CHAPTER 15 | SHELTER

The term camp is used throughout the text to apply to a variety of camps and camp-like settings which include planned camps, self-settled camps, collective centres, reception and transit centres, and evacuation centres.

KEY MESSAGES

→ Shelter is more than a roof. It is a means of ensuring people’s rights to physical security, health, privacy and dignity. As such, it is an important component of protection.

→ The Camp Management Agency, together with the Camp Administration, the Camp Coordination and Camp Management (CCCM) Cluster/Sector Lead Agency, must ensure that shelter programmes are closely linked to other services in the camp.

→ The Camp Management Agency should recognise that shelter needs and usage change over time. People may need support to maintain, reuse and/or upgrade their shelter. Materials and designs should be durable and flexible.

→ International shelter standards are helpful in providing guidance to help improve temporary housing/living conditions. Country level adjustments to international standards can be requested from the Shelter Cluster. Shelter design should be based primarily on the camp population’s needs, cultural norms, the duration of use and national standards. Special attention must be given to the needs of vulnerable groups.

→ Organisations implementing shelter programmes should assess which building materials and skills are used and are locally available for shelter construction. They should consider possible issues around their environmental sustainability and the consequences of increased material harvesting from the local area.

→ It is important to incorporate risk management measures into shelter programmes. This can be done by reducing threat multipliers that can cause public health outbreaks, fire, violence, theft or damage from seasonal climatic changes and extremes of weather such as flooding and high winds. These risk management measures should contribute to avoidance of protection concerns and the risk of increasing the vulnerability of displaced families.

→ The Camp Management Agency should not underestimate the need for strong technical support for shelter activities. The Camp Management Agency and shelter providers need to ensure that sufficient skilled staff is available for effective programme design, technical supervision of shelter construction and monitoring of usage and occupancy.

INTRODUCTION

Shelter is a means of ensuring people’s protection by responding to their rights to physical security, health, privacy and dignity. It provides a shield from adverse weather and a space to live and store belongings. Good shelter programmes can provide a family with a place in which to base livelihood activities and promote a sense of security whilst living in a temporary community.

WHAT IS A SHELTER IN CAMP MANAGEMENT?

A shelter is a ‘habitable covered living space, providing a secure, healthy, living environment with privacy and dignity to the groups, families and individuals residing within it.’ Tom Corsellis and Antonella Vitale, Transitional Settlement Displaced Populations, p.411.

At the start of an operation, assess all options for sheltering displaced families, including options for sheltering populations outside of camps. If upgrading an existing camp or building, shelter providers and the Camp Management Agency should take time to assess what has already been built by the inhabitants of the camp or settlement. It may be more appropriate to consider repairing existing buildings, renting unoccupied structures or accommodating the displaced with host families. All options considered should have clear advantages and disadvantages to the overall operational objectives. Sound planning for a shelter project entails simultaneously meeting the needs of displaced families whilst mitigating and compensating for the negative impact their presence has on host communities.

SHELTER IS MORE THAN A ROOF

Remember that the physical components of a shelter programme include not only walls and a roof but also clothing, bedding and cooking sets and other non-food items (NFIs).
Even if in rare cases, optimally, camps are selected and designed before displaced people arrive. In some countries, the national authorities may have assigned certain buildings as planned collective centres for use as temporary shelter for displaced populations in case of natural disasters, such as cyclone, hurricane, storm and flood shelters.

More frequently, a displaced population will settle themselves in unoccupied buildings or land, before the Camp Management Agency is operational. Depending on the size of a self-settled camp, rather than building new structures, the focus may be on upgrading existing structures and the existing infrastructure, and to meet agreed national or international standards. IDPs can be moved in order to restructure the camp. Safety measures can be implemented to protect people.

The CCCM Cluster recommends the use of the minimum shelter standards as documented by Sphere and the Office of the UN Refugee Agency (UNHCR) for initial guidance. In the majority of instances it may be difficult to reach the agreed standards at the beginning of operations. Attaining optimal standards or living conditions may be a process that develops over time. Although minimum standards and associated indicators are meant to be universal, whether they can be delivered or not will depend much on local and cultural factors.

Shelter activities should be carried out by a specialised shelter service provider, in close collaboration with the Camp Management Agency, the CCCM Cluster/Sector Lead Agency as well as the Shelter Cluster/Sector.

**VOICE FROM THE FIELD - SHELTER IN COLLECTIVE CENTRES**

Immediately after the main displacement of the population in Gonaives, Haiti, following flooding in 2008, some internally displaced persons (IDPs) found refuge in tents sites, but the majority were hosted by friends or families and in larger buildings. A wide variety of buildings were used as collective centres, including hotels, warehouses, church halls and schools.

The needs for individual family dwellings will help to determine the scale and pattern of the camp site or layout of the collective centre. Settlement planning, shelter designs or required upgrades to collective centres must take into consideration the needs of host and displaced communities, the delivery and maintenance of other services, such as food and NFI distribution, other infrastructure and external logistics supplies. Overall, a clear site plan should be developed before starting construction activities or distributing materials. Site planning considerations need to be understood in relation to shelter and how people will live and use space within the camp.

**INDICATORS OF POOR SHELTER CONDITIONS**

Increased rates of Acute Respiratory Infections (ARI), eye infections, and cases of scabies outbreaks are all indicators of poor shelter conditions within a camp. Monitoring health data of several camps can help to identify when regional or national issues are arising.

