



## SOUTH/SOUTHEAST ASIA & EAST AFRICA: EARTHQUAKE AND TSUNAMIS

Fact sheet No. 17 – updated 9 November 2005

### Recovery and reconstruction

One of the most important aspects of the recovery of disaster-affected communities is being able to provide affected populations with adequate shelter and, where possible, rebuild permanent houses which have been destroyed. In the tsunami response operation, despite the large number of houses devastated across many countries, the generosity of the public has allowed for a comprehensive reconstruction programme to be planned. The implementation of these plans has begun.

While several hundred permanent houses have been completed in Indonesia and Sri Lanka, and several thousand are currently under construction in these countries as well as in the Maldives, it is anticipated that the pace of reconstruction of permanent shelters will increase in the coming months. Nevertheless, many tsunami-affected people remain in transitional shelter while significant land issues are resolved. It is vital that the most humane living conditions possible are found for these people while their houses are being rebuilt.

Although the reconstruction of permanent housing is essential, houses are only one part of a community's infrastructure that needs to be rebuilt for recovery to be complete. The Federation and its members are also undertaking significant construction programmes for schools, health facilities, water supply networks, community centres and recreational facilities, and in some cases, Red Cross and Red Crescent branches. Many of these projects are currently underway but some will continue to be refined over the coming months as additional needs are identified.



*Hundreds of houses have been completed across Sri Lanka and Indonesia. Reconstruction projects are gathering pace in Sri Lanka, Indonesia and the Maldives*

While Indonesia, Sri Lanka and the Maldives are the main countries where large-scale housing reconstruction projects are underway, there has also been construction work undertaken in other tsunami-affected countries where the Red Cross and Red Crescent is responding to community needs.

### **Phases of reconstruction in Indonesia**

Rather than build temporary shelters, most relief agencies decided earlier this year to construct permanent homes as soon as possible, in line with community wishes. But hopes that this could occur quickly were dashed by the sheer scale of the devastation. Meanwhile displaced people's living conditions deteriorated. The Indonesian Government is taking decisions over land title – and on the allocation of housing plots – as a matter of priority.

This is taking time due to:

- the volume of debris requiring clearance;
- the dramatically changed coastline, where in some cases land has become sea and vice-versa;

- the destruction of the Banda Aceh land registry building, destroying vital paperwork, resulting in delays verifying land ownership; and,
- the large number of Aceh residents who were renting their accommodation moving away from tsunami-affected areas.



*Thousands of durable, two-room family tents are being distributed in Aceh Province to replace those which have reached the end of their lifespan*

To provide for the needs of affected communities while these significant issues are resolved, the Federation and its members are spearheading a coordinated, two-pronged approach to deal with the challenge. Firstly, the Federation has already begun importing and allocating 27,000 hard-wearing, family-sized tents that are being distributed to the estimated 67,000 people still living in tents.

Secondly, the Federation has begun importing sturdier temporary housing units, with the eventual aim of providing at least 20,000 such units for approximately 80,000 people. These temporary housing units are intended to make tsunami survivors more comfortable while land issues are resolved allowing for a proper and lasting reconstruction of Aceh Province.

The Federation and the United Nations flew the first two steel-framed shelters into Banda Aceh last week ahead of others coming by ship, and immediately began training local employees in how to assemble them. The 25-square-metre lightweight units were specially designed by Federation construction engineers for local conditions, ease of delivery and speed of assembly.

The units had to be lightweight because many heavily affected areas will have to be supplied by landing craft. Each unit can be easily anchored in almost any conditions with little or no ground preparation and it should take a small team less than a day to assemble one structure. The huge cross-agency project is planned to finish in late March.



*The construction of 20,000 steel-framed transitional shelters will provide improved living conditions for up to 80,000 of those worst-affected by the tsunami*

### ***Tackling reconstruction challenges in Sri Lanka***

Although many of the challenges which needed to be overcome for a lasting reconstruction are common to all tsunami-affected countries, it is true that each country has some unique obstacles. The Sri Lankan Government, UN agencies and NGOs are in agreement that it will take a year-and-a-half to three years, if not longer, to construct or repair all housing. It is a considerable challenge to construct and repair so many houses, particularly in a country that in a normal year constructs only 5,000 to 8,000 houses. The major challenge, however, has been identifying and securing adequate land on which to build houses. The construction process has been further aggravated by a shortage of building materials, skilled construction labour and increasing costs.

