Housing reconstruction and rehabilitation in Aceh and Nias, Indonesia—Rebuilding lives

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Abstract

Reconstruction and rehabilitation of housing in Aceh and Nias, Indonesia, which were destroyed by the dramatic earthquake and tsunami of 26 December 2004, has become a major effort of a large number of international and Indonesian organizations. An unprecedented wave of pledges for assistance was made available, and numerous agencies, some of them without prior experience in construction of housing, have contributed to reconstruction. As could be expected, the reconstruction process has been affected by numerous bottlenecks, and has been much slower than intended, particularly in the case of multilateral agencies. As the speed of implementation has picked up during 2006, there is growing concern for more quality of finished products, for more integration of housing with residential infrastructure, and for additional livelihood support, as it is not only habitat which matters but reconstruction of lives and communities. The experiences of Aceh and Nias are also a testing ground for the massive application of community-driven development, which is meant to be the backbone of a sustainable development effort by the people themselves.

Keywords: Aceh and Nias/Indonesia—reconstruction and rehabilitation of housing; Community-based development

Earthquakes and the Tsunami

On 26 December 2004, a strong 9.2 Richter scale seaquake, with its epicenter in front of the northern part of Sumatra, shook the Indian Ocean and Sumatra’s northernmost province of Aceh and the islands of Simeulue and Nias closest to the quake. The powerful quake produced a major undersea movement along Sumatra’s western fault line (see Fig. 1), which, in turn, caused tsunami waves to roll in with about 20 m height, hitting the coastal areas of northern Indonesia, Thailand, and reaching further out to India’s Andaman islands and the Tamil Nadu coast, Sri Lanka, Maldives, and with much less vigor, some parts of the coast of Somalia in Africa. The event took about 220,000 lives, left 10,000 with injury and trauma, and caused major destruction along the affected areas. Severest hit was the western coast of Aceh, particularly the two coastal cities of Banda Aceh and Meulaboh, where at least some 120,000 and 25,000 persons, respectively, died, among these

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A very high proportion of females and children. A second earthquake on 28 March 2005 devastated Nias again, causing more loss of life and additional destruction or damage of houses.

**The physical impacts**

Within the first 6 weeks after the event, a consortium of donor agencies jointly undertook an assessment of the damage and made projections of investment needs **BAPPENAS and the International Donor Community (Eds.) (2005)**. It was assumed that around 101,000 housing units needed replacement (88,000 in Aceh; 13,000 in Nias), and some 95,000 units needed to be rehabilitated (71,000 in Aceh; 24,000 in Nias) (see Figs. 2–5).\(^1\) Housing structures with a degree of destruction below 50%, were considered eligible for repair.\(^2\) Also, it became evident that the residential infrastructure (water, sanitation, roads, electricity, etc.) as well as social facilities, were affected and that the overall physical environment of villages and settlements required substantial investment in order to become habitable again. For the habitat sector alone, estimates of investment needs reached above $1 billion, while the overall reconstruction and rehabilitation investment was estimated to be above $7 billion, with housing being the single largest sector, and taking into account the losses and damages, in general, the sectors of primary infrastructure (roads, seaports, energy), industrial facilities, agriculture, fishing and aquaculture, and livelihood.

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\(^1\)UN-HABITAT’s Aceh team has stated that these estimates might have been a bit on the high side. As an increasing number of families have deserted Aceh province, the number of needy households were therefore somewhat lower.

\(^2\)Until August 2006, neither the Government nor the various donor and aid agencies have been able to agree on a methodology on how to classify the units that are eligible for repair assistance.
Emergency measures

While the whole world assisted the affected countries in an outpouring of solidarity, emergency requirements were most complex in the totally devastated areas of Aceh and Nias. Governments, the United Nations and numerous nongovernmental organizations (NGOs) mobilized emergency assistance (food, water and sanitation, emergency shelter in tents) and started to provide medical services, camp hospitals, sanitation and forensic measures on a massive scale. Initial estimates spoke of some 550,000 internally displaced persons who needed to be taken care of. Thanks to these concerted efforts, which were coordinated initially by the Indonesian army and the donor agencies, no major post-disaster epidemics have occurred, as was feared. The expectation may have been that this emergency phase would be over within a few months, and that people and the local administrations would be moving on to the next stage within 3–6 months, i.e. the rehabilitation of major facilities and livelihood conditions. However, it turned out to be impossible to reach such a transition as planned, as the majority of disaster victims were dependent on continued basic survival aid and temporary
accommodation in tents and barracks (see Figs. 6 and 7), which delayed the reconstitution of their communities.