**KEY ISSUES**

**ROLES AND RESPONSIBILITIES**

The Camp Management Agency is responsible for coordination of all shelter interventions in camps in close coordination with the CCCM Cluster/Sector Lead Agency at inter-camp/regional level. This includes:

- supporting the CCCM and Shelter Clusters in ensuring that national strategies and standards are followed by all stakeholders in camps
- establishing a close partnership with shelter providers in camps
- assessing, identifying and ensuring response and follow up of all needs and gaps related to shelter within the displaced population
- paying special attention to vulnerable groups, for example persons with disabilities, female-headed households, teen-age-headed households, older and sick persons
- monitoring shelter allocation to ensure that shelter delivery targets those with the most significant shelter needs
- ensuring that shelter provision is coordinated with other sectors within the camp
- considering possible complementarities with other programmes and sectors
- ensuring that actors engage in appropriate community consultation, mobilisation and that representative committees are established in support of shelter related activities, such as fire safety and the management of communal areas to reduce encroachment
- ensuring promotion of shelter safety and security within the camp
- coordinating all liaison, information-sharing and shelter-related advocacy with the Camp Administration and other relevant national authorities and humanitarian actors
- advocating towards the CCCM Cluster/Sector Lead Agency to ensure that details of programme implementation such as day rates, designs and material quality are consistent across all camps.
For more information on the roles and responsibilities of a Camp Management Agency, see Chapter 2, Roles and Responsibilities.

PLANNING FOR SHELTER INTERVENTIONS
Shelter programmes in the camp context can roughly be organised into the following phases of response:

- preparedness/contingency
- emergency
- post emergency (transitional/temporary)
- care, maintenance and upgrade of shelter
- camp closure.

PREPAREDNESS/CONTINGENCY
The Camp Management Agency should plan shelter options to address any increases in population over both the immediate and longer term. Options should balance considerations for the camp population such as time frames, costs and physical shelter needs and shelter-related protection requirements. Planning will help to ensure that reserves of appropriate shelter materials are available and access to additional land or buildings has been negotiated in advance of it being needed. Exit strategies should also be considered at this stage. The Camp Management Agency should:

- prioritise during preparedness activities negotiation of agreements regarding the use of land and structures
- consider shelter options beyond the initial influx. Careful selection of materials for initial distributions could allow them to be re-used in secondary shelter options if these options are considered in advance
- be aware that buildings suitable for use as collective centres have almost always been constructed prior to displacement and are usually not designed for use as accommodation. These may require significant and potentially costly preparatory work to make them habitable and meet structural safety standards appropriate to the local context and possible hazards, such as earthquakes. The cost and time to undertake such work is usually a key consideration
- undertake all shelter planning activities in coordination with other sectors
- in settings of protracted displacement, plan for a natural population increase in camps of between three and four per cent and allow room for family expansion
- resolve ownership issues before shelter construction begins.

VOICE FROM THE FIELD - PREPAREDNESS ACTIVITIES
Prepositioning in Haiti
After the earthquake of 2010, prepositioning of roofing, bedding and other NFIs in a disaster prone country was useful to initiate response to needs in spontaneous settlements.

Evacuation Centres in the Philippines
Evacuation Centres are pre-identified by national authorities and often the population displaced by floods seeks refuge in school facilities. In different responses to floods affecting the country, the population displaced inside classrooms has been transferred to tents and emergency shelters in school compounds.

EMERGENCY SHELTER OPTIONS
Emergency shelter support must be designed for rapid implementation. In the initial phases of a response, or when there is strong pressure to ensure that camps remain a short term solution, tents or plastic sheeting are often distributed or public buildings are occupied with minor adaptations. However, it should be understood that displacement can often last for much longer than anticipated and many buildings will be required for their primary purpose. The aim of any emergency shelter support will be to provide immediate physical protection for the displaced from local climatic conditions.

VOICE FROM THE FIELD - AVERAGE CAMP LIFESPAN
In conflict and refugee situations, the average lifespan of most camps is 12 years, with many having been in existence for much longer. Some Palestinian refugee camps have been in existence for over 60 years. Camps tend to have a much shorter lifespan after natural disasters, although some may continue for several years.

POST EMERGENCY (TRANSITIONAL/TEMPORARY)
Emergency shelter provision should be followed as soon as possible by programmes supporting the provision of shelter options that meet more than the basic survival requirements of the affected population. The term ‘T-shelter’ (‘T’ for transitional or temporary) is commonly used to imply that the shelter is moveable, adaptable and expandable. Materials such as plastic sheeting, tents or sticks/bamboo may, if appropriate, be re-used at a later stage in the transition to a more long-lasting, and ideally durable, dwelling. However, transitional shelter programmes imply that there is a vision of what and where the durable shelter solutions will be. This is often not the case in camps. If the shelters or materials provided during displacement are not intended to be used in any future...
construction of a permanent dwelling, then these may be better described as temporary or semi-permanent shelters.

Within a collective centre this post emergency phase could entail further efforts to seal off and insulate the building along with repair works and progressive upgrades focusing on increased privacy, such as plywood walls, and improvement of services. Adaptations will be needed to address the requirements of individual families, to ensure the safety of the collective centre residents from possible fire hazards and to respond to the specific needs of vulnerable groups such as the construction of access ramps.

Investment in transitional or incremental shelter, rather than repeated emergency distributions, generally proves to be a better and significantly more cost efficient solution in the medium term.

CARE, MAINTENANCE AND UPGRADE OF SHELTER
Following the early stages of a shelter response, more durable shelters will be required to last for the duration of displacement. This is especially the case in areas with extreme temperatures, rainfall, snow and/or winds. A shelter built for short-term use usually is expensive to maintain over the longer-term, as well as not fulfilling the role of shelter in terms of providing privacy and dignity. Whenever upgrading shelters, consider the anticipated desired life span of both the shelters and camp.

Durable shelters should not usually be constructed in camps unless a long-term use and ownership are agreed and planned. An example of this is where buildings that are constructed could be handed over to the host population, or where buildings used as collective centres will be returned to longer term use after their occupation by the displaced.

Overcrowding and initial poor site planning can make it challenging to maintain and upgrade shelters at a later stage. However, upgrading of poorly constructed shelter is a priority for camp maintenance and may fall directly to the Camp Management Agency to organise.

