requirements is established;
- The provided assistance is equitable and sufficient to ensure minimum housing standards;
- Local builders and supervisors are provided adequate training;
- Housing rights and special needs of tenants, squatters, and the homeless are acknowledged;
- Approach is adjusted so as to reach urban dwellers as well as geographically distant regions and

socio-economically disadvantaged people;

- Special attention and support to vulnerable groups (orphans, widows, elderly, and deprived) is provided;
- A good collaboration and coordination exists between the government, the civil society organisations, the private sector and the NGOs.

## 5. Conclusions

As discussed in this paper, ODR has several advantages over other reconstruction approaches and has proven to be successful in India, Pakistan, and Sri Lanka. In spite of the fact that these recent experiences show that there are good reasons to opt for ODR in most disaster situation, many reconstruction agencies continue to be reluctant to pursue this approach and are often allowed by governments to pursue whatever approach they deem most pertinent to meet their own priorities.

The freedom enjoyed by reconstruction agencies often has dramatic consequence on communities, which are left with settlements and housing solutions that do not satisfy their needs and which may even enhance their vulnerability on a long term. Although international organisations such as the World Bank, UNDP, and UN Habitat may have a key role through policy advocacy and training to persuade reluctant agencies such as many large NGOs and private corporations about the advantages of ODR, governments should formulate ODR reconstruction policies for their own countries in 'normal' times. These policies should not only determine the reconstruction approach of the government, but also regulate the role and practices of NGOs and private organisations. Indeed, if ODR leads to more sustainable and equitable results than agency-driven reconstruction, all efforts should be made to ensure that following disasters agencies join efforts to empower communities to rebuild their own settlements and houses.

## References

- Aysan Y. et al. (2006), Swiss Consortium Cash for Repair and Reconstruction Project Evaluation Report. Commissioned by the Swiss Consortium of SDC, Swiss Solidarity, HEKS and Swiss Red Cross
- Duyne Barenstein J. (2006a), Housing reconstruction in post-earthquake Gujarat. A Comparative analysis. London: ODI Humanitarian Policy Network Paper No. 54. (Available Online)
- Duyne Barenstein J. (2006b), Challenges and Risks in post-tsunami housing reconstruction in Tamil Nadu. Humanitarian Exchange Magazine, 33
- Duyne Barenstein J. (2010), Who governs reconstruction? Changes and continuity in policies, practices and outcomes, in G. Lizarralde, et al. Rebuilding after disasters. From emergency to sustainability. Oxon: Taylor and Francis, Spon Press
- Duyne Barenstein J. (2011), The home as a world: Tamil Nadu, in M. Aquilino, Beyond Shelter. Architecture and Human Dignity. New York: Metropolis Press, pp. 184-196
- Duyne Barenstein J. (2012), The impact of post-tsunami resettlement on livelihoods in Hambandota and Ampara District, Sri Lanka, in J. Duyne Barenstein and E. Leemann (eds). Post-Disaster Reconstruction and Change: Communities' Perspectives. Boca Raton (FL): Taylor and Francis CRS Press (forthcoming)
- Duyne Barenstein, and B. Marti. J. (2012), Is resettlement a viable strategy to mitigate the risk of natural disasters? The case of Santa Fe, Argentina, in J. Duyne Barenstein and E. Leemann (eds). Post-Disaster Reconstruction and Change: Communities' Perspectives. Boca Raton (FL): Taylor and Francis CRS Press (forthcoming)
- Consortium of Swiss Organisations (2008), Cash for Repair and Reconstruction (CfRR) Project 2005-2007, Sri Lanka. Consolidated final report. Bern/Geneva: Swiss Solidarity, HEKS, SRC and SDC (available online)
- Hidellage V. and A. Usoof. (2010), Scaling-up people-centred reconstruction in urban and rural areas, in M. Lyons and T. Schilderman (eds). Building back better. Delivering people-centred housing reconstruction at scale. Rugby: Practical Action, pp. 77-112

# Taller Journal

Esperienze e strumenti per cultura e territorio

- International Federation of Red Cross and Red Crescent Societies (2011), *Owner-Driven Housing Reconstruction Guidelines*. Geneva: IFRC
- Interim Haiti Recovery Commission (2010), *Neighborhood Return and Housing Reconstruction Framework. A recovery Plan for Haitian Families*. Port-au-Prince: IHRC
- Jha A., J. Duyne Barenstein, P. Phelps, D. Pittet and S. Sena (2010), *Safer Homes, Stronger Communities. A Handbook for Reconstruction after Natural Disasters*. Washington DC: The World Bank and the GFDRR
- Karunasena G. and R. Rameezdeen (2010), Post-disaster housing reconstruction: A comparative analysis of donor- vs. owner-driven reconstruction. *International Journal of Disaster Resilience in the Built Environment*, Vol 1: 273-191
- Leemann E. (2012), Communal leadership in post-Mitch housing reconstruction in Nicaragua: The cases of Ocotal and San Dionisio, in J. Duyne Barenstein and E. Leemann (eds) *Post-Disaster Reconstruction and Change: Communities' Perspectives*. Boca Raton (FL): Taylor and Francis CRS Press (forthcoming)
- van Leersum A. and S. Arora (2011), Implementing seismic-resistant technologies in post-earthquake Pakistan. A process analysis of owner driven reconstruction. *Habitat International*, 35: 254-264
- Naimi-Gasser J. (2012), The Impact of Tree Loss upon Social Life – A Call for Cultural Considerations in Post-Disaster Housing Reconstruction Projects, in J. Duyne Barenstein and E. Leemann (eds) *Post-Disaster Reconstruction and Change: Communities' Perspectives*. Boca Raton (FL): Taylor and Francis CRS Press (forthcoming)
- ODR Collaborative (2010), *ODRC Support to Government of Bihar in the Kosi Reconstruction Programme of flood-affected areas, North Bihar. Annual Report*
- Qazi U. (2010), Pakistan: Implementing people-centred reconstruction in urban and rural areas, in M. Lyons and T. Schilderman (eds). *Building back better. Delivering people-centred housing reconstruction at a scale*. Rugby: Practical Action, pp. 113-134
- Stephenson M., Sheikh Asan Ahmed, Zahid Amin (2011), What about our cities? Rebuilding Muzaffarabad. In: M. Aquilino, *Beyond Shelter. Architecture and Human Dignity*. New York: Metropolis Press, pp. 94-112
- Ratnayake R.M.G.D. and Rameezdeen R. (2008), "A Comparative study of donor driven vs owner driven post disaster housing reconstruction programme", *Proceedings of the CIB International Conference on Building Education and Research*, 10 – 15th February, Kandalama
- Sliwinski A. (2010), The politics of participation. Involving communities in post-disaster reconstruction, in G. Lizarralde, C. Johnson and C. Davidson (eds.) *Rebuilding after disasters. From emergency to sustainability*. London: Spon Press
- UNDRO (United Nations Disaster Relief Organization) (1982), *Shelter after Disaster: guidelines for assistance*. New York: UNDRO
- Thiruppugazh V. (2010), NGO participation in reconstruction. Knowledge transfer and capacity building for sustainability; A case study of post-disaster reconstruction in Gujarat. Paper presented at the 5th international i-Rec Conference, Ahmedabad, July 2010
- Thiruppugazh V. (2011), When people are involved. In: M. Aquilino, *Beyond Shelter. Architecture and Human Dignity*. New York: Metropolis Press, pp. 70-82