Up to 15,000 permanent houses will be constructed by Red Cross and Red Crescent donors while the construction of up to an additional 25,000 houses by their owners will also be supported together with other agencies. As of 1 November, the Red Cross and Red Crescent has been allocated 43 sites in 10 districts across the island, for construction of 5,517 houses and construction of over 2,200 homes is underway.

Implementing a project of this scale and complexity requires considerable time and human resources. The construction process involves a number of stages, including developing the approach, planning, consultations with beneficiaries, tendering for consultants, land surveying, developing master plans and structural designs, drawing up tender documents, contract agreements and securing approval from all of the relevant authorities. These steps are vital to maintain accountability and ensure that the best technical expertise is used at the lowest price while maintaining the highest standards of quality.



*Around 150 permanent houses have been completed in Sri Lanka while another 2,000 are in various stages of construction*

The first significant allocations of land from the Sri Lankan Government to the Red Cross Red Crescent were only made in mid-July. Although the land has been allocated, final handover of sites has, in many cases, taken time due to various factors including ongoing acquisition of some of the sites by the government, verification of title deeds, property disputes and incomplete lists of beneficiaries.

A limited number of plots allocated to the Red Cross Red Crescent have proved to be unsuitable for construction. On closer inspection one site proved to be adjacent to a wildlife reserve, while another site was comprised largely of paddy fields that would have been too costly to develop.

As in Indonesia, transitional shelters require ongoing improvement. Red Cross Red Crescent will assist the Sri Lankan government by focusing on the areas of:

- provision of safe drinking water;
- improvement of toilet facilities;
- provision of adequate facilities for bathing and washing;
- improvement of drainage systems;
- hygiene promotion; and,
- improvement of shelter conditions such as roofing and flooring.

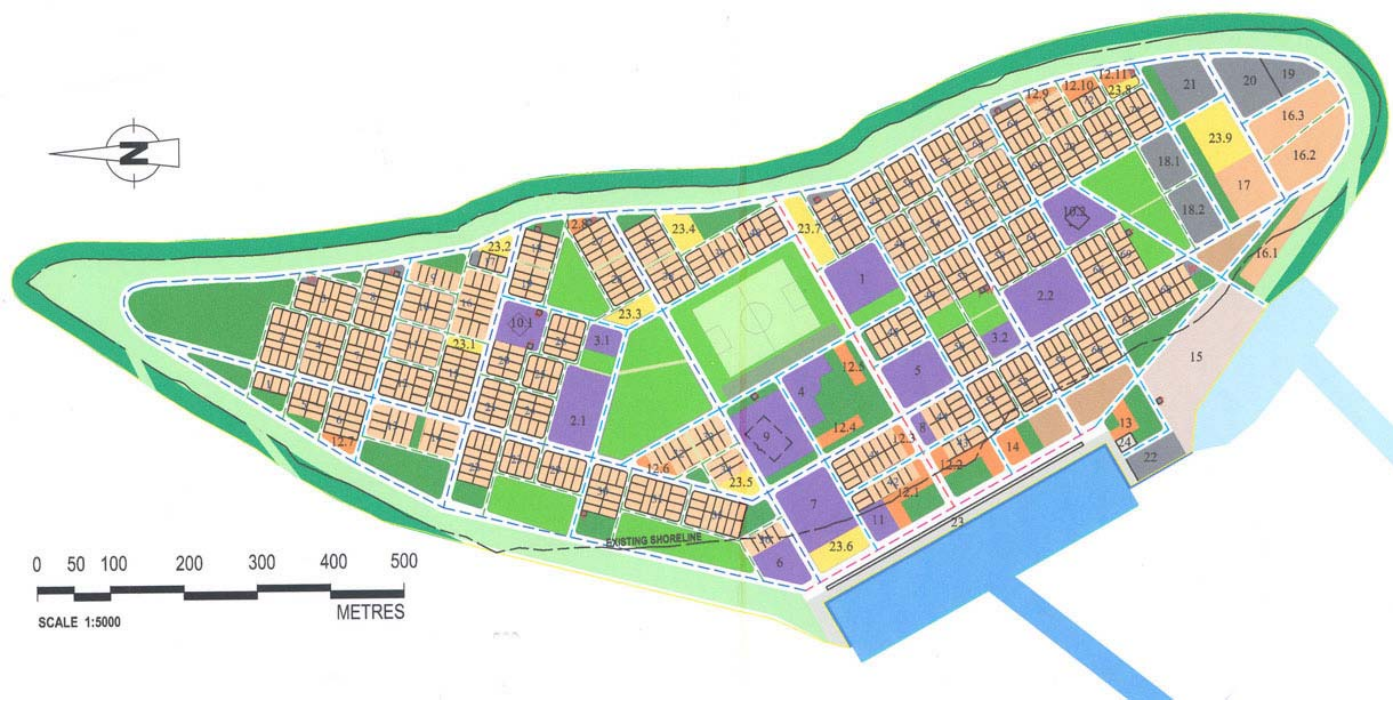
### ***Construction in the Maldives – a massive logistical task***