VOICE FROM THE FIELD - EXAMPLES OF EMERGENCY AND POST EMERGENCY SHELTER
- **Guinea:** Two plastic sheets were distributed to Ivorian refugee families. These lasted for about six months but there were only funds to replace the sheeting every one or two years. The refugees discovered that covering the sheeting with grass lengthened the life of the plastic sheeting by several months. When new sheets were distributed they also kept the old sheets underneath so that they had several layers which significantly improved its water proofing function.
- **Pakistan:** Tents were distributed with blankets, stoves and cooking sets. A few months after the earthquake, training was given on the correct set-up of tents and mobile teams were formed to help with tent set-up. People were able to relocate tents to the sites of their destroyed houses during the reconstruction phase.
- **Lebanon:** Owners of disused and unfinished buildings were provided with grants to undertake needed repairs and seal off structures, making them suitable to host displaced families.
- **South Sudan:** Displaced families were provided with kits of plastic sheeting, timber poles and traditional grass mats with which to construct shelters. Training was provided to ensure the most efficient and durable use of materials and vulnerable individuals provided with additional assistance.
- **Ethiopia:** A selection of durable shelters was prepared by shelter agencies and the final design selected by a committee that included camp representatives. The selected design was built in centralised workshops and erected by refugee cooperatives, providing income generating opportunities.

COMMUNITY ENGAGEMENT IN SHELTER MAINTENANCE
Optimally, camp residents take on responsibility for maintenance and upgrade of their shelters. Sourcing of materials for such work needs to be suitably considered if collected in the local area so as to prevent environmental degradation or conflict with local communities.

The Camp Management Agency can initiate programmes by:
- assessing baseline conditions, including use of current shelters by inhabitants and the function of current shelters
- ensuring that Camp Shelter Committees survey and report on shelter status and needs
- establishing an efficient assessment and monitoring system for quick response and support
- establishing maintenance committees and building capacities amongst the agency’s own staff and the displaced community
- ensuring availability and storage of maintenance equipment, tools and the most frequently needed materials
- resolving disputes over shelter and plot allocation within the displaced communities
- mediating disputes over shelter and plot allocation between the national authorities or host community and the displaced communities
- negotiating in IDP settings with national authorities and land-owners as to whether people are allowed to upgrade their shelters and plots. National authorities may have specific restrictions on IDP settlements
- ensuring that new arrivals are registered, shelter needs are quickly met and vacant plots are prepared and allocated
- identifying, and potentially removing, vacant shelters
replacing old, damaged or destroyed shelters. It is often simpler to reclaim damaged materials. This will also avoid shelter inhabitants causing intentional damage in order to get new materials.

ensuring clear and transparent rules on when and under what conditions materials will be replaced.

ensuring community participation in maintenance activities and sensitising displaced communities to the importance of shelter maintenance.

CAMP CLOSURE
When closure of a camp approaches, the Camp Management Agency must prepare all stakeholders on the issue, in close coordination with the CCCM Cluster/Sector Lead Agency. In addition to all questions related to durable solutions for the camp population it is important to resolve in advance how to close programmes, address environmental concerns, what to do with various buildings and materials and how to address ownership of them.

At the time of camp closure, final ownership of structures and shelter materials will vary. Ideally, durable constructions are handed over to the host community, unless there is a default landowner. Where ownership will remain with those who lived in the shelters, this should be made clear at the time of distribution.

However, there are circumstances where the national authorities, Camp Management Agency and the CCCM Cluster/Sector Lead Agency may wish to retain materials or keep dwellings intact for future use. In collective centres the terms under which the building is returned to its owners should have been agreed before beginning initial works and operation. These terms may return the building to the owners, either with all infrastructure and subdivisions intact for their own usage, or with the building stripped back and repaired to its original state. Such clauses must be clearly stated in any agreements and handover signed off by owners and the responsible authorities to ensure all parties are satisfied.

For further guidance on environmental rehabilitation, see Chapter 6, Environment.

Arrangements should be made for:

- onwards transport of shelter materials to permanent settlement locations. This will often require vehicles to be provided, as housing materials are bulky. Groups with specific needs and more vulnerable groups will need support to disassemble, carry and reassemble housing materials.
- disposal of abandoned shelter materials. Burning, burial and decommissioning are all options. Cleaning and environmental rehabilitation of the site will be harder to do if concrete and other durable shelter materials have been used in construction.

VOICE FROM THE FIELD - PERCEPTION OF LAND OWNERSHIP
In Kenya’s Dadaab camps there were issues with the ownership of the land on which the shelters had been constructed. Refugees felt they owned the land and were thus free to sell or rent it out to fellow refugees or host families when they left the camp, mostly on resettlement. It should be clarified at the time of plot allocation that the plot reverts to the Camp Management Agency when a durable solution is found for the refugee. The resettlement agency and the Camp Management Agency had to establish procedures so that the names of refugees chosen for resettlement were communicated by the Camp Management Agency a few days in advance of the refugee departure so that they could take over the plot.

TECHNICAL CONSIDERATIONS
SHELTER STANDARDS AND INDICATORS
Any camp shelter intervention must include agreement on the amount of living space available per person or family. International minimum standards, indicators and guidance notes, such as those set out by Sphere and in the UNHCR Handbook for Emergencies, can provide useful guidance, but these are often misquoted. There is often confusion between standards and indicators. It is often forgotten that these are minimum standards and should only be used as guidance during immediate crisis situations. Usually the shelter coordination mechanism will need to agree on appropriate local standards to ensure that needs are met and that there is no conflict.

In any camp, the primary aim of the Camp Management Agency and partners should be to promote as high a quality of life as possible for the displaced population. The size of shelter provided to families should therefore be based more on people’s needs, cultural norms, the duration of use and national standards, along with an assumption of incrementally improving standards of shelter.

Currently, no comprehensive internationally agreed standards exist specifically for collective centres. It should be noted that these often have increased chances of congestion and reduced privacy due to the complexity of adjusting buildings for mass habitation. The uncertainty over unclear or inconclusive standards in these settings can lead to disregard by some actors of their responsibilities to exceed emergency standards when this is possible.

