10

Community Services and Education

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Situation

The trauma of becoming a refugee can be very great. Normal structures which have regulated community well-being and also cared for groups at risk such as older persons, women, children and the disabled, have broken down and need rebuilding. Social and psychological problems are created or exacerbated and appropriate measures for resolving these problems are essential.

Objectives

To provide for the welfare of the whole refugee group and to ensure that the most vulnerable refugees have equal access to basic goods and services.

To assist the re-establishment and development of refugee community structures which can be used in the management of the assistance programme and which can also minimize longer-term problems of dependency.

To ensure that the assistance provided is appropriate for the refugees.

Principles of Response

- Refugee community participation (including both men and women) should be promoted in all sectors, by building on the community's own resources as much as possible and encouraging individual, family and group self-reliance;
- Special services for the vulnerable should, as far as possible, be provided by the refugee community itself;
- Services should be decentralised but within a structured plan, and must reach those in need;
- Community services should be developed in co-ordination with and in support of the priority life support sectors and should be an essential component of the overall assistance operation.

Action

- Assess community problems, needs and resources. Help refugees to identify and establish the services which will meet their needs in all sectors;
- Ensure prompt identification of and support to the most vulnerable;
- Develop appropriate community management structures including mechanisms to ensure participation of women in decision-making and ensure that all groups within the population are appropriately represented. Identify community workers who can help the vulnerable, spread relevant information and support other sectors;
- Take immediate action to prevent family break-up and reunite families as soon as possible.
- Identify and provide care for all isolated vulnerable individuals, especially unaccompanied minors. Spontaneous groupings, if already bonded, should be kept together;
- Establish communication links with the refugees to ensure good two-way communication between the refugees and those assisting them;
- Build the capacity of the community by identifying training needs and by helping to organize practical and hands-on training in community work.

Introduction

1. The shock of having to leave home and the circumstances of life as a refugee, particularly in the early stages of an emergency, create major emotional and social problems and exacerbate existing problems in the community. The trauma of flight and its aftermath may leave the refugees confused, frightened, lonely and insecure, facing an unknown future in a strange, sometimes hostile, environment. Separation from or loss of other family members as well as lack of community support are common in refugee emergencies, and causes emotional stress and problems for individuals and their community.

2. The most important action that can be taken to help reduce the shock and stress for the community is to provide security, stability and protection. In part this can be done materially, and in part by ensuring protection and involving the refuges from the start in the organization of all aspects of their new lives, and in particular the search for durable solutions. Community services are a vital bridge between the refugee and the goods and services of the new settlement. Without help in adjusting to this new environment, the sense of loss and isolation can deepen even in circumstances of relative material well-being.

3. It is important to involve the refugees in the provision of assistance and allow the community to share the responsibility of caring for itself and its vulnerable members. This minimizes dependency and encourages self-reliance.

The approach used during the emergency period will determine the whole pattern of behavioural response of refugees towards external assistance.

4. In every emergency, there will be refugee groups at risk with psychological or social problems that require particular attention. The most vulnerable are those with no family support who are dependent on external assistance for their daily survival. This dependence may be because of their age; their physical condition; their psychological condition; or socio-economic problems. The social disruption of emergencies causes these problems to be both aggravated and overlooked – but in stable non-emergency situations, the community itself meets many of the needs of groups at risk. Thus services to meet these needs are best given in a community-based programme.

Organizing Community Services

- Plan and implement the community services programme with the refugees;
- Use a phased approach to implement a community services programme;
- Assess the needs by screening the whole community; the most vulnerable rarely come forward themselves;
- Co-ordinate closely with other sectors.

Introduction

5. The main objectives of community services should be to identify and assist those persons whose basic needs are not being adequately met and to ensure the general welfare of all refugees. A community services programme should mobilize appropriate community resources, with outside help as necessary, to screen the refugee population for those facing urgent problems and see these immediate needs are met. Community services can then proceed to strengthen self-reliance and develop community activities.

6. A three-phased approach has been developed to implement the community services programme:

Phase 1	assessment, action plan, guidelines;
Phase 2	foundation of community services programme;
Phase 3	building up community services.

To measure performance in each of these phases (which are not mutually exclusive), a community service checklist can be used (see Annex 1).

7. Experience suggests that even in an emergency many needs can best be met by resources that exist within the community. Every community has its own beliefs, social values, customs, traditions and preferences for how problems should be resolved.

A community services programme should seek to enhance and improve existing and positive coping mechanisms.

Community problems are best solved using an integrated, inter-disciplinary approach, working with other sectors. Community services staff should therefore work as part of the UNHCR team, contributing to assessment, planning, programming and monitoring activities of other sectors.

8. Community services programmes generally require a decentralised structure, allowing refugee community workers to work with the same refugees, getting to know and be known by them. An active community services team is likely to be a major referral unit, helping to direct refugees to available resources and identifying areas of need where other services (health, nutrition, etc.) may be targeted.

Assessment and Action Plan

9. A careful initial assessment will determine the most pressing social problems, and the plan of action. This assessment should cover the whole community, with particular attention to identifying refugees with special needs who may not come forward themselves. The assessment and resulting plan should take into account demographic and cultural information regarding the refugee population, as well as the policies and resources in the country of asylum. Another priority in drawing up the community services programme is to identify gaps in the general assistance programme.

10. The outcome of the assessment will determine the community services action plan, including priorities of actions to be taken, the role of the various partners, and the need for special programmes, such as family reunification or assistance to victims of violence (see key references for guidelines on these topics).

11. Before establishing the community services team (see the section on Human Resources below), it will be necessary to identify appropriate local, national and international partners, including NGOs, governments, local and refugee community leaders. Involving local communities and government will help raise refugees' sensitivity to the needs and culture of the local population, and will also facilitate local acceptance of refugees, thus preventing tension.

Foundation of Community Services Programme

12. It is important to identify and promote refugee self-management groups either within mainstream structures or if more culturally appropriate, in separate groups. These should include women and youth. Community support for the vulnerable must be encouraged. Refugee volunteers can help identify vulnerable refugees and ensure their access to general services.

13. To ensure that all refugees, especially the most vulnerable, have access to services:

i. Direct all refugees to appropriate health or nutrition services;

ii. Organize immediate tracing of lost children and registration of these and other vulnerable individuals and provide assistance to all those alone and unable to care for themselves;

iii. Address the problems of survivors of abuse or violence.

14. In order to minimize long term dependency, and ensure the services are appropriate for the whole refugee group, community services will promote refugee participation in all sectors, and build the refugee community's problem solving capacity. Community services should also raise awareness and mobilize refugees on sanitation and environment issues and respect for local community resources.

Building up Community Services

15. Once the community services programme has been established, community services are built up by: building the capacity of implementing partners; co-ordinating community outreach and community training activities; establishing information networks; running a training programme for community workers; setting up education programmes and running the tracing and special programmes. General community activities, for example, cultural events and recreation, will be important for the creation of a greater sense of normality and security, and the reduction of stress, as well as fostering the refugees' sense of community.

Human Resources

- The refugees themselves should play the central role;
- Continuity of personnel is very important;
- Professional impartial conduct and confidentiality must be maintained;
- Teamwork with other sectors is essential.

Introduction

16. Refugees trained as community workers should be the backbone of the community services programme. Outsiders will be severely limited by language barriers and lack of familiarity with social values and customs. Refugee community workers will be respon-

sible for assisting groups and individuals through outreach work, and referring individuals to appropriate services where necessary. In some cultures, traditional healers are especially skilled at resolving psychological problems.

17. Training refugee community workers is a priority. Training should draw on refugees' own knowledge of their community, and make use of outside expertise (from within the host country if possible). Training should cover social work and community development, with inputs from other disciplines such as public health, nutrition, sanitation, protection, water, shelter.

18. Refugee community workers should be drawn from the various groups within the refugees, and a particular effort may be needed to ensure that a sufficient number are women. There should be a proper balance between workers from different social and ethnic groups.

19. The number of such workers required will depend greatly on the community's own response mechanisms, and the geographical distance between site locations, population size and complexities of the situation. However, one worker per 1,000 refugees is usually appropriate. In addition, there should be community workers in the health centres, as there is a tendency for people with special needs to be directed to these even when the problem may not be medical.

20. Staff from outside the refugee community will be required to co-ordinate community services, manage training programmes and deal with problems beyond the resources of the refugees. This outside assistance is likely to involve both international and national personnel. The role of international personnel may be limited principally to overall co-ordination, guidance, support, training and liaison with the authorities and other organizations concerned.

Familiarity with social values and customs is essential.

21. National personnel will play an important role because of their cultural knowledge and understanding of the refugees. Additional specialist staff may be needed to focus on specific issues. A memorandum of understanding exists between UNHCR and Radda Barnen (Sweden) under which specialized community services staff can be quickly deployed to emergencies (see Appendix 1, Catalogue of Emergency Response Resources, for details).

Continuity of personnel is necessary for effective community services because of the fundamental part played in these services by human contact and trust.

22. Interpreters are a vital link of communication between UNHCR and the refugee community as they bridge the gap created by cultural, national, linguistic and racial differences. Interpreters are usually selected from the refugee or local community and should include an adequate proportion of women. Refugee interpreters have the benefit of knowing and being committed to helping their community; however they are likely to be placed in a difficult position as intermediary between refugees and UNHCR and expected to be answerable to both. Therefore, if possible, refugee interpreters should not be used in sensitive situations such as status determination interviews.

Working as a Team

23. Community services should support, and have strong links with, other sectors. For example:

Protection: Community services and protection have complementary roles in dealing with refugee problems on a day-to-day basis and working with refugee groups at risk. There will be areas of overlapping concern, for example, in training, promotional and advocacy activities at the community level; programmes for unaccompanied minors such as tracing, family reunification and foster care; and in developing preventive mechanisms and community-based solutions to deal with harassment of minority groups and sexual violence;

Health services: Many problems have both a medical and social component. Refugees might not make use of health services because they are too weak or infirm, too traumatized or just unfamiliar with the health service. Women may be particularly constrained if there are insufficient female health staff. On the other hand, problems of all kinds may be referred to health centres – so community outreach workers should be located in the health centre. Community networks can be used to promote basic health messages in cleanliness, sanitation, breast feeding etc.;

Site planning and construction: Community services can assist in the identification of social and cultural determinants of shelter planning, promote the involvement of all the community, including women, help establish refugee committees to oversee construction, and ensure that the community will take responsibility for providing shelter for its more vulnerable members in locations where they can be protected and assisted;

Environment: Community services should convey environmental messages such as the need to preserve trees and vegetation during emergencies (see chapter 12 on site planning). Community services should also promote simple, but crucial, energy saving techniques such as covering pots with lids during cooking, drying, chopping and splitting firewood before burning, and soaking beans and grains to reduce cooking time. Community services staff should work closely with environment specialists in areas such as forestry and domestic energy, to ensure these activities take into account the concerns and priorities of the local and refugee community. Without community participation, environmental programmes might not achieve their objectives;

Logistics: Community services should also work with logistics officers to ensure that vulnerable groups and groups at risk have equitable access to all commodities.

Family Tracing and Reunification

- ◆ Tracing and reunion of separated family members must be organized as quickly as possible;
- ◆ Refugees must be able to send and receive mail.

24. Procedures for the reunion of refugee family members separated during flight or within the country of asylum should be agreed with the authorities and implemented as soon as practicable. Tracing programmes should be set up and co-ordinated in the country of asylum, country of origin and regionally. At camp or local level, simple and effective tracing mechanisms include posting lists of names with photographs on the community notice boards in different locations, using the radio, or even making announcements by megaphone. The tracing arrangements must be widely promulgated; a central contact point in each site is likely to be needed. Tracing is a delicate task, and has to be organized by people who have the necessary experience and skills. A suitably experienced agency may be needed to implement these activities. Tracing requires the involvement of the refugees themselves, who will play a key role. The local population and authorities can also play an important role. Confidentiality of information and protection of individuals is also essential.

25. Consider the causes of separation when establishing tracing systems. Separation may have been caused by large scale population movements but may also have been due to other factors such as children opting to leave their families, or placement of persons outside their family for survival purposes. Outsiders, often relief workers, may have removed a child from an apparently dangerous situation, without informing the family and without proper documentation.

26. The following actions should be taken:

- ❏ Organize tracing and reunion of separated family members as quickly as possible, giving first priority to unaccompanied minors and other extremely vulnerable individuals;
- ❏ Combine a variety of systems: on the spot tracing, use of community mechanisms and formalized tracing at a regional level;
- ❏ Coordinate activities with agencies having expertise, e.g. the ICRC. Note that ICRC procedures, using the national Red Cross or Red Crescent societies, can be lengthy but may be the most appropriate for difficult cases;
- ❏ Ensure regional standardization of registration systems;
- ❏ Set-up a communication network in the community including a mailing system. A properly organized exchange of news (Red Cross messages) may considerably diminish the workload of a tracing service and accelerate the reunion of family members. Refugees have the right to send and receive mail.

Groups At Risk And Vulnerable Groups

- ◆ Develop and strengthen community-based support for vulnerable groups wherever possible;
- ◆ Ensure that children are cared for in ways that meet both their physical and emotional needs; individual care of unaccompanied children is all-important;

◆ Ensure that all groups among the refugees can participate in decision making affecting their well-being.

