



SOUTH/SOUTHEAST ASIA & EAST AFRICA: EARTHQUAKE AND TSUNAMIS

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While construction work is being undertaken in other tsunami-affected countries where the Red Cross and Red Crescent is responding to community needs the focus of this fact sheet is on large-scale housing reconstruction projects in Indonesia, Sri Lanka and the Maldives.

Reconstruction

Eighteen months after the earthquake and tsunami took tens of thousands of lives across the Indian Ocean and beyond to the shores of Africa, causing destruction along the shorelines in its path, the reconstruction programme in the three most-affected countries of Indonesia, Sri Lanka and the Maldives is well underway.

In Indonesia, of the 21,882 houses planned nearly 2,400 are in construction or are completed. Although many tsunami-affected people remain in transitional shelters, the quality of these has improved greatly; many others have moved into new homes. Red Cross Red Crescent Movement reconstruction activities ongoing in Aceh and Nias provides only a snapshot of a broad range of projects underway to help the host national society contribute to the re-building of lives, homes and communities across the tsunami and earthquake-damaged areas of Aceh and Nias. Detailed reports on reconstruction progress can be found in the last Operations Updates no. 59 published in the tsunami section on www.ifrc.org.



Settling in: at home in a new Federation-built house, Guraidhoo Island, Maldives. These homes are built to a far higher construction standard than average housing and are specifically designed to give added protection to natural disasters that may arise in the future.

The tsunami had a massive impact on Sri Lanka's infrastructure destroying and damaging water and sanitation facilities, roads, railways, and thousands of homes along two thirds of the coastline. The Government of Sri Lanka Reconstruction and Development Agency (RADA) figures show that 70,637 houses were completely destroyed and a further 30,839 were partially damaged, requiring therefore the complete reconstruction and repair of some 101,476 houses. In total, the Red Cross Red Crescent is managing construction of over 2,350 homes and 190 have been completed so far.

In the Maldives, the logistical difficulty of transporting building materials and construction equipment by boat over hundreds of kilometres of ocean has been immense as has the challenge of finding sufficient labour to work on construction sites. Even so progress continues apace and, of the 784 houses planned in the island nation, 49 have been completed while another 61 are under construction.

An integrated approach to reconstruction in Indonesia

The reconstruction programme in Aceh Province and on Nias Island is now well underway. Partner national societies (PNS) present in Indonesia to support the Indonesian Red Cross (Palang Merah Indonesia/PMI) are working in a coordinated International Movement framework to build 21,882 houses across Aceh and

Nias, of which 2,359 are completed or in construction to date. Land title verification, settlement planning, community consultations and housing design are actively underway for the total remaining target number of homes to be built.



Map of all PNS construction projects underway in Aceh Province of Indonesia.

The physical and procedural barriers that have been causing long delays are gradually being overcome. Geotechnical surveys are determining where houses can safely be constructed after the earthquake altered the face of the devastated coastlines. The government's Rehabilitation and Reconstruction Agency, BRR, is lending its support to the resolution of difficult and arduous land claims issues after ownership titles were washed away on that calamitous day.

Where the Red Cross Red Crescent Movement has committed to reconstruction projects, beneficiary communities are now intensively involved in the decisions on settlement planning, disaster risk reduction and the selection of individual homes from the range of housing models designed in consultation with prospective new homeowners.

Within the broader range of recovery projects underway within the Movement framework, 14 national societies have committed funds and personnel to the reconstruction of damaged and destroyed communities. While the majority of that effort is focused on housing, the holistic approach agreed at the outset is being well realized.

The many examples of this integrated approach include the American Red Cross provision of water and sanitation technical and material resources to ensure that identified villages being re-built by PNS can prosper in a hygienic environment. Another highlight: the expertise in livelihoods programming and land title

verification engendered by the British Red Cross is complementing the Australian Red Cross housing project on Pulau Aceh, the island just offshore the city of Banda Aceh.