**Evolution of a rehabilitation and reconstruction strategy with emphasis on community based development**

The disaster response for the habitat sector was initially coordinated by the National Development Planning Agency (BAPPENAS), in cooperation with the Ministry of Public Works (MPW). But after the establishment of the Aceh and Nias Rehabilitation and Reconstruction Agency (BRR) in May 2005, strategy formulation was handed over to BRR. At the core of the reconstruction strategy is the paradigm that the people of Aceh and Nias must be the contributors rather than bystanders to the rehabilitation and reconstruction of their communities. Housing reconstruction and rehabilitation is seen as central to the reconstruction of communities, which needs to be integrated with other sectors, particularly economic and social recovery. A consortium of donors agreed that projects “must contribute to socially and politically acceptable, economically affordable, technically sound and institutionally manageable settlement formation and community development.

1. Basic yet technically sound settlement development plans must be prepared with the active involvement of the communities concerned before housing construction at scale begins.
2. Intended beneficiaries must be engaged in the planning, implementation and evaluation of housing and settlement development projects.
3. In the selection of building materials and construction techniques and in the provision of infrastructure and services, environmental, social and economic sustainability criteria must be explicitly considered and geo hazards must be addressed.

4. Existing functioning structures and institutions must be used and strengthened. The creation of new or parallel institutions or delivery mechanisms must be avoided wherever possible.

5. In the very constrained working environment, donor identity is subordinate to finding and supporting the most effective ways of assisting the “tsunami survivors.”

Reconstitution of tenure and legal status of land assumed a critical role in these endeavors. At an early stage, attention focused firstly on the production of improvised village maps (initially done through the self-help of surviving villagers), and later on the reconstitution of land title certificates in the National Land

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3Asian Development Bank (ADB), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), German Development Bank (KfW), United Nations Development Programme (UNDP), United Nations Human Settlement Programme (UN-HABITAT), World Bank, and World Vision: Open invitation to commit to five principles of Sustainable Development in Externally Supported Housing Projects in the Rehabilitation and Reconstruction of Earthquake and Tsunami-Affected Areas in Aceh and North Sumatra, April 2005.
Agency (BPN) where most of the records had been damaged or destroyed. Thus, the Reconstruction of Aceh Land Administration System (RALAS) project, which assists reconstruction of land titling capacity within BPN, is of crucial importance. In the mean time provisional land titles, in the form of title applications of entitled beneficiaries, will provide assurance of secure tenure until proper titles are issued. It is remarkable that the surviving villagers embraced the issue of provisional mapping of their properties as one of the first initiatives in their thrust for rebuilding a vision of their new communities.

Already, in January 2005, the central government (through BAPPENAS and MPW pronounced the overall policy directive that all earthquake and tsunami-affected families/households would be entitled to reconstruction or rehabilitation assistance, and that all eligible households would receive a simple 36 m² house for free, or adequate assistance for the assistance for their partially destroyed and still repairable housing units. Later, it was added that former renters would also be eligible to assistance. However, regarding no specifications were provided whether there would be any specific support projects (for instance, through apartment housing on government-owned land. Several donor agencies, (like the International Organization of Migration (IOM)), the MPW, and domestic as well as internationally operating overseas contractors urged the adoption of prefabricated housing solutions, with the aim of overcoming capacity shortfalls in the Acehnese and Indonesian construction industry and to avoid reliance on domestic uncertified timber resources, which were assumed to result from illegal logging. However, relatively little support was gained in 2005 for the prefabrication approach, mostly due to considerations related to the community-based reconstruction process, and the intention prevailed upon extending maximum economic opportunities to the local construction sector, and thus providing employment opportunities for tsunami victims. Since early 2006, as will be discussed later, BRR is changing its outlook on prefabrication. Owing to the often fairly poor quality of housing built, there is now a resurgence of the idea that prefabrication could solve quality issues, and provide more earthquake-resistant housing.