Introduction

27. In dealing with vulnerable groups, community based support is preferred, and only as a last resort should small, special facilities be established. These should be short-term to shelter vulnerable individuals while identifying community support mechanisms.

28. Experience shows that in refugee emergencies certain groups are likely to be more at risk than others. Standard criteria for vulnerability, and for eligibility for the provision of special assistance should be developed in conjunction with refugees. Some groups may be excluded from decisions directly affecting their wellbeing, and the particular needs of these groups may be unintentionally ignored or excluded in programme development. This exclusion may result in making the group vulnerable. This is often the case with minority groups. Women, who often make up the majority of the population, can be excluded in much the same manner.

29. In emergencies vulnerable refugees may need special transport where the refugee has physical problems which would prevent long distance movement. This would include older persons, the disabled, women in late pregnancy, severely malnourished or those in severe psychological distress. If special transport is needed, the refugee should be accompanied by a responsible attendant (usually a relative) and a clear reunion point identified to prevent further vulnerability through separation.

30. When individual casework is necessary, up-to-date records and confidential individual dossiers should be kept, and a simple periodic reporting system instituted, focusing on the needs identified and services provided rather than giving just statistical data. It is important that case records are transferred with refugees when they are moved. A coordinated response avoids unnecessary repetition of basic interviewing which is not only a waste of time but can also be psychologically damaging.

Children (including Adolescents)

31. For the purposes of this Handbook, "children" should be understood to mean "persons below the age of 18 years" (as defined in the Convention on the Rights of the Child, 1989), and therefore includes young children and adolescents.

32. Children make up a large proportion of most refugee populations. Early interventions during emergencies will help to normalize and stabilize their situation. Specialized agency expertise may be needed for parts of a child-focused programme.

33. Birth registration may be a prerequisite for obtaining nationality, enrolling in school and may be a vital tool for tracing. It can also be important in preventing military recruitment and other forms of exploitation. Ensure that the births of all refugee children are registered. Ideally births should be registered through the same procedure applicable to nationals. Where this is not possible the authorities should be encouraged to establish a separate birth registration system for refugee births. If this is not possible either, organize a temporary attestation system to ensure, at a minimum, that the date, place of birth and the names and nationalities of both parents are recorded. The UNHCR Field Office or the Red Cross/Red Crescent could, for example, issue such an attestation.

34. Different age groups will have different problems, young children have very different needs from teenagers.

35. UNHCR has an MOU with UNICEF which outlines their respective responsibilities for children and unaccompanied minors – UNICEF takes the lead in countries of origin and UNHCR in countries of asylum (see MOU attached as Appendix two).

36. Take the following action:

❑ Identify and develop community-based mechanisms to monitor refugee childrens' assistance and protection needs;

❑ Identify whether the child population as a whole might have any specific characteristics or needs as a consequence of the trauma of their flight and life before finding asylum: in particular, where children have been victims of and/or participants in armed conflict, or might have particular psychological, physical or social problems as a consequence;

❑ Identify what current risks there may be to the child population: for example a risk of on-going military recruitment, or of sexual exploitation or abuse;

- ❏ Promote the social role of adolescents in the community and their responsibility towards others in need, for example they can serve as community workers. Adolescents will need support, especially if they have assumed adult roles as heads-of-households. They will also need access to and education about reproductive health services, and vocational training;
- ❏ Coordinate with the health and nutrition sectors in organizing education campaigns and outreach activities in community health, nutrition and sanitation, such as promoting breast feeding, immunization and feeding programmes;
- ❏ Organize play groups, recreation activities and emergency education for pre-schoolers and for school age children including girls and vulnerable children;
- ❏ Identify resources within and outside the community which could be used to address the needs of children and young people (and their families). These community resources should encourage self-reliance, and work towards preventing domestic violence, sexual abuse, drug and alcohol abuse and involvement in military activities;
- ❏ Integrate the needs of children in all programming activities.

Unaccompanied Minors

37. UNHCR defines an unaccompanied minor as one who is below 18 years of age who has been separated from both parents and for whose care no person can be found who by law or custom has primary responsibility. Note that other organizations may have other definitions of unaccompanied minors. In addition, note that unaccompanied minors are sometimes also called separated minors.

38. Labelling children as orphans tends to encourage adoptions, (and in some cases, there may be enormous external pressure for orphanages and/or third country adoption) rather than focusing on family tracing, foster placements and increasing community support.

The description "unaccompanied minors", or "separated minors", should always be used in place of "orphans".

39. Although the government of the country of asylum should take legal responsibility for these minors, with UNHCR offering advice and assistance, in practice if government resources are thinly stretched, UNHCR may take a more pro-active role.

Prevention of Separation

40. Family unity must be preserved as much as possible – take no action that may prevent family reunion. The failure to protect family unity not only results in avoidable physical and emotional suffering, but subsequent efforts to reunite families are costly and difficult, and delays in family reunification will impede durable solutions. Although children are often separated from their families while their families are in flight, steps can be taken to minimize further separations, and to maximize the chances of timely and successful reunion.

Steps to prevent separation include supporting households at risk, and ensuring care provided to unaccompanied minors does not become an incentive for parents to abandon their children to institutionalized care.

41. There is sometimes pressure to rescue minors from dangerous situations but some child-only evacuations have caused years of separation and in some cases the breaks have been permanent. The physical dangers may be over estimated, while the children's psychological need to be with their parents may be under appreciated.

There should be no evacuations separating children from their parents or others recognized as primary caretakers (custody) unless essential to protect life.

42. If an evacuation is essential, the following safeguards should be observed. Minors should be accompanied by an adult relative, and if this is not possible, by a qualified caregiver known to the children, such as their teachers. The minors' identities must be fully documented before departure. Whenever possible, documentation should travel with the minors, and caregivers should be waiting at the destination. The evacuation must be coordinated with the designated lead agency. If the minors are moved across an international border, written agreements with the government should be secured in advance in order to ensure family visits and reunions are possible.

43. Continuity of existing care arrangements will help avoid further disruption and may facilitate reunion. Siblings should be kept together, as should unrelated children who have been living together and give each other emotional support.

Assessment, Identification, Registration and Tracing

44. Make a rapid assessment of the situation of unaccompanied minors among the refugee population. The first source of information for identifying unaccompanied minors will be the refugees themselves and the community leaders. A general registration or census of refugees may provide a suitable occasion for initial identification without raising expectations before seeking more detailed information.

45. A general registration or census will also identify those children not alone, but not with their immediate family, and who thus require tracing. Give priority to identifying children under five years, girls who may be subject to sexual abuse and boys who may be recruited into military service.

46. Once identified, unaccompanied minors should be individually registered as soon as possible (see Annex 2, unaccompanied minor registration form).

Registration should not raise expectations for special status and advantage.

The Emergency Kit for Unaccompanied Children provides guidance and tools for identification, registration, and tracing. This can be ordered from Headquarters and contains a priority actions handbook, emergency registration books, cameras, equipment and basic supplies.

47. Ensure that children are issued with separate registration documents and ration cards and that these documents (including a recent photograph), always travel with the child. These measures will avoid confusion if a fostering arrangement breaks down.

48. Unaccompanied minors should be individually assessed and medically screened. A sympathetic and imaginative approach to interviewing children is very important and best conducted by carefully trained refugees, if possible by someone the child already knows and trusts. If an interview has to take place through an interpreter, the interpreter must be well briefed, with his or her role limited to direct translation, and must not be allowed to break personal contact between interviewer and child. Children may react very differently, depending, for example, on the degree of their trauma, fear and shyness. The presence of the child's friend(s) at the interview can not only reassure the child but may also yield important information. Any accompanying adults or persons who brought the child forward should also be interviewed.

49. As soon as unaccompanied minors are identified, start to trace their parents or families. Family tracing is not considered exhausted before a two year investigation has been completed. All claims for reunification must be verified, as mistakes and false claims sometimes occur.

Care and Protection of Unaccompanied Minors

50. Children separated from their immediate next-of-kin during a refugee emergency are often cared for by the refugee community, frequently within an extended family.

It is only where children cannot be cared for by the community that special measures will be required for their care.

Whenever possible, children should be placed with families, as institutional placements cannot provide adequately for children's developmental needs and social and cultural integration into society. Ideally, they should be cared for by relatives or others from the same ethnic or cultural groups.

51. One of the most important principles in the care of any child is that relationships must be stable, because of the importance of the emotional bond developed with the caregiver. An unaccompanied minor must be placed in a family where bonding can continue until the parent(s) or recognized first caretaker(s) are found. The child will then need time to reestablish a bond with his or her parent(s) or original caretaker(s). A period of overlap with the two families may therefore be necessary, in order to permit the re-establishment of the relationship with the parents while avoiding an abrupt severance of the ties with the foster family. Where years have elapsed, the child's interests may be better served by remaining with the foster family. UNHCR's usual practice is to allow unaccompanied minors over 15 to take decisions concerning durable solutions for themselves.

52. Criteria for foster family care should be worked out together with the community. Foster care arrangements should be formalized as quickly as possible by signed contracts or agreements, with an understanding that children should be returned to their immediate family if located. Particularly needy host

families may be provided with an incentive to support the child on a case by case basis, but not as a systematic measure for all foster families. Food rations and other normal assistance should of course, continue to be provided for the child through the foster family. However, the child should continue to have registration and ration documents separate from those of the foster family. Foster care arrangements should be monitored closely through outreach activities in the community. Careful account should be taken of cultural attitudes towards fostering. For instance, in some situations, a family may find it hard to conceive of taking in a child except as a servant.

53. Where child care centres are necessary, they should be small, decentralized within the community, and integrated into community activities.

Remember that when the facilities and services provided for unaccompanied children are significantly better than those otherwise available, parents may actually place children in special care.

54. The advantage of small residential centres is that if reunification with the parents is expected to take place quickly, such centres provide an efficient way of caring for the children while at the same time not losing sight of them during the upheaval and confusion at the start of an emergency.

Unaccompanied minors should be integrated into the life, activities and services available to other children. Avoid either marginalizing them or paying them special attention.

55. Ensure continuity and stability in care (foster families and other) by employing refugee and national community services staff who are less likely to move on than international staff.

56. Provide supervision, support and training to child care workers, including child interviewing techniques, child development, community mobilization and child trauma. Train refugees and aid workers to identify and register unaccompanied minors from the outset of an emergency.

Women

57. While it is not correct to see women as a vulnerable group, women do have specific needs which, if not met, can put them at risk, such as vulnerability to exploitation and sexual abuse, sexual discrimination and restricted access to basic services. In addition, many decisions in camp management which affect women are made without them being consulted. Not including refugee women in decision making about camp management may put them at risk and add to their workload. In addition, the effectiveness of the assistance programme may be reduced because the problems and needs of all the beneficiaries have not been properly identified.

58. However, when seeking women's participation in decision-making, it is also wise to remember that measures which challenge the status quo may be threatening to traditional leaders. Special efforts may be needed to overcome resistance to change.

Culture and tradition cannot be used as reasons to exclude refugee women from participation in decision-making.

To Ensure Women's Participation:

- ❏ Include refugee women in leadership functions and give them responsible roles in the community including participation in decision-making bodies;
- ❏ Ensure that women have equal access to services and facilities, particularly health and reproductive health care services, and inform persons concerned about these resources;
- ❏ Encourage activities such as adult literacy classes which will help empower women and bring them together for mutual support;
- ❏ Provide community support to women by organizing recreational and educational activities for children;
- ❏ Develop preventive protection mechanisms with the community to ensure protection of women against all forms of abuse;
- ❏ Work with the elders and other influential groups to gain their support for the participation of women in camp management.

Single Parent Households

59. In refugee emergencies, the majority of single parent households are female-headed. However, community services must be sensitive to the needs of both male and female single parents. Men may have to be supported in the functions of rearing children and organizing household responsibilities. Women who

have to manage the family needs on their own are at risk as they are vulnerable to exploitation and harassment, especially if they are young. They may be exposed to pressures attached to provision of food and material resources. Women must therefore be included in food management and other committees. Some women may have to resort to prostitution in order to provide for their families, particularly if they do not have any skills to earn a livelihood.

Survivors of Violence

60. Men, women and children can be victims of violence in conflict situations (including torture, rape or solitary confinement) and suffer consequent trauma. Rape is a crime of violence, and is sometimes used as a systematic method of intimidation. Survivors of rape can be any age from the very young to the very old and belong to any social group. It should be remembered that survivors of sexual violence including rape can be men as well as women. It is important to recognize that the consequences of sexual violence on children and adolescents will differ from that on adults.

61. Where there is a high risk of violence, steps can be taken to reduce exposure and vulnerability. Crimes of sexual violence may be more likely to occur where women and/or children are exposed and vulnerable, such as when they collect firewood or water from distant points. The level of risk of violence including sexual violence from within or outside the community, should be reflected in taking increased precautions in camp security, and in creating mechanisms to allow people to travel outside the camp in safety e.g. fuel-wood gathering in groups.

