

Nepal RSK response team provide Standard RSK shelters and blankets for families displaced by Jajarkot earthquake.

BACKGROUND

On 3rd November 2023 a powerful ML6.4 earthquake struck Nepal with its epicentre in Jajarkot, a remote hilly district, nearly 330 kilometers west of Kathmandu. More than one hundred people died and several hundred people were injured.

OVERVIEW

On 27th November 2023 our trained RSK shelter response team arrived at Nalgad municipality, ward 3, in Jajarkot. After identifying those families in most urgent need of shelter, our team worked alongside the community to build 6 RSK Standard shelters for these displaced families. During this time members of the local community that assisted our team were also trained to build standard RSK shelters. When our six shelters had been completed it was agreed that a further nine RSK standard shelters would be built by this local team when we left. They would build these shelters under the supervision of the local social worker who would also liaise with our team.

Over the following five days the local team built a further nine Standard RSK shelters with the help of the displaced families.

Based on the positive feedback we received from this deployment a second RSK response team was deployed to Kushe on 1st January 2024. Over a period of seven days, working alongside the community, they built a further 20 Standard RSK shelters. The team returned to Kathmandu and Birtamode on 9th January.

The two deployments had built a total of 45 RSK Standard shelters and provided emergency shelter for 194 people. In addition 25 blankets, 58 mats and 16 sleeping bags were also distributed to the families at risk of hypothermia.

Both deployments achieved their objectives of not only providing important aid but also demonstrating how trained RSK shelter teams can empower recipient families to assist in building their own RSK shelters in an emergency.

The Nalgad deployment

4 RSK shelter trained response team members

Tuesday 28th November

Situation assessment on arrival and building first RSK shelter

Families were spread over the hillsides and valleys below in various types of makeshift shelters. Most of these shelters were built immediately next to traditional stone walled dwellings that had either collapsed or, more commonly, had still remained standing but suffered severe structural damage and were unsafe to enter. Some of the shelters that displaced families had built were crudely constructed of wood (branches), and bamboo with occasional salvaged CGI sheeting. Many of the shelters were making use of the local orange or blue plastic sheeting supported by either traditional hoops of split bamboo or very basic “A” frame structures. Nearly all these shelters had been hastily built with limited materials and provided the occupants with poor protection for the approaching winter.



Existing poor shelter

Nalgad 2023



Existing poor shelter

Nalgad 2023

It became clear that our only option at this remote hillside location was for the community team to freshly cut the local bamboo and carry it to each individual shelter site. At the same time that this bamboo was being cut and prepared, the first two tarpaulins together with lashings and tools for cutting the bamboo and digging post holes were also brought to our first shelter site.

The first RSK shelter we built was urgently needed for a family of six who did not have a tarpaulin and had not managed to build a shelter. They were sleeping under a piece of plastic sheet draped over a couple of bamboo poles with their possessions partly outside in the open.



Family living under a plastic sheet.



Digging the holes for the RSK four corner posts.

At midday the team set about building this first shelter with the resolve to finish the shelter for the family by nightfall. This was going to be difficult as the ground was very rocky to dig holes for the posts and the saws we brought were having difficulty cutting the sap heavy green bamboo. One of the community team was a carpenter and it was most helpful to make use of his skills using a curved machete to cut the slots and dowel holes at the top of the posts.

By mid afternoon the sun had long set behind the surrounding mountains and temperatures fell rapidly as the light faded. Working on in the darkness the team made the shelter secure enough for the family to use for the night and placed insulation mats on the floor.



First RSK shelter being erected by lamp light.



Mats on the ground for insulation as the first RSK shelter nears completion.

Wednesday 28th November (day 2)

Finishing the first shelter and building two further standard RSK shelters.

Before we continued to build shelters we went to the local market and bought some new saws to make cutting the bamboo easier. In addition we purchased bundles of coconut fibre lashings and some galvanised wire to assist attaching tarpaulin to the bamboo frame.

We then returned to the first shelter to complete attaching the tarpaulins and to demonstrate how the front flap could be pulled open to create an awning during the day.



First shelter (family of 6) nears completion.



Front flap open to create a covered area for cooking.

A couple of hundred metres further down the hillside a need for two further shelters was identified. These two shelters were to be built next to each other. Having two shelters at the same site meant we could build them much quicker. It also enabled half the team to start preparations for the next three shelters which were another 50 metres further along the hillside.



Shelter 2 (family of 5)



Shelter 3 (family of 3)

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Mother assists securing tarpaulin..

Thursday 29th November (day 3)

Building the final 3 shelters.

After an early start good progress was made with the final 3 shelters. In the late afternoon final checks were carried out on each shelter and at the same time the recipient families were made aware of the local contact that we had set up if they needed further support in future.



Shelter 4 (family of 8)



Shelter 5 (family of 4)



Shelter 6 (family of 4)
Nearing completion

RSK shelters built by the local community team.



The shelters were built to a good standard



Family with insulation mat for floor and blankets



Social worker delivering rolls of insulation mats and blankets .



The Kushe deployment

3 RSK shelter trained response team members

OBJECTIVES

These were broadly the same as the Nalgad deployment but the location was even more remote and at a higher altitude, making the community more vulnerable to hypothermia. The team took 40 tarpaulins from our store in Kathmandu to build a further 20 Standard RSK shelters. Dry bamboo was purchased from a local retail source near the Nepalgunj airport in advance and a truck hired for transportation. In addition 29 blankets, 8 sleeping bags and 52 sleeping mats were also purchased from the market at Nepalgunj.



Transferring bamboo from truck to tractor trailer.



The team build a modified Urban RSK for themselves to sleep in.

Kushe RSK shelters

Kushe was at a higher altitude, colder and more exposed than Nalgad. It was therefore decided to reduce the length of the central roof frame poles to 2.4 metres and thereby the size of the RSK shelters. The height of the lower support posts was also reduced to increase the roof incline .



Building the reduced internal volume RSK shelter



The modified Standard RSK shelter with increased roof incline.

Kushe RSK shelters



Carrying the roof frame to shelter site



The roof frame in position



Inside of an RSK shelter being built



The reduced size RSK shelter

OBJECTIVES ACHIEVED BY DEPLOYMENTS

1. BUILDING RSK SHELTERS FOR DISPLACED FAMILIES

The deployments demonstrated that a small team of 3 trained RSK shelter volunteers can respond effectively, in remote and challenging conditions, to build RSK shelters wherever they are urgently required. In addition, blankets, sleeping bags and insulation matting were provided to recipients of these RSK shelters to help the families reduce their risk of hypothermia.

2. EMPOWERING THE COMMUNITY

The response teams provided both communities with the “know how” and materials to build their own RSK shelters. This ability of trained responders to convey this new method of shelter building to a vulnerable community in such a short time, is due to:

- (i) How simple the reciprocal frame roof concept is to demonstrate.
- (ii) How seamlessly this concept fits into traditional methods of bamboo frame shelter construction.

The fact that RSK shelters make use of local materials and require only simple skills to build them, further facilitates this process.

Training of trainers (ToT) has been shown to work well in Myanmar (see CDA 2020) with the RSK method of shelter building and these two deployments fully support this. We look forward to scaling up RSK shelter ToT in Nepal, and eventually worldwide, so that all communities living at risk are empowered to prepare and respond themselves in a disaster.

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