

## **Minimum Standards in Shelter and Site Planning**

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## Minimum Standards in Shelter and Site Planning

### Introduction

The minimum standards for Shelter and Site Planning are a practical expression of the principles and rights embodied in the Humanitarian Charter. The Charter is concerned with the most basic requirements for sustaining the lives and dignity of those affected by calamity or conflict, as reflected in the body of international human rights, humanitarian, and refugee law. It is on this basis that agencies offer their services. They undertake to act in accordance with the principles of humanity and impartiality, and with the other principles set out in the *Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief*. The Humanitarian Charter reaffirms the fundamental importance of three key principles:

- \* the right to life with dignity
- \* the distinction between combatants and non-combatants
- \* the principle of non-refoulement

The minimum standards fall into two broad categories: those that relate directly to people's rights; and those that relate to agency processes which help ensure people acquire these rights. Some of the minimum standards combine both of these categories.

### 1 The importance of shelter and site planning in emergencies

Along with water supply, sanitation, nutrition, food and health care, shelter is a critical determinant of survival in the initial stage of an emergency. Beyond survival, shelter is necessary to enhance resistance to disease and provide protection from the environment. It is also important for human dignity and to sustain family and community life as far as possible in difficult circumstances.

The purpose of shelter, site selection and physical planning interventions is to meet the physical and primary social needs of individuals, families and communities for safe, secure and comfortable living space, incorporating as much self-sufficiency and self-management into the process as possible.

Interventions should be designed and delivered in such a way as to minimise any negative impact on the host population or on the environment. Three possible scenarios dictate the

basic shelter needs of people directly affected by a disaster. These scenarios are determined by the type of disaster, the number of people involved, the political context and the ability of the community to cope.

### **Scenario A: people stay at home**

It is not always the case that people are displaced from their homes in a disaster. People in communities directly affected by a natural disaster almost always want to stay in or near their homes if possible. In such situations, even if homes are destroyed or damaged, assistance to people 'where they are' is more sustainable, and helps restore normality more quickly than assistance which causes them to move away in search of temporary shelter. Inputs directed into the area where people live and know each other help them to maintain social structures and allow them to continue life as normally as possible.

### **Scenario B: people are displaced and stay in host communities**

During military conflict, and after some natural disasters such as extensive flooding, entire communities may be forced to flee their homes and home area. In such situations, displaced people may stay with the local host community, other family members or people who share historical, religious or other ties. Assistance in such situations includes responding to the rights and needs of the disaster-affected population as well as of those who are secondarily affected by the disaster.

### **Scenario C: people are displaced and stay in clusters**

Temporary settlement for refugees or displaced populations becomes necessary when circumstances of natural disaster or conflict make it necessary for people to leave their homes and local regions, and settle elsewhere. In these situations populations live as groups, often very large, for undetermined lengths of time. Assistance requires response to the needs of people in both self-settled and selected sites.

This chapter first addresses the standards needed for the provision of shelter, clothing and household items, which are common to all three scenarios. It then addresses standards for site selection and planning, which are relevant to the third scenario.

Involving women in shelter and site programmes can help ensure that they and all members of the population affected by the disaster have equitable and safe access to shelter, clothing, construction materials, food production equipment and other essential supplies. Women should be consulted about a range of issues such as security and privacy, sources and means of collecting fuel for cooking and heating, and how to make sure that there is equitable access to housing and supplies. Particular attention will be needed to prevent and

respond to gender-based violence and sexual exploitation. For example, improved lighting and security patrols can help make the site safe and accessible for all the population, but particularly groups who are likely to be at risk of violence. It is therefore important to encourage women's participation in the design and implementation of shelter and site programmes wherever possible.

## 2 Finding your way around this chapter

The chapter is divided into six sections (analysis, housing, clothing etc) each of which includes the following:

- \* **The minimum standards:** these specify the minimum levels to be attained in each area.

- \* **Key indicators:** these are 'signals' that show whether the standard has been attained. They provide a way of measuring and communicating both the impact, or result, of programmes as well as the process, or methods, used. The indicators may be qualitative or quantitative.

- \* **Guidance notes:** these include specific points to consider when applying the standard and indicators in different situations, guidance on tackling practical difficulties, and advice on priority issues. They may also include critical issues relating to the standard or indicators, and describe dilemmas, controversies or gaps in current knowledge. Filling these gaps will help improve the minimum standards for shelter and site planning in the future.

A select bibliography is provided in Appendix 1.

Reference to other sectors' technical standards are made where relevant. The purpose of this is to highlight how work in one sector is closely linked to work in other sectors, and that progress in one is dependent on progress in other areas.

## The Minimum Standards

### 1 Analysis

Programmes that meet the needs of disaster-affected populations must be based on a clear understanding of the current situation, including political and security factors, and anticipated developments. The people affected by the disaster, agencies, donors and local authorities need to know that interventions are appropriate and effective. Analysis of the effects of the disaster and of the impact of the shelter and site programme itself are therefore critical. If the problem is not correctly identified and understood then it will be difficult to make the right response.

Standardised methods of analysis that are used across the sectors have great potential to rapidly identify acute humanitarian needs and to ensure that resources are directed accordingly. This section sets out agreed standards and indicators for collecting and analysing information to identify needs, to design programmes, to monitor and evaluate their effectiveness, and to ensure the participation of the affected population.