Take the Following Action

- ❏ Establish services for survivors of violence which are integrated into other community and health care services;
- ❏ Ensure confidentiality is maintained;
- ❏ Organize counselling support services using trusted, supportive refugee staff, including female staff;
- ❏ Organize support groups with people who are trusted;
- ❏ Provide a safe place for survivors to stay, with friends if possible;
- ❏ Ensure appropriate legal and medical services are established and accessible, including access to female staff;
- ❏ Mobilize community support by discussing the general problem with them to ensure more compassionate treatment. Religious heads and community leaders in particular can influence attitudes to survivors of violence;
- ❏ Ensure that site layout, fencing and lighting promote physical safety. Good site planning, including location of services, will help create conditions where violence will be less likely (see chapter 12 on site planning).
- ❏ Sensitize the community to the problem and the seriousness of domestic violence. An emergency situation often triggers an increase in levels of domestic violence, particularly in the early stages. However, in the later stages of an emergency incidents of domestic violence may remain high and on occasion escalate, if the situation generates high levels of stress.

62. Urgent medical treatment must be provided to any person who has been raped to help deal with the physical trauma. A protocol for management of such persons, based on host country laws, should be adopted.

63. Post trauma reactions to sexual violence include feelings of shame and guilt, anger, humiliation, nightmares, withdrawal, depression and suicidal tendencies. Family, friends and community support groups must be alerted to these possible reactions so that they can understand and assist the survivors of violence.

64. Social attitudes to rape are usually very judgmental. A woman who becomes pregnant by rape may need help in being accepted by her family and the community or in placing a child for adoption. In some cases a man or a woman who has been raped may have to leave their present location in order to lead a normal life. This is especially the case of a woman with a child, who may then be left without family support. Additionally, she may feel hostile towards the child, a common post trauma reaction.

65. Any documentation of a case should be undertaken with the utmost confidentiality. It is the survivors choice whether or not to take legal action; there may be very strong considerations not to do so. If legal action is taken, the survivor will need support and protection in every step of what is a painful process, and should be made aware of ex-

actly what degree of protection and care will be available.

66. Community services, protection and health staff must work together for survivors of rape and sexual violence. Protection staff can provide information on legal action and monitor the legal process if charges are pressed. Health personnel should make necessary treatment facilities and documentation available. Community services should work directly with the survivor concerned, and with the family of the survivor, as well as establish support groups and more generally sensitize refugees to the problems of rape. A refugee team, which could complement the UNHCR community services team, may be established to provide outreach to women reluctant to come forward.

Disabled and Handicapped

67. Disabled and handicapped persons might have problems in accessing goods and services available to refugees and steps must be taken to ensure this access, including that of disabled children to whatever schooling is available. In some refugee situations, but more often in returnee situations, additional dangers of land-mines mean that an information campaign must be started immediately to prevent further disability. Initial care for the disabled should be through families and the community, nevertheless, rehabilitation services (e.g. wheelchairs, crutches) should also be introduced as soon as possible. Community based rehabilitation to care for disabled people is an approach that should be promoted from the outset of an emergency.

Older Persons

68. The presence of older people in the community can strengthen the bonds and the sense of belonging. However, physical deterioration may limit their mobility and hence their access to basic services. Those most at risk are living alone or caring for young children.

Older persons can constitute a significant proportion of the refugee population though they are often overlooked.

69. Consideration should be given to include older persons in the supplementary feeding programmes. Even if older people can obtain food rations, limited mobility may preclude collection of water or fuel essential for food preparation.

70. For the more frail elderly, family and community care should be encouraged. Refugee community workers should identify neighbours, relatives or others who can help these people with food, water or fuel collection.

71. It should be kept in mind that after any repatriation, the elderly may make up a high proportion of refugees remaining behind in the country of asylum. Hence local government structures and local NGO capacity should be strengthened to care for them.

Isolated Social Groups

72. Every society has its social, religious, political or ethnic groups whose access to services is restricted even under normal conditions. They become particularly vulnerable during emergencies as assistance is likely to be channelled through the leaders of the majority groups. Immediate assessment should be made of any of these groups to determine if they can be integrated into the refugee community, or whether special provision must be made.

In the early stages of an emergency, cultural and traditional customs that may be harmful to particular groups of refugees such as genital mutilation, early marriages and other abusive practices should be addressed and appropriate action taken.

Education

- Education programmes can help address not only the psychological and social needs of the children, but also the well being of the whole community, by helping to organize the population and by providing structure for the children and their families;
- Education programmes can provide important support to lifesaving activities;
- Every child has the right to education. Even in an emergency, start providing appropriate education as soon as possible;
- The priority is to make primary schooling available to all. Special efforts will probably be necessary to ensure the proper participation of girls in the programme;
- Refugee schools should be organized and run by the refugees themselves, to the extent possible, with proper outside support.

Introduction

73. Establishing an education system is important for the well-being of the whole refugee community, as well as for the social

and psychological well-being of children and young people. Setting up basic schools will give a structure and sense of normality to a dislocated and traumatized community. Refugees are dislocated not only from their homes and families but also from their community – the old community is disrupted while new community structures are only gradually evolving. Schools can be the initial community focal points, and a sense of well-being may be created if the new community is partly structured around institutions which are as familiar as schools, rather than around, for example, distribution points, registration and health centres which may be more representative of the problems of their current situation.

74. In addition, schools can be initiated and managed by the community itself much more easily than other refugee institutions, again enhancing self-esteem and self-reliance. Refugee teachers and parents often establish informal schools even in an emergency - as soon as basic needs in food water and health are met, because they recognize the importance of a school system for the reasons set out above.

Informal schools started by the refugees themselves should be supported, and can be used as a basis to begin the programme.

75. In addition to community building, other important functions of the education system in an emergency are:

i. To disseminate survival and life skills messages. Simple messages can be spread through the school system, on issues such as health, sanitation, nutrition, and looking after the local resources (fuelwood for cooking) so they do not become too rapidly depleted;

ii. To provide parents with extra time to work on family survival needs;

iii. To serve as an important protection tool in certain circumstances, e.g. through providing an alternative to military recruitment;

iv. To provide continuity of education which can help reintegration in the country of origin.

Every child has the right to education, as set out in the Convention on the Rights of the Child.

76. Detailed information on planning education programmes and on standards for refugee schools is set out in the latest edition of UNHCR's Education Guidelines. These guidelines are essential reading for those establishing an education programme.

Setting up an Education Programme

77. Basic education must be provided and, although priorities in the emergency phase may mean that the full implementation of an education programme is difficult, a start must be made. An education programme should only be delayed if the emergency is clearly going to be short-lived.

The emergency education programme should provide free access to organized activities and basic education for all refugee children and young people.

78. Identify teachers from the refugee population who can organize recreational and educational activities, and identify agencies to support the development of basic education programmes.

Simple Activities

79. In the beginning, the aim is to establish a simple programme of structured recreational and simple educational activities for children and young people. This is possible even with limited educational supplies – simply gathering the children together for a set period each day and keeping them occupied is a valuable first step. Identify teachers from the refugee population who are willing to do this. The activities should support the lifesaving measures underway in other sectors by including simple messages on health, sanitation etc. appropriate for the children's level, and by providing parents with extra time to work on family survival needs. Recreational and activity materials of the type listed in Annex 3 could be used to support such a programme.

80. The initial activities should then be developed into a primary school system, based on the curriculum of the country of origin. The timing of the transition from the simple activities to the more formal primary education will depend on the evolution of the emergency. Where the school system in the country of asylum is similar to that of the country or area of origin and refugee numbers are limited, resources may be provided to local schools to enable them to accommodate refugee students, provided this is cost-effective.

Basic Education

81. A single, unified primary school system should be developed as soon as possible. Edu-

cational materials of the type described in Annex 4 can be used to establish a basic education programme. The materials on this list would meet the initial needs of 1,000 refugees, and include sufficient writing materials for two classrooms of students in the earliest stages of primary school plus one classroom for students who have completed 2 or 3 years or more of primary schooling. If each classroom is used initially for separate morning and afternoon shifts, then a total of 240 students can be catered for. Typically there would be two or more writing materials kits (of the type specified in Annex 4) per school, according to the number of classrooms on each site.

The curriculum should initially be based on that of the country or area of origin, to facilitate reintegration upon repatriation.

82. Where possible, contact should be made with the Education Ministry of the country of origin, initially to obtain school textbooks and teachers' guides and later regarding certification of education and training received by refugees and teachers. In order to open schools as early as possible, temporary shelters may be erected using plastic sheeting. The community should be mobilized to help build and maintain school buildings. Other items required for simple classroom structures, latrines etc. should be constructed, using local materials where possible.

Smaller, decentralized schools are generally preferable to large schools. Primary schools should be established within walking distance for young children.

83. Recreational and sports programmes for children and adolescents should be included as part of the education programme, and necessary space should be allocated at the time of site planning. The likelihood that additional classrooms may be needed at a later stage should likewise be borne in mind at the time of site selection and demarcation.

It is probable that young refugees will have had their formal education disrupted. There should therefore be no limitation of entry to schooling according to the age of the children or adolescents.

84. Initial budgets should provide for the printing or photocopying of classroom materials for pupils and teachers, based on core elements of the country of origin curriculum as well as for the initial purchase of school and recreational supplies. Budgetary provision may also be necessary for the translation and reproduction of materials supporting health, environment, peace education and other messages.

Action

- ❏ Identify humanitarian agencies to be responsible for educational assistance in each location and to establish and train community education committees and parent/teacher groups;
- ❏ Identify school sites, and erect temporary shelter, ensure construction of latrines;
- ❏ Provide writing and recreational materials to support community initiatives (see Annexes 3 and 4);
- ❏ Convene a refugee education committee. Include refugees, local education authorities, relevant UN agencies, implementing partners and refugee educators, at appropriate (district and/or national) levels;
- ❏ Consult UNHCR Headquarters and the local UNICEF office regarding availability of educational materials and school-books;
- ❏ Arrange the timing of educational and recreational activities around other household and family activities to get maximum participation and cooperation of refugees;
- ❏ Establish schooling in all refugee locations with refugee education advisers and teachers. Make plans for moving to a normal system of education as soon as possible;
- ❏ Aim at a realistic level of service which can be sustained over the longer term;
- ❏ Organize in-service training of teachers. Training should cover: school organization; basic teaching methods; review of basic subject matter; and dissemination of messages regarding health, sanitation, environmental conservation and peace;
- ❏ Monitor participation of girls in educational programmes and promote girls' enrollment and attendance in school. Identify what are the root causes of non-attendance by girls. Promote recruitment and training of female teachers (at least 50 per cent);
- ❏ Reintegrate out-of-school children and youth in school or non-formal education. Causes of school drop-outs and non-participation in community activities should be monitored.

85. An education specialist may be needed to advise on programme development. Liaise with UNHCR Headquarters, regarding materials and expertise available internally and through standby arrangements (see *Catalogue of Emergency Response Resources,* Appendix 1).

86. The provision of education may give the refugees a privilege not enjoyed by the local population of some locations. If the government is in agreement and there is a common language of instruction, it is usually appropriate to open the schools to the local population. Some assistance may be provided to national schools located very near to refugee schools.

Key References

Assisting Disabled Refugees, UNHCR, Geneva, 1996 revision.

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Guidelines on the Protection of Refugee Women, UNHCR, Geneva, 1991.

Memorandum of Understanding between UNHCR and UNICEF, 1995.

Refugee Children: Guidelines on Protection and Care, UNHCR, Geneva, 1994.

Refugee Emergencies: A Community-Based Approach; UNHCR, Geneva,1996 (revision).

Sexual Violence Against Refugees: Guidelines on Prevention and Response, UNHCR, Geneva, 1995.

Working with Unaccompanied Minors: A Community-Based Approach; UNHCR Geneva 1996.

Urban refugees, A Community-Based Approach. UNHCR, Geneva, 1996.

Annex 1 – Community Services Checklist

The following chart covers the three phases of community services in an emergency. In each phase activities are identified and quantitative and qualitative indicators listed which can be used to assess the effectiveness of the community services programme.

CS = Community services

CSO = Community Services Officer

PHASE 1. ASSESSMENT, ACTION PLAN, GUIDELINES

Major Activities	Community Service Checklist
1.1. Assists with overall programme management	❑ Are CS resources available through LOI? ❑ Does the CSO participate in the UNHCR management team and support other sectors – water, sanitation, shelter, health, food and nutrition, programme, protection and environment?
1.2. Helps meet basic refugee survival needs	❑ Have CS considerations been included in the needs and resource assessment? ❑ Have refugee leaders been identified and involved in assessment? ❑ Do vulnerable groups have access to initial assistance? ❑ Have relevant local government and other local resources (NGOs, host families) been identified? ❑ Have CS standards and guidelines been set? ❑ Is there an action plan based on the above?

PHASE 2. FOUNDATION OF COMMUNITY SERVICES PROGRAMME

Major Activities	Community Service Checklist
2.1. Facilitates refugee participation and self-management	❑ Have refugee committees and information networks been established with women's participation as well as men and are vulnerable groups represented? ❑ Is community awareness building and information dissemination undertaken? ❑ Is there a CS coordination mechanism with refugees, implementing partners and government?

