Bhamo Shelter Actors Technical Working Group (TWiG)

Venue: UNHCR Office in Bhamo

Date: Wednesday 31 July 2013

Time: 10:00 AM to 12:30 PM

Meeting Participants:

- Paul Knudsen, Shelter Expert, Shelter Cluster
- Wilfredo Jr Tiangco (Boyet), Associate Site Planner, UNHCR
- Lin Lin/Angela, UNHCR Bhamo Field Office Staff (alternating)
- Patrick, Project Coordinator, KBSS
- Peter, Shelter Technical Person, KBSS
- John, Shelter Technical Person, KBSS

Minutes: Wilfredo Jr Tiangco (Boyet), Associate Site Planner, UNHCR

Discussions and Sharing of Knowledge - Shelter Construction Works in Bhamo

- The meeting started with the introduction of each participant from UNHCR and KBSS. Mr. Paul Knudsen, Shelter Cluster Expert for Kachin State chaired the meeting.
- Relevant shelter provisions from *Sphere Standards* discussed by Paul, specifically the Shelter and Settlement Standards 3 and 4 (covered living space and construction). Key actions/indicators and guidance notes:
    - Minimum covered living floor area of 3.5 m2
    - All shelter solutions and materials meet agreed technical and performance standards and are culturally acceptable
    - All construction is in accordance with agreed safe building practices and standards
    - Construction activities demonstrate the involvement of the affected population and the maximizing of local livelihood opportunities
- Difference and improvements between the old and new shelter design discussed by Boyet. Explained the additional DRR integration features (4"x2" wall and ceiling level bracings and closer distance between the 2"x2" floor joists to strengthen the flooring). Ventilation gaps (bamboo slats) at the upper portion of the wall (front and back portions) and above the door. Full partition wall covering (bamboo mat) at the truss/rafter portion between two rooms/units for families/HHs to have more privacy.
- Possible types of materials for shelter flooring and wall:
    - Marine plywood (will last longer than ordinary plywood). It has different thickness and treated well to be more water resistant. A bit expensive compared to bamboo split/mat. Not sure if available in local market
    - Bamboo split (stronger than bamboo mat). Bigger and different type of bamboo material is used for this. This is seasonal, good quality bamboo can only be available during the dry season.

  - Bamboo mat is ok for walls. For floors, it needs sufficient number and appropriately distanced floor joists.

- KBSS ask some questions about the shelter design with bamboo posts. Paul and Boyet have not yet seen or familiar with the other design. When given the copy of the design drawings, noticed that the bamboo footing buried on the ground is only 1'- 6". Expressed that minimum should be around 2' buried on the ground with additional cross or horizontal anchors.
- Showed some pictures (good and bad examples) of actual shelters constructed in Myitkhina and Bhamo. Discussions on the correct and wrong way of connecting joints (bamboo and timber), strong and more stable footings, need for additional wall bracings for shelter structures to mitigate the risk of tilting and structural failures due to strong winds and heavy loads.
- KBSS shared two shelter unit sizes and designs (22'x9' single row and 11'x18' double row) but with almost the same materials and structures. UNHCR was given a soft copy of this shelter design by KBSS.
- Basic guidelines on proper site selection/planning, shelter construction/renovation/upgrading and checklist on the stability of shelter shared and explained by Boyet to the KBSS technical staff
- Distributed to KBSS the copy of Shelter, CCCM/NFI Cluster brochures to have more information on the activities of the Cluster in Myanmar.