The standards for analysis apply before any programme takes place and throughout the programme cycle. Analysis starts with an immediate initial assessment that identifies the impact of the disaster and whether and how to respond. It continues with monitoring, which identifies how well the programme is meeting needs and determines whether changes are required; and with evaluation, which determines the overall effectiveness of the programme and identifies lessons for the future.

The sharing of information and knowledge among all those involved is fundamental to achieving a full understanding of the problem and coordinated assistance. Documenting and disseminating information from the analysis process contributes to a broad understanding of the adverse public health and other consequences of disasters, and can assist in the development of improved disaster prevention and mitigation strategies.

The standards for analysis apply to the various types of shelter needs described in the introduction to this chapter, and to the standards for shelter, clothing, household items, site selection and site planning which follow.

#### **Analysis standard 1: initial assessment**

Programme decisions are based on a demonstrated understanding of the emergency situation and on a clear analysis of people's needs for shelter, clothing and household items.

## Key indicators

- \* An immediate initial assessment that follows internationally accepted procedures is carried out by appropriately experienced personnel.
- \* The assessment is conducted in cooperation with a multi-sectoral team (water and sanitation, nutrition, food, shelter, health), local authorities, women and men from the affected population and humanitarian agencies intending to respond to the situation.
- \* The information is gathered and presented in a way that allows for transparent and consistent decision making.
- \* Data are disaggregated by sex, and by age where feasible.
- \* The information gathered identifies needs for shelter, clothing and household items, and baseline data for monitoring and evaluation. The initial assessment considers: the profile and situation of the displaced population; physical information; local infrastructural, natural and material resources, and land use.
- \* The assessment considers the national standards for shelter in the country where the disaster has occurred, or in the country where humanitarian assistance is provided, if different.
- \* Recommendations are made about the need for external assistance. If assistance is required, recommendations are made on priorities, a strategy for intervention and resources needed. An assessment report is produced that covers key areas and appropriate recommendations.
- \* General threats to people's security and specific threats faced by vulnerable groups, especially women and girls, are taken into account in the design of shelter and site interventions.
- \* Assessment findings are made available to other sectors, national and local authorities, participating agencies and female and male representatives from the affected population.

## Guidance notes

1. **Internationally accepted procedures for initial assessment:** see, for example, Davis, J and Lambert, R (1995), Telford, J (1997), UNHCR (1982), and USAID (1994).

**2. For further details of assessment requirements for site selection and planning:** see Site standard 1, site selection. The guidance notes for this standard provide details of the information needed for physical and environmental assessments.

**3. The profile of the affected population should include:**

- Demographic profile (by gender, age, social grouping).
- Traditional means of support, and whether people are rural or urban in origin.
- Traditional lifestyle in terms of public/private use of space, cooking and food storage, child care and hygiene practices.
- Traditional building skills and construction methods.
- Assets people have brought with them.
- The type of shelter adopted by the displaced population, where relevant.
- The needs of groups that are at risk of additional harm.
- Actual or potential threats to the security of the displaced population both externally and from within. This should include specific threats faced by vulnerable groups, especially women and girls.

**4. Assessments of infrastructure and local resources should include:**

- Level and condition of access including roads, potential supply airstrips, railheads and ports.
- Quantities of wood required for fuel and construction, and of water that can be extracted in a sustainable way.
- Heavy equipment already in the area, such as bulldozers and graders, for road-building and site preparation.

**5. Physical information should include:**

- Topography of the area of land available, and suitable for, settlement and agriculture.
- Variety and protection of potential water sources. (See Water Supply and Sanitation, chapter 1.)

- Areas in the environment that are particularly vulnerable.
- Seasonal variations including rainfall, snowfall, temperature variation, high winds, flooding.
- Endemic diseases, vectors and pests. (See Water Supply and Sanitation, chapter 1 and Health Services, chapter 5.)

**6. Use of early warning information and emergency preparedness:** these should be supported wherever possible as they can contribute to the assessment. Preparedness includes personnel training and stockpiling of supplies, such as shelter materials, in strategic positions. If there is an early warning that a population movement is likely to take place, relevant information needs to be collected immediately and analysed: an inventory of the response capacity of local authorities, the UN system and agencies on the ground should be made; there should be awareness of available experienced personnel, of development plans and of supplies and equipment that can be diverted until replacements are available.

**7. Timeliness:** timeliness is of the essence for the initial assessment, which should be carried out as soon as possible after the disaster. If required, there should be an immediate response to critical needs at the same time. As a general rule, a report should be generated within a week of arrival at the site of the disaster, though this depends on the particular event and the wider situation.

**8. People conducting the assessment:** people who are able to collect information from all groups in the affected population in a culturally acceptable manner should be included, especially with regard to gender analysis and language skills. Ideally, there should be a balance in the numbers of men and women taking part. A shelter and construction specialist should be included in the team if possible..

**9. Assessment procedure:** the procedure for conducting the assessment should be agreed upon by all participants before field work begins and specific tasks contributing to the assessment should be assigned accordingly.

