

This document forms part of the 4th edition of the UNHCR Emergency Handbook and was generated from the digital Emergency Handbook system.

Camp planning standards (planned settlements)

Key points

- UNHCR discourages the establishment of formal settlements and (whenever possible) prefers alternatives to camps, provided they protect and assist people of concern effectively.
- Shelter should be adapted according to the geographical context, the climate, the cultural practice and habits, the local availability of skills as well as accessibility to adequate construction materials in any given country.
- Due considerations should be given to the operational phase. What may be deemed adequate during an emergency in terms of shelter (for example plastic sheeting, tents) and average camp area per person cannot be regarded as adequate in a protracted displacement situation.

1. Overview

This entry provides key information on minimum standards and best practice which should be referenced and consulted when developing planned settlements / camps as part of a refugee emergency response.

Generally, a sector specialist covers shelter and settlement needs assessment, analysis and site planning during the first phase of an emergency response.

Often a reception or transit centre is necessary for temporary accommodation at the beginning of a refugee crisis. Entry number 183 (Transit Center standards) of this digital emergency handbook (DEH) should be referenced for more information on these standards.

These guidance notes outline the minimum standards required to ensure planned settlements enable refugee communities to live with security and dignity in a healthy environment which improves their quality of life.

2. Emergency standard

There are several indicators determining the adequacy of shelter for refugees and displaced persons. (See links below for additional information).

2.1 Indicator

Average camp area per person: The size of a camp and area per capita is critical in the planning of camps as crowded conditions lead to increased morbidity and stress. The provision of adequate space, both outside and inside shelters is an essential requirement

The 'average camp area per person (Sqm.)' indicator measures the average living space to which a person has access in a camp. This space should accommodate all services while promoting dignified living:

Indicator: Average camp area per person (Sqm)					
How should this indicator be measured:					
Standard: 45 sq. m	Acceptable 35 sq. m	Range:	Unacceptable 34 - 30 sq. m	Range:	Critical 29 sq. m

A minimum surface area of 45 Sqm per person including household gardening space should be allocated.

30 Sqm per person will be necessary for roads, foot paths, educational facilities, sanitation, security, firebreaks, administration, water storage, distribution points, markets, storage of relief items and, of course, plots for shelter. It excludes however, any land for significant agricultural activities or livestock. The remaining 15 Sqm per person is allocated to household gardens attached to the family plot which should be included in the site plan from the outset.

2.2 Emergency standard

The design of planned settlements follow SPHERE emergency standards. The table below defined the minimum standards to be applied.

Description	Minimum Standard
Covered living area	3.5 sqm. Per person minimum In cold climates and urban areas more than 3.5 sqm. may be required (4.5 sqm. to 5.5 sqm. is more appropriate) Minimum ceiling height of 2m at highest point
Camp settlement size	45 sqm. per person (incl. kitchen and vegetable garden)

Fire Safety	30 m firebreak every 300 m Minimum 2 m between structures – use 2 times the height of the structure as an appropriate distance.
Gradient for camp site	1 to 5 %, ideally 2 to 4%
Drainage	Appropriate drainage needs to be put in place, especially relevant in locations that experience a rainy season or flash floods.

Table 1 - Minimum standards for planning camps

Site planning should begin from the scale of the individual refugee family, addressing needs at household level, such as their distance to water, access to communal services, recreation facilities, access to showers and latrines, waste management, etc

It is advisable to consider the social structures and relations within persons of concern, including clan, tribes and extended family arrangements, as well as their traditional settlement layouts and shelter preferences. This consideration will yield a greater degree of satisfaction, and sense of ownership.

The following table uses the family unit as the smallest planning 'module' and builds up to larger units:

Module	Structure	Approximate number
Family	1 x family	4-6 persons
Community	16 x families	80 persons
Block	16 x communities	1,250 persons
Sector	4 x blocks	5,000 persons
Settlement	4 x sectors	20,000 persons

Table 2 – Indicative modular planning units

The following are recommended site planning standards for services and infrastructure and should be referred to when preparing the camp layout:

Description	Standard	Further consideration
Communal latrine	1 per 20 persons - emergency phase	Separate latrine areas for men and women For long-term accommodation use one house hold latrine per family
Latrine distance	Not more than 50m from shelter and not closer than 6m	Latrines must be close enough to encourage their use but far enough to prevent problems with smells and pests

Shower	1 per 50 persons	Separate, well drained, shower areas for men and women
Water supply	20 litres per person per day	
Water tap stand	1 per 80 persons	1 per community
Water distance	Max. 200m from household	No dwelling should be further than a few minutes' walk from a water distribution point
Rubbish container of 100 litres	1 per 50 persons	1 per 10 families
Refuse pit – 2mx5mx2m	1 per 500 persons	1 per 100 families
Health centre	1 per 20,000 persons	1 per settlement Include water and sanitation facilities
Referral hospital	1 per 200,000 persons	1 per 10 settlements
School	1 per 5,000 persons	1 per sector 3 classrooms, 50 Sqm.
Distribution centre	1 per 5,000 persons	1 per sector
Market place	1 per 20,000 persons	1 per settlement
Feeding centre	1 per 20,000 persons	1 per settlement
Storage area	15 to 20 Sqm. per 100 persons	Refugee storage
Lighting	As appropriate	Consider priority locations such as latrine, wash areas, public service areas
Registration area	As appropriate	May include arrivals area, medical clearance, distribution, parking
Administration / office	As appropriate	
Security post	As appropriate	
Security fencing	Depending on the circumstances	

