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# COLLAPSIBLE SHELTER



*Photo: Mercy Corps Pilot Collapsible Shelter for non-water logging context in Maiduguri*

**AN INNOVATIVE SHELTER SOLUTION  
FOR PEOPLE ON THE MOVE**  
**COLLAPSIBLE | TRANSPORTABLE | UPGRADABLE |  
LOCAL | LINKING RELIEF TO RECOVERY**

**MARCH 2022**



## **Introduction**

Mercy Corps is a leading global organization that works in over 40 countries around the world to alleviate suffering, poverty and oppression by helping people build secure, productive, and just communities. Since 2012, Mercy Corps has worked to tackle Nigeria’s complex and evolving needs through a range of dynamic, multi-sector programs.

In Northeast Nigeria, Mercy Corps is engaged in addressing both immediate and long-term development needs of vulnerable communities using a community-led and market-driven approach to enable conflict-affected populations to transition from relief to resilience.

Since 2017, Mercy Corps has been implementing its comprehensive shelter program in Borno State, which includes shelter repairs for IDPs and returnees staying with host communities, construction of permanent shelters for returnees, construction of transitional shelters in camps, construction of emergency shelters in camps and transit sites, and distribution of basic emergency shelter materials for new arrivals at reception centers.

## **Context For An Innovative Shelter Solution**

In a volatile security and humanitarian context, such as the one in Nigeria, implementing shelter programming requires careful consideration to ensure the sustainability of the proposed intervention linking humanitarian assistance to the development and resilience of the affected communities.

Considering the short lifespan of shelter materials, that deteriorates over time due to unfavorable weather conditions such as heavy wind, sandstorms or flooding as well as the costs related to the initial distribution, replacement, reinforcement or maintenance of the shelters.

Other challenges relevant to the Northeast region include limited land available, continued displacement, forced eviction, lack of quality workmanship, low standard and unavailability of bulk shelter materials in the deep fields. Highlight the urgency to search for durable shelter solutions designed to reflect the changing needs of the affected people and respond to rapid shifts in circumstances.

Currently, the majority of shelter interventions fall under three types: 1.) emergency, 2.) transitional and 3.) permanent shelters responding to the different stages of humanitarian crisis. Given this, Mercy Corps felt the need to find an alternative and innovative shelter solution that addresses both the most immediate, as well as long-term needs of the affected populations with easily assembled, collapsible, transportable, and upgradable shelters.

This shelter solution will also help avoid issues surrounding land availability as people can carry the shelter with them as they move due to displacement or forced evictions or in ensuring proximity to livelihood opportunities thus, increasing the sense of ownership of the affected families, and responding to the need to maintain cohesion among IDPs and the host families.

In addition to addressing current needs, the proposed model will also help humanitarian agencies to pre-position an easy to assemble, mobile shelter kit made from locally sourced


materials and built in a controlled environment, such as the carpenter’s workshop where regular quality monitoring can help increase the durability and lifespan of the shelter. Moreover, since it is prefabricated, it will be readily available to IDPs as soon as they arrive at the transit site, reducing time spent in construction and transportation of supplies.

### **Why a Collapsible and Transportable Shelter?**

The humanitarian situation necessitated Mercy Corps to explore a shelter design, in close consultation with the communities of interventions that addresses the diverse needs that expedites on-site assistance for appropriate, dignified, portable and transportable, easily collapsible, and upgradable shelter. Key informants interviewed from the communities confirmed the need for the innovative shelter model to solve the ongoing challenges with regards to the provision of emergency and transitional shelter assistance in Borno state.

With this, Mercy Corps worked in developing two collapsible and transportable shelter prototypes: the first one is for waterlogging context and the second for land with no flooding or water logging challenges Maiduguri. The shelter models were exhibited to stakeholders in separate sessions to receive feedback and recommendations on the innovative shelter models. The stakeholders invited includes representatives from the Shelter Sector, Shelter partners, State Emergency Management Agency (SEMA), National Emergency Management Agency (NEMA), University of Maiduguri, Ramat Polytechnic, local artisans, IDPs from camps, Housing, Land and Property (HLP), and Protection sector working groups. The shelter models were also piloted across deep field locations of Bama, Gwoza, Damboa and Ngala local government areas of Borno State for consultation and feedback at the field level. Extremely positive feedback was received from the stakeholders on the innovative shelter models across all the locations. They recommended for scale-up of the shelter models and adoption by shelter partners.

### **The Key Design Features a **PERSONAL** Model**

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- P**ortable and transportable as they are made into collapsible panels
  - E**asy to build, detach, rebuild, and maintain;
  - R**apidly assembled and disassembled and transported;
  - S**ustainable model;
  - O**perational and maintenance costs are low and the model uses locally available materials;
  - N**o sophisticated materials and contraptions involved;
  - A**ttuned to local practices. No skilled labor required in assembling and rebuilding the structure;
  - L**ocal ownership promotion.

### **Linking Humanitarian Efforts to Recovery to Building Resilient Communities**

The proposed innovative and context-adaptive shelter solution helps:

- IDPs to bring the shelter with them when they move or face multiple displacements due to unification with their family members, armed opposition groups attacks, search for livelihoods opportunities, forced evictions by landowners or return to their place of origin.

- Ease the situation with landowner restrictions over building of permanent structures and addresses the limited land availability in the areas where IDPs stay.
- Increase the lifespan of the shelter structure, which will redound to reduction in the humanitarian investments related to shelter in the overall response cycle, from displacement to return.
- Increase a sense of ownership by empowering the shelter participants and community with the tools and skills to construct, deconstruct and move the proposed shelter.
- To benefit the local economy by using locally sourced materials.
- Avoid congestion and overcrowding in camps by easily shifting the structures.
- Contribute to the resilience of the affected communities. The production of the kit should take place in the local market. The introduction of the model can happen through step-down vocational trainings alongside provision of small business livelihood grants, so it is replicated at the community level. The set-up of the supplier's supply chain can be linked to humanitarian shelter actors for support.

## **Annexes**

Annex 01 – Collapsible shelter design drawings

Annex 02 – Technical Detailing

Annex 03 – Technical Information

Annex 04 – Feedback Report

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### **About Mercy Corps**

Mercy Corps is a leading global organization powered by the belief that a better world is possible. In disaster, in hardship, in more than 40 countries around the world, we collaborate to put bold solutions into action — helping people triumph over adversity and build stronger communities from within.

Now, and for the future.



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