The Movement's reconstruction projects are not just limited to building houses. Across the tsunami-affected area of Aceh and on earthquake-damaged Nias Island, PNS are erecting other structures that help to re-create not just homes, but communities. The French Red Cross is building schools in Pidie district and on Nias, and rehabilitating five traditional market areas on Nias. The German Red Cross: schools in Aceh Jaya, Aceh Besar, Banda Aceh and on the island of Pulau Weh. The Hong Kong branch of the Red Cross Society of China: elementary and high schools in Aceh Utara, and 27 health facilities in that district to be completed this month. Swiss Red Cross: an orphanage and boarding school in Banda Aceh and a high school in Pidie. A Turkish Red Crescent community centre in Banda Aceh opens this month, with a specialty on providing professional psychosocial counseling and training PMI volunteers to continue psychosocial programmes for the long term.



Pria Laot, 1 June 2006 – first day of a new German Red Cross-built community on the island of Pulau Weh north of Banda Aceh.

The Canadian Red Cross is progressing with its integrated, community-based approach to re-create 62 villages in Aceh Besar, Aceh Jaya and Nias. The approach includes a full spectrum of activities, beginning with community consultation, surveying and procedural support for land title verification, spatial planning, disaster risk mitigation, and the process of helping people choose and customize their choice among four home models, all of which are expandable by design. Additionally, the Canadian Red Cross will build health facilities, schools and *meneusah* (traditional Islamic community centres) if no other donor is identified to meet those needs.

Rebuilding Sri Lanka and coastal conservation

Critical to Sri Lanka's housing reconstruction plan has been the so called "buffer zone", a 100 to 200 metre "no build zone" declared by the Government post-tsunami, in 2005. An existing "no build zone", defined in the revised Coast Conservation Act (CCA) of 1997, aimed to protect the coastline by preventing permanent construction within 35 to 125 metres of the coastline; however small fishing communities, businesses and squatters had been living in this restricted area for many years. Enforcement of the post-tsunami "buffer zone" prohibited affected communities from reconstructing their homes on existing sites and, as a result, a large proportion of the affected population was forced to relocate to areas further from the sea.



The first 51 of 317 houses to be built by the French Red Cross were handed over to beneficiaries in Benteng and Blang Paseh, in Indonesia, in May.

To meet relocation needs the Red Cross Red Crescent Movement was allocated land outside the "no build zone". However, in late 2005 due to pressure exerted by humanitarian actors and

civil society over the lack of available and suitable land for reconstruction, in particular for fishing communities requiring access to the sea, the government reverted back to the revised CCA Act.

Types of reconstruction - resettlement and reconstruction

The impact of this buffer zone policy change is reflected in the proportion of houses built under each of the two main methods of home reconstruction in Sri Lanka:

- *Resettlement* for families whose tsunami destroyed home lies within the revised buffer zone, a largely donor driven programme where donors construct houses in consultation with the community.
- *Reconstruction* for families able to reconstruct on their own land. The programme is primarily owner driven, where affected households receive grants and support to rebuild their own homes.



Construction of one of 52 homes being built by the Belgian Red Cross (Luxemburg), in Beruwala, Sri Lanka

To adjust to the emerging needs of beneficiaries now able to relocate to land first demarcated under the no-construction zone, it is likely that

houses planned under the “resettlement” programmes, requiring a move away from the home owner’s original location, will be built under the “reconstruction” programme on owners land.

Red Cross Red Crescent commitments

The Movement initially planned to construct up to 15,000 houses on land beyond the 100 to 200 metre buffer zone. While the actual number of households requiring relocation outside the buffer zone remains unclear, the Movement is taking steps to ensure that tsunami affected populations permitted to rebuild on their own land now have that option and the necessary technical and financial support.

The Red Cross Red Crescent has significantly increased its commitment to owner driven housing through two-tiered support to a government led owner driven housing project:



Red Cross Red Crescent construction site in Matara where 18 houses have been built and are now ready for occupation.