The debate about the need for temporary housing versus the drive for early construction of permanent housing was seemingly won by those agencies, which were willing to spend money on (often relatively costly) temporary accommodation in barracks and individual semi-permanent housing (IOM and Red Cross). Several aid agencies have invested considerable resources in these temporary forms of accommodation, while an estimated 300,000 persons still had to move in with relatives, or rented accommodation. Much debate has been centered on the question whether these temporary or semi-permanent structures, many of them not on land of the tsunami victims, are a necessity in the light of slow reconstruction progress, or rather a wasteful use of available resources. It has been argued that these resources could have been used for more permanent or incrementally upgradable solutions. However, the need to get people out of tents, which were rapidly decaying in the scorching tropical sun and rains, underscored the validity of the approach to provide temporary housing (see Figs. 8 and 9).

While first guidelines on participatory village mapping were available by mid-2005 (BRR, 2005), BRR took until 2006 to issue its housing policies, in the format of regulations for house rehabilitation, new house construction, resettlement assistance in new locations (BRR, 2006). These BRR regulations reflect a high degree of realism in the light of experiences gathered during more than 18 months of complicated maneuvers of rehabilitation and reconstruction. But these regulations left many critical issues still open, for which compromise and innovative approaches are yet to be found, like the provision of land for landless former renters; the acquisition of land for resettlement of communities from uninhabitable coastal areas; and the exact procedures for determining house repair assistance and practical modalities of implementation of repair works. It seems that sectoral policies are undergoing a continuous review, and BRR’s guidelines will be rephrased as more complicated site-specific situations need to be dealt with.

**Actors in the process of rehabilitation and reconstruction**

Initially, the emergency response of first rescue operations, food aid, medical and forensic response, was in the hands of the central government and the army of Indonesia, with some support of the US, Singapore, and Australian military, and with NGOs, bilateral and multilateral agencies coming in very rapidly, like Oxfam, Red Cross, US AID, AusAid, UN High Commission of Refugees, and many others. Owing to the fact that both the provincial and local governments of Aceh had substantial losses among their human resources
(with thousands of local officers dead) and operational facilities, their position was severely weakened. Thus, hindered from leading the rehabilitation and reconstruction process, they were heavily dependent on outside assistance from Jakarta and outside the country. While central government ministries had limited capacity in becoming operational on the ground, not surprisingly, international and national NGOs have become the real drivers of emergency aid, rehabilitation and reconstruction. At its peak in 2005, more than 200 aid agencies, mostly NGOs, were registered with the authorities and documented by the United Nations Humanitarian Information Center (UN HIC). Multilateral agencies like ADB and the World Bank, through the Multi-Donor Fund (MDF), which the World Bank coordinates, became operational by May 2005, and have since increased and consolidated their contributions. In May 2005, the initial disagreement among the central government line ministries and BAPPENAS led to the establishment of BRR as a high powered implementation oversight agency. By the end of 2005, BRR was empowered by a cabinet decision to become an implementing agency and a kind of “super ministry”, completely taking over all rehabilitation and

**Fig. 8.** “Semi-permanent” housing by IOM.

**Fig. 9.** Semi-permanent housing by Red Cross, with absent walls due to late arrival of certified wood from overseas.
reconstruction activities from all the line ministries that had been active in Aceh and Nias. However, the complexities of the tasks and the dynamics of the situation, with some 120 NGOs contributing to housing construction in the field, and the increasingly overlapping operations of dozens of external agencies, could not be overseen easily by BRR itself. The overload of responsibilities in the hands of BRR, aggravated the lack of coordination and confusion among the bilateral, multilateral agencies and NGO. Therefore, BRR was practically giving a free hand to all NGOs. But their intention to profile themselves eventually led to a turf war among the donor agencies in the field, and this has certainly not strengthened the reconstruction as such, or facilitated genuine community participation.

