A.6 Mozambique- 2007- Cyclone

Shelter material packages and training

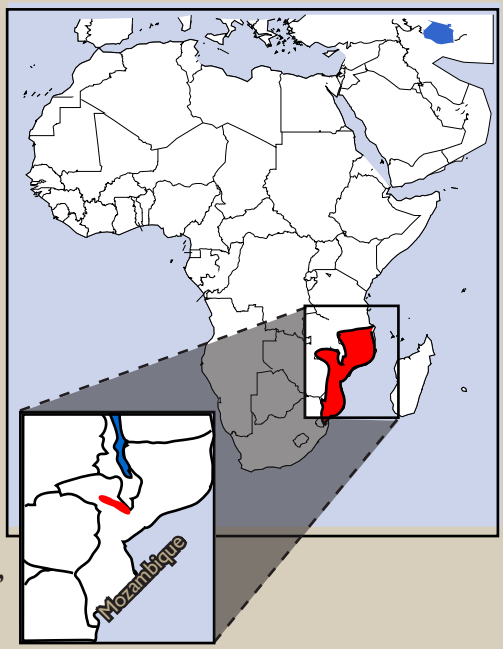
Project type:
Distribution of shelter construction material packages
Training on improved building techniques

Emergency:
Cyclone Favio in northern Inhambane, Mozambique, February 2007

No. of houses damaged/people displaced:
160,000 people displaced by flooding
Approximately 6,500 houses damaged by the cyclone

Project target population:
2,219 vulnerable households (11,095 people) who had remained on their own land

Occupancy rate on handover:
15% of households had been unable to use the distributed materials to rebuild three months later. Of those who did, a visual assessment suggested around 95% of the people living in the rebuilt houses were the original beneficiaries.

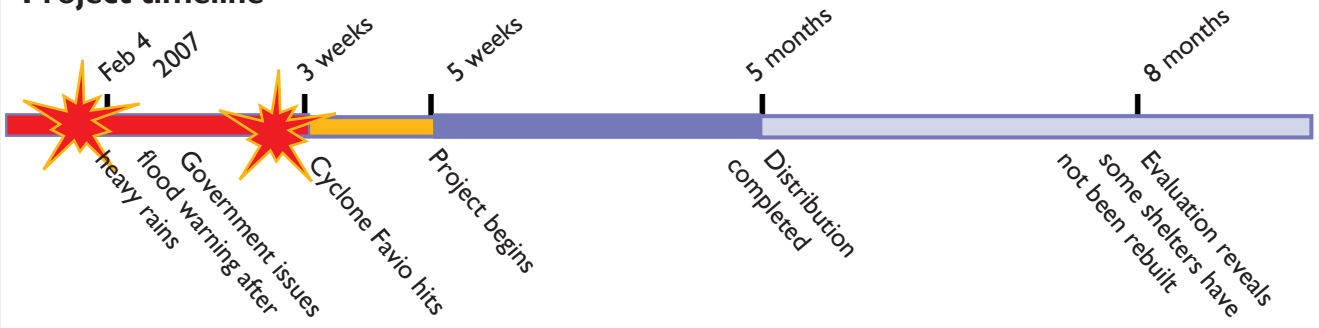


Shelter size
Around 12m^2 (varied by design and whether the structure had been rebuilt or repaired)

Summary

Despite having no previous shelter programming experience in the country, no emergency shelter stockpile and a delay in funding, the agency distributed shelter materials with technical advice to the most vulnerable people affected by the cyclone (child-headed households, widows, the chronically ill, handicapped, etc.) in two districts.

Project timeline



Strengths and weaknesses

X Local purchase of items helped to stimulate the local economy.

X The most vulnerable beneficiaries were targeted.

X Cooperation with local government minimised potential fraud and coordination with the national government.

X Community mobilisation and the voucher system were key to ensuring smooth distributions and crowd control.

W Procurement was difficult. Environmental issues regarding building poles proved particularly problematic.

W The assumption that all vulnerable households would receive support from relatives or the community proved wrong. Three months after the distribution had been made, 15% of beneficiaries were not able to use the distributed materials for rebuilding. In the future the agency would pay for construction or mobilise community groups.

W Given the vulnerability, and in some cases, social isolation of the extremely vulnerable, they often needed the help of several people to transport the items from the distribution site to their house.

W Lack of a stockpile of emergency shelter materials, such as plastic sheeting, and a delay in securing emergency

Strengths and weaknesses (continued)

funding meant that some beneficiaries did not have support for basic shelter needs for at least three weeks.

W Technical advice was not always implemented by the beneficiaries. Although beneficiaries attended the training, the construction may have been carried out by someone else or they had not been convinced by the advice. This required repetition of the messages.

W Local suppliers were sometimes unable to meet deadlines. This resulted in the project requiring an extension. Delays were partly due to legal requirements for supplier registration and payment of taxes by suppliers.

A damaged house and self-built reconstructed house using distributed items

Situation before emergency

Many of Mozambique's inhabitants live in floodplains and the country is regularly hit by cyclones. As a result, it has repeatedly required disaster-recovery assistance.

After the emergency

Over 300,000 people were directly affected by the combined effects of the flood and the cyclone. About 140,000 of the displaced sought shelter in communal accommodation, which had been pre-positioned after the 2001 floods. A further 55,000 people began moving to 'resettlement areas' – part of the government's programme to encourage people to resettle on higher ground. Others stayed on their own land, rebuilding where possible.