Major Activities	Community Service Checklist
3.1. Assistance to groups at risk, promoting their self-sufficiency	**Unaccompanied minors** ❑ Are they protected from exploitation by provision of information centres etc.? ❑ Are reception points established for reunifying parents and children? ❑ How many UAMs are identified? ❑ Is the community mobilized to provide foster care? ❑ Is information disseminated on the reunification programme? **Traumatized children and adults** ❑ Do children attend clinics, child care services, schools or organized play? ❑ Is there a system of identification and referral of acute cases to local facilities and are volunteers identified? ❑ Are there special programmes established and are children participating in these therapeutic activities? **Single parent households** ❑ Are neighbours or volunteers mobilized for support? ❑ Have interest groups formed? **Survivors of violence** ❑ Are means of safety and security identified and implemented? ❑ Are activities established to provide a supportive environment and re-establish normal life? **Disabled** ❑ Are preventative measures established? ❑ Are children immunized? ❑ Have health education messages been identified and disseminated? ❑ Are the disabled referred for identification and treatment? ❑ Are their families supported? ❑ Are the disabled receiving education? **Unaccompanied older persons** ❑ Do they receive assistance in daily survival? ❑ Are they involved in community activities? ❑ Has a skills inventory of elderly been established? **Ethnic minorities and mixed couples** ❑ Is their safety and security ensured through site planning? ❑ Have community activities been developed to foster peace and reconciliation?

Major Activities	Community Service Checklist
	Adolescent s ❑ Are they involved in community activities? **Single Females** ❑ Are they protected? ❑ Have neighbours and volunteers been identified to offer support? ❑ Have community activities been organized? ❑ Have females been accomodated in a physically secure place in the refugee community? **Other specific groups** ❑ Is there a system of emergency support for urban refugees, co-ordinated with programme and protection?
3.2 Establishment and maintenance of reproductive health services	❑ Has consultation been held with refugees groups? ❑ Have needs and priorities been identified within categories - safe motherhood, family planning, HIV/AIDS, STDs, sexual and gender based violence, special needs of adolescents? ❑ Have clinics and services been established? ❑ Have refugee health workers been mobilized and trained? ❑ Are women attending the services?
3.3. Promotion of refugee self-reliance and durable solutions	**Self-help activities** ❑ Have projects been established for community development? **Training** ❑ Are refugee training programmes developed, have refugees been trained? ❑ Has capacity building (on-the-job or orientation training) been organized for government, NGO, CS workers? **Education** ❑ Are schools established (especially primary) and students enrolled? ❑ Is non-formal education established? ❑ Is the education of girls taken into consideration? **Capacity building of refugee infra-structure** ❑ Are structures established (including community centres, clinics, housing)? ❑ Have some programmes been handed over to refugee groups? ❑ Are women included as part of the refugee leadership structure?

Annex 2

Sample
Unaccompanied Minor Registration Form

Child's Name

PLACE PHOTOGRAPH HERE

Sex

Age

Registration No.

ICRC Number

1. Write names of brothers & sisters who are with the child.
2. Find out the name and location of persons who found or brought child to current location, interview that person and record that information.
3. Interview any other adults & children who may have information on child's family and record that information.
4. Write down any visit the child receives: date, name and address of visitor and relationship to the child.
5. Record child's movements: date and places: e.g. hospital, nutrition centre, etc. and final move for family reunion or other reasons.

REGISTRATION FORM

		Child			Father	Mother
Date	Reg. No.	Last and First Name	Age	Sex	Last and First Name	Last and first Name

Note: Find out immediately who found the child and name, address of that person.
Are there other persons who know how to find child's family? Continue to talk to the child to obtain and write down more information about locating family.

Last Address of Child & Family	**Present Caretaker or Organization Complete Name and Address**	**With Siblings Yes/no**	**If Child leaves, note reasons: Family Reunion, moved to another place, where, reasons? – Died, etc.**

Annex 3 – List of materials for Recreational and Other Activities
(Resource box for children and young people)

Quantities indicated below are required for 1,000 total refugee population.

For the younger children:

Qty	Item
2	footballs
2	medium-sized inflatable balls
8	skipping-ropes, long
40	skipping-ropes, short
80	slates (A4)
80	slate pencils
80	slate cleaning cloths

For young people

2	volleyballs
2	volleyball nets
2	footballs
100	exercise books (100 pages, lined)
100	pens, ball-point

For storage of the above materials

1	lockable metal or plastic container
1	padlock

For use by the team leading the activities

2	double sided chalkboards
2	registration books
2	notebooks A4 (250 pages, lined)
4	tambourines
4	large handbells
8	whistles
2	air pumps
2	puncture repair kits
6	boxes of white chalk (144 sticks)
2	soft tape-measures
2	lockable sports bags
2	small padlocks

Note
The materials on this list is sufficient for a refugee population of 1,000 people. (Thus, a refugee population of 50,000 persons would require 50 times the quantities indicated on the lists).
Supplementary items based on local needs and culture should be added (such as items needed for local games). If these items are not available locally the UNHCR Supplies and Transport Section in Geneva should be asked to assist with their purchase. Specific items normally used by the refugee children should be added.

Annex 4 – Writing Materials List

Quantities indicated below are required for 1,000 total refugee population.

For the younger children:

Qty	Item
160	slates
160	slate pencils
160	slate cleaning cloths
160	pencils
160	exercise books (100 pages)

For older children

240	exercise books (100 pages, lined)
240	exercise books (100 pages, squares)
240	ball point pens

For storage of the above materials

3	lockable metal or plastic containers
3	padlocks

For use by the teachers

3	double sided chalkboards
6	boxes of white chalk (144 sticks)
1	chalkboard ruler
1	chalkboard compass
1	chalkboard set square
18	ball point pens, (6 blue, 6 red and 6 black)
3	large pencil sharpeners
3	register books
3	rulers, 30 cm
3	chalkboard dusters
9	erasers
3	boxes of HBO pencils (12)
3	poster sets (alphabet, numbers in the language and script of the refugees)
3	duffle bags to carry teacher items

11

Population Estimation and Registration

■ CONTENTS

Situation

Refugee emergencies are characterized by a mobile population, often with rapidly fluctuating numbers. It is often difficult to collect exact information on the total number and composition of the population.

Objectives

To find out the total number of the population of concern, and the breakdown of the population by age and sex, and by groups of special significance. The exact identity of those special groups will depend on the particular circumstances of the emergency.

Principles of Response

- Knowing who the refugees are and their number is essential for an efficient and cost effective operation;
- Formal mass registration should normally be the aim. Where this is not immediately possible, this can be reached in stages, starting with the first stage of population estimation;
- The final goal is a full registration of the refugee population;
- Information collected will be important for voluntary repatriation and re-integration into country of origin;
- Involvement and understanding by the refugees themselves is essential to the success of registration.

Action

- Use population estimation techniques as a first step;
- Plan towards a full registration, keeping the population informed;
- Identify resources needed for full registration;
- Review the need for full registration and implement each phase towards full registration as soon as each is feasible.

Introduction

- Knowing how many refugees there are and who they are is fundamental for planning and managing an efficient operation. There are several ways of determining numbers with sufficient accuracy;
- Although an accurate enumeration is essential, a formal mass registration should not necessarily be an automatic response at the start of an emergency;
- Successful registration needs good planning, careful implementation and consistent monitoring.

1. To plan and manage an efficient operation, one of the first things to know is how many refugees there are and who they are. An accurate enumeration is therefore an essential component of any assessment.

2. Chapter II, 8(f) of the UNHCR Statute states that the High Commissioner shall provide for the protection of refugees by "obtaining from Governments information concerning the number and condition of refugees in their territories". It must be made clear to the authorities that an assistance operation cannot be carried out without this information.

3.

Although an accurate enumeration is essential, a formal mass registration should not necessarily be an automatic response at the start of an emergency.

There are a number of methods for accurate population estimation (including age/sex breakdown) which do not require formal registration. In some circumstances these simpler methods may be preferable as an initial response.

4. The main advantage of registration is that it provides a unique opportunity to acquire basic information for subsequent programming. It also helps avoid disputes about refugee numbers. Registration will also be an essential component of any individual or family tracing programme and may be an important factor in protecting refugees.

5. The most practical time to register refugees is when they arrive at a reception/transit centre or site for settlement. Registration is often carried out in conjunction with health screening. Transferring refugees to a new site also provides a good opportunity for mass registration.

6. A discrepancy may arise with time, between official figures and the best estimates of those working closest to the refugees. Unless this discrepancy is swiftly resolved major problems will follow. Small discrepancies are likely, given the difficulties in enumeration and registration. Large ones can be avoided by timely action to verify numbers through the various methods set out in this chapter.

7. For detailed information on registration and population estimation techniques, refer to *Registration – A Practical Guide for Field Staff.*

Population Estimates

- For most methods of population estimation, it is important to understand the community structure of the beneficiary population;
- Estimates should be updated regularly.

Introduction

8. The following methods can be used to estimate the population:

i. Counting;

ii. Administrative records;

iii. Lists compiled by refugee leaders;

iv. Extrapolation and Global Positioning System (GPS);

v. Aerial photography.

9. Understanding the community structure of the beneficiary population is important for most methods of population estimation – for example, living arrangements and the average number in a family group.

10. Annex 1 provides a format for reporting population estimates as part of an overall situation report. Estimates should be updated regularly.

Counting

11. If there are easily identified entry or transit points during a refugee influx (e.g. bridges or transportation sites), then a daily count of the number of people passing through these points can give a reasonable estimate of the refugee population. Sufficient staff should be immediately positioned at bridges and other critical points to provide 24 hour coverage. These staff members should be provided with counters to aid counting, and with simple recording and reporting forms.

Administrative Records

12. Local authorities at the refugee site may collect population data on the refugees. If possible, national census and other population data should be obtained from the country of origin as a means of cross-checking the host area data.

Lists Compiled by Refugee Leaders

13. Lists of names can be compiled by refugee leaders and verified through a process agreed with the refugee community.

To ensure the system is as accurate and fair as possible, it is particularly important to understand the community structure.

The normal community structure and hierarchy in a society are often disrupted during exodus and different people often take on the role of leadership in the country of asylum. It is essential to understand the role, motives and effectiveness of the new leadership. Community services and field staff can help in this. Records compiled by refugee leaders may even eliminate the need for registration, provided they are checked and verified at random and updated regularly.

14. The lists can also be useful in identifying vulnerable refugees who need special assistance. Community services staff should visit vulnerable individuals and families to help confirm the accuracy of lists provided by the leaders.

Shelter Count and Extrapolation

15. Population estimates can also be obtained by calculating the total area of the camp, then counting shelters in a fraction of the camp, from which the population of the whole camp can be extrapolated.

16. The total surface area of the camp can be determined in a number of ways. It can be determined by measuring the average length and average width of the camp by pacing, or by using a wheel meter or measurement tape (if the camp is small), or by driving (if the camp is large), using the trip meter to estimate distance.

17. If there is a map of the camp, the surface area of the camp can be estimated by overlaying scaled gridlines on the map, and adding up the number of the squares falling within the camp's boundaries.

18. Finally the surface area can be calculated using GPS. GPS is a system which includes a hand-held device (about the size of a large calculator, costing about US $200 in 1999) which displays on a small screen the latitude and longitude of its current position. The device uses satellites to establish its position. It does not work under heavy forest cover or in deep narrow valleys because it needs an unobstructed sightline to several satellites.

19. The GPS is used to find the geographical coordinates of the camp perimeter. The more irregular the camp shape, the more perimeter points will be needed. Once the camp perimeter is established, the surface area of the camp can be calculated in the following ways:

i. Communicate the perimeter coordinates to Headquarters Mapping Unit where these can be used to calculate the area and the result will be communicated back. Alternatively, perimeter coordinates can be marked on paper which has scaled gridlines, using the X-axis to represent longitude and the Y-axis to represent latitude. A line is drawn joining these points. Counting the scaled squares inside the perimeter will give the total camp area. The distance represented by one degree of longitude varies, getting smaller moving towards the North and South poles and larger towards the equator. In order to use this method, the distance which one degree represents at the exact location of the camp must be found out. This could be scaled off a map of the area, if it has sufficiently large scale;

ii. Computer software (called Geographical Information Systems or GIS) can automatically map and calculate camp area based on the perimeter points established by GPS. Technical assistance for setting up this software can be obtained from Headquarters.

20. Once the surface area has been established, select a minimum of three sample areas within the camp, each representing about one thirtieth of the total camp area.

For example, if the total surface area of the camp is 600,000 sq. meters, then each sample area should be 20,000 sq. meters. Any variation of length or width which yields 20,000 sq. meters could be used for the sample sections. The normal GPS is not sufficiently accurate for use in measuring the size of the sample area and conventional means of measuring should be used instead.

21. Count the number of family shelters in each of the three sample sections. Obtain a

figure for the average number of shelters per section (i.e. – in 20,000 sq. meters). Then multiply by 30 to extrapolate this over the entire camp.