Many of the NGOs have expanded their initial commitment from emergency aid to reconstruction, as they met an unprecedented flow of grant funds from the public or their governments back home. While being ideal partners in response to an emergency, the reconstruction work has been very taxing for them, and many have engaged in activities like reconstruction of housing and habitat-related infrastructure, which was not their traditional area of specialization (like Red Cross, Oxfam, Care, German Agro Aid, Muslim Aid, and many others), but as money was available and housing was seen as the biggest and most obvious basic need, they felt obliged to engage in this sector. While some of these NGOs have proven their adaptability to these tasks (like German Agro Aid, Muslim Aid, to mention just two of them), many have failed to come up with quality housing, in terms of good and permanent construction materials, earthquake-resistance, complementary services of water, sanitation, roads, etc. This has reached such a degree of bad construction that some of these NGO-produced units are not acceptable to the communities, and have remained empty, with beneficiaries demanding betterment of these structures. In other cases, the sudden stop of funds flow has led to the abandonment of half-completed housing (as in the case of Care), or the need to destroy the poorly constructed units (Save the Children had to destroy more than 300 units).

The two multilateral development banks (ADB and World Bank) had different problems at the start of their engagement. Both were initially compelled to operate “on-budget”, requiring a government counterpart budget, government-led project implementation units, and public sector procurement procedures for contracting of civil works, goods and services. For instance, when starting its Earthquake and Tsunami Emergency Support Project (ETESP), ADB faced substantial delays due to this “on-budget” modality which took months of precious time for procurement related procedures, and started showing results only since the second quarter of 2006. However, for this housing component of ETESP, an alternative and parallel route to contractor-built housing projects has been adopted since the first quarter of 2006. An “off-budget” modality is being implemented through experienced sectoral agencies and NGOs (UN-HABITAT, Muslim Aid, German Agro Aid, CordAid, Help (ADB, 2006), and others to be defined), which are acting as contractors on behalf of ADB and BRR. On the other hand, the World Bank, with funding from MDF, has upscaled two of its already existing community-based programs, i.e. the Urban Poverty Project (UPP) and the Kecamatan Development Project (KDP) to provide housing assistance to organized community groups through cash transfers to groups of individual beneficiary households, which are organized to receive these transfers, and who themselves will contract labor, purchase construction materials and supervise the civil works. In the case of the UPP, the activities are implemented in collaboration with the provincial department of the MPW, and in the case of the KDP with participation of the Ministry of Interior.

While some NGOs, criticized for poor housing performance, are likely to withdraw in 2006, other actors, like the German Development Bank (KfW) will join the group of bigger agencies engaged in reconstruction, which are scheduled to work in Aceh at least until 2008.

Despite its initial intention of not wanting to get involved in the procurement of works, since late 2005, BRR has also assumed the role of an implementing agency, and has contracted housing reconstruction works through local contractors. The government’s confidence in BRR is underlined by the fact that BRR was authorized in 2006 to apply the direct selection method of contractors, which can be contracted from among a group of previous pre-qualified contractors. But, unfortunately, the first BRR-funded projects constructed show quality flaws, weaknesses in supervision, and a low level of community involvement.

4This has stipulated a substantial expansion of BRR, which has grown to a team of more than 500 permanent staff, and many additional consultants on short-term or part-time basis.
Accomplishments by the middle of 2006 and projections until 2008

UN HIC has reported donor pledges for up to 139,000 new housing units (which should include housing for former renters), with only a few organizations (like ADB) committing to rehabilitation of partly destroyed units. While there has been occasional talk that the housing sector is overcommitted, in fact it seems that it is under-committed, and particularly so if one considers that, besides the low commitment for rehabilitation, many organizations have not made adequate provision for housing related basic infrastructure, and that some of the housing budgets may need to be restructured in order to provide these infrastructure services.

The progress by mid-2006 shows some 40,000 units as completed, and some 40,000 being in various stages of progress, expecting to be completed during 2006 (Table 1). It is more difficult to assess the current or expected state of basic services across all settlements. The projected figures of Table 1 indicate that there seems sufficient commitment for new housing units, but quite insufficient support for housing rehabilitation, which may be due to the vague policy for this sub-sector.

If developments would be as desired by BRR, all construction should be completed by the end of 2006. But it seems that various factors, which will be discussed below, make this ambitious target impossible, and the reconstruction and rehabilitation program for the habitat sector will continue at least through 2007, if not 2008 (see Figs. 10–13).