**10. Gathering information:** there are many different techniques for information gathering and these should be chosen carefully to match the situation and the type of information required. As a general rule, information should be gathered more frequently when the situation is changing more rapidly, and when there are critical developments such as new population movements or an epidemic outbreak of diarrhoea. Initial assessments may be quick and unrefined but analysis improves as more time and data are available. Checklists are a useful way of ensuring that all the key questions have been examined.

**11. Sources of information:** information for the assessment report can be compiled from existing literature, relevant historical material, pre-emergency data and from discussions with appropriate, knowledgeable people including donors, agency staff, government personnel, local specialists, female and male community leaders, elders, participating health staff, teachers, traders and so on. National or regional level preparedness plans may also be an important source of information. The methods used for collecting information and the limits of its reliability must be clearly communicated.

**12. Underlying issues:** an awareness of the rights of those affected by disasters, under international law, should underpin the assessment. Initial assessment and subsequent analysis should demonstrate an awareness of underlying structural, political, security, economic, demographic and environmental issues operating in the area. It is imperative that prior experience and the views of the people affected by the disaster are taken into consideration when analysing the dynamics and impact of the new emergency. This requires inclusion of local expertise and knowledge in data collection and analysis of resources, capacities, vulnerabilities and needs. The current and pre-emergency living conditions of displaced and non-displaced people in the area must also be considered.

**13. Groups at risk:** the needs of groups that are at risk of additional harm such as women, adolescents, unaccompanied minors, children, elderly people and people with disabilities must be considered. For example, when communal support systems for protection of widows, single women and unaccompanied adolescent girls are no longer present, it is important to be aware of actual or potential threats to women's security in closed living quarters. Gender roles within the social system also need to be identified.

**14. Recovery:** thinking and analysis concerning the post-disaster recovery period should be part of the initial assessment, so that interventions to meet immediate emergency requirements can serve to foster recovery among the affected population.

#### **Analysis standard 2: monitoring and evaluation**

The performance and effectiveness of the shelter and site programme and changes in the context are monitored and evaluated.

#### **Key indicators**

\* The information collected for monitoring and evaluation is timely and useful; it is recorded and analysed in a logical, consistent and transparent manner.

- \* Systems are in place that enable systematic collection of information on the impact (positive or negative) of the intervention on shelter, clothing and household needs, and on the environment.
- \* The use of household items and goods, particularly by women, is monitored.
- \* Women, men and children from the affected population are involved in monitoring activities.
- \* There is regular analytical reporting on the impact of the shelter and site programme on the affected population. There is also reporting of any contextual changes and other factors that may necessitate adjustment to the programme.
- \* Monitoring activities provide information on the effectiveness of the programme in meeting the needs of different groups within the affected population.
- \* Systems are in place that ensure an information flow between the programme and other sectors, the affected population, the relevant local authorities, donors and others as needed.
- \* The programme is evaluated with reference to stated objectives and agreed minimum standards to measure its overall effectiveness and impact on the affected population.

## **Guidance notes**

1. **Use of monitoring information:** emergencies are volatile and dynamic by definition. Regular and current information is therefore vital in ensuring that programmes remain relevant. Information derived from continual monitoring of programmes should be fed into reviews and evaluations. In some circumstances, a shift in strategy may be required to respond to major changes in the context or needs. Evaluation of the shelter situation after a period of around six months allows for decisions to be made as to whether and how the programme should continue. On the basis of this information it becomes possible to plan for sustainable activities, long-term involvement of agencies, and to address issues of return and reintegration.
2. **Cooperating with other sectors:** information generated by the assessment process is used for monitoring and evaluation of the shelter and site programme. It may also contribute to an initial baseline for the health information system. Monitoring and evaluation activities require close cooperation with other sectors.
3. **Using and disseminating information:** information collected should be directly relevant to the programme, in other words it should be useful and should be used. It should also be made available as needed to other sectors and agencies, and to the affected populations.

The means of communication used (dissemination methods, language and so on) must be appropriate for the intended audience.

4. **Safety:** monitoring of shelter and site programmes is critical to ensure the safety of groups at risk of harm, and to identify and address areas where violence occurs.

5. **People involved in monitoring:** when monitoring requires consultation, people who are able to collect information from all groups in the affected population in a culturally acceptable manner should be included, especially with regard to gender and language skills. Women's involvement should be encouraged.

6. **Evaluation:** evaluation is important because it measures effectiveness, identifies lessons for future preparedness and humanitarian assistance, and promotes accountability.

Evaluation refers here to two, linked processes:

a) Internal programme evaluation is normally carried out by staff as part of the regular analysis and review of monitoring information. The agency must also evaluate the effectiveness of all its programmes in a given disaster situation or compare its programmes across different situations.

b) External evaluation may by contrast be part of a wider evaluation exercise by agencies and donors, and may take place, for example, after the acute phase of the emergency. When evaluations are carried out it is important that the techniques and resources used are consistent with the scale and nature of the programme, and that the report describes the methodology employed and the processes followed in reaching conclusions. Outcomes of evaluations should be disseminated to all the humanitarian actors, including the affected population.

#### **Analysis standard 3: participation**

The disaster-affected population has the opportunity to participate in the design and implementation of the assistance programme.

#### **Key indicators**

\* Women and men from the disaster-affected population are consulted, and are involved in decision-making that relates to needs assessment, programme design and implementation.

\* Women and men from the disaster-affected population receive information about the assistance programme, and have the opportunity to comment back to the assistance agency about the programme.