VOICE FROM THE FIELD - ADAPTING STANDARDS TO DO NO HARM PRINCIPLE
In Port au Prince, Haiti, in 2010, conditions in camps were very crowded. Insisting on 18m² shelters would have led to evictions, so smaller shelters were deemed acceptable on a temporary basis.
SIZE OF SHELTERS
Sphere shelter and settlement standard number three specifies that people should have sufficient covered space to provide dignified accommodation, undertake essential household activities and support livelihoods.

- The Camp Management Agency needs to be pragmatically aware of social dynamics and be prepared to make exceptions.
- Shelter programmes and NFI distributions might be conducted on the basis of a western model of a nuclear family of four or five people. However, family sizes may vary significantly, as well as change over time. Strictly following an approach of one family/one shelter can lead to situations where a single individual can have the same size shelter as a family of 12.
- In many cultures families of multiple generations or siblings may traditionally live together in extended families, sharing their lands, homes and resources. In a displaced setting these extended families provide strong mutual support and coping mechanisms which should be maintained if at all possible.
- Complications may arise with polygamous relationships where several wives may be registered as belonging to the same family. This can lead to significant social and privacy issues if all are forced to live in the same house.
- In some countries, religious and cultural considerations may require that certain male and female family members above certain ages are permitted only limited interaction. This may impact on how shelters can be used and should be a consideration, especially during design and allocation phases.
- A marriage or a divorce may mean that families are forced to live in closer proximity than they would wish. In the case of divorce, the women and children are the most likely to be made homeless and Camp Management Agency intervention or support may be required.
- Some groups, for example people with disabilities, may have specific requirements around design or access.

VOICE FROM THE FIELD - ASSESSMENT OF FAMILY COMPOSITION
In Sierra Leone some marriages of convenience took place so that people could qualify as a new household and receive larger family-size shelters. This led to protection issues where women were forced into marriage.

To avoid similar situations, the Camp Management Agency must ensure that inter-personal relations and family compositions are assessed closely.

VOICE FROM THE FIELD - SHELTER SIZE ACCORDING TO FAMILY SIZE
In Ghana a plot and shelter distribution protocol was defined and shared with field staff and the Camp Management Agency. Various sized families received different sized shelters. Single people and families with two people were invited to combine so that a minimum of four persons were allocated a plot and shelter. Families with between five and seven people received a standard plot and a shelter of 24m². Families with more than seven members received two or more shelters and plots.

DIVISION OF INTERNAL SPACE
Within individual shelters internal subdivision should be provided, particularly where men, women and/or children traditionally sleep in different rooms. Note that in some contexts it is common for extended families to combine and share shelters, allowing men and women to sleep in separate shelters or to split sleeping arrangements by age.

In collective centres and other mass shelters, partitioning of large areas into family units will be one of the primary activities and should encourage the grouping of extended families. Internal layout should promote division of household and personal space. The materials used to partition collective centres need to provide as much sound insulation as possible to give families some degree of privacy from their immediate neighbours.

SHELTER AND VULNERABILITY
Vulnerable groups within the camp population will need particular support in constructing and maintaining their shelter. The Camp Management Agency should carefully monitor the selection of these individuals to reduce risk of their marginalisation. It is important to carefully monitor their specific needs. Guidelines should be developed for assisting them during:

- distribution and carrying of shelter materials to plots, as shelter items tend to be heavy
- construction and maintenance of shelters as this can be a physically demanding activity.

Assistance to vulnerable groups can be organised in collaboration with volunteers, shelter committees or through hired labour.

TYPES OF SHELTER ASSISTANCE
Some different types of shelter response in camps are listed below. These may need to be combined as circumstance dictates, such as when materials are not locally available. People may find their own out-of-camp shelter solutions, including renting, staying with host families and other informal arrangements, and should be supported whenever possible.

The Camp Management Agency should ensure consultation and the establishment of committees along with the training of camp residents to monitor shelter needs, supervise shelter construction, materials delivery and to prepare for and deal
It is important to:

→ Roof and covering
  • Plastic sheeting: used as an emergency measure, to provide physical protection from the weather, can be used to make tent-like shelters or for sealing off or dividing existing buildings. Insisting on better quality will reduce the regularity of replacement.
  • Tents: used primarily in emergency phases, like plastic sheeting, have a limited lifetime.
→ Material support (NFIs)
  • Clothing, bedding and other NFIs: are the most essential commodities to meet personal needs. To reduce dissatisfaction among camp residents, Camp Management Agencies should aim to coordinate and standardise the quality of items, both within the camp and with the host community, and between distributing organisations. Where markets exist, and have the supply capacity, vouchers or cash can be provided as alternative.

For more information on food distribution and NFIs, see Chapter 13, Food Security and Non-Food Items.

It is important to:

→ support people to maintain, repair, modify and improve their shelters, through materials, construction teams, cash or other means
→ where possible, use vouchers instead of delivering materials, allowing camp residents to redeem them with designated traders. This can help people to receive what they actually need to construct their dwellings. However, schemes depend on the capacity of traders and can create a secondary currency
→ consider using cash distributions instead of delivering materials and to pay for locally sourced labour. Cash is given so that people can identify and source what they need. Cash is more common as a shelter intervention with dispersed populations, rather than for those in formal or urban camps
→ provide rental support, for example, in small collective centres or settlements. Support with rental costs may be more common in dispersed settlements than in camps
→ provide common building materials, where shelters are constructed for or by the residents
→ provide additional items as return kits, such as vouchers or cash, when people leave camps
→ offer training programmes in conjunction with constructing the temporary house. In addition to construction techniques they can include fire and flooding risks and tent erection.

For more information on protection of persons with specific needs, see Chapter 11, Protection of Persons with Specific Needs.

**FACTORS INFLUENCING SHELTER DESIGN**
Shelter design will depend upon many issues, such as:

→ local climate, including seasonal variations and weather-related hazards
→ what people need
→ what people are able to build
→ what kinds and volumes of materials are available and any environmental concerns related to the harvesting of these
→ levels of available funding
→ the anticipated or realistic timeframe of displacement
→ demographic and cultural norms of displaced people
→ what types of buildings the host population live in.