Slow physical progress and mounting obstacles

The actual progress has been marred by a number of obstacles:

1. Land tenure and ownership: The process of reconstitution of land tenure and titles is much slower than expected, and this makes the confirmation of the beneficiary status of community members more

Table 1

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Source: Author estimates, taking into account data provided by BRR’s RAN database (update of 23 August 2006).

aCombination of accomplishments and planned units.
bIncluding tents and barracks.

With a weak database management (at BRR and UN-HABITAT), no agency can exactly tell how many units are completed, inhabited, or ready for completion by certain target dates. This situation has been accepted to be the result of the current state of organizational shortcomings.
Fig. 10. ADB-financed housing units, Gampong Pande, Banda Aceh.

Fig. 11. ADB-financed housing units, Gampong Pande, Banda Aceh—temporary and permanent structures.

Fig. 12. House in Meuraxa, Banda Aceh, built by UPLINK.
complicated as well. Land disputes among community members or previously absent family members, who have appeared to present ownership claims, complicate matters further. The fact that many villagers have never held formal land titles, but customary tenure, adds to the complications. About 8000 renting households lost their accommodation, and only a small share of these (about 10%) have received NGO assistance by mid 2006, with another 10% to become the beneficiaries of relocation schemes (UN-HABITAT, 2006a).

2. **Unbuildable land:** About 12,000 families, cannot build again on their land, mostly due to subsidence of their land which has become permanently flooded by the sea as a consequence of the tilting of Sumatra Island after the major earthquake of 26 December 2006, and later events). In some cases, villagers have adopted land sharing and readjustment measures among themselves as a solidarity measure, but such modalities are not common. For most of these sites, resettlement will be the only option ultimately, but that will require alternative land to be offered by the respective local governments. So far, there seem to be very few cases where this has happened, and the prospects of massive resettlement succeeding are not very likely as there is not much vacant land available on the market, and the government has not undertaken measures to launch a land adjustment scheme so far to free up some land for resettlement.

3. **Selection of beneficiaries:** Based on community mapping, most agencies have done their verification of entitled beneficiaries. Normally, however, this system is not smooth and conflict-free. Absentee relatives will appear with additional or counter claims for land, and there exist few measures to decide in a blameless manner. As the governments’ policy is to provide one housing unit per household, there have also been many additional claimants who stated that they would represent individual and separate households, separate from the rest of their family. And cases of multiple housing allotments to one and the same household, under separate names of its individual members, have come up. The complications of this process of beneficiary identification make it questionable how much of donor efforts (and resources) should be invested in these procedures, what cost and time is justifiable for a proper, transparent, and equitable procedure.

4. **Environmental problems of some sites:** Because of the continued standing waters, many sites have become complicated locations for human settlements, and will require special drainage and pumping arrangements, if ever they become usable again. This has cost implications and affects the feasibility of reconstruction on such sites. The fact that mass graves are located in the vicinity of many high-density areas in Banda Aceh and Meulaboh, make it practically impossible to make use of ground water for drinking purposes. The location of some sites near the coastal shoreline, and the likeliness flooding will also make it necessary to design disaster mitigation and management schemes, and to design escape routes, safe hills, and safe buildings for the eventual protection of the communities. These concerns are to be taken up in the context of village spatial plans (see below).
5. **Cost escalation:** As could be expected, the increased construction activity and the need to import many of the most common construction materials (wood, cement, steel), and the increase in energy prices has lead to an unprecedented increase in the cost of construction materials, which have gone up 200–50% since early 2005. The industry as such may have exacerbated this trend through the practice of price agreements which have undercut competition. The impact of these price escalations is that, after a supposed initial over-commitment in funding for housing in early 2005, currently the funding for housing seems to fall short of actual requirements. Shortage of qualified construction labor, and the need to bring over such labor from other locations of Sumatra and Java, has also contributed to increases in costs. Initially, in early 2005, the government had issued cost ceilings for housing units (new units and repairs) and habitat infrastructure. But most of the NGOs did not feel obliged to follow these rather low cost ceilings of $3000 for new housing units and $500 for habitat-related infrastructure. In early 2006, BRR has doubled these official cost ceilings, despite the fact that most organizations still consider them as unrealistically low. Henceforth, BRR seems to have relaxed its views about these cost ceilings, and has accepted a *laissez faire* attitude.