Despite the considerable challenges associated with providing a lasting reconstruction for the disparate islands of the Maldives, the Federation and its members are the government's largest partner in this endeavor.

Being an island nation, logistics and transport are the greatest complexities in reconstruction on the Maldives. Transportation of equipment, building supplies and other materials is all undertaken by boat. Also, finding and maintaining local labour has slowed the reconstruction process as the population of the Maldives is less than 300,000 people. The heavy rainfall in the last month has slowed construction and the celebration of *Ramadan* has meant shorter work days and less activity during the month of October. Still, more than 100 houses are already under construction on the islands of Guaraidhoo, Kudahavadhoo and Maafushi.

Community involvement and participation has been important in this process ensuring people are receiving what is needed for their families and communities. For example, the Red Cross and Red Crescent showed model homes to communities before building and families were consulted on the construction and design of their homes. In the case of some homes, beneficiaries are able to choose wall colour, tiles and the option of three different floor plans.

Further, the Federation and its members are undertaking an immense project to build an entire community from scratch on the previously uninhabited island of Dhuvaafaru. This project involves the construction of 600 houses as well as all other infrastructure required to support an active, healthy community.



*The previously uninhabited island of Dhuvaafaru will be built from scratch into a vibrant community combining residential and commercial centres, schools, community centres, health clinics, parks, sporting facilities, ports, harbours and other necessary infrastructure*

### **Operational updates by country**

While the focus of this fact sheet has been to provide an update on the progress of construction projects being undertaken by the Federation and its members, all other operational priorities continue apace. The main focus of activities remains in the areas of: health, water and sanitation, relief distributions, psycho-social support, livelihoods assistance and the building of capacity of the local national Red Cross or Red Crescent society.

#### **Indonesia**

- 550,000 people have received relief such as food, hygiene supplies, cooking sets and stoves, blankets and sheets, jerry cans, mosquito nets, tarpaulins and tents.
- 150,000 people have been provided with water and sanitation services at the height of the emergency phase. On average, 1.5 million litres of clean drinking water were produced daily during the emergency phase. Currently, 113,000 people still benefit from one million litres of water provided each day.
- Basic health care was provided to 100,000 people.
- 200 Red Cross volunteers and 1,000 community members trained to provide psychological support to communities.

#### **Sri Lanka**

- More than 300,000 people have received distributions of relief goods including food, cooking supplies, stoves, hygiene items, mosquito nets, lamps, clothes, sleeping mats, school uniforms, schoolbags, stationery and clothes.
- Over 50,000 tarpaulins and 5,000 tents were distributed.