**ENCOURAGING COPING STRATEGIES**
Remember, even individuals or groups needing assistance are not helpless per se. Displaced persons may have lost their homes and belongings but have not lost their skills and experience. Take care to support and optimise the coping strategies of all groups’ including persons with specific needs.

**CONSTRUCTION MANAGEMENT**
All construction, whether for the upgrading of existing buildings or the delivery of shelter, schools, clinics or technical infrastructure, requires suitably qualified technical staff for supervision. The methods that are selected in organising and managing shelter programmes should involve the displaced and host communities through focus groups and Camp Shelter Committees. The policies and methods of implementing shelter programmes in camps will depend on the nature of displacement, national authority policies, local context, availability of building materials, local ways of building, availability of qualified staff, and skills within the displaced and host community. The Camp Management Agency should be aware of some options to implement shelter programmes. Some are listed below.

**DIRECT IMPLEMENTATION**
The organisation responsible for shelter directly manages the construction process, employing and supervising the labour force. This requires significant levels of staff management time and qualified supervisors who can oversee all aspects of the work. These types of programmes can lead to a lack of ownership for residents because they put the focus of accountability for construction on the implementing organisation.
CONTRACTING
The organisation responsible for shelter employs a contractor or partner organisation to undertake all aspects of the work, including all staffing and procurement. Contracting requires skilled staff to monitor the ongoing construction works for quality and to sign off at pre-agreed construction milestones, for example foundation, lintel and roof. It can also lead to a lack of ownership for camp residents due to reduced opportunities for participation. Contractors may not be bound by ethical considerations around sourcing material or labour.

SELF-BUILT OR COMMUNITY-LED CONSTRUCTION
When community members build their own shelter this may either be unpaid or paid, in cash or food, depending upon capacities and complexity of the shelter. This technique can be particularly effective for simple and traditional shelter designs and with communities accustomed to constructing their own shelters. It is not suitable for complex structures, such as those made from reinforced concrete, that only a few community members in the building trade would know how to construct. Supervision and support is required and identification and support for vulnerable camp members is critical.

When planning self-build approaches, consider aspects of culture such as traditional gender roles in construction and how these are impacted by the different priorities and contexts found during displacement in camp-like settings. Women are often overburdened with family responsibilities, like water collection, and it may be difficult for them to also contribute to construction in traditional ways whilst some male construction responsibilities may be provided by shelter agencies. Care must be taken to balance active participation with avoiding the risk of reinforcing traditional gender roles.

Collective centres may involve larger buildings which require civil engineers to review their structural safety, especially in locations prone to natural hazards. Providing appropriate shelter is a challenge due to the limited flexibility for improvements to pre-existing collective centre structures.

USING AND MANAGING TECHNICAL CONSTRUCTION EXPERTS
For certain tasks related to shelter provision, technical experts may be required. If in doubt about a technical issue related to safety of shelter, the Camp Management Agency should ensure that suitable specialist advice is sought. This is particularly the case in relation to multi-storey structures and larger collective centres.

Be aware that there are many different types of technical experts with specific skills which may be needed at different stages of a shelter programme. The experts most used in shelter programmes include:

- Civil engineers deal with the design, construction, and maintenance of the built environment including works on roads, site infrastructure and buildings.
- Structural engineers deal with design and analysis of buildings from a safety perspective.
- Architects are trained in the planning, design, and oversight of building construction.
- Quantity surveyors are concerned with construction costs and contracts.
- Construction managers are usually responsible for the planning, coordination and control of a construction project.

These different forms of expertise will not all be required in any given programme but awareness of when these skills may be required is essential. Examples when technical staff may be required:

- during shelter programme set-up, implementation and monitoring
- when detailed construction projects or building plans need to be drawn up for more durable shelters, upgrades of existing buildings or major infrastructure buildings.
- Check that the local construction industry is capable of building what is designed
- when a supervisor assists to monitor and oversee construction contracts.
**ANTI-CORRUPTION STRATEGIES**

Corruption is always a problem where commodities are being used, people are being contracted or distributions are being made. It can occur in all aspects of camp life from for example the formation of camp committees to the selection and registration of camp residents. In the case of shelter programming, it should be tackled together with the shelter provider. Some anti-corruption strategies include:

- **Deterrence**: discouraging corrupt behaviour by imposing penalties. Appeal to the existing legal system and use local internal investigation and dismissal mechanisms.
- **Protection systems and procedures**: to minimise opportunities for corruption to develop. These may include logistics and accounting systems, tender procedures, audit functions and monitoring and management procedures.
- **Acceptance**: relates to the way humanitarian agencies are perceived by the communities in which they work and includes strategies to command local support for aid interventions through increased information and camp residents’ involvement. It is not about the acceptance of corruption, but about how gaining the communities’ acceptance and support of the agency may prevent corruption.

A combination of these approaches is probably the best way to combat corruption in a camp setting.

**INFRASTRUCTURE SERVICES**

**NUMBERING SHELTERS**

When engaged in shelter management it is recommended that the Camp Management Agency, in collaboration with the shelter providers, number the shelter according to an agreed system. Numbering shelters helps to:

- clarify who is registered as being in the camp
- identify families
- trace camp residents, especially if residents are linked to the number of the house in which they live.

Data can be held in a secure spreadsheet or in a Geographic Information System (GIS) and be used to track information related to damage, improvement works or specific issues, such as disease outbreaks. Frequent updating and maintenance of such information is essential for it to remain useful.

To identify individual houses/shelters and the blocks they belong to, shelters should be numbered in a logical order and blocks should be marked by letters or symbols. Permanent paint can be used.

In complex environments people may be reluctant to have their shelters numbered due to security concerns. Sensitivity is thus required on numbering and use of related data.