6. **Construction materials:** Traditionally, wood construction has held a prominent position. Considering the facilities it offers for relatively easy construction, in which low-skilled labor can also participate, its positive characteristics of earthquake resistance make wood-based constructions highly popular. On the other hand, brick-based construction is the preferred option for families which strive for a “modern” house. The immediate upsurge of wood construction has led to a large influx of wood of questionable origin, most of this being wood from unlicensed and illegal logging in Indonesia. The donor community has reacted to this with great concern, and undertaken tedious importation drives of massive stocks of certified, environmentally cleared timber resources for construction. The importation of these resources from Canada and New Zealand had to face unprecedented bottlenecks by immigration authorities and roadside pirates in northern Sumatra. Ultimately, the donor community had to resort to the construction of landing pontoons and bring in the direct supervision of the BRR, thus eliminating criminal elements, which earlier had laid their hand on these imports (with some success). Related to this, there has been much debate about alternative, wood-free construction, using metallic or aluminum structures. Brick construction, as such, has stipulated other concerns regarding the environment, as the burning of bricks is done partly with wood, or by consuming costly petrol. However, the alternative of cement-based brick technologies does not seem to have been considered yet.

7. **Construction specifications:** Despite the issuance of an improved building code for anti-seismic house construction in May 2005, many agencies neither know this code nor follow it. Until today, there exists no system of building permits, and the whole industry of house construction is a free-for-all. Lack of construction quality and earthquake resistance can be observed in many projects. With the communities observing such poor construction results, and on occasions not being willing to receive these houses, BRR has started to worry about the quality and safety of the products of this largely decentralized reconstruction program, and the eventuality of liability cases when these houses do not survive the next seismic events. Where engineering skills are absent, on occasions the decision of community members, who have less construction skills to offer, is quoted as the excuse for choice of certain low quality or unsafe constructions. In an effort to mitigate unsafe constructions, since mid-2006 BRR has started to send field inspectors to all construction sites. These efforts will need to be speeded up in the coming years. The goal is higher construction quality standards in Aceh and Nias, and to achieve higher levels of satisfaction of beneficiaries.

8. **Insufficient budgetary allocations for habitat-related infrastructure:** Many NGOs that are providing housing reconstruction support have not adequately considered the need for basic infrastructure. Or where

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6In many projects one can encounter what Architects for Humanity have called “Design Like You Give a Damn”. See *Architects for Humanity* (2006).

7Aceh and Nias, like the whole of Sumatra and Indonesia, are at risk of frequent seismic events, and there is certainly no reason to assume that such events could not happen again, at any time.

8UN-HABITAT and Siyah Kuala University report that there is no direct correlation between construction quality and satisfaction. People find it difficult to judge and are generally too undecided about many of their decisions that will affect their future working lives, their livelihood, or the schooling of their children (*UN-HABITAT 2006b*).
such infrastructure provisions at tertiary level (i.e. house connections) were considered, these were jeopardized by the fact that the primary or secondary systems were not yet working properly or in place. This shortage of infrastructure provisions will have a negative impact for many communities, which do not yet want to take occupancy of their new neighborhoods, as long as the most basic services are not yet there. A typical experience is that of neighborhoods waiting for primary or secondary network connections of water or drainage yet to be established. Such lack of synchronization may, in some cases, be aggravated by the fact that NGOs will reduce water supply through tanker trucks in the second half of 2006, and severe water shortages may occur where the tertiary networks cannot yet be connected with secondary networks. From a planning perspective, this requires a reprogramming of resources in order to retrofit all existing housing projects with sufficient infrastructure components, and action programs for the completion and reconnection of basic infrastructure.

9. Absence of livelihood reconstitution: As a result of sectoral (instead of multi-sectoral) planning, many communities are not covered by adequate livelihood support programs. This is going to be the major issue once communities actually move back into their reconstructed or rehabilitated habitat, once the food aid stopped. The few livelihood support programs (for instance by Mercy Corps and ADB) will not be sufficient to serve all communities in need, and beyond housing and habitat-related infrastructure, livelihood reconstitution will remain items on the one of the main agenda for the rebuilding of communities.