- More than 50,000 people benefit from water and sanitation interventions including: three million litres of clean water weekly, construction of latrines, cleaning of over 1,700 wells and provision of water storage tanks.
- More than 100,000 people benefited from health services delivered via mobile health clinics, first aid volunteers and two field hospitals. Medical equipment was donated to hospitals and health facilities; additional health care and education training was provided for Sri Lanka Red Cross Society staff.
- Teams of volunteers and paid community workers cleared the coastline and construction sites, and repairing damaged roads, wells and irrigation canals.
- 1,325 workers in the construction sector will receive vocational training and related tools to increase their employment opportunities through a project agreement worth CHF 400,000 signed in October between the Federation, SLRCS and the Sri Lanka Vocational Training Authority.
- 500 boats are being distributed to affected fishermen in Trincomalee and Batticaloa.

### ***Maldives***

- 85 temporary housing blocks have been completed.
- Provided relief items including medical supplies, shelter materials, mattresses, cooking utensils and water and sanitation services for 20,000 people.
- 17,000 people benefited from 32 generators installed on tsunami-affected islands, which restored electricity supplies and enabled the operation of desalination plants to produce clean drinking water.
- 5,550 water tanks and rain water harvesting kits benefiting 33,300 people have been distributed and a further 15,000 tanks will benefit 90,000 more.
- More than 89,300 students from 226 schools received psycho-social support by more than 320 teachers trained by the Red Cross and Red Crescent.
- Initial meetings held and working groups set up to facilitate the formation of a Red Crescent national society in the Maldives.

### ***India***

- Relief assistance was provided by Indian Red Cross Society to over 500,000 people in Tamil Nadu, Andhra Pradesh and Kerala states, Pondicherry (union territory) and the Andaman and Nicobar islands.
- 26,000 relief packages distributed during the emergency phase.
- Drinking water provided to approximately 100,000 people by five mobile water purification plants.
- 10,000 Red Cross volunteers mobilized during the emergency phase and provided basic health care, family linking and psychological support activities.

### ***Thailand***

- The Thai Red Cross deployed teams of doctors and other medical personnel to the six affected provinces – Phuket, Phang Na, Krabi, Trang, Satun and Ranong – to assist 35,000 people.
- Some 11,370 Thai Red Cross volunteers from the general public, governmental and non-governmental organizations, students, teachers, soldiers, and foreigners provided relief assistance to over 35,000 beneficiaries in the six affected provinces.

### ***Myanmar***

- The Myanmar Red Cross mobilized three emergency relief teams and some 200 volunteers, who provided first aid and distributed emergency relief items, food and relief items to 3,060 people, as well as tracing and messaging services.
- 8,500 of planned 20,000 family sets distributed to regional warehouses to ensure relief supplies for 15,000 people are pre-positioned for future disasters.

### ***Malaysia***

- The Malaysian Red Crescent supported thousands of affected people in Penang and Kedah states with emergency food and other relief items, along with health activities.

- Five regional disaster response teams and 1,000 Red Crescent staff and trained volunteers were mobilized and assisted with evacuation, emergency first aid, establishment of relief centres, registration of displaced people and mass cooking.

### **Bangladesh**

- The Bangladesh Red Crescent immediately and effectively put its cyclone preparedness programme into action, using its early warning network to alert populations to the earthquake and tsunami risks.

### **Seychelles**

- Red Cross volunteer teams provided ambulance and psychological services, removed debris and helped relocate La Digue's hospital to higher ground.
- Distributed basic relief items, including mattresses, bed sheets, cooking sets and 90 fishing kits to support 350 families, including 90 fishermen.

### **Somalia**

- The Somali Red Crescent mobilized its volunteers to provide immediate relief and basic health care assistance to the tsunami-affected population.
- 5,000 beneficiaries were assisted with oral re-hydration salts, environmental clean-up and household sanitation activities.
- The Somali Red Crescent health teams treated some 700 patients in the affected coastal areas and 785 patients in remote communities, helping to prevent outbreaks of disease in the worst hit areas.
- Community-based first aid manuals were printed to support volunteer activities in vulnerable communities.

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