

Visit to MSF In- Patient Department facility Moynarghona, Cox's Bazar (CB) District, Bangladesh. May 2018.

Context of visit:

Shaun Halbert (director of the RSK Shelter Charity) was invited by MSF to assist with the structural evaluation of existing traditional bamboo hospital units as they face the imminent onset of monsoon. In addition this was an opportunity to set up a half-day training session in the use of RSK shelters for staff at an In-Patient Department facility.

Observations:

MSF are at the front line for their patients in CB, providing primary health care and also In-Patient facilities. When hospitals are built of bamboo the structures can be particularly vulnerable over the monsoon and cyclone season. The RSK assistance outlined here is also applicable to MSF facilities in all countries that have bamboo resources.

The RSK shelter project:

This is a not for profit, self-funding project. Since winning the AideEx Innovation Award in 2015 we have worked closely with the Shelter Cluster in Myanmar and Nepal to train local and INGOs on how to use the RSK method of roof construction for emergency and temporary shelter. All data is open source on our website www.RSKshelter.org

The advantages of building temporary RSK wards for MSF

In the event of severe storm damage to a field hospital, MSF staff can rapidly erect temporary wards so that patients are able to continue being treated.

1. SPEED OF ASSEMBLY:

A team of 8 staff that have received only basic training can build four RSK units covering 40 square metres in less than 2 hours. This is possible due to the roof frames being able to be mass assembled on the ground before being lifted onto their support posts.

2. MODULAR AND ADAPTABLE TO NEEDS:

Adding multiple units produces a long house type temporary ward or ancillary shelter while maintaining individual unit structural strength. As the roof is supported by the corner posts and not the walls, any available materials from earth bags to mud bricks can be used to fill in the walls.

3. FUNCTIONAL WITH IMPROVED HYGIENE:

RSK roofs provide better ventilation at eaves level.

The ability of the roof to support cladding /insulation can make it cooler than a tent.

The roof frame is ideal for hanging partitions for privacy and also mosquito nets if needed. Using only complete bamboo poles for the roof makes it easier to clean and also reduces dust from overhead bamboo lattices.

4. COST EFFICIENT:

The RSK shelter uses up to 33% less bamboo than traditional shelter frames due to the exceptional span of the reciprocal frame roof. Transportation and storage costs of RSK kits are thereby reduced. The double unit in this training cost 3,100 Taka (USD 37).

**Building RSK ward units at MSF field hospital
Photos S.Halbert Cox's Bazar Bangladesh 2018**



RSK double shelter kit complete



Simple assembly of roof frame on the ground



Shelter frame complete



Walls are filled in with tarpaulins or solid materials

Three MSF doctors inspected the double RSK that had been built by the trainees for the first time. Their opinion was very positive especially when it was pointed out that the roof could be easily constructed higher and that ventilation gaps could easily be created at eaves level. It was agreed that up to 3 beds per unit was workable with further modules being added as required.

MSF field staff can also use their RSK training for emergency roof repair.



Field hospital with traditional bamboo lattice roof.

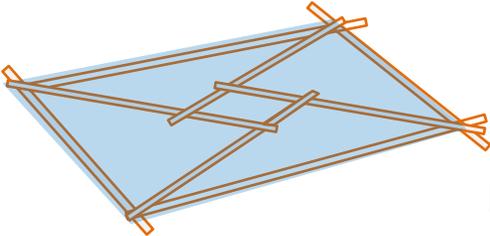
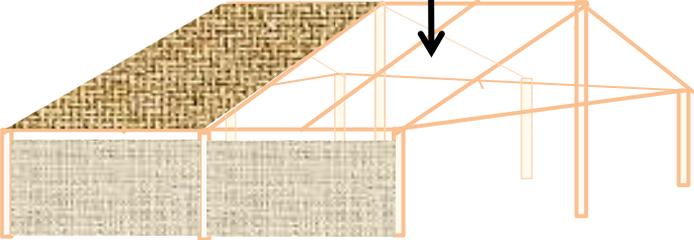


Storm damage to roof exposing bamboo lattice

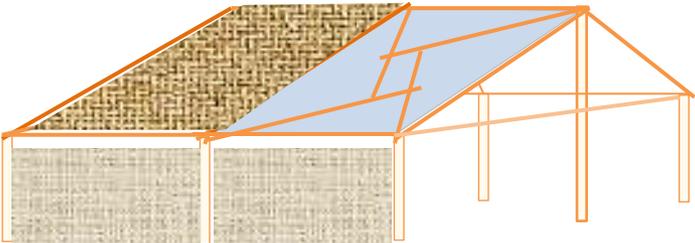


Complete RSK roof frame is assembled on the ground

Damaged section of roof



Complete roof frame with tarp attached



Roof frame covering damaged roof

Conclusion

Training MSF staff to repair damaged hospital roofs or to completely rebuild temporary wards using the RSK method of construction is now a feasible option.

The method does not require any special skills as the roof frames are rapidly assembled on the ground before being lifted into position thereby avoiding aerial work. The RSK roof frames use only 2 lengths of pre-cut bamboo that can be stored as a kit for emergency use.

The temporary repair described here is similar to that outlined in the IFRC Geneva published Technical Sheets 1311400 which also uses the RSK method.

Providing this knowledge to MSF staff can potentially prevent the closure of a hospital and enable medical staff to continue to treat patients during the longer reconstruction phase.

Shaun Halbert
Director RSK Shelter Charity.

shaunvet@hotmail.co.uk
+44(0)7970 106786