10. Provisions for renters: Renters, who are said to constitute a group of 8000 families in Aceh, have been integral parts of many communities, but do not seem to have figured in many of the reconstruction plans that are primarily owner-occupant oriented. There exist proposals in certain projects (like Lamdingin, an ADB financed project in Banda Aceh) to give long-term use rights on privately owned or community land to ex-renters and to award a house to all these households. But such an arrangement is the exception. In most projects former renters are excluded and, besides being tsunami victims themselves, have few options to improve their situation, but will try to rent again in an already overcrowded housing market. There have been discussions about local governments taking on a provider role for this target group by developing housing estates on municipal land, possibly in the form of medium rise apartment complexes. However, as BRR has proposed in April 2006 to provide renters with the opportunity of a one-time cash payment of 40% of the value of the standard base unit of 36 m² (provided to former home owners), there has been much confusion and less certainty about the usefulness of the cash payment approach.

11. Uncertainties surrounding the home rehabilitation component: Few donors (ADB, MDF, UN-HABITAT, but none of the NGOs) have reserved resources for repairs and rehabilitation of partially destroyed housing units. However, till mid-2006, very few households have availed of this support, because the government and BRR have been sending contradictory messages. There has been talk about house-to-house assessments of damage, and individual assessment of eligible subsidies. Later it has been suggested that flat cash payments should be provided, and that home owners should be assisted through a roving quality control team, and possibly though the services construction support centers (CSCs), as proposed by ADB and KfW. But indecision looms further, and this rehabilitation component, initially considered to be a candidate for advanced action, remains a stepchild of the rehabilitation program.

12. Housing without village planning? As the first couple of thousands of housing units have come up, often without the necessary residential infrastructure and without the required concerns for the environmental repairs, BRR and the authorities have suddenly woken up to the need for spatial planning. This has become an additional task for some agencies, like ADB (see Fig. 14), but is not yet compulsory for all agencies. Though it will lead to a slowdown of the process of rehabilitation and reconstruction, in the long term it will contribute to a better overall result of reconstruction of their lives in an integrated manner. Obviously, many communities will be left out, and will require a post de facto village planning later, in combination with a retrofitting program of infrastructure and other services, which will be required and necessary if the grand objective of “building back better” is to be attained.9 Further, village planning will

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9The GTZ-KfW funded program for settlement support is expected to provide longer-term retrofitting and upgrading support to villages, in an effort that will be directed at filling gaps of unattended services, infrastructure and disaster prevention.
have to attend to the necessary disaster planning and management measures (including warning systems), mentioned earlier, which are required to make those communities at risk safer places to live in.

**Difficulties in implementing the community-based development approach**

One of the most distinguishable features of reconstruction in Aceh and Nias has been the way in which communities have come together to determine their needs and priorities, and to decide on leadership of the recovery. This has not been easy, as the earthquake and tsunami had destroyed not only people, homes and infrastructure, but also community structures, and killed countless religious and community leaders, social workers, teachers, and civil society representatives. After the disaster, many communities were divided into tented camps, host communities and barracks, which contributed to an erosion of community cohesion. Just when it was most urgently needed, the capacity of communities to come together, comfort each other, and start the rebuilding of lives was badly battered.
Aceh has a rich tradition of associations, ranging from faith-related activities and community-based organizations (e.g., savings clubs, village development associations, and funeral societies) to semi-local government structures, based on elected neighborhood and community representatives. This sense of community has been a source of strength in the emergency response. Relief agencies quickly found some community leaders and structures they could work with, and where leaders had been killed, new informal ones swiftly emerged. While many government units were in disarray, community leaders helped with information-gathering, reuniting separated families, and spreading information about available help. They also gave a coherent message of needs to the many organizations that arrived to assist with recovery and reconstruction. Community participation, coupled with the quick emergency response, within a short period of time, ensured that almost everyone had at least an emergency shelter, that food was available, and that there were no unchecked epidemics (BRR, 2005b).