### **Guidance notes**

1. **Equity:** the participation of disaster-affected people in decision-making, programme design and implementation helps to ensure that programmes are equitable and effective. Special effort should be made to ensure the participation of women and balanced male and female representation within the assistance programme. Participation in shelter and site planning programmes may also serve to reinforce people's sense of dignity and worth in times of crisis. It generates a sense of community and ownership which can help ensure the safety and security of those who are receiving assistance, as well as those who are responsible for its implementation.

2. **People can be involved in shelter, clothing and household item provision in different ways:** for example through participation in assessment teams; involvement in decision-making (eg public/private use of space); disseminating information about food storage, traditional building and construction; assisting in identifying threats to security and special threats to women and vulnerable groups; supplying household lists.

3. **Coordination committees:** coordination committees help ensure people's involvement in the assistance programme. Gender, age, ethnicity and socio-economic status should be taken into consideration in order to ensure that committees adequately represent the affected population. Acknowledged political leaders, female and male community leaders and religious leaders should also be represented. The roles and functions of a coordination committee should be agreed upon when it is set up.

4. **Seeking views and opinions:** participation can also be achieved through regular polling and discussions. This can take place during distribution, through home visits or when addressing individual concerns. Group discussions with members of the affected community can yield useful information on cultural beliefs and practices.

## 2 Housing (Shelter)

The purpose of shelter interventions is to help the repair of homes, the construction of temporary shelters or the settlement of displaced people within existing communities, depending on the situation.

### Housing standard 1: living quarters

People have sufficient covered space to provide protection from adverse effects of the climate. They have sufficient warmth, fresh air, security and privacy to ensure their dignity, health and well-being.

### Key indicators

- \* The covered area available per person averages 3.5-4.5m<sup>2</sup>.
- \* In warm, humid climates, shelters allow optimal ventilation and provide protection from direct sunlight.
- \* In hot, dry climates, shelter material is heavy enough to ensure high thermal capacity. If only plastic sheeting or tents are available, provision of a double-skinned roof or an insulating layer is considered.
- \* In cold climates, shelter material and construction ensures optimal insulation. A temperature that is comfortable to the occupants is achieved by means of insulated shelter combined with sufficient clothing, blankets, bedding, space heating and calorific intake.
- \* If plastic sheeting is provided for shelter, it meets the specifications defined by UNHCR.

### Guidance notes

1. **Link with Water Supply and Sanitation:** for indicators on minimum and maximum distances to, and number of, water points and toilets, , the excreta disposal standards, in Water Supply and Sanitation, chapter 1.
2. **Shelter standards depend on the climate and the size of the household:** in a cold climate people need more interior space, as they spend more time inside than in a hot

climate. Older people, women and young children generally spend more time inside the covered area.

**3. In warm, humid climates:** shelters must be oriented and designed to maximise ventilation and prevent entry of direct sunlight, so the door and windows should preferably face north and south. The roof should have a good slope for rainwater drainage and have large overhangs. The construction of the shelter should be light, as low thermal capacity is required. Appropriate orientation is important to maximise airflow; it should not be obstructed, for example, by neighbouring shelters. Shaded space outside the shelter is recommended for cooking and air-drying cooking utensils. Frequent monsoon seasons should be taken into account and surface water drainage is extremely important. (See Water Supply and Sanitation, drainage standards, in chapter 1.)

**4. In hot, dry climates:** construction must be heavy enough to ensure high thermal capacity, allowing changes in night and day temperatures to cool and heat the interior alternately. Windows should be small. If only plastic sheeting or tents are available, a double-skinned roof with ventilation between the layers to prevent radiant heat transfer should be considered. Alternatively, use of insulation materials should be supported. In a light structure, maximum ventilation is not an objective but should be easily controlled (eg by opening opposite doors) to prevent heating by hot winds and radiation from the surrounding ground, and to prevent sand coming into the shelter. Shade can be gained from surrounding shelters or trees.

**5. In cold climates:** it is essential to provide well-insulated shelters. However, good quality shelters alone are not sufficient to ensure adequate body warmth, which depends on a combination of factors. Key factors are: the external temperature; wind; insulation of the shelter; heating arrangements; available clothes and blankets; and calorific intake.

The chill factor can be minimised by ensuring that air flow through the shelter is kept to the minimum necessary for personal comfort and safety, and to prevent respiratory problems caused by space heaters or fires for cooking. However, a minimum level of ventilation must be ensured. Doors should be designed to minimise drafts.

Space heaters are essential and must be appropriate to the shelter. Ideally, air intake and exhaust from cookers or space heaters should be contained in flues.

Conduction through the floor is a major issue and needs attention to ensure that people do not lose a lot of body heat during the night. This can be addressed by ensuring that the floor is insulated, as well as the shelter itself, and/or by providing bed mats or mattresses.

**6. Supply of sheeting and other materials:** reinforced sheets of polyethylene are generally supplied in the early stage of the emergency, occasionally with rope and support materials such as local bush poles, galvanised steel, aluminium or high density paper. Assistance in harvesting materials should be considered, as should local purchase of materials. The provision of shelter systems should be considered if harvesting of materials is expected to damage the local economy or the environment.

