



## Emergency Handbook Notes on Shelter

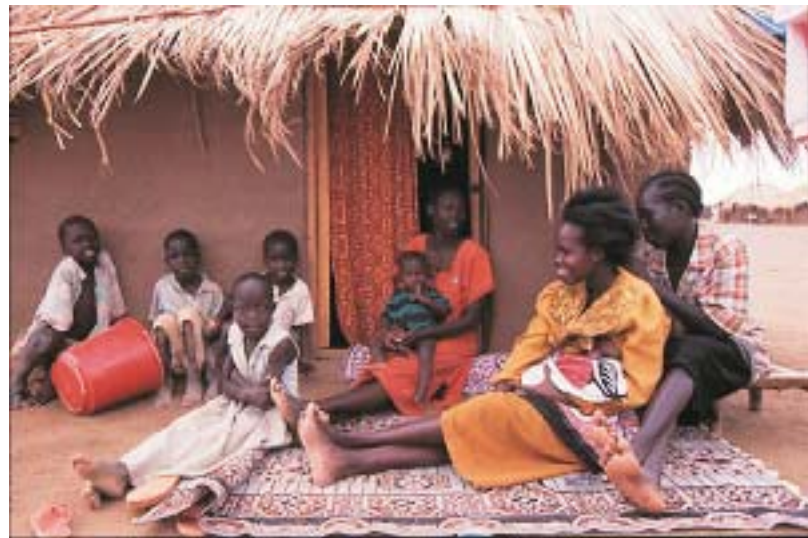


### Standards that UNHCR employs in Emergencies

✓ Land	30-45 m2 per person
✓ Shelter	3.5 m2 per person
✓ Water	15-20 L. per person/per day clean water
✓ Food	2,100 kcal/person/day
✓ 1 latrine	per family (6 to 10 persons)
✓ 1 water tap	per community (80-100 persons)
✓ 1 health centre	per camp (or 20,000 persons)
✓ 1 hospital	(up to 200,000 persons)
✓ 1 school	(per 5,000 persons)

### Shelter - Basic Principles

- 1 Refugee shelter must provide protection from the elements, space to live and store belongings, privacy and emotional security;
- 2 Blankets and clothing must be provided if necessary;
- 3 Refugee housing should be culturally and socially appropriate and familiar. Suitable local materials are best, if available;
- 4 Shelter must be suitable for the different seasons;
- 5 Except for tents in certain circumstances, prefabricated or special emergency shelter has not proved to be a practical option on either cost or cultural grounds;
- 6 Wherever possible, refugees should build their own housing, with the necessary organizational and material support.





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### What kind of things does UNHCR take into consideration?



- Shelter must, at a minimum, provide protection from the elements, space to live and store belongings, privacy and emotional security.
- Shelter is likely to be one of the most important determinants of general living conditions and is often one of the largest items of non-recurring expenditure.
- While the basic need for shelter is similar in most emergencies, such considerations as the kind of housing needed, what materials and design are used, who constructs the housing and how long it must last will differ significantly in each situation. The first steps are to assess the adequacy of any emergency shelter arrangements refugees have already made themselves, and to meet immediate needs through provision of simple local materials.
- Particularly in cold climates or where there are daily extremes of temperature, lack of adequate shelter and clothing can have a major adverse effect on health and nutritional status. Thus, in addition to shelter, provision of sufficient blankets, appropriate clothing and heaters will be a high priority.
- Refugees should build or assist in building their own housing. This ensures that the housing will meet their particular needs, reduce their sense of dependence, and can cut costs considerably





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### What kind of Shelter Standards does UNHCR have in Emergencies?