**ELECTRICITY/LIGHTING**

Electricity supply is often too expensive to maintain and install and may make the camps more permanent than desired. However, there are many circumstances where it has been provided. Usually it is the responsibility of the national authorities or official electricity board to install and maintain. If there are electricity grids in or near the camp, people may tap into the electricity supply which has cost implications for the supplier. More critically, such connections or the use of portable household generators can lead to safety issues.

Solar technology is becoming increasingly accessible and in some settings may provide more affordable and sustainable access to basic electrical needs such as lighting and the charging of mobile phones. Distribution of solar panels and lamps is becoming increasingly common in humanitarian settings and may potentially contribute to addressing a number of important needs related to education, allowing people to study in the hours of darkness, and protection, reducing places for potential attackers to hide. In camps where electricity is available the Camp Management Agency needs to:

- ensure that a professional electrician has checked camp wiring to reduce risk of electrical shocks or fires
- monitor illegal connections and ensure that clear mechanisms exist for payment for legal connections
- check domestic wiring arrangements and ensure that bulbs are not too close to flammable materials, such as thatch roofs, canvas or blankets
- monitor if any families in the camp have acquired their own generator/other electricity sources. If necessary, carry out awareness raising on issues such as the safe storage and refilling of fuel containers and the proper venting of exhaust gases.

**GAS/KEROSENE/DIESEL**

Gas is sometimes provided in canisters for cooking and in cold climates, along with diesel or kerosene for heating. If highly combustible fuels are used within a camp then canisters and fuel containers must be stored outside shelters to avoid dangerous fumes. Additional fire safety measures may need to be put in place along with security considerations to prevent theft.

On the rare occasions where piped gas is used, ensure that professional technicians check installations. Depending upon agreements, the Camp Management Agency may need to monitor usage.

For more information on numbering shelters, see Chapter 7, Camp Set-up and Closure.

**VOICE FROM THE FIELD - CONFLICT SENSITIVE SHELTER NUMBERING**

There may be some issues with the colour of paint used. In El Geneina, West Darfur, the Camp Management Agency learned that red was traditionally used by factions opposed to people in some of the camps.
RISKS
Risks represent a combination of threats, such as flooding of shelters, with the likelihood of exposure to high risk where there is no drainage. Exposure may be increased by factors, such as poor site selection, for example if a site is located in a flood plain. Ideally, the Camp Management Agency and the Camp Administration along with other stakeholders should undertake multi-hazard risk assessments as part of any planning process at camp level, in coordination with the CCCM Cluster/Sector Lead Agency doing a similar exercise at inter-camp/regional level.

Localised risks related to shelter are often well represented in the local vernacular (traditional) architecture. Where possible, such design and material usage should be considered and improved upon to reduce the exposure to risk of the displaced population. Proper maintenance is required to ensure that shelters exposed to localised issues are better able to withstand their effects and therefore aspects of risk do not increase with time.

COLD CLIMATES/WINTERISATION
Even in desert environments which may be hot during the day, temperatures can fall dramatically at night and there may be significant seasonal climatic variations to consider in shelter planning. Cold seasons are associated with a general rise in mortality rates through increased cardiovascular complications and respiratory infections.

There are additional rises in the incidence of fire injuries, respiratory infections and eye infections due to the effects of heating and indoor cooking. Where the supply of heating fuel is possible, appropriate logistical and safety protocols must be in place to ensure the safe movement and storage of flammable commodities. Communication with camp population around the regularity of fuel replenishment as well as suggested usage patterns is advised so as to promote conservative use. Cold weather priorities are:

- keeping the space next to the skin warm and dry (clothing, bedding, blankets, mattresses and roof)
- keeping the immediate environment warm by maximising insulation and minimising drafts by sealing gaps or reducing wind chill with low solid walls.

In order to support camp residents in cold climates, the Camp Management Agency can:

- ensure that families have sufficient plastic sheeting, blankets or other materials to block draughts and insulate living areas. This is essential to improve ambient air temperatures and thermal comfort especially where limited fuel is available for heating. Conversely, reduced air flow can lead to a spread of respiratory infections such as tuberculosis. Extremely high ventilation rates are required to reduce transmission rates of respiratory diseases, and are not practicable without allocating major fuel resources for heating
- negotiate with land owners and Camp Administration for solid low level walls to be built around the shelter from mud or other materials to reduce cold draughts at floor height and to shield doors. If viable, ensure that sufficient water is available for construction of these walls, and if necessary loan basic tools to camp residents
- coordinate with the WASH agency on winterisation of water supply and access roads
- ensure that camp residents have access to sufficient food supplies as they require more calories in cold weather. It is useful to get technical support from a nutritionist if in doubt
- consider constructing communal heated areas, potentially separating men and women. For instance, communal ablution blocks providing hot water for a few hours a day will promote continued hygiene
- coordinate to provide families with additional fuel to support heating requirements.

SNOWY WEATHER
Heavy snow can cause shelters to collapse and disrupt deliveries to camps. The Camp Management Agency should ensure camp population and committees are prepared for heavy snow falls prior to the onset of winter. What the Camp Management Agency can do, to prepare for snow falls in tented camps:

- form teams with staff members or through camp committees in preparation for snowfall
  - send the team around camps to ensure shelters are correctly braced/erected and tighten guy ropes on tents and ensure the canvas is taut
  - explain to families the need to brush snow from shelters regularly as it falls, even if it is at night, to reduce the weight on the shelter
- prepare additional emergency shelters in case of collapse
- coordinate with WASH providers to ensure drainage is in place to prevent flooding from snow melt
- consider distributing additional rope or fixings to secure structures or plastic sheeting to keep structures dry and help snow to slide off
- be aware that tents or shelter could collapse onto fires or heaters, so ensure there are no open fires in tents/shelters and that stoves are under protected roofs which will not fall.