Table 3 – Site planning standards for services and infrastructure

2.3 Site selection criteria:

Sites for planned camps should be selected in consultation with a range of sectors, including WASH, protection and supply, as well as with technical specialists such as hydrologists, surveyors, planners, engineers, and environmental engineers. Developing an inappropriate site or failing to develop a site to standards can result in further displacement causing unnecessary further loss and distress to persons of concern and may put some people/groups at further risk.

The operational context will determine site selection criteria. In general, however, the following factors need to be considered when selecting sites for refugee settlement:

<p>Topography, drainage, soil conditions</p>	<ul style="list-style-type: none"> • The topography of the land should permit easy drainage and the site should be located above flood level. Rocky, impermeable soil should be avoided. Land covered with grass will prevent dust. Wherever possible, steep slopes, narrow valleys, and ravines should be avoided. • Ideally, a site should have a slope of 2%–4% for good drainage, and not more than 10% to avoid erosion and the need for expensive earthmoving for roads and building construction. • Avoid areas likely to become marshy or waterlogged during the rainy season. Consult national meteorological data and host communities before making a decision. • Soils that absorb surface water swiftly facilitate the construction and effectiveness of pit latrines. • Subsoil should permit good infiltration (permit soil to absorb water and retain solid waste in latrines). Very sandy soils may have good infiltration; but latrine pits may be less stable. • Pit latrines should not penetrate into the ground water. The groundwater table should be at least 3m. below the surface of the site. • Avoid excessively rocky or impermeable sites as they hamper both shelter and latrine construction. • If possible, select a site where the land is suitable for vegetable gardens or smallscale cultivation.
<p>Water resources</p>	<ul style="list-style-type: none"> • Choose locations that are reasonably close to an adequate source of good water, and ideally near high ground that has good surface water run-off and drainage. Once located, water sources should be protected. Ideally, no individual should have to walk for more than a few minutes. There should be at least one water point for every 250 people.

	<ul style="list-style-type: none"> • Ideally, hydrological surveys will provide information on the presence of water. A site should not be selected on the assumption that water will be found by drilling. Trucking water over long distances should be avoided if possible.
Land Rights	<ul style="list-style-type: none"> • UNHCR neither purchases nor rents land for refugee settlements. • Refugees should enjoy exclusive use of the site in which they live, by agreement with national and local authorities. • Governments often make public land available. • Private or communal land (including unclosed pastoral land) may only be used if the Government has agreed a formal legal arrangement with the owner(s), in accordance with the laws of the country. • The status of land occupied for sites should be clarified in writing by the Government. • In association with the Government and host community, agree and clarify the entitlement of refugees to carry out given activities (forage for food, collect firewood, collect timber and other shelter materials such as grass or mud, gather fodder and graze animals).
Accessibility	<ul style="list-style-type: none"> • Ensure the site has an adequate road infrastructure; access to it should be reliable, including during the rainy season. • Assess the site's proximity to national services, including health facilities, markets and towns. Access to mainstream services is encouraged wherever possible and avoids the need to develop parallel services for the camp population. • Liaise with development agencies, including UNDP and related Government ministries, to secure improvement of access routes. • UNHCR should fund the cost of building short access roads connecting the site to the main road.
Security	<ul style="list-style-type: none"> • The site should be located a sufficient distance from international borders (50km), conflict zones, and other potentially sensitive areas (such as military installations). Avoid locations that experience extreme climatic conditions, or present evident health (malaria), environmental or other risks. • High winds can damage temporary shelters and increase fire risks. • Evaluate seasonal variations. Sites that are ideal in the dry season may be uninhabitable in the rainy season. • Avoid locating refugees in places whose climate differs greatly from that to which they are accustomed.
Environment and	<ul style="list-style-type: none"> • Ensure the site has sufficient ground cover (grass, bushes and trees). Vegetation provides shade, protects from wind, and reduces erosion and dust.

Vegetation	<ul style="list-style-type: none"> • Avoid sites where dust clouds are common; these cause respiratory disease • Avoid sites within 1 day's walk of an environmentally protected area (such as a wild-life reserve). • Take steps to ensure access to a supply of firewood, in collaboration with local forestry authorities, and in negotiation with the host community.
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Table 4 – Site selection factors of importance

3. Links

UNHCR, IFRC, UN-HABITAT- Shelter Projects

Camp management tool kit

Need help?

CONTACT Shelter and settlement section, Division of Programme Support and Management. **At: HQShelter@unhcr.org**

Annexes

- UNHCR - Global strategy for settlement and shelter (2014-2018)
- UNHCR - Policy on alternatives to camps
- The Sphere Project

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