However, effective community participation takes time, and necessitates continuous facilitation. Many of the agencies and NGOs, which attempted to guide these processes, had spread their activities over a wide territory, and could not devote as much effort to continuously nurture these community groups. Experience demonstrates that people were still too preoccupied with their trauma of personal losses, their family members and their personal belongings. Lengthy and frequent community planning meetings and decisions for the public good and community affairs obviously had to take second rank of order (Fig. 15). Despite the good intentions of the community-based development approach, the reality of many dispersed and fractured communities, their more important livelihood concerns have in fact, made it, in fact rather difficult to implement the community-based development approach optimally. Leadership issues between old and new village elites have added to complications. Some donors keep on insisting on a full cycle of community consultations, covering project identification to detailed action plans, as under ‘non-emergency’ circumstances, but some communities have started to show their frustration and no interest in further community consultations, and they have rejected the idea of providing cheap or cost-free labor for community projects. There have been cases of communities that have demanded an end to time consuming consultations, and, instead, provide immediate housing for them. While no attempt is made here to question the value of the concept of community-based development, it is realized that the conditions in Aceh and Nias are far from ideal for the implementation of community-based processes, and by overstretching the paradigm of participation, more damage than good could be done.

Nevertheless, some projects like the World Bank’s MDF reconstruction program even went a step further, the placing major implementation responsibilities for construction of homes in the hands of communities
which, through so-called community contracting mechanisms, acquire labor and construction materials, and are supervising construction by themselves. The initial response has shown fast construction progress, but lack of supervision and technical support have produced quality flaws; and cost increases and construction material shortages have slowed down progress. Thus, the question that needs to be asked is: to what extent should community-based development be applied to all walks of life and to all types of projects? The existing evidence indicates that some communities have achieved extraordinary results, while others have felt overloaded and charged with too many responsibilities. Therefore, it may well be stated that community participation cannot be instrumentalized as if it were a panacea for all the shortcomings of actions by government or contractors. As long as survival, livelihood, and well-being are so much at stake, the scope and potential role of community participation cannot, and should not, be overrated. Rather, it may take years for life to return to normal, and under these circumstances community-driven development cannot prosper in a normal manner.

As has been reported frequently in the local press, many donor promises have not materialized or have been delayed. Hence, in some communities, “… hope gives way to outrage as agencies fail to deliver aid.” Such experiences of frustration will certainly not provide a good ground for empowerment of communities. The occasional cases of corruption and price manipulations only help to add a more sober perception of realities.

“Building back better”

Political pressures for accelerated rehabilitation and reconstruction are certainly mounting, and there is a continuous danger that compromises will be taken on essential components of the rehabilitation and reconstruction agenda, in favor of faster delivery of assistance like, for instance, the abolition of the community-based development approach, the shedding of environmental safeguards, or reduced attention to land and tenure rights of communities, or their indigenous architectural and cultural traditions.

It cannot be confirmed yet whether the political postulate of “building back better”, a slogan which has its own risky political nuances, can be achieved within the time frame of 4 years, e.g. 2005–2008, which BRR has defined as the reconstruction period. It might very well be necessary to conceive a substantially longer time period, of up to 10 years, for a truly integrated and consolidated reconstruction and retrofitting program in order to cover all development requirements, and make the people the main agents of development. The development of housing and infrastructure is certainly not the end in the effort to build communities, and communities—like Gampong Pande in Banda Aceh (see Fig. 16)—are already articulating their request for more job opportunities and livelihood support in order to attain a sustainable future.

BRR had hoped that reconstruction and rehabilitation of the human settlements would be completed by December 2006 at the latest. But as it turns out, neither the housing units nor the residential infrastructure can be accomplished by that date. Rather, it may only be in 2008 that finally all earthquake and tsunami victims will be back in permanent and earthquake-resistant homes. Whether, by 2008, we can talk of the “mission accomplished” will depend on the reconstitution of all other aspects, which constitute “community” and the economic and social basis of life. To accomplish this more complex task of building back communities and their lives, community participation will play an indispensable and useful role. The efforts of KDP and the GTZ (GTZ, 2006), to mention just two programs, that engage communities in action planning and intend to leave behind trained community leadership, aim at an established “culture” of community-driven development that can be sustained and applied more universally in the future. If this can be accomplished, a much broader goal of development of civil society will be achieved.

References

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