For example, if 3 sample sections have 120, 134, and 150 shelters respectively, then the average number of shelters in a sample section will be (120 + 134 + 145) / 3 = 133. Thus the total number of shelters in the 600,000 sq. meters camp will be 133 x 30 = 3,990 shelters.

22. Determine average family size per shelter to estimate the total population. For example, if the average family size per shelter is 5, then the total population is 5 x 3,990 = 19,950.

Aerial Photography

23. Aerial photographs (or sometimes videos) of a camp can be used to count the number of family shelters. This can be accomplished to a limited extent by taking a picture from a nearby hill, tower or tall building. In addition to professional aerial photography, "amateur" photographs taken, for example, from a UNHCR plane can be used for estimation. Flying over the site may require the permission of the authorities.

24. Aerial photographs must be accompanied by a ground survey to establish the average family size per shelter and the percentage of empty shelters.

25. The number of shelters appearing on the photograph (or mosaic of photographs) multiplied by the average family size per shelter will give an estimate of the overall population.

26. It is important to define an appropriate scale for the photography. This will depend, in part, on the size of the camps. High altitude flights produce fewer photographs to handle and interpret, but it will be more difficult to distinguish the shelters.

27. The results of aerial surveys can be integrated within the GIS from which maps can then be produced.

Registration

- Registration provides the more detailed information needed for the efficient management of an assistance operation;
- Registration is carried out over several phases.

Introduction

28. Protection and assistance can be provided more efficiently if it is based on the demographic information which can be obtained through registration. Registration may be required at different phases of an operation, for example: when there is a new refugee influx; when there is a voluntary repatriation operation (see chapter 19 on voluntary repatriation); at any time during an assistance programme to update information on the population, or to collect information on special groups e.g. unaccompanied minors (see the annex to chapter 10 on community services). The information below relates mainly to registration at the time of an influx or for updating.

29. In order to cope with large numbers it is preferable to separate the components of a registration exercise into six distinct phases, according to the immediate needs of the population and the time and staff available to carry out the task. Each phase should be viewed as an entity in its own right, but each leading to the next phase when circumstances permit.

30. The six phases of registration are:

i. Estimating the population;

ii. Planning the registration and informing the refugees;

iii. Fixing the population;

iv. Collecting information and issuing registration cards;

v. Computerization;

vi. Verification and updating.

31. The 'ideal' in registration is to work as closely as possible with the refugee population and its leadership, promoting community responsibility and participation in all stages of the process. Whilst this may not always be possible initially, it should be a major objective for both registration and camp management.

32. Formal registration requires considerable time and personnel resources and needs the active involvement of key partners to supply the necessary personnel. Key partners include government, other UN agencies, NGOs and the authorities responsible for security. Registration should only be carried out when:

i. The safety of the staff and of the refugees can be assured;

ii. The refugees accept the process;

iii. The key partners can supply personnel to help carry out the registration;

iv. There are sufficient quantities of registration materials and other equipment, including logistical support and communications.

Standard UNHCR Registration Materials

33. Standard materials for registration are stockpiled at Headquarters, and are sufficient to register 300,000 refugees. The materials include, for example, standard cards and forms, wristbands, fixing tokens, etc. These materials are included as part of a refugee registration package – see Appendix 2, Catalogue of Emergency Response Resources which has further details of these resources and how to obtain them.

Registration Phases

Phase 1: *Estimating the population*

34. This is the initial step to determine if there is a need for a full registration and/or to establish the planning figures for the registration exercise. It also provides working figures for the population for operational planning prior to the availability of more detailed population information.

Phase 2: *Planning the registration and informing refugees*

35. Designate a focal point to take responsibility for planning and executing the registration. A pilot registration in another camp can help identify potential difficulties. Planning should be a joint exercise with the concerned partners, including refugees. Staff training may be required at this stage. Ensure that the necessary staffing, equipment, supplies, security, telecommunications, vehicles and logistical support will be available on the date of the exercise. Decide on the level of information to be collected on a control sheet or registration form, and computerization.

36. At the same time as planning, there should be an intensive information campaign aimed at the refugee population at large (not just the leaders) informing the refugees of the procedures and benefits of registration.

Phase 3: *Fixing the population*

37. Give each individual in the target population a fixing token (see Annex 2) or wristband. This defines and temporarily freezes the size of the group on whom more detailed information will be collected later. Without the fixing phase, registration will become a revolving door, open to escalating distortion and abuse. It must be done rapidly (preferably within a few hours, maximum one day) to avoid multiple and/or bogus registration. While the population may be given only short notice of when this will take place, it is necessary to ensure that they understand what is happening.

Phase 4: *Collecting information and issuing registration cards*

a) Collecting limited information on control sheets and issuing temporary registration cards

38. This phase (including issuing temporary registration cards) should be carried out before the next food distribution because the fixing token or wristband is not linked to verifiable information about persons in need, and cannot be used reliably for food and relief distribution.

39. Usually there will be no time to collect detailed information immediately, yet assistance should be distributed urgently and basic demographic data is needed. The first step therefore is to exchange the fixing token or wristband for a temporary registration card (also used as ration card – see Annex 2) to all heads of family, and collect limited information on control sheets (see Annex 3). In most instances this information will be limited to the name of the head of family, the size and age/sex breakdown of the family and the number of the temporary registration card, with an indication of any immediately visible vulnerable family members (see Annexes 4 and 5).

b) Completing registration forms and distributing of registration cards

40. The second step is to record detailed information about the families on Registration Forms (see Annex 4) and to issue long-term registration cards (also used as ration cards, the standard UNHCR card lasts about one year or 24 to 36 distributions). Where this is done immediately after the fixing phase (without the intervening step of temporary registration cards) there will be time constraints. Where it is done after the issue of temporary cards it can be spread over a longer period of time, with a cut off date for the validity of the temporary cards.

It is the Registration Form that constitutes the core document of a UNHCR registration and which will provide the basis for all future reference, analysis, verification and updating of the registration.

41. This phase provides a verifiable linkage between the identity of persons of concern and the very simple forms of documentation needed for processing large numbers of people for assistance distribution. The two-step process of information collecting is used because the second step can take considerable time, and registration information is needed in the interim for commodity distribution. It is particularly important in this phase to have personnel who speak the language and to ensure there is a common code for transliteration between alphabets, particularly for names.

Phase 5: *Computerization*

42. Computerization can either start after registration cards have been distributed or at the same time if there are sufficient resources. Computerization is normally carried out using the "Field Based Registration System" (FBARS). Standard codes are used in UNHCR Registration Forms to facilitate the collection and input of data, particularly data on groups at risk (see Annex 5).

43. Data can be entered on-site by trained data-entry clerks or by out-sourcing to an off-site specialized data entry company. The data should be computerized as soon as possible and not more than a few months after being collected on the registration forms, otherwise it will be outdated and unusable.

44. FBARS can handle two types of registration, either by family unit (control sheet) or by individual (standard registration form). It also has a convoy management module which can be used during organized mass movement. It can be used by both UNHCR Offices and by Governments and implementing partners.

45. FBARS has easy-to-use search and report facilities and can produce information for planning, monitoring and reporting, for example:

i. Data on the numbers and rate of arrival;

ii. Data on refugee groups including on vulnerable groups;

iii. Data consolidated both regionally and globally;

iv. Food distribution lists;

v. Passenger manifests.

46. FBARS is available with the UNHCR registration materials (see above). The software and documentation are currently available in English, French and Russian. Information and support for the use of FBARS is available from the Information and Computing Services Section at Headquarters.

Phase 6: *Verification and information updating*

47. Registration information will need to be updated as the population changes with births, deaths and population movements. There should be a system to do this from the start. The registered numbers should be cross-checked with other information, for example, births and deaths can be monitored through the health services, and population movement monitored through any of the methods for population estimation described above.

48. Registration documents can acquire monetary value, especially if they are used to access assistance. There should be a system to check these documents, for example random verification at food distribution points to ensure the refugees are not using other people's documents or forged documents.

49. Verification is a continuous process, therefore routine verification, including house to house visits, at food distribution centres, etc., should become a standard, regular and frequent part of monitoring. Shelters should be given an address (section/block/individual shelter number) which will be linked to the individual family registration information.

Key References

Registration – A Practical Guide For Field Staff, UNHCR, Geneva, 1994.

Annex 1 – Format for reporting on population in emergency situation reports.

Period: From _____ to _____

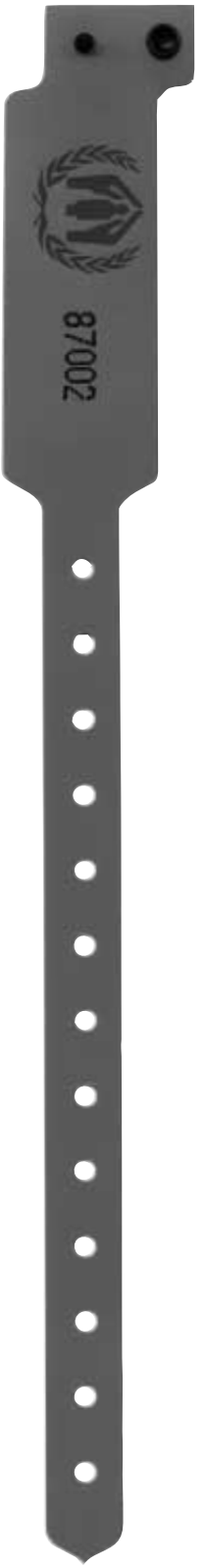
Type / status of popu-lation	Current location	Origin / from	Pop. at start of period	New arrivals	Decreases			Pop. at end of period		
					Vol. return	Resettle-ment	Other	Total	% of total 0-4 years*	% of total who are female*

*Estimate

Main source of information is ❑ Government; ❑ UNHCR; ❑ NGO

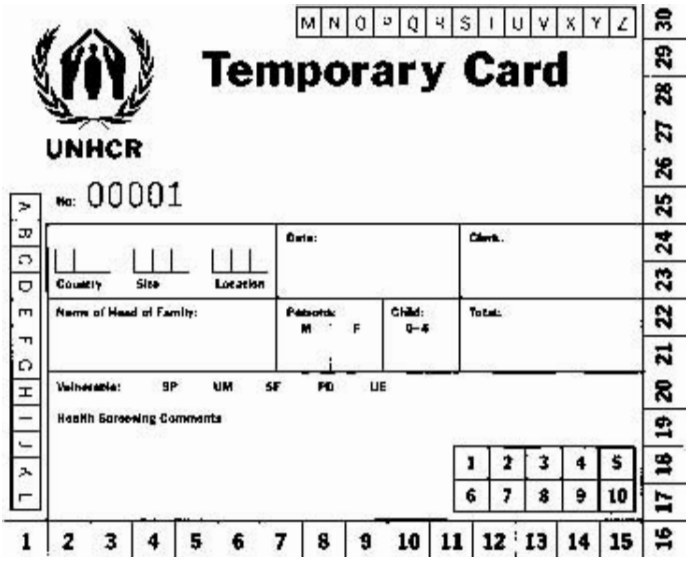
Main basis of the information is ❑ Registration; ❑ Estimate

Wrist band



Ration Card

Temporary Card



Control Sheet
Passenger Manifest

UNHCR **HCR**

Feuille de contrôle
Manifeste de passagers

Country: *Pays:*	Site-Camp: *Site-Camp:*	Location: *Lieu:*	Block: *Bloc:*	Vehicle No: *No de Véhicule:*	Clerk: *Employé(e):*	Date:

Card N° *N° de carte*		Name of HOH *Nom de CDF*	Household *Foyer*			Children/*Enfants*				Adulte*(e)*				Vulne ***	Place of Origin *Lieu d'origine*	
						< 5*		5-17		18-59		> 60				
			M	F	Total	M	F	M	F	M	F	M	F			
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
		Total														

* not yet reached 5th birthday / *moins de 5 ans révolus*

** **SP** = single parent *= parent seul(e)* **UE** = unaccompanied elder *= personne âgée non accompagnée* **SF** = single female *= femme seule* **PD** = physically disabled *= handicapé(e) physique* **CI** = chronically ill *= malade chronique* **UM** = unaccompanied minor *= mineur non accompagné* **MC** = missing child *= enfant disparu*

Registration Card Number
Numéro de la carte d'enregistrement

UNHCR **HCR**

Country/*Pays* | Site/*Site* | Location/*Lieu* | Block/*Bloc*

Date of arrival / *Date d'arrivée:*
dd / *jj* mm / *mm*

Registration Form
Formulaire d'enregistrement

Country of Origin / *Pays d'origine:*	Province-County / *Province-Préfecture:*	District / *District-Commune*:	Town-Village / *Ville-Village:*	Ethnic Origin / *Origine ethnique:*
Intended Place of Return / *Lieu de retour prévu:*	Province-County / *Province-Préfecture:*	District / *District-Commune:*	Town-Village / *Ville-Village:*	Religion / *Religion:*

(if different to above / *si différent de ci-dessus*)

	Name *Nom*			Sex *Sexe*	YOB *DDN*	Relation *Lien de parenté*	Educat. *Format.*	Occupat./Skills *Profess./Qualific.*	Vulnerab.
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Registration Date: *Date d'enregistrement:*	By / *Par:*	Remarks / *Remarks:*