HOT WEATHER
In hot weather, shade and ventilation are essential. The use of materials such as thatch, banana leaves or reflective paint on roofs helps reduce temperatures inside shelters and should be encouraged. Shade nets can also provide a well-ventilated solution that is preferable to plastic sheeting. Additionally the Camp Management Agency should:

- encourage shelter providers to use improved ventilation, external shaded areas, awnings or higher ceilings
- support camp residents to build awnings and make other improvements
- encourage the planting of fast growing foliage around shelters to provide shade
- consider whether electric fans may be appropriate.
CHAPTER | 15 | SHELTER

WIND/TYPHOONS
High winds such as those associated with typhoons or seasonal storms can destroy shelters. Practical advice for a Camp Management Agency in preparedness for strong winds are:

- conduct a structural assessment of shelter in camps and collective centres. If there is no qualified staff, bring in engineering support
- act on the outcomes of the assessment and, if time allows, modify shelter designs, ensuring that any upgrades will not make the hazards worse
- ensure loose materials, especially corrugated iron/tin sheeting are secured, as they can be dangerous in high winds
- consider distributing additional rope, roofing nails and other fixings before winds are due
- bring in structural engineers to check common failure points, poor connections between roofs and walls, lack of diagonal bracing and poor foundations
- attach thatch and roofing materials with rope
- ensure ropes on tents and other temporary structures are well-secured and tight to prevent structures from flapping in the wind
- put in place fire controls during periods of high wind to prevent airborne embers from fires.

RAIN/FLOODING
The best way to avoid risk of flooding is through good site selection and planning.

☞ For further information on site planning, see Chapter 7, Camp Set-up and Closure.

As much as possible, organise plastic sheeting distributions, replacement and roofing repairs for non-waterproof shelters in the months before rains are due. Additionally, much flooding prevention is connected to maintenance of drainage ditches and irrigation channels. If a site survey prior to the rainy season indicates that shelters fall within flood risk areas, it may be necessary to move them. If there is no other option elevated platforms should be considered. Practical advice for a Camp Management Agency in preparedness for flooding are:

- maintain a stock of tools (shovels, pick axes) and sand bags, such as empty food sacks, for emergency earthworks that can either be loaned to camp residents on a daily basis or through the Camp Maintenance Committee
- explain to each family that they should raise floors and dig their own shelter drainage in advance of the rains. This can be linked to care and maintenance programmes or be organised by a WASH agency
- ensure that individual shelter drainage ditches connect to a site drainage system and do not flood the shelters of neighbours
- provide physical support, or encourage the community to provide support, to dig drainage or raise floors, for vulnerable individuals
- identify areas of the camp, prior to rainy seasons, that are prone to flood and seek engineering support to re-engineer the land to improve drainage or to advise on relocation due to flood risk
- assess shelters that are likely to leak
- prepare materials such as plastic sheeting and fixings or tarred tape to repair roofs
- provide gravel for drainage ditches, noting that in areas with very high rainfall cement drainage may be required
- work on a triage principle for facilities when planning in flood areas, allowing least important areas to flood first.

EARTHQUAKE
If in doubt about the seismic resistance of shelters in a camp, and especially in collective centres, a structural engineer should be employed to assess the structures and suggest improvements. Where earthquake or aftershock risk is high, consider hiring an engineer to assess the safety of existing buildings before using them as collective centres. Generally, lightweight and well-braced structures are less likely to cause injury. The Camp Management Agency should remember that:

- during site-planning, shelters must not be put on steep slopes or land prone to slippage or liquefaction in an earthquake
- where earthquake risk is high, people should be encouraged to store heavy objects and jars nearer the ground where they cannot fall on heads
- when an earthquake occurs, people need to be trained to move away from buildings where roofing tiles and glass could fall from above
- in collective centres, information campaigns should be run to train camp residents on earthquake drills and evacuation protocols.

TERMITES AND VERMIN
Techniques to protect shelters against termites and vermin include:

- procuring pre-treated materials, especially timber, to resist insect attack or treating timber poles (for example with sump oil) after wood has been cut, but before construction
- sealing holes and other places where pests can gain access
- keeping food in sealed, pest-proof containers
- removing rubbish and other material that might provide food or nesting material
- maintaining individual shelter drainage ditches and filling holes in mud block production areas to reduce standing water
- maintain and update shelter data (house registration and numbering, distributions, repairs, cost estimates for upgrades and other planning data) that can be shared with others. This information can be cross-referenced in the event of a health outbreak or used to treat specific problems associated with pests that may develop in certain sections of the camp.

☞ For more information on hygiene, vector control, drainage and WASH infrastructure, see Chapter 14, Water, Sanitation and Hygiene.
**FIRE**

Fire can be a significant cause of injury, death and loss of property in a camp setting. Plans must be in place to ensure prevention and preparedness. As much as possible, these plans must be shared with the camp population so that people know what to do in case of fire. Committees should be appointed to be responsible for fire prevention, preparedness and fire response. Advice for the Camp Management Agency on dealing with fire risk:

**Prevention**
- Ensure there are regular firebreaks to be maintained by the Camp Management Agency.
- Ideally, the space of shelters should be at a minimum of twice their height apart—and more when roofing is made of flammable material such as thatch.
- Prohibit open fires or bare flames inside shelters unless in a well-contained area. Note that national policies on this may vary. Where culturally appropriate, and for collective centres, communal cooking facilities or designated areas should be encouraged.
- Regulate where cooking fires are allowed in dry seasons.
- Remind camp residents to never leave flames, including candles, unattended.
- Provide sensitisation training on the risks associated with smoking inside or near shelters.
- Ensure stoves do not touch or adjoin flammable walls and that chimneys project through a solid wall or through a fire-proof plate.
- Ensure electric light bulbs and any electrical connections are at least 20 cm. from tent canvas or other flammable materials and regularly inspect electrical wiring.
- Ensure fuel for cooking/heaters/generators is stored away from sources of ignition.

**Preparedness**
- Provide fire stations with buckets with small holes to reduce risk of theft, sand, fire beaters and fire extinguishers.
- Collective centres especially must have clearly marked and well-maintained escape routes. Where possible, fire doors and alarms should be fitted.
- Provide a fire bell to alert other camp residents to large fire outbreaks.
- Enforce firebreaks, and keep them free of debris.
- Ensure fire stations are equipped to help deal with fires.
- Set up community fire committees to train camp residents on preventing and dealing with fires and on evacuation protocols from collective centres or other high density settlements.
- Note that spraying water will only cause kerosene fires to spread.
- Establish a roll call for collective centre residents.