- Individual family shelter should be always preferred to communal accommodation as it provides the necessary privacy, psychological comfort, emotional safety and a territorial claim for future security. It provides safety and security for people and possessions and helps to preserve or rebuild family unity.
- Emergency shelter needs are best met by using the same materials or shelter as would be normally used by the refugees or the local population.
- If materials for a complete shelter cannot be provided, provision of adequate roof materials will be the priority, as walls can usually be made of earth or other materials found onsite or locally available.
- Only if adequate quantities cannot be quickly obtained locally should emergency shelter material be brought into the country.
- The simplest structures are to be preferred. Materials should be environmentally benign or gathered in a sustainable manner.
- At the beginning of an emergency, the aim should be to provide sufficient materials to the refugees to allow them to construct shelter meeting at least the minimum standards for floor space, which in emergencies are:
  - minimum of 3.5 m<sup>2</sup> per person in tropical, warm climates, excluding cooking facilities or kitchen (it is assumed that cooking will take place outside);
  - 4.5 m<sup>2</sup> to 5.5 m<sup>2</sup> per person in cold climates or urban situations including the kitchen and bathing facilities.
- The design of shelter should if possible provide for modification by the occupants to suit their individual needs. In cold climates, for example, it is very likely that people, in particular children and old people, remain inside the shelter throughout the day, hence more space is required.





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### When and How are Tents used in Emergencies?

Tents may be useful and appropriate for example when local materials are either not available at all or are only seasonally available or for refugees of nomadic background. The life-span of an erected tent depends on the climate and the care given by its occupants; it may be as long as 2 to 3 years. Where tents are used, repair materials should be provided to the occupants.

Tents should be covered with an outer fly to shade and protect the tent below. The tent should provide free-standing height all over the floor area. Tents are difficult to heat as canvas walls and roof cannot provide insulation against heat loss. However, it is possible to some extent to heat a good, well sealed tent, if enough heat is produced in a tent stove. This stove needs fuel (usually wood or kerosene) around the clock to maintain a comfortable temperature. The fuel cost will be high. Therefore tents are not suitable as cold climate shelters, but if there is no choice, they can save lives and bridge the time until more suitable shelters are established.



### How is Plastic Sheeting used in Emergencies?

Plastic sheeting has become the most important shelter component in many relief operations. In urban areas roofs can be repaired with specialized UV-resistant heavy-duty plastic sheeting. Windows can be repaired with translucent reinforced panels. Tents and emergency shelters can be covered with highly reflective UV-resistant woven plastic tarpaulins.

Wooden support-frames and stick skeletons for these shelters, if collected from surrounding forests, can harm the environment considerably. It is therefore important to always supply frame material (which is sufficient to support plastic). The frame material should come from sustained, renewable sources.





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### What about Emergencies in Cold Climates?

Climates where cold weather with rain and snow prevails over extended periods (3 to 5 months), demand that people live primarily inside a house. In particular, the more vulnerable persons such as the elderly, small children, the sick and the handicapped need heated, enclosed spaces. Shelters which are sufficient to withstand cold conditions have to be of a high standard and are complex and expensive to build. The following should be considered:



- Wind protection of walls, roofs, doors and windows;
- Insulated enclosed space, with simple dividers;
- Heating stoves;
- Structural stability (to withstand snow- and wind-loads);
- Protected and heated kitchens and sanitary facilities.

To help people survive the impact of cold weather in an emergency, a strategy should focus on the following:



- **Individual survival.** It is extremely important to protect the human body from loss of heat. Particularly during sleep, it is important to be able to keep warm, by being able to generate and retain body heat with blankets, sleeping bags, clothing and shoes, and food with high calorific value;
- **The living space.** It is very important to concentrate on a limited living space and to ensure that cold air can be kept out of this space. This can be done by sealing the room with plastic sheeting and sealing tapes. Windows and doors should be covered with translucent plastic sheeting, stapled on window and door frames. Large rooms should be subdivided, with the help of plastic sheets or blankets. New structures should be constructed with a sealed space to keep the cold air out. Walls, ceilings and floors of the living space should be designed to insulate from cold air and to retain warm air as efficiently as possible;
- **Heating.** Keeping the inside of a shelter at a comfortable temperature (15 to 19° C) depends to a large extent on the outside temperature, the type of construction, the quality of insulation, the orientation of the building, and on the type and capacity of the stove.