11 Population Estimation and Registration

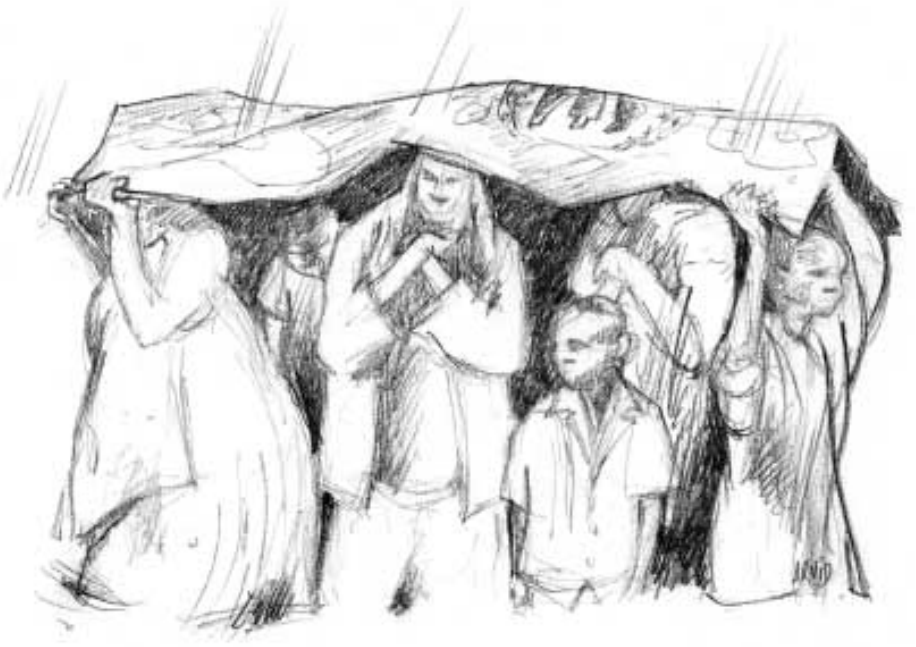
Annex 5 – Codes for UNHCR Registration Forms
Codes pour les formulaires HCR d'enregistrement

Sex ***Sexe***		**Relation to HOH** ***Lien de Parenté avec CDF***		**Education** ***Formation***		**Vulnerability** ***Vulnérabilité***	
F	Female *Féminin*	**SPO**	Spouse (husband/wife) *Conjoint (mari/femme)*	**P**		**SP**	Single Parent *Parent seul(e)*
M	Male *Masculin*	**CHI**	Child (son/daughter) *Enfant (fils/fille)*	**S**	Secondary *Secondaire*	**SF**	Single Female *Femme seule*
		PAR	Parent (mother/father) *Parent (mère/père)*	**T**	Technical/ Vocational *Technique/ Professionnelle*	**UE**	Unaccompanied Elder *Personne âgée non accompagnée*
		SBR	Sister/Brother *Sœur/Frère*	**U**	University *Universitaire*	**UM**	Unaccompanied Minor *Mineur non accompagné*
		GPR	Grandparent (grandmother/ grandfather) *Grand-parent (grand-mère, grand-père)*	**G**	Graduate *Diplôme universitaire*	**PD**	Physically Disabled *Handicapé(e) physique*
		GCH	Grandchild (grandson/ granddaughter) *Petit-enfant (petit-fils/ petit-fille)*	**I**	Informal Education *Education non Institutionnalisée*	**MI**	Mentally Ill *Malade mental(e)*
		INL	In-laws *Beaux-Parents*	**N**	No Formal Education *Aucune Education Institutionnalisée*	**CI**	Chronically Ill *Malade chronique*
		OFM	Other family member *Autre*	**X**	Unknown *Inconnu*	**MC**	Missing Child *Enfant disparu*
		UNR	Unrelated person belonging to the household *personne étrangère vivant avec la famille*	**O**	Others *Autres*		
		A/U	Aunt/Uncle *Tante/Oncle*				

11 Population Estimation and Registration

12

Site Selection, Planning and Shelter



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Situation

Suitable and well-selected sites, soundly planned refugee settlements with adequate shelter and integrated, appropriate infrastructure are essential in the early stages of a refugee emergency as they are lifesaving and reduce suffering. Refugee settlement in emergencies may take the form of dispersed settlements, mass accommodation in existing shelters or organized camps. Initial decisions on location and layout have repercussions throughout the existence of a refugee settlement with long-term effects on protection and the delivery of humanitarian assistance.

Objectives

To provide suitable sites and shelter to accommodate refugees in emergencies.

Principles of Response

- Use longer term planning principles, even when the refugee situation is expected to be only temporary;
- Decisions on site selection and camp planning are very difficult to reverse, therefore when in doubt seek technical support;
- Avoid high population density in settlements and in shelters;
- Avoid very large emergency settlements; refugee camps should normally be considered as a last resort;
- Involve refugees in all phases of settlement and shelter planning and construction;
- Use a bottom-up planning approach, beginning with the smallest social units, preserving traditional social arrangements and structures as far as possible;
- Develop a comprehensive master plan, with the settlement layout developed around sanitation and other services, providing room for expansion.

Action

- Assess the suitability of the refugee site and ensure that it meets the basic criteria;
- Simultaneously assess the most immediate needs for emergency shelter and provide the necessary materials that cannot be met from locally available resources;
- Identify the most urgently required measures to improve site planning and layout, and implement these as soon as possible.

Introduction

1. Providing a place to live is a natural consequence of granting asylum. As the layout, infrastructure and shelter of an emergency camp will have a major influence on the safety and well-being of refugees, these factors must be coordinated with the other vital sectors involved in the humanitarian response: community services, water, environmental sanitation, health, education, food distribution, logistics, forestry, and the environment.

2. Most refugee operations last much longer than initially anticipated, therefore cost-effective and sustainable infrastructure and shelter should be planned from the start. The expected life-span of a camp will influence site selection, camp planning and the implementation of a refugee operation.

3. The role and responsibility of the national authorities in site selection is obvious and of fundamental importance. Equally, the refugees themselves must be involved as early as possible; ideally, the needs of the refugees should determine the location, size and layout of the site. In practice a compromise has to be reached between the needs of refugees and external factors, both practical and political.

4. Good site selection, planning and shelter will:

i. Save lives and reduce cost;

ii. Minimize the need for difficult, corrective measures later;

iii. Make the provision of utilities, services and infrastructure easier and more cost-effective;

iv. Ensure most efficient use of land, resources and time.

5. Emergency refugee settlements generally fall into one of three categories:

i. Dispersed settlement;

ii. Mass shelter;

iii. Camps.

Dispersed Settlement

6. This type of arrangement is where the refugees find accommodation within the households of families who already live in the area of refuge. The refugees either share existing accommodation or set up temporary accommodation nearby and share water, sanitation, cooking and other services of the pre-existing households.

7. Accommodation is often found with extended family members or with people of the same ethnic background. This type of arrangement may occur in both rural or urban settings. The advantages of this type of settlement are:

i. Quick to implement;

ii. Limited administrative support is needed;

iii. Low cost;

iv. Fosters self help and independence;

v. It has less impact on the local environment than camps.

8. The disadvantages of this type of settlement are:

i. The host families and communities can become overburdened and impoverished;

ii. It can be difficult to distinguish the host population from the refugees. This may pose problems where population estimation and registration are required;

iii. Protection problems may not be as easy to detect as when the population is more concentrated;

iv. Shelter and other forms of assistance are likely to be needed by the host population as well as the refugees.

Mass Shelter: Public Buildings and Community Facilities

9. This type of settlement is where refugees find accommodation in pre-existing facilities, for example, in schools, barracks, hotels, gymnasiums. These are normally in urban areas and are often intended as temporary or transit accommodation. The advantages of this type of settlement are:

i. They are not continuously inhabited during normal use and refugees can be accommodated immediately without disrupting accommodation in the hosting area;

ii. Services such as water and sanitation are immediately available, though these may be inadequate if the numbers are large;

iii. The need to construct additional structures specifically for the refugees is avoided.

10. The disadvantages of this type of settlement are:

i. They can quickly become overcrowded;

ii. Sanitation and other services can become overburdened;

iii. Equipment and structure can be damaged;

iv. Buildings are no longer available for their original purpose, thus disrupting public services to the hosting population;

v. Lack of privacy.

Camps

11. This type of settlement is where refugees find accommodation in purpose built sites where a full range of services, for example water, sanitation, are provided, usually exclusively for the population of the site.

12. High density camps with very large populations are the worst possible option for refugee accommodation. However, this may be the only option because of decisions by the host country or simply because of a lack of alternatives. They are common in areas with little or no pre-existing infrastructure or where the size of the refugee population is such that it would put an intolerable strain on the local resources if the two other types of settlement mentioned above were used.

13. The advantages of this type of settlement are:

i. Services can be provided to a large population in a centralized and efficient way;

ii. There may be economies of scale in the provision of some services compared with more dispersed settlements;

iii. The refugee population can be easy to identify and communicate with;

iv. Voluntary repatriation can be easier to organize.

14. The disadvantages of this type of settlement are:

i. High population density seriously increases health risks to the population;

ii. High risk of environmental damage in the immediate vicinity of the camp;

iii. High population concentrations, particularly close to international borders, may make the population vulnerable to protection problems;

iv. Large camps may provide a hiding place and support base for armed groups who should be excluded from refugee status. It may be difficult to distinguish these groups from the normal refugee population and thus they may continue to benefit from assistance.

Organization of Response

◆ Site selection, planning and shelter have a major bearing on the provision of other assistance.

◆ This subject must therefore be considered as essential to a problem and needs assessment and response.

◆ Expertize is necessary, as is swift coordinated planning of a new site or the improvement of existing conditions.

Introduction

15. Site selection, planning and provision of shelter have a direct bearing on the provision of other assistance and will be important considerations in the overall assessment of problems and needs and planning of response. Decisions must be taken as part of an integrated approach and in light of the advice of specialists and views of the refugees.

Contingency Planning

16. Ideally sites should be selected, planned and developed prior to the arrival of the refugees. However, frequently the scale, nature, timing or direction of movement of the refugee flow will mean that some or all aspects of a contingency plan may need to be modified in the face of changing or unforeseen events. The information previously gathered in the contingency planning process, however, will usually be useful.

17. Because of the nature of emergencies, and because practical and political considerations are often the primary determinant of the location of a site, the immediate priority will often be to improve sites where refugees have spontaneously settled.

Information for Site Selection and Planning

18. The information previously gathered from the contingency planning process, and information already available (maps and data) should be reviewed to assist in determining the range of options for sites. Information that is essential for planning will often be in the form of maps, reports surveys and other data and should typically cover such areas as topography, land use, climate, soils, geology, hydrology, vegetation, infrastructure and key natural and cultural resources. Sources of information may include government offices, educational institutions and UN agencies. UNHCR Headquarters, through the focal point on Geographical Information Systems (GIS) can also support operations with maps, aerial photographs, satellite images and a special geographic database.

Expertize and Personnel

19. Expertize may be required in the fields of hydrology, surveying, physical planning, engineering (e.g. water supply, environmental

sanitation, road and bridge construction, building materials, etc.), public health, the environment and perhaps social anthropology. Familiarity with conditions in both the country of origin and asylum is very important. Prior emergency experience and a flexible approach are particularly valuable.

20. Expertize and advice should be sought through UNHCR's Engineering and Environmental Services Section, who will advise on the fielding of a specialist to coordinate activities in this sector. Potential sources of the necessary expertize are government line ministries, national and international NGOs, architecture and engineering faculties, local industry and professional organizations, as well as other UN organizations.

21. Site selection and settlement planning require broad consultations with all concerned in the planning, development and use of the site. When appropriate, multi-sector planning teams, work-groups or task-forces might be formed to better structure consultations and better solicit inputs. Consensus should be sought, though it is rare that the needs of all the parties will be fully satisfied.

Criteria for Site Selection

- Land may be scarce in the country of asylum and no site may be available that meets all of the desired criteria. If, however, the site is clearly unsuitable, every effort must be made to move the refugees to a better site as quickly as possible. Both the problems which result from a bad site, and the difficulties inherent in a move, increase with time.

Introduction

22. The social and cultural background of the refugees must be a primary consideration and will be an important determinant of the most appropriate type of site and shelter. In many circumstances, however, choice will be limited and land that meets even minimum standards may be scarce. For uninhabited sites or areas where refugee settlement is proposed, it is wise to establish why the site was not already in use, and examine whether the reason – for example, no water or because it floods in the monsoon – does not also exclude use by the refugees.

Water Supply

23. A specialist assessment of water availability should be a prerequisite in selecting a site.

The availability of an adequate amount of water on a year-round basis has proved in practice to be the single most important criterion, and commonly the most problematic.

A site should not be selected on the assumption that water can be found merely by drilling, digging, or hauling. Drilling may not be feasible or may not provide water in adequate quantity and quality. No site should be selected where the hauling of water will be required over a long period.

Size of Camp Sites

24. While there are recommended minimum area requirements for refugee sites, these should be applied cautiously and with flexibility. They are a rule of thumb for an initial calculation rather than precise standards.