1. The Movement has committed USD 25 million to support construction of up to 10,000 houses via the World Bank International Development Agency which supports a government grant scheme providing financial assistance for reconstruction of partially and fully damaged houses.
2. In partnership with UN Habitat, the Movement is providing “top up” grants and technical support to households that have already received financial support under the government’s existing owner driven housing programme that has the potential to support construction of an additional 7,000 or more homes.

Red Cross Red Crescent housing commitment and progress

As of 31 May 2006, under the donor driven programme, the Movement has been allocated 71 sites in 11 districts across Sri Lanka, for construction of over 8,000 houses (including some donor driven reconstruction on own land). Construction of over 2,350 homes is underway and 190 have been completed. USD 10 million has been handed over to the International Development Agency in support of owner driven construction; and by the end of July, 300 households will start receiving reconstruction support under the UN HABITAT partnership.

Donor driven housing	+/-15,000
International Development Agency - World Bank	+/- 10,000
UNHABITAT partnership	+/- 15,000

Security

The deteriorating security situation in the north and east of Sri Lanka is posing a major challenge to the housing construction programme. In some areas staff movement is often suspended as a precautionary measure due to general unrest, tension and uncertainty. Construction sites have been made inaccessible and some contractors are reluctant or afraid to travel to particularly tense areas. Contingency plans are under development involving possible withdrawal to less volatile areas and remoter control of owner driven housing via a skeleton staff. A recent government ban on the transport of construction materials to and through the Liberation Tigers of Tamil Eelam controlled region may result on a shortage of construction materials in those areas and will significantly impact progress.

Health infrastructure, water and sanitation, schools, disaster management

The Movement has committed to reconstructing and rehabilitating up to 61 health facilities. Master plans, architectural and structural designs and engineering cost estimates are under preparation for 14 health facilities and three temporary nurse training facilities have been set up to accommodate up to 250 students each and support the government's drive to train 15,000 nurses by 2015.

Major water sanitation infrastructure programmes are ongoing to improve access to water and hygiene facilities across the island. A project to connect nine new settlements to an existing water pipeline is currently in progress. Two settlements have been completed so far and more than 85 water tanks have been constructed or upgraded to improve access to safe drinking water. Over 4,600 wells have been constructed or rehabilitated to ensure sustainable access to water and to reduce the need for tanked water and over 100 latrines constructed for people living in transitional shelters.

A National Disaster Management Centre is also under construction that will serve as the focal point for disaster management training and response by the Sri Lanka Red Cross Society (SLRCS). The Movement will also support reconstruction of nine schools.

Reconstructing housing in a vulnerable island nation

The Federation has made significant progress reconstructing houses in the Maldives in the past few months, despite the challenge of working in a country whose islands are dispersed over nearly 1,000 kilometres north to south.

A ceremony, attended by the Maldives president and the special representative of the Federation secretary general, took place in early May to mark the start of construction on Raa Dhuvaafaru (the "Green Island" project), the country's largest single tsunami related reconstruction project. This previously uninhabited

island is being entirely redeveloped to house up to 4,000 displaced people who have been dispersed from their home island of Kandoludhoo and are now spread over five different islands. Reuniting them involves not just the construction of 600 houses, but also all the community facilities and infrastructure that the new community will need.

Together with its national society partners, the Federation will be building schools, community centres, health clinics, parks, sporting facilities, ports, harbours, sewage systems, and other necessary infrastructure. The feasibility of using alternative energy sources to meet the island's energy needs is currently being explored.

The first 35 out of 46 three-bedroom houses on Kaafu Guraidhoo, one of the most severely tsunami affected communities in the country, have been handed over to the community, as have 14 houses on the island of Kaafu Maafushi. All these homes are built to a far higher construction standard than most normal housing in the Maldives, being specifically designed to give added protection to natural disasters that may affect the country in the future.



Aerial view of Federation housing on Kudahuvadhoo Island, Maldives.

The logistical difficulty of transporting building materials and construction equipment by boat over hundreds of kilometres of ocean has been immense. The challenge of finding sufficient labour to work on construction sites has also hampered progress. Even so, 61 houses on two islands (Dhaalu Kudahuvadhoo and Kaafu Guraidhoo) will be complete by the end of June.