The average household of five people should receive at least one 4 metres x 6 metres sheet of plastic. This is best imported in rolls for easy transportation, storage and distribution (4 metres x 60 metres for 10 families). However, sheets of 4 metres x 7 metres per family would give more head clearance. (See Davis, J and Lambert, R (1995), UNDP (1995) and MSF (1997.)

**7. Plastic sheeting:** plastic sheeting provided for shelter should meet specifications defined by UNHCR. Plastic sheeting for weather-proofing damaged buildings should follow different performance specifications.

**8. Shared accommodation:** shared accommodation is not a desirable solution to shelter problems. Where it has to be used, particular attention needs to be paid to maximising people's privacy. **9. Damaged homes:** displaced people returning to homes damaged by war or natural disasters must be adequately supported. In cold climates it is preferable to help people to make one room habitable, rather than providing collective accommodation. Victims of earthquakes should be discouraged from inhabiting damaged buildings if there is a significant risk of aftershocks or further earthquakes.

**10. Vector control:** control measures may be required in shelters in both hot and cold climates to prevent infestation by vectors such as mosquitoes, rats and flies, and pests such as snakes and scorpions (see Water Supply and Sanitation, vector control standards, in chapter 1). An understanding of local building practices, the patterns of shelter use by displaced people, and material selection should inform shelter programmes and subsequent control measures.

**11. Environmental impact:** appropriate measures need to be taken to minimise the environmental impact of shelter programmes. These include:

- Provision of construction material to avoid depletion of local environmental resources.
- Protection of vegetation essential for control of erosion and/or flooding.
- Safeguarding agricultural and productive forest.

### 3 Clothing

#### Clothing standard

The people affected by the disaster have sufficient blankets and clothing to provide protection from the climate and to ensure their dignity, safety and well-being.

#### Key indicators

- \* People have access to sufficient blankets.
- \* Children up to 2 years old have at least one full set of clothing and hygiene materials appropriate to the culture, season and climate.
- \* Women, girls, men and boys have at least one full set of clothing in roughly the correct size, appropriate to the culture, season and climate. In addition, women and girls have a regular supply of sanitary protection.
- \* Culturally appropriate burial cloth is available as required.

#### Guidance notes

1. **Appropriateness:** the initial assessment report should indicate climatic and cultural factors in order to ensure that blankets and clothing are appropriate to men, women and children, and to age. They should be supplied separately, not in mixed bales.
2. **Women's needs:** women need specialised clothing for reasons of hygiene and personal dignity. They must also receive appropriate material for their monthly sanitary needs. It is important that these materials are appropriate and discrete, or women will not use them. Given the sensitivity of this issue, women must be involved in making decisions about what is provided. (See Water Supply and Sanitation, excreta disposal, in chapter 1.)
3. **Insulation:** the insulation capacity of blankets and clothes decreases significantly when they are wet (10 to 15 times) and bodies lose more thermal energy. Using many layers of clothing or blankets does not necessarily keep people warmer because with more fabric weight there is less warmth. It is therefore more cost-effective to invest in better quality blankets that will keep people warm rather than larger numbers of cheaper, poorer quality blankets.
4. **Issues relating to thermal resistance and climate:** for further guidance see UNDP (1995).

## 4 Household Items

People who have been displaced from their homes often arrive with only the things they can carry. When setting up a household at a new site, families need basic supplies and these should be identified by the initial assessment.

### Household items standard 1: items for households and livelihood support

Families have access to household utensils, soap for personal hygiene and tools for their dignity and well-being.

### Key indicators

- \* People have appropriate household items: 1 cooking pot with well-fitting lid, 1 basin, 1 kitchen knife, 2 wooden spoons; and 2 water collection vessels of 1-20 litres plus water storage vessels of 20 litres.
- \* Each person has: 1 eating plate, 1 metal spoon and 1 mug.
- \* Each person has access to 250g of soap per month.
- \* There is planning for durable items to be replaced when necessary.
- \* As soon as possible, each household has access to appropriate tools and materials to support livelihood activity.
- \* Tools and materials supplied are appropriate and familiar to the population, and are of a similar technological level to that which people were used to before the disaster. Items are appropriate to the conditions in which they are to be used.
- \* Those affected are aware of their entitlements under assistance programmes.

### Guidance notes

1. **Link with Water Supply and Sanitation:** see also Water Supply and Sanitation, Water Supply standard 3: water use facilities and goods, for indicators relating to water storage, soap and washing containers; and Solid Waste Management standard 2: solid waste containers/pits, for requirements for refuse containers.

**2. Opportunities for self-reliance:** as soon as feasible, women and men should be given the opportunity to develop current and future self-reliance by means of food production, training or other activities that contribute to their general health and well-being. This needs to be considered when planning household space requirements.

**3. Supply and procurement:** technical items can be paid for in cash, by means of labour supplied, or on the basis of a loan. Wherever possible materials should be supplied and procured locally, preferably by the people themselves on a household-to- household basis. It is important to ensure that female- and adolescent-headed households, single women and widows enjoy fair access to supplies, allowances, cash-for-work programmes and training. More durable items supplied to the population should be technologically simple, and be maintained by the people themselves or locally. .

#### **Household items standard 2: environmental concerns**

Fuel-economic cooking implements and stoves are made available, and their use is promoted.