Ideally, the recommended minimum surface area is 45 m^2 per person when planning a refugee camp (including garden space). However, the actual surface area per person (excluding garden space) should not be less than 30 m^2 per person.

The figure of 30 m^2 surface area per person includes the area necessary for roads, foot paths, educational facilities, sanitation, security, firebreaks, administration, water storage, distribution, markets, relief item storage and distribution and, of course, plots for shelter. The figure of 30 m^2 does not include, however, any land for significant agricultural activities or livestock. Although agricultural activities are not usually a priority during emergencies, small vegetable gardens attached to the family plot should be included in the site plan from the outset. This requires a minimum increase of 15 m^2 per person, hence, a minimum of 45 m^2 overall land allocation per person would be needed.

25. Large camps of over 20,000 people should generally be avoided.

The size of a site for 20,000 people should be calculated as follows assuming space for vegetable gardens is included:

20,000 people x 45 m^2 = 900,000 m^2 = 90 ha (for example a site measuring 948 m x 948 m).

26. If possible, there should be a substantial distance between each camp. The distance depends on a number of factors: access, proximity of the local population, water supplies, environmental considerations and land use.

27. Refugee settlements should have potential for expansion to accommodate increase in the population due to natural increases or new arrivals. The excess of births over deaths means that the population could grow as fast as 3 to 4% per year.

Land Use and Land Rights

28. In most countries land for the establishment of refugee sites is scarce. Often, sites are provided on public land by the government. Any use of private land must be based on formal legal arrangements in accordance with the laws of the country.

Note that UNHCR neither purchases nor rents land for refugee settlements.

Headquarters should be consulted at once if this is a problem.

29. Once a possible site has been identified, the process of site assessment should always include clarification of land-ownership and land rights. Almost invariably, land rights or ownership are known, even though these may not be well documented in public record, or may not be obvious. Nomadic use of rangeland, for instance, requires huge areas and may not look used.

30. The refugees should have the exclusive use of the site, through agreement with national and local (including traditional) authorities. Traditional or customary land use rights are very sensitive issues, and even if there may be an agreement with the national government to use a site, local groups may disagree with the site being used even temporarily. Clarification of access rights and land use restrictions is also necessary to define the rights of the refugees to:

i. Collect fuel-wood, and timber for shelter construction as well as fodder for animals;

ii. Graze their animals;

iii. Engage in agriculture or other subsistence activities.

Security and Protection

31. In principle, the granting of asylum is not an unfriendly act by the host country towards the country of origin. However, to ensure the security and protection of the refugees, it is recommended that they be settled at a reasonable distance from international borders as well as other potentially sensitive areas such as military installations.

The OAU Convention states: "For reasons of security, countries of asylum shall, as far as possible, settle refugees at a reasonable distance from the frontier of their country of origin"[1].

Exceptions should only be made to this rule where the interests of the refugees would be better served, for example if there are good prospects for early voluntary repatriation, and security and protection considerations allow.

Topography, Drainage and Soil Conditions

32. Where water is readily available, drainage often becomes a key criterion. The whole site should be located above flood prone areas, preferably on gentle (2 to 4%) slopes. Sites on slopes steeper than 10% gradient are difficult to use and usually require complex and costly site preparations. Flat sites present serious problems for the drainage of waste and storm water. Avoid areas likely to become marshy or waterlogged during the rainy season.

33. Soils that allow swift surface water absorption are important for the construction and effectiveness of pit latrines. The subsoil should permit good infiltration (i.e. allowing water absorption by the soil, and the retention of solid waste in the latrine). It should be noted that very sandy soils which are good for infiltration are sometimes poor for the stability of the pit. Where drinking water supplies are drawn from ground water sources, special attention must be given to preventing contamination by pit latrines. The pit latrines must not reach into the ground water. The groundwater table should be a minimum of 3 m below the surface of the site.

34. Avoid excessively rocky or impermeable sites as they hamper both shelter and latrine construction. If possible, select a site where the land is suitable at least for vegetable gardens and small-scale agriculture.

Accessibility

35. The site must be accessible and close to sources of necessary supplies such as food, cooking fuel and shelter material. Proximity to national services is desirable, particularly health care services. Roads must be "all-weather" providing year-round access. Short access roads to connect the main road with the site can be constructed as part of the camp

[1] *Article II, paragraph 6 OAU Convention.*

development. There may be advantages in choosing a site near a town, subject to consideration of possible friction between local inhabitants and refugees.

Climatic Conditions, Local Health and Other Risks

36. Settlement areas should be free of major environmental health hazards such as malaria, onchocerciasis (river blindness), schistosomiasis (bilharzia) or tsetse fly. A site may have unseen and/or irregular (but often locally known) risks such as flash flooding, or serious industrial pollution. For sites in dust prone areas, regular dust clouds can foster respiratory diseases. Emergency and temporary shelter need protection from high winds, however, a daily breeze is an advantage. Climatic conditions should be suitable year-round and careful account should be taken of seasonal variations: a suitable site in the dry season may be untenable in the rains. Likewise, mountainous areas may be suitable in summer, while in winter the temperatures may fall way below freezing. Seasonal variation can have a considerable impact on the type and cost of shelter, infrastructure, heating fuel and even diet. As far as possible, refugees should not be settled in an area where the climate differs greatly from that to which they are accustomed. For example, settling refugees from malaria-free high ground in a marshy area where the disease is endemic can be disastrous.

Vegetation

37. The site should have a good ground cover (grass, bushes, trees). Vegetation cover provides shade, and reduces erosion and dust. During site preparation, care should be taken to do as little damage as possible to this vegetation and topsoil. If heavy equipment is used, indiscriminate bulldozing or removal of topsoil has to be avoided at all costs. If wood must be used as domestic cooking fuel or for the construction of shelter, the refugees should be encouraged not to cover their needs at the site or in the immediate vicinity. Rather, a more dispersed pattern of wood collection should be encouraged, in coordination with local forestry authorities (see section on site planning and management of natural resources below). A quick survey of vegetation and biomass availability for these purposes should be undertaken. The site should not be located near areas which are ecologically or environmentally protected or fragile.

Site Selection Methodology

Obtain agreement among the planning team on site selection criteria;

i. Prioritize the criteria list;

ii. Obtain suitable maps and other information showing topography, road networks, land use and water sources;

iii. Determine site characteristics through site visits, identifying any potential flaws that would exclude use of the site (e.g. no water, flood-prone);

iv. Make simple estimates of the surface area of each of the potential sites, e.g. use vehicle trip-meter to estimate distances, or, if feasible, use other methods such as Global Positioning System (see chapter 11 on population estimation and registration);

v. Assess the implications of different layouts on the potential sites and rank the sites on the basis of the criteria list.

Site Planning: General Considerations

- The overall physical layout of a site should reflect a decentralized community-based approach focusing on family, village or other social groups.
- Site planning should use the "bottom up" approach starting from the characteristics and needs of the individual family, and reflect the wishes of the community as much as possible.

Introduction

38. The physical organization of the settlement will markedly affect the health and well-being of a community. Good site planning will also facilitate an equitable and efficient delivery of goods and services.

Whatever the circumstances, the overriding aim must be to avoid high density refugee camps.

Master Plan

39. A "master plan" or overall site plan should show the overall configuration of the site, its surroundings and characteristics, and its location vis-à-vis natural and existing features including settlements. The plan should take into account the social organization of the refugees and principles of module planning, and should cover the following physical features.

40. Natural and existing features:

i. Contours (lines joining points of identical elevation are called contour lines);

ii. Rivers, forests, hills, flood plains, swamps;

iii. Rocky patches, sandy soils;

iv. Existing buildings, roads, bridges;

v. Farm land, electrical power grid, water pipelines.

41. Planned features:

i. Shelter areas, potential expansion areas;

ii. Roads and footpaths;

iii. Drainage system and terracing;

iv. Environmental sanitation plan;

v. Water distribution plan;

vi. Utilities, camp lighting, etc.;

vii. Administration areas;

viii. Educational and health facilities;

ix. Distribution points;

x. Feeding centres;

xi. Markets and recreation areas;

xii. Fire prevention breaks;

xiii. Agricultural plots.

42. A topographical and planimetric survey is crucial as the basis for site planning. The plan or map should have a metric scale between 1:1,000 and 1:5,000, and in case of large camps a scale of 1:10,000 or above. A topographical survey describes the physical features of a landscape (rivers, valleys, mountains). A planimetric survey describes locations within an area (e.g. the camp site).

Services and Infrastructure

43. The following are standards for services and infrastructure and should be referred to when preparing the master plan:

1 water tap	per	1 community (80-100 persons)
1 latrine	per	1 family (6 - 10 persons)
1 health centre	per	1 site (20,000 persons)
1 referral hospital	per	10 sites (200,000 persons)
1 school block	per	1 sector (5,000 persons)
4 distribution points	per	1 site (20,000 persons)
1 market	per	1 site (20,000 persons)
1 feeding centre	per	1 site (20,000 persons)
2 refuse drums	per	1 community (80 - 100 persons)

44. There are two situations for which planning is required:

i. Reorganizing existing spontaneously developed sites;

ii. New sites.

The design standards to be applied should be the same in each case, although methods, approach and timing, may differ substantially.

45. Where refugees have spontaneously settled they may be understandably reluctant to relocate. In such cases involvement of representatives of the refugees in planning will usually facilitate a better understanding and acceptance by the refugees of priority changes. An early and clear demarcation of plots, including areas reserved for services, is advisable.

Comprehensive but swift planning is essential for a new site.

Modular Planning

46. Planning should start from the perspective of the individual refugee family. Begin by considering the needs of the individual household, such as distance to water and latrines; the relationship to other members of the community (other relatives, clan, or ethnic groups); and traditional housing and living arrangements. Developing the community layout in this way, and then considering the larger issues of overall site layout, is likely to yield much better results than beginning with a preconception of the complete site layout and breaking it down into smaller entities.

47. Thus planning and physical organization of the site should start from the smallest module, the family, and then building up larger units as follows:

Module	Consisting of	Aprox. No. of persons
Family	1 family	4 - 6 persons
1 community	16 families	80 persons
1 block	16 communities	1,250 persons
1 sector	4 blocks	5,000 persons
1 camp module	4 sectors	20,000 persons

These figures are indicative and should be adjusted according to actual conditions.

48. Modular planning does not necessarily mean using a grid layout for the site. The linear or grid layout, with square or rectangular areas separated by parallel streets, has

often been used for its simplicity of design and speed of implementation. However, every effort should be made to avoid a rigid grid design which promotes high density settlements since environmental health problems and disease are directly proportional to population density. Whatever design is used should take account of the natural features of the site and of the identity of the refugee community.

49. The social organization, background and family structure, are all factors that will influence the physical layout of a site. Initially, this information, which is part of the basic problem and needs assessment should be gathered through discussions with the refugees and others knowledgeable about their society. A full socio-economic survey of the refugee population should be conducted once resources allow, and will be important in subsequent planning, particularly for self-reliance and durable solutions.

Environmental Considerations

50. Environmental considerations have to be integrated into physical planning and shelter from the very start of an emergency. Location and layout of refugee camps, provisions made for emergency shelter, and the use of local resources for construction and fuel, can have a major negative environmental impact. It is in the earlier stages of an emergency where the greatest environmental damage can occur: This environmental damage has health, social and economic consequences for the refugees and local population, and can have political repercussions.

51.

Rehabilitation effectively starts in the emergency phase, and the costs of environmental damage can be substantially reduced by early environmental action in an emergency.

52. In order to safeguard the welfare of refugees and local population by protecting their environment, the following steps can be taken:

i. Site selection: avoid environmentally protected areas. Where possible, a site should be located a day's walk from protected areas or reserves;

ii. Site preparation: preserve existing vegetation and top-soil;

iii. Camp density and size: generally, the smaller the settlements the better;

iv. Camp layout: the layout (particularly roads) should follow the contour lines. This will reduce erosion and preserve topsoil, and avoid the creation of dangerous gullies. A site layout that encourages clustered living arrangements (which can also promote security) promotes sharing of resources including cooking which reduces fuel consumption;

v. Shelter design (energy saving through insulation): In cold climates, with extended winter seasons where continuous heating is needed, passive energy saving measures, e.g. sufficient insulation of roof, walls, floors can be extremely fuel saving and cost-effective over time;

vi. Shelter and fuel: The materials for these often come from the immediate surroundings of the camp. It is crucial to initiate at the outset a system managing and controlling the use of local natural resources including wood for construction and fuel. Meeting the initial need for shelter materials from the local resources can be particularly destructive – so collection of such materials should be carefully managed, and/or materials should be provided from an alternative source.

53. A simple natural resources management plan should be drawn up as soon as possible. A key feature of a basic plan will be controlled harvesting and collection of fuel-wood and timber. This should be discussed with government bodies, such as forestry departments. Controlled fuel-wood and timber harvesting in the vicinity of the camp can include: defining certain areas and trees (by marking) which should not be harvested, allowing only dead wood to be collected; establishing an environmental awareness programme to define clear rules from the outset regarding harvesting fuel-wood and to encourage respect for the local resources; assigning responsibility for managing and harvesting certain areas to certain groups.

