



Republic of South Sudan

Shelter Technical Working Group (TWIG)

Thursday 28 August 2014

UNOCHA Juba

DRAFT MINUTES

| ATTENDEES | | |
|-----------------------|-----------------------------------|--|
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1. Welcome brief

- Review of the 1st TWIG session on consolidation of emergency shelter;
- Objective of the 2nd technical working group meeting on consolidation of emergency shelter: Come up with recommended shelter design based on lessons learnt from the shelter design proposed in February.

2. PowerPoint Presentation on consolidation of emergency shelter (Part II)

- The PowerPoint presentation on consolidation of emergency shelter included the followings:
 - ✚ NFI considerations and priorities for warm, humid climates;
 - ✚ Main characteristics of Acute Emergency Shelter, Standard Emergency Shelter, Robust Emergency Shelter, Transitional Shelter and Permanent Shelter (When to apply each of them);
 - ✚ Proposed kits for robust emergency shelter (top up kit) and estimated cost;
 - ✚ Structural components, bracing;
 - ✚ Wattle & Daub general;
 - ✚ Ventilation principles (and example);
 - ✚ Roof types (Roof structure, importance of tie or collars for the trusses);
 - ✚ Permanent Shelter (Example, General composition).
- The soft copy of the PowerPoint presentation will be shared with cluster members after together with the regular updates.

3. Discussion/Debate around the above points presented

NFI considerations and priorities for warm, humid climates

- When designing a shelter, the 1st thing to think of is the climate;
- The transitional shelter guideline provides very good points to consider when designing shelter in warm, humid climate.

Main characteristics of Acute Emergency Shelter (AES)

- AES are Light weight, air lift able and lifespan is between 3 to 6 months. However they are basic kit and often below standards;
- AES is mainly for “hard to reach” areas.

Main characteristics of standard Emergency Shelter (SES)

- SES meet the sphere standards, can be transported by truck and the lifespan is between 3 to 6 months;
- Standard kits in pipeline.



Main characteristics of robust Emergency Shelter (RES)

- The main difference between the standard emergency shelter and the robust emergency shelter is the lifespan which is 6 to 12 months for robust emergency shelter;
- RES has a reinforced structure that is designed especially for mid stay foreseen (more than 2 seasons) or unsecured returns (Conflict situation).

Main characteristics of transitional Shelter (TS)

- TS should be locally and culturally (wall using flexible materials acceptable);
- 70 % of the materials shall be reusable and transportable;
- TS should be developed based on what is locally available;
- Lifespan: 12 to 24 months;
- TS is recommended where for mid stay foreseen (over 6 months), secured returns, P.O.C. with high security constraint (closed PoC).

Main characteristics of permanent Shelter (PS)

- PS is characterized by a fully reinforced and stable structure (wall using infilling or durable materials);
- Roof potentially upgraded with thatch or CGI sheets;
- Lifespan: over 12 months (to 10 years);
- PS is applicable when returns are secured returns and the key point with permanent shelter is the land tenure. Land tenure should be fully cleared and documented to implement PS;
- When agencies are not too sure about the land tenure, it is better to go for TS instead of PS.

Proposed kits for robust emergency shelter (top up kit) and estimated cost

- As we all agree that the structure should be reinforced, the global surge Capacity Support from the Global Shelter Cluster is recommending Robust Emergency Shelter where standard emergency shelter is applicable given the current South Sudan context;
- Top up kit for RES would be discussed with the partners and would likely be :
 - ✚ 8 extra wooden poles (total shall be 12 poles)
 - ✚ 3 bundles of bamboo
 - ✚ 10 extra sand bags
 - ✚ 200 g nails for structure (30 nails) on 6 inches
 - ✚ Tools: according
 - ✚ Optional 400 g of roofing nails 2,5" (around 120 nails) not from the pipeline
 - ✚ If design use non split bamboo add 50 ml of 1.2 mm metal wire to tie (around 500 g)
- The current cost for SES is about 153 USD. The cost for the top up kit would be between 60 and 70 USD.

Structural components, bracing

- Even Multiple vertical poles could lean. The most important is to get the corners properly linked;
- The stronger part of the structure should be the top;
- Secondary materials like bamboo can be used to reinforce the structures.

Wattle & Daub general

- The global Communities designed in Abyei was presented as an example of wattle and daub;
- Was also presented a structure using wooden poles, bamboo culms & bamboo lattices.

Ventilation principles (and example)

- Three types of ventilation were presented to the participants:
 - ✚ Cross ventilation (opposite)
 - ✚ Difference of opening size
 - ✚ High-low ventilation
- The global surge Capacity Support from the Global Shelter Cluster is recommending the high and low opening;
- A good example of ventilation from Asian country was shown.



Roof types (Roof structure, importance of tie or collars for the trusses)

- Putting grass on top of the plastic sheet is a good way to protect especially against the sun. Grass can last 5 years or more but if there is no ventilation between the grass and the plastic sheeting, the grass will get spoiled after about 6 months. The plastic sheeting should be fixed under the structure and the grass on top so water will not sleep in the grass;
- The full bamboo culm shall not be nailed to avoid cracks and splits;
- Use rubber tie or metal wires.

Permanent Shelter (Example, General composition)

- The culturally accepted permanent shelter in South Sudan is the tukul. It is constructed using local material like thatch roof;
- Require investment on expensive items like cement blocks, slabs etc...

Useful Addresses, sites & links

- The Transitional Shelter Guideline, shelter center is a very useful document that all shelter experts use;
- http://www.fastonline.org/CD3WD_40/CD3WD/INDEX.HTM
- <http://sheltercentre.org/>
- <http://sheltercluster.org/>

Action points

- TWIG key documents and presentations to share with cluster members;
- TWIG meeting minutes to share with the cluster members.

NEXT MEETING: TBD.