MISSION

The Red Cross Shelter Research Unit (IFRC-SRU) develops innovative material and technical shelter solutions, bringing together and sharing resources for sheltering. The organization collaborates with national Red Cross and Red Crescent societies as well as international or public agencies or non-governmental shelter actors in their humanitarian efforts.

The IFRC-SRU is involved in drawing up specifications for the IFRC Emergency Items Catalogue (the procurement catalogue used by IFRC and other humanitarian actors) and offers research and development expertise as well as technical evaluation and testing services to producers and suppliers of shelter solutions and materials who are interested in exploring new markets.

Results and findings of research are published through reports and through the IFRC-SRU newsletter and at various shelter related forums. They are also presented at the organization’s annual conference, which brings together a wide range of humanitarian organizations, shelter professionals and members of the private sector.

International Federation of Red Cross and Red Crescent Societies

Shelter Research Unit

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Services for industrial companies supplying the humanitarian aid organizations

- Technical Evaluation
- Field Testing
- Thermodynamic simulation

Services for humanitarian shelter actors

- Development of context-specific shelter solutions
- Monitoring/evaluation
- Technical capacity building on construction techniques and materials
Experience has shown that many products used in humanitarian assistance do not perform as expected. When sheltering materials fail, it is mostly for one or more of the following three reasons:
1. The delivered materials do not meet the required specifications.
2. The received specifications were not precise enough or are missing critical detail, or
3. The products were only lab-tested, not field-tested, and the lab testing could not reproduce critical field conditions.

While certainly a necessary tool, lab testing can only simulate certain conditions. Field testing, however, the products and materials are subjected to a wide variety of real-life conditions that cannot be replicated in a laboratory environment. The IFRC-SRU provides services to field-test shelter products and materials, and in the process confirms the products’ real-life suitability or provides recommendations for improvements.

**Example: Model simulation for the standard family tent**

**Testing of new tents (Burundi), usability and comprehensiveness of instructions to set up the structure/canopy and specific climatic testing.**

**Example: Burundi Tent testing**

Three tent prototypes developed in the joint IFRC/ICRC and UNHCR research project were tested under real-life conditions in Burundi. Tested criteria included:
- Ease of set-up (e.g., user friendliness, ease of instruction comprehension, set-up time).
- Climatic performance and thermal comfort.
- Material transluency and allowance for privacy.
- Beneficiary satisfaction (e.g., ease-of-use, comfort, versatility).
- Stability of structure and durability of materials.

**Final version of the Sahel shelter with shade net structure integrated into the shelter structure.**

Based on extensive field experience and analysis of local building techniques IFRC-SRU can offer technical capacity building services to identify shelter solutions that are already available.

**Example: Burundi workshop on earth construction**

3 day work-shop in Burundi, hosted by the Burundi Red Cross and funded by Luxembourg Red Cross. Participants included staff from national Red Cross and Red Crescent societies of the Great Lakes Region (Burundi, Rwanda, Congo) and other humanitarian actors involved in reconstruction in the region. The workshop resulted in recommendations that were included in the updated version of the governments and UNHCR guidelines for the standard model house.

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