#### **Key indicators**

- \* People have access to, and make use of, fuel-economic and low smoke wood stoves (produced locally if possible), gas or kerosene stoves and cooking pots with well-fitting lids.
- \* The use and benefit of fuel-economic devices is promoted through community education programmes, if needed, and their production is planned as early as possible.
- \* People are aware of the benefits of using fuel-economic devices.
- \* Women are consulted about the location and means of collecting fuel for cooking and heating.

### **5 Site Selection and Planning**

This section applies to the third scenario described at the beginning of this chapter, where the only available means of providing shelter for a displaced population is a planned temporary settlement.

A well-situated and well-planned temporary settlement provides a healthy environment where people can live in dignity and at peace, and where they can lead as sustainable a family life as possible. In meeting minimum standards, site selection and planning should aim to produce the best living conditions possible under the circumstances, with minimal damage to the environment.

The site selection and planning standards are structured around the assessment process and subsequent steps that should be taken to establish the type and form of settlement appropriate to the needs of the displaced population. Site selection is determined with reference to four types of temporary settlement (reception or transit centres, self-settled camps, planned temporary settlements, extensions to temporary settlements). Once the preferred option has been identified, information from the physical assessment is then used to decide whether this can be achieved and, if not, what compromises should be made.

#### **Site standard 1: site selection**

The site is suitable to host the number of people involved.

#### **Key indicators**

*These indicators combine to describe a process which is expanded upon in the guidance notes.*

\* The appropriate population size of a temporary settlement is defined following socio-economic assessments of both displaced and host populations, and assessments of the carrying capacity of the region and site.

\* The appropriate type of temporary settlement required is determined: reception or transit centre; self-settled camp; planned temporary settlement or extension to a temporary settlement.

\* Requirements for the form the settlement is to take are determined with reference to:

- Information generated by the physical assessment.

- Actual or potential threats to the security of the affected population. This is particularly important for refugee populations and is always critical for single women, widows and unaccompanied adolescent girls.
- The maximum estimated duration of the settlement.
- The preferred population density of the settlement.
- The level of integration of the displaced population with the host population.

\* The requirements for the form of the settlement are tested against the physical constraints of each potential site. The site meets the following requirements, regardless of seasonal variations:

- It is located at a safe distance from possible external threats to physical security, usually not less than 50km.
- It is accessible by heavy trucks from an all-weather road. If it is necessary to construct a road, the soil type and terrain should support this activity. Communal facilities are accessible by light vehicles..
- It is near to existing social and economic facilities where appropriate.
- There are adequate quantities of water (for drinking, cooking, hygiene and sanitation).
- It is not less than 3 metres above the anticipated water table in the rainy season.
- Water rights, and the right to use other natural resources such as wood, stone, sand are arranged before, or at the same time as, the site is selected.
- Land rights are established prior to occupation and permitted use is negotiated as necessary.
- The soil type is suitable for digging and water infiltration.
- There are sufficient grasses, shrubs and trees for shade and to avoid soil erosion.
- Sufficient sustainable resources of fuel wood and construction materials are available. - Sufficient and appropriate land is available for the required levels of agriculture and animal husbandry. The impacts of these are understood, and land use is negotiated as necessary.

- The site is not prone to endemic diseases that might affect inhabitants or their livestock, to standing water, or to flooding; it is not situated on land at risk from landslides and is not close to an active volcano.

## Guidance notes

These notes combine to describe a process by which the requirements of a settlement are identified, and explore the critical characteristics of a site.

**1. Identifying the type of settlement:** the assessments provide information that guide selection of the type of settlement (this note) and the form it takes (note 2). There are four basic types of temporary settlement:

- a) Reception or transit centres: where displaced people or refugees stay for short periods. A reception and transit centre should be treated in the same way as a planned settlement (c below) if it is: (1) large, having a population over 2,000, or (2) expected to last a long time. Environmental resources will have to be carefully managed to make sure that both displaced and local populations have enough water, fuel, and construction material, and that the local economy and environment are not adversely affected. If a transit camp receives many groups for short periods over a long period of time, this will have similar social and economic impacts on the local population as for a planned settlement.
- b) Self-settled camps: where people have settled spontaneously, yet require partial relocation, provision of infrastructure and sustainable environmental resources.
- c) Planned temporary settlements: where settlements are constructed and serviced by physical planners in advance of arrival of people (eg from reception or transit centres).
- d) Extensions to temporary settlements: where extension to the settlement is required to accommodate new arrivals (eg from reception or transit centres).

**2. Deciding the form of settlement:** having identified the type of settlement, the next step is to decide the form it should take. This should take into account information from the socio-economic assessment and the following:

- a) Security of the displaced population: whether there are threats from within the displaced population, from the host population or from other parties.
- b) The maximum envisaged duration of the settlement.

c) Interaction with the local population, economy and environment.

**3. Assessing the physical site:** once the preferred type and form of settlement have been identified, information from the physical assessment should be used to decide whether the preferred option can be achieved and, if not, what compromises should be made. Specialist advice may be required at this stage. The physical site assessment should address the following:

**a) Access**

- Proximity and condition of local road infrastructure.
- Proximity to host service infrastructure and whether siting will affect this positively or negatively.
- Proximity to airstrips, railheads or ports.
- Seasonal constraints on access, and vulnerability of access.