**In case of fire**
- Check that there is no-one inside the shelter/tent. If possible, knock it down to help prevent the fire from spreading.
- Remind the camp residents of the «stop, drop and roll» technique, if your clothes are on fire, stop where you are, drop to the ground and roll to extinguish the flames.

**In case of burn casualties**
- Cool the affected area with cold water or a wet towel immediately.
- Protect the burn with a clean cloth.
- Seek medical help as soon as possible.
- Keep burn victims warm.

---

**UNHCR 2007 FIRE SAFETY STANDARD**

“If space allows, the space between individual buildings should be adequate to prevent collapsing, burning buildings from touching adjacent buildings. The distance between structures should therefore be a minimum of twice the overall height of any structure. If building materials are highly flammable (straw, thatch etc.) the distance should be increased to 3–4 times the overall height. The direction of the prevailing wind should also be a consideration.”

**VOICE FROM THE FIELD - REDUCING FIRE RISK IN PUNTLAND**

In Puntland, Somalia, the scale of fires was reduced through site planning, replacement of the most flammable shelters, establishment of fire points, construction of household cooking areas and the establishment of fire committees who maintained fire lanes and improved site cleanliness. Shelter kits were held in storage to rapidly support households whose shelters had burned down.

---

**THEFT AND SECURITY**

Practical tips to consider are:
- Provide door and window locks to safeguard possessions and ensure security.
- Negotiate with land owners/authorities so that people are allowed to build fences around their plots if they wish to do so, and if there is enough space.
- Create material distribution programmes which encourage flexibility and camp resident’s choice on how to assess and deal with security threats. Informing the authorities and donors of this policy will make it easier for partner organisations to obtain funding. For example, clarify if camp residents take plastic sheeting distributed for shelter but instead use it to protect their livestock.
- If environmental resources and the political environment allow, encourage families to upgrade and make their shelters more private in ways that are most culturally acceptable to them. Even a plastic sheet or grass wall can help to make people feel more secure and help reduce theft.

For more information on security, see Chapter 12, Safety and Security.
accessing camp shelter assistance. The potential risks for conflict or discrimination among or between groups within the affected population have been identified. Vulnerable persons and those with specific needs are being supported to construct or upgrade their shelters, and to transport their shelter materials from distribution sites. Measures have been implemented to monitor and to improve the living conditions of those with specific needs and their carers or families.

**CONTINGENCY**
- There is a plan in place and sufficient materials to deal with new population influxes and other scenarios.
- Discussions have taken place on more durable shelter plans between camp management, national authorities and residents.

**MANAGEMENT**
- There is an active shelter organisation in the camp which has sufficient resources, skills and capacities to support shelter needs.
- Skilled individuals, local or international, are available to be hired to support shelter programmes.
- Sufficient and skilled staff are monitoring construction projects.
- There is a functioning Shelter Committee which has a clearly defined role and representative of women, men, minorities and persons with specific needs.

**HOUSEHOLD ACTIVITIES**
- Household and livelihoods-support activities typically taking place in and around the shelters of the affected population are known, and issues around sufficient space have been addressed.
- The different needs and activities of women and men, children and persons with specific needs have been taken into consideration.

**HOST COMMUNITY AND ENVIRONMENTAL IMPACT**
- Issues of concern for the host community are known and are being addressed.
- The environmental impact of shelter, fuel, sanitation and waste disposal has been assessed and planned for.
- Thought has been given as to whether shelters and shelter infrastructure can be used by the host community when the camp is closed.
- Local environmental concerns regarding the local sourcing of construction materials and fuel have been identified.

**OTHER CONSIDERATIONS**
- The shelter provision in the camp is in line with local practices and norms.
- Household and livelihoods-support activities typically taking place in and around the shelters of the affected population are known, and considerations of space provision are being addressed.
Livelihood support opportunities are being considered through the sourcing of materials and the construction of shelter and settlement solutions.

If communal buildings, particularly schools, are being used for shelter by displaced populations, a process and timeline for their restoration to normal use has been identified.

MAINTENANCE

- Issues or improvements that have the highest net worth to inhabitants have been assessed.
- People are being supported to maintain their shelters through the most appropriate means.
- The Camp Management Agency is advocating for solutions in the event of any administrative reasons why people cannot upgrade their shelters.
- There is physical space available to upgrade or expand shelters.
- Camp residents have access to tools and materials to upgrade their shelters.
- The impact of upgrades on local natural resources has been accounted for.
- Physical and technical support is being provided, as appropriate, to help camp occupants maintain their shelters.

TOOLS

- Fire Safety Guidance, 2011. Dadaab
- Oxfam. Oxfam briefing note on shelter and gender
- Oxfam. Oxfam briefing note on shelter minimum standards
- Sample of a shelter strategy
- Transitional Housing – Tenancy Agreement (sample from East Timor), Outline of technical implementation of transitional shelter

REFERENCES

- Catholic Relief Services (CRS), 2013. Managing Post-disaster (Re-)Construction Projects
- Inter-Agency Standing Committee (IASC), Shelter Centre, 2008. Selecting NFIs for shelter
- Médecins Sans Frontières (MSF) and Shelter Centre, 2006. Shade Nets: Use and Deployment in Humanitarian Relief Environments
- Office for the Coordination of Humanitarian Affairs (OCHA), 2004. Tents – A Guide to the Use and Logistics of Family Tents in Humanitarian Relief
- Oxfam GB and University of Cambridge, Tom Corsellis and Antonella Vitale, 2005. Transitional settlement displaced populations
- Shelter Centre, 2010. Shelter after Disaster
- UN-HABITAT, UNHCR, IFRC, 2010 and 2011–2012. Shelter Projects