Construction and new house in Guraidhoo Island, one of the most severely affected communities in the Maldives.

When those displaced by the tsunami move into their new homes, it will be the culmination of a long process of community participation. Families were consulted on the construction and design of their home and, in the case of some homes, beneficiaries are able to choose wall colour, tiling and the option of three different floor plans.

Construction by French and British Red Cross societies is also under way. Altogether, some 2,000 homes will be built by the Red Cross Red Crescent network in the Maldives.

Operational highlights by country

Indonesia

- Food and relief items have to date reached 158,266 families (667,035 beneficiaries identified by ration card registration) in Aceh and Nias.
- The PMI/Federation relief programme has distributed in total: 23,192 tents; 179,941 tarpaulins; 488,172 food parcels; 830,834 hygiene kits; 163,176 kerosene stoves; 276,062 blankets; 277,183 mosquito nets;

42,125 kitchen sets; 22,239 kerosene lamps; 56,202 sleeping mats; 293,068 bed sheets; 112,342 baby kits; 182,323 jerry cans; 548 recovery kits to clean up their homesteads (at 50 families per kit, this has reached some 27,400 families) and; 7,921 articles of clothing.

- Relief stocks dispatched in support of the Yogyakarta earthquake comprised: 29,000 bed sheets; 20,000 hygiene kits; 4,500 kerosene lanterns; 6,200 insecticide-treated mosquito nets; 1,600 sleeping mats; 45,000 tarpaulin; 12,000 tents and; 25,000 stoves.
- Some 8,512 galvanized steel frames have been constructed so far under the transitional shelter programme; 5,573 units are either completed with timber or in the process of being clad.
- In Aceh Besar, the Federation has facilitated the purchase of sewing machines and other equipment for 51 tailors, living as internally displaced people in barracks since the loss of their homes and assets, to produce school uniforms.
- PMI Nias has opened a second office, the Selatan branch, in the southern city of Teluk Dalam.
- One kilometre of piping that connects three freshwater springs has been installed on Nias, to provide drinking water for 300 internally displaced people living in the newly-constructed transitional shelter settlement in Bawalato sub-district.

Sri Lanka

- The Federation handed over its first 18 houses in Matara to beneficiary families. So far the Red Cross Red Crescent Movement has completed 190 houses.
- A Spanish Red Cross export agriculture department project to assist small-hold cinnamon farmers has completed eight training sessions for farmer committees in Galle.
- The Federation has received its first pledge for CHF 2.3 million from Australian Red Cross to initiate construction of 300 houses in Ampara, under the Federation's owner driven housing programme. UN Habitat, together with SLRCS, is starting the beneficiary identification process and the first stage of construction grants will be disbursed by early July 2006.
- Federation supported water bowser operations have stopped across the country. This decision was based on the results of Federation evaluations conducted in Ampara and Galle suggesting that water quality in household wells has reached acceptable salinity levels. In addition, the Sri Lanka government Reconstruction and Development Agency confirmed that funding was available for water needs in temporary camps, and evidence from UNICEF report suggests that beneficiaries are receiving an average of 65 litres drinking water per day which exceeds Sphere standards. In the height of its operation, the Red Cross water bowsering operation was providing 8 per cent of the total water needs of temporary camps across the country.

Maldives

- Phase I and II of temporary shelter construction has been completed; 156 blocks comprising a total of 1,133 apartments have been constructed.
- Some 15,500 rainwater harvesting kits have been distributed to 79 islands, benefiting over 130,000 people.
- Supplementary water supply systems have been installed and handed over to communities in four islands and two temporary reverse osmosis units are being used in the north of the country, due to critical shortages in safe drinking water.
- A working group for the establishment of a Red Crescent society has been working for eight months and has drawn up draft statutes. Promotional visits to 20 Atolls have been made and 62 representatives for the General Assembly have been elected.

For more details and news stories, photos and all operational updates related to the tsunami visit:
<http://www.ifrc.org/tsunami>