**b) Site conditions**

- Topography and site gradients should be sufficient for drainage while being habitable for the expected density of occupation. The appropriate maximum site gradient depends on soil conditions, vegetation and possible drainage and erosion control measures, which need to be taken into consideration in order to prevent flooding and mudslides. The ideal gradient is between 2% and 4%.
- Natural hazards including earthquakes, volcanic activity, landslides or flooding.
- Permeability of the ground. For example, fissured rock will disperse latrine waste widely; volcanic rock makes latrine construction difficult. (See Water Supply and Sanitation, excreta disposal, in chapter 1.)
- Micro-climatic conditions.

**c) Water (see Water Supply and Sanitation, chapter 1)**

- Availability of sufficient water within a suitable distance throughout the year for displaced people, the host community, agriculture and livestock.
- Separation of animal and water points.
- Whether there is more than one source of water, in order to reduce the vulnerability of the water supply.

- Height of the water table, whether it risks pollution by sanitation and flooding, and seasonal variations.

#### **d) Space**

- Whether there is sufficient space for the desired density of the population and dispersal of that population into the number of settlements required.
- Whether there is space for extension of the settlement(s), should the population increase.
- Current land use and expected impact of the settlement on the land.
- The levels and types of agriculture and livestock that can be supported.

#### **e) Environment**

- Expected temperature, wind and rainfall in terms of their influence on planning, agriculture and livestock.
- Existence of environmentally vulnerable or valuable areas nearby.
- Availability of sufficient, sustainable quantities of wood for fuel and construction for both the displaced and host populations.
- Type and quantity of ground cover in terms of their influence on micro-climatic conditions, wind speeds and soil erosion.
- Endemic diseases, pests, risk of disease. (See Health Services standard 3, control of communicable diseases, in chapter 5; Water Supply and Sanitation standard 4, vector control, in chapter 1.)

Throughout this process it is essential that site selection is guided first and foremost by the needs of the affected population(s) rather than by purely technical considerations or the establishment of assistance mechanisms.

**4. For an alternative method for site selection, from an engineering perspective:** see the site selection matrix in Davis and Lambert (1995).

**5. Minimising negative impacts:** when a displaced population settles close to a larger host community it can benefit from access to locally available infrastructure services and livelihood opportunities. The displaced population may outnumber the host communities. This can place demands on the local infrastructure, economy and environment, which may

create animosity between the two communities. Careful site selection and planning are thus critical in determining the effectiveness of the wider humanitarian assistance programme and the security of women, men and children from the affected populations.

6. **See also:** Analysis standard 1, assessment.

### **Site standard 2: site planning**

Site planning ensures sufficient space for household areas and supports people's security and well-being. It provides for effective and efficient provision of services and internal access.

### **Key indicators**

- \* The site provides 45m<sup>2</sup> space for each person. This includes infrastructure (eg roads, sanitation, schools, offices, water systems, security/fire breaks, markets, storage facilities, shelter locations), but excludes land for agriculture (crops and livestock).
- \* Clusters of living areas or village groups are established.
- \* Empty land for possible future expansion is identified.
- \* There is provision for social facilities such as markets, places of worship, graveyards, health facilities, solid waste disposal, water points, community and nutrition centres, workshops, wood lots and recreational areas.
- \* There is provision for facilities required by humanitarian agencies such as administrative offices, warehousing and staff accommodation.
- \* There are adequate firebreaks of at least: 2 metres between dwellings, 6 metres between clusters of dwellings, and 15 metres between blocks of clusters.
- \* There is a graveyard for each population group and graveyards are appropriately located.
- \* Quarantine camps are established, or sites are identified and prepared, in isolation from general residential areas, in order to minimise the spread of an epidemic.
- \* . The site gradient is not more than 7% unless extensive drainage and erosion control measures are taken.

**Guidance note**

1. **Social factors:** wherever possible, the social structure and gender roles of the displaced population should be reflected in the planning of the settlement, which should take into account needs for markets, meeting places, recreational areas and so on. These facilities are essential in supporting the re-establishment of the displaced communities. Existing forms of social representation should also be supported, given the importance of consultation with displaced people, particularly women, and their involvement in humanitarian interventions.

**Site standard 3: security**

Site selection and planning ensure sufficient personal liberty and security for the entire affected population.

**Key indicators**

- \* The site is located at a safe distance from possible external threats to physical security.
- \* Site planning ensures that safe integrated living areas are provided for groups at risk.
- \* Social, health, sanitation and other essential facilities are safely accessible for everyone, and are lit at night if necessary.
- \* Cluster planning is used in order to support self-policing by the displaced population.
- \* The overall size of the settlement population does not exceed a level that makes internal and external security and protection measures ineffective.
- \* Internal and external security and protection activities are carried out by the host authorities and/or the relevant UN agency.
- \* The agency assigned responsibility for overall coordination assists with internal security for groups at risk.
- \* Systems to prevent and manage the consequences of sexual and gender-based violence are in place.
- \* Women and adolescents know about the availability of health services for victims of sexual violence.

\* Reasonable steps are taken to ensure that staff are not at risk. In insecure areas an evacuation plan is agreed between agencies.