The government conducted an initial needs assessment and three international agencies were made responsible for delivering the three main needs of water, food and shelter.

The international organisation in this case study had limited local experience of emergency shelter response, as it was mostly involved in development projects and non-shelter emergency responses. With no stockpiles and no immediate funding, the agency was not able to respond with an emergency shelter distribution until after the first two weeks.

The majority of those affected in the area of the agency's operation found shelter with relatives. Many had rebuilt their own shelters within the first two months.

Unable to respond with immediate emergency items, the organisation decided to run a rehabilitation programme, distributing materials for the repair or rebuilding of houses belonging to vulnerable households. The agency participated in the national Shelter Cluster meetings and received a donation of plastic sheeting. This was included as part of the general distribution.

Selection of beneficiaries

The agency supported vulnerable beneficiaries in the districts of Inhassoro and Govuro. These included women-headed households, children, the elderly, the disabled or the chronically ill, and those without resources to rebuild a home that had been completely destroyed.

An initial target was set of 1,300 households (around 6,600 people) who had remained on their own land but had inadequate shelter. This rose to 2,219 vulnerable households (11,095 people) following additional funding.

Assessments of the shelter needs of each of the vulnerable households were made in partnership with the local government. Beneficiary lists were checked and double-checked by the agency and local authorities.

A simple assessment form was developed, illustrated with simple graphics, to enable teams to quickly classify what kind of shelter kit a household would require (see table at the end of this case study).

Five different shelter packages were designed to be distributed depending on the type of home the household had previously had – traditional round houses or rectangular 'mixed' houses built from a mix of traditional and modern materials – and the level of damage suffered.

Technical solutions

Training in simple construction techniques to improve the durability of structures in the event of further cyclones was provided to beneficiaries on the day of distribution.

Agency staff demonstrated the use of improved building techniques on a lived-in house in the village of distribution. Techniques included advice on nailing roofing sheets more securely and using wire doubly crossed over in an x-shape to strengthen joints.

The demonstration lasted a couple of hours and was made before the materials were distributed. A later assessment showed that while many had implemented the techniques, others had not, despite being present at the training. It is not clear if these techniques were not implemented due to habit or due to difficulties in implementing the training.

Hammers and pliers were distributed to groups of beneficiaries whose entire homes had been destroyed.

Implementation

The project began in mid-March after a delay in securing funding. The time during the delay was used to make thorough assessments. By the time the beneficiaries were selected many people who had the resources had already rebuilt. The distribution was completed within five months, including a one-month extension that was required due to the difficulties of procuring locally.

The shelter items were distributed using a voucher system that detailed what kind of shelter package would be received. The voucher system was introduced in order to reduce the fraud and manipulation of beneficiary lists, which the organisation had experienced early on in the project. The voucher system also reduced the time needed to verify beneficiaries on the day of distribution.

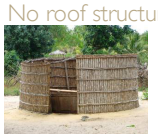
The day before distribution, beneficiaries' identities were cross-checked by the agency and authorities. They were given the voucher, information on what time to attend the distribution, and informed that only one other family member should be with them.

The voucher system, coupled with effective cooperation between the organisation and the local authorities, meant that distributions were conducted smoothly. However, the preparation of the vouchers themselves, to avoid counterfeiting, added to the preparation time.

To further reduce crowd management issues at distribution, community mobilisers employed by the organisation led crowds in song to reduce tensions and prevent potential overreaction by authorities, who were quick to beat back crowds with sticks.

Although the distribution of items was successful, the organisation overestimated the level of social cohesion. This was a surprise, as their usual work with local associations suggested the existence of a reasonably community-minded attitude among the population that would help those most vulnerable.

'We did not consider all the aspects of construction in terms of labour for the extremely vulnerable and we learned a lot from this project. In Cyclone Jokwe in 2008, we applied the lessons and we are now a lot better prepared for the next disaster'.
– Project manager

	Roof trusses (3)	Zinc roofing sheets (10)	Roofing nails (100)	Metal wire (2kg)	Wall poles (10)	Purlins and rafters (3 bundles)	Plastic sheeting (1 sheet)	Tools (shared between families)
Mixed house (3m x 6m)								
Totally destroyed 	Y	Y	Y	Y	Y			Y
Roof missing 	Y	Y	Y	Y				
Traditional house								
Totally destroyed 				Y	Y	Y	Y	Y
No roof covering 				Y			Y	
No roof structure 				Y		Y	Y	

An assessment three months after the distribution had been competed showed that 15% of those who had received shelter materials had been unable to use them to rebuild their homes. The vulnerable households either did not have the money to pay someone to rebuild their homes or did not have any relatives willing to do the rebuilding. With everyone struggling after the disaster it appears that people were too occupied with solving their own problems to assist others without additional support.

Although it was recommended that beneficiaries take off the old roofing thatch, attach plastic sheeting underneath and then re-thatch the roof, many people had simply spread the plastic sheeting over the roof as they did not have sufficient labour to carry out this very physical task. Consequently, plastic sheeting was not well fixed on the roof and tore easily.

Logistics and materials

All materials were purchased locally, though the ability to guarantee the sustainable management of the forests from which the poles were cut was limited. The use of alternative materials was not pursued due to transporting issues and the potential for further delays.

Due to a shortage in dry grass, plastic sheeting was distributed as a roofing material. The shortage of other locally available materials delayed the implementation of the project.