## Guidance notes

**1. Security for all people affected by the disaster, and for field staff, is of crucial importance:** careful site planning that takes into account internal and external risks, is of particular importance when providing for refugee populations or internally displaced populations who feel similarly threatened. Identifying the security needs of particular groups, especially women, will help reinforce security measures taken by host authorities and UN agencies. It is important that women and other groups considered at risk of harm are not housed in isolated areas where they can be easily targeted for physical attack or rape.

**2. Security measures:** the coordinating agency should ensure that there is lighting in strategic areas at night and that female- and adolescent-headed households and single women are housed in secure areas near facilities, but not in such a way that 'ghettos' are created. It is important to work with the affected population to establish security measures including, for example, safe haven facilities and neighbourhood watch groups. Measures to prevent sexual violence may include: site planning in consultation with women and men from the affected population; ensuring the presence of female protection and health staff and interpreters; reviewing issues of sexual violence in coordination meetings.

### Site standard 4: environmental concerns

The site is planned and managed in such a way as to minimise damage to the environment.

## Key indicators

\* Planning of temporary settlements takes into consideration density and dispersal of the displaced population:

- In fragile environments, the displaced population is concentrated in order to contain non-sustainable demand on the environment.

- In more robust environments, the displaced population is dispersed into a number of small settlements since these are less likely to cause environmental damage than large settlements.

\* During site planning, trees and other vegetation are spared as far as possible. Roads and drainage patterns are planned in such a way as to make use of natural contours in order to avoid erosion and flooding.

### **Guidance notes**

1. **Space requirement:** UNHCR guidelines (unpublished at time of writing) recommend a total space requirement of 45m<sup>2</sup> per person, which includes a small space for kitchen gardening. The ideal is for the displaced population to live at the same density as in their home region/country, or at the same density as the host population, whichever is most appropriate for the situation. Planning should take into account the dynamic evolution and growth of a camp. Population growth and the arrival of more people may see the camp expand by up to 4.5% annually, as has been the case in the past. Early repatriation or reintegration should be planned for as well.

2. **Firebreaks:** care should be taken to prevent firebreaks acting as 'wind tunnels'. Fire control teams should be trained, equipped and regularly tested.

3. **Graveyards:** graveyards and mass graves must be located at least 30 metres from groundwater sources used for drinking water (in soil and more in fractured rock formations), with the bottom of any grave 1.5 metres above the groundwater table. Surface water from graveyards must not enter the settlement. Customs of the local and displaced population should be considered.

4. **Fuel wood consumption:** no matter how much agricultural and habitation land is allocated to each family, people will return to communal areas to collect wood if there are no alternative sources of fuel. On a sustainable basis, it is assumed that 500 people need 1km<sup>2</sup> of undisturbed forest to cater for their annual fuel wood consumption need of 600-900 kg per person. Assuming however that only 20% of forest is undisturbed, only 100 people would be able to access the land.

## 6 Human Resource Capacity and Training

All aspects of humanitarian assistance rely on the skills, knowledge and commitment of staff and volunteers working in difficult and sometimes insecure conditions. The demands placed on them can be considerable, and if they are to conduct their work to a level where minimum standards are assured, it is essential that they are suitably experienced and trained and that they are adequately managed and supported by their agency.

### Capacity standard 1: competence

Shelter and site interventions are implemented by staff who have appropriate qualifications and experience for the duties involved, and who are adequately managed and supported.

### Key indicators

- \* All staff working on a shelter and site programme are informed of the purpose and method of the activities they are asked to carry out.
- \* Assessments, programme design and key technical decision-making are carried out by staff with relevant technical qualifications and previous emergency experience.
- \* Staff and volunteers are aware of gender issues relating to the affected population. They know how to report incidents of sexual violence.
- \* Staff with technical and management responsibilities have access to support for informing and verifying key decisions.
- \* Staff responsible for site planning are trained and regularly supervised.
- \* Staff and volunteers involved in information gathering are thoroughly and regularly supervised by an experienced person.
- \* Staff and volunteers involved in construction and other manual activities are trained, supervised and equipped adequately to ensure their work is carried out efficiently and safely.

### **Capacity standard 2: local capacity**

Local skills and capacity are used and enhanced by shelter and site programmes.

#### **Key indicators**

- \* Women and men from the disaster-affected population are included in the planning, implementation, monitoring and evaluation of shelter programmes.
- \* Staff understand the importance of strengthening local capacities for long-term benefit.
- \* The skills base within existing local partners and institutions, and in the local population, is tapped and strengthened during the course of the humanitarian assistance programme.

#### **Guidance notes**

1. **See:** ODI/People In Aid (1998), *Code of Best Practice in the Management and Support of Aid Personnel*.

2. **Staffing:** staff and volunteers should demonstrate capabilities equal to their respective assignments. They should also be aware of key aspects of human rights conventions, international humanitarian law and the Guiding Principles on Internal Displacement (see the Humanitarian Charter).

Providing training and support as a part of emergency preparedness is important to ensure that skilled personnel are available to deliver quality services. Given that emergency preparedness cannot be assured in many countries, humanitarian agencies should ensure that qualified and competent staff are identified and properly prepared before eventual assignment to an emergency situation.

When deploying staff and volunteers, agencies should seek to ensure that there is a balance in the number of women and men on emergency teams.

## **Appendix 1**

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