54. The decision on supplying fuel-wood from outside the vicinity of the camp (e.g. trucking in wood), how to supply it and the quantity which is necessary, must be taken according to the specifics of the situation. The organized supply of fuel-wood or other fuel such as kerosene can have complex repercussions and should be instituted with care. Organized supply of **free** fuel on a regular basis is only appropriate in certain circumstances: for

example, where there are severe restrictions on fuel from other sources. Where fuel-wood is also readily available locally, its distribution free of charge from outside the vicinity may actually lead to increased consumption. In addition, refugees rely on local natural resources for income, therefore if free fuel-wood is provided for cooking purposes, collection of wood will continue for income generating purposes (e.g. the sale of fuel-wood or timber, charcoal making, etc.). To retain its value therefore, fuel-wood should generally be supplied in return for work.

55. The source and impact of wood supplied to the refugees needs also to be considered:

i. Is it being harvested sustainably?

ii. Are the environmental problems merely being moved elsewhere?

Care should be taken to prevent emergence of local monopolistic suppliers. Finally, it should be remembered that, if it is necessary to introduce free fuel supply in the initial stages of an emergency, it will be difficult to later modify such arrangements.

56. A more comprehensive natural resource management plan for the site and its immediate surroundings should be drawn up as soon as possible (with specialist advice if necessary).

Such a plan should be based on a baseline environmental survey.

The comprehensive natural resource management plan would cover, in addition to controlled harvesting of timber for fuel mentioned earlier: promotion of fuel saving stoves and fuel efficient cooking techniques, supply of key energy saving devices (e.g. lids with cooking pots, provision of mills or milled grain), awareness raising programmes, identifying the scope for better use of existing natural resources (e.g. using waste water, common areas, and areas around shelters), for kitchen gardens and tree planting, and reforestation where necessary.

Gender Considerations

57. In emergencies there may be a loss of normal community participation and the changes in demographic proportions may have altered values and principles. This may mean disruption of traditional mechanisms for the protection and assistance of women. This change of social patterns in refugee communities may also result in:

i. Increased numbers of female headed households;

ii. Large numbers of unaccompanied children;

iii. Shortage of men;

iv. Disruption of the extended family, with its role as social caretaker.

58. It is important that the needs of women are taken into account in site planning. It may be difficult to reach women if they do not traditionally form part of the leadership structure of the community. In such cases the community extension workers should be able to assist in obtaining views on the protection and security of women.

59. Among the refugees may be those who are unable to build their own shelters because of vulnerabilities. Specific actions should be taken to ensure that the refugee community themselves are organized to assist the more vulnerable refugees with their shelter construction.

Site Planning: Specific Infrastructure

◆ Under-estimation of surface area required for social infrastructure and communal services is a common problem.

60. At the start of an emergency it may be difficult to foresee all the administrative and communal services that are likely to be required. Where adequate space is available, free areas should be allocated for future expansion of these services. Under-estimation of the space required for future communal needs is a common problem in sites of limited area.

Sanitation

61. While water requirements often determine site selection, sanitation requirements often dictate site layout. High population density together with poor sanitation is a severe threat to health and safety of the refugees. This is often the case when sites have developed in an unplanned way. Minimal organization of basic sanitation should be introduced before reorganizing the site or transferring the refugees to a new site. This should include prohibiting uncontrolled defecation and the establishment of public latrines. Sufficient space must be left for replacement latrines. If communal latrines are unavoidable, there should be a plan for their maintenance and they should be accessible by road to facilitate this.

62. For all sites, new or reorganized, the goal should be one latrine per family. Only if the latrine remains under the control and maintenance of a family group is safety and hygiene assured in the long run. The ideal location of the family latrine is on the family plot, as far as possible from the shelter.

Water Supply

63. Where possible, the maximum distance between any shelter and a water distribution point should be not more than 100 m, no more than a few minutes walk. The layout of the site should contain the water distribution grid as an integral part of the service plan and the pipes should be underground. Water pipes should be kept at a depth that traffic or other surface activities do not cause damage (40 to 60 cm). In countries with very low temperatures, the pipes must be positioned at frost free depth (60 to 90 cm). Experience shows that water distribution to small, socially cohesive groups of 80 to 100 persons reduces water wastage considerably and reduces destruction of taps, standposts and concrete aprons. The water distribution point is more likely to be kept well drained and hygienic and the waste water used to irrigate communal or individual vegetable gardens.

64. Effluent and used water from water supply points should be well drained and eventually absorbed in soakage pits or gardens.

Roads

65. A site should have access and internal roads and pathways connecting the various areas and facilities. Accessroads should be all-weather roads above flood levels and have adequate drainage. If there has to be a significant amount of vehicle traffic on the site, it should be separated from pedestrian traffic. All structures, including fences, should be set back some 5 to 7 m from roads to provide adequate visibility for pedestrians and vehicles.

Fire Prevention

66. As a rule of thumb a firebreak (area with no buildings) 30 m wide is recommended for approximately every 300 m of built-up area. In modular camps firebreaks should be situated between blocks. This area will be an ideal for growing vegetables or recreation. If space allows, the distance between individual buildings should be great enough 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 inflammable (straw, thatch, etc.) the distance should be increased to 3 to 4 times the overall height. The direction of any prevailing wind will also be an important consideration.

Administrative and Communal Services

67. Buildings for administrative and communal services should be traditional structures, if possible of a multipurpose design to facilitate alternative uses. For example, buildings for initial emergency services could later be used as schools or other community facilities. The following list includes administrative and communal services most often needed, the division is indicative only – the importance of maximum decentralization has already been stressed. Whether centralized or decentralized, administrative and other facilities should be located and designed so as they are accessible to women as well as men.

68. Services and facilities likely to be centralized are:

i. Site administrative office;
ii. Services coordination offices for health care, feeding programmes, water supply, education, etc.;
iii. Warehousing and storage;
iv. Initial registration/health screening area;
v. Tracing service;
vi. Therapeutic feeding centre (if required).

69. Services and facilities likely to be decentralized:

i. Bathing and washing areas;
ii. Supplementary feeding centres (if required);
iii. Education facilities;
iv. Institutional centres (e.g. for the disabled and unaccompanied children, if required);
v. Recreation areas;
vi. Commodity distribution centres.

70. The location of the centralized services will depend on the specific situation and in particular on the space available. Where sufficient space is available, there may be clear advantages in having the centralized services in the centre of the camp. Where space is scarce, it may be better to have the centralized services located near the entrance to the

camp. In particular, this will avoid the trucks delivering supplies having to drive through a densely populated site, with the attendant problems of dust, noise and danger to pedestrians. If some form of closed camp is unavoidable, at least the centralized administrative services will probably have to be located near the entrance. The warehouses should always be near the administrative office for reasons of security.

Shelter

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

Introduction

71. Shelter must, at a minimum, provide protection from the elements, space to live and store belongings, privacy and emotional security. Shelter is likely to be one of the most important determinants of general living conditions and is often one of the largest items of non-recurring expenditure. While the basic need for shelter is similar in most emergencies, such considerations as the kind of housing needed, what materials and design are used, who constructs the housing and how long it must last will differ significantly in each situation.

72. Particularly in cold climates or where there are daily extremes of temperature, lack of adequate shelter and clothing can have a major adverse effect on health and nutritional status.

Thus, in addition to shelter, provision of sufficient blankets, appropriate clothing and heaters will be a high priority.

73. The first steps are to assess the adequacy of any emergency shelter arrangements refugees have already made themselves, and to meet immediate needs through provision of simple local materials.

The key to providing an adequate shelter is provision of a roof.

If materials for a complete shelter cannot be provided, provision of adequate roof materials will be the priority, as walls can usually be made of earth or other materials found on site or locally available.

74. Wherever possible, refugees should build or assist in building their own housing, with the necessary organizational and material support. This will help to ensure that the housing will meet their particular needs, will reduce their sense of dependence, and can cut costs considerably.

Type of Shelter

75. Individual family shelter should be always preferred to communal accommodation as it provides the necessary privacy, psychological comfort, emotional safety and a territorial claim for future security. It provides safety and security for people and possessions and helps to preserve or rebuild family unity.

76. Emergency shelter needs are best met by using the same materials or shelter as would be normally used by the refugees or the local population. Only if adequate quantities cannot be quickly obtained locally should emergency shelter material be brought into the country. The simplest structures, and labour-intensive building methods, are to be preferred. Materials should be environmentally benign or gathered in a sustainable manner.

Standards

77. At the beginning of an emergency, the aim should be to provide sufficient materials to the refugees to allow them to construct shelter meeting at least the minimum standards for floor space, which in emergencies are:

i. minimum of 3.5 m^2 per person in tropical, warm climates, excluding cooking facilities or kitchen (it is assumed that cooking will take place outside);
ii. 4.5 m^2 to 5.5 m^2 per person in cold climates or urban situations including the kitchen and bathing facilities.

78. The design of shelter should if possible provide for modification by the occupants to suit their individual needs. In cold climates, for

example, it is very likely that people, in particular children and old people, remain inside the shelter throughout the day, hence more space is required.

Plastic Sheeting

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

80. Wooden support-frames and stick skeletons for these shelters, if collected from surrounding forests, can harm the environment considerably. It is therefore important to always supply frame material (which is sufficient to support plastic). The frame material should come from sustained, renewable supply sources. Bamboo is ideal, if available. Standard specifications for plastic sheeting can be found in Annex 1 to chapter 18 on supplies and transport.

Tents

81. Tents may be useful and appropriate for example when local materials are either not available at all or are only seasonally available or for refugees of nomadic background. The life-span of an erected tent depends on the climate and the care given by its occupants; it may be as long as 2 to 3 years. Where tents are used, repair materials should be provided to the occupants. A group of tents may also serve as transit accommodation while more appropriate shelter is constructed. Standard specifications for tents can be found in Annex 1 to chapter 18 on supplies and transport.

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

Prefabricated Shelters

83. Neither pre-fabricated building systems nor specially developed emergency shelter units, even winterized shelter units, have proved effective in large scale refugee emergencies. Reasons include:

i. High unit cost;

ii. Long shipping time;

iii. Long production time;

iv. Transport problems including cost of transport;

v. Inflexibility.

Usually emergency shelter arrangements will have been made before these systems can arrive.

Shelter for Cold Conditions

84. Climates where cold weather with rain and snow prevails over extended periods (3 to 5 months), demand that people live primarily inside a house. In particular, the more vulnerable persons such as the elderly, small children, the sick and the handicapped need heated, enclosed spaces.

85. Shelters which are sufficient to withstand cold conditions have to be of a high standard and are complex and expensive to build. The following should be considered:

i. Wind protection of walls, roofs, doors and windows;

ii. Insulated enclosed space, with simple dividers;

iii. Heating stoves;

iv. Structural stability (to withstand snow- and wind-loads);

v. Protected and heated kitchens and sanitary facilities.

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

i. Individual survival.
It is extremely important to protect the human body from loss of heat. Particularly during sleep, it is important to be able to keep warm, by being able to generate and retain body heat with blankets, sleeping bags, clothing and shoes, and food with high calorific value;

ii. The living space.
It is very important to concentrate on a limited living space and to ensure that cold air

can be kept out of this space. This can be done by sealing the room with plastic sheeting and sealing tapes. Windows and doors should be covered with translucent plastic sheeting, stapled on window and door frames. Large rooms should be subdivided, with the help of plastic sheets or blankets. New structures should be constructed with a sealed space to keep the cold air out. Walls, ceilings and floors of the living space should be designed to insulate from cold air and to retain warm air as efficiently as possible;

iii. Heating.
Keeping the inside of a shelter at a, comfortable temperature (15 to 19° C) depends to a large extent on the outside temperature, the type of construction, the quality of insulation, the orientation of the building, and on the type and capacity of the stove. Depending on these conditions, a stove with 5 to 7 kW performance should have the capacity to heat a space of 40 to 70 m^2 in most cold areas. Usually the stove for heating is used for cooking and baking as well.

87. For reasons of safety, convection stoves are recommended over radiation stoves. Fuel efficiency is very important as fuel may not be readily available, and its supply can pose major logistical problems. Overlooking regular fuel supply in the beginning can have very negative environmental consequences.

Reception and Transit Camps

88. Reception and transit camps are used where it is necessary to provide temporary accommodation for refugees. These camps might be necessary at the beginning of a refugee emergency as a temporary accommodation pending transfer to a suitable, safe, longer term holding camp, or at the end of an operation, prior to repatriation, as a staging point for return. Reception and transit camps are therefore usually either intermediate or short term installations.

89. Whether the transit camp is used in an emergency or as part of a repatriation operation, the camp should be designed for short stays of 2 to 5 days and a high turnover rate.

90. The required capacity of a transit camp will depend primarily on how many people will be channelled through the camp and in what time. This will depend on the absorption or reintegration capacity at the receiving end as well as the total time foreseen to carry through the operation.

91. The primary criteria for site selection for a transit camp are:

i. Good access (road, port, airport);

ii. The availibility of water;

iii. Good drainage (minimum 2% slope);

iv. Adequate conditions for sanitation.

92. The transit camp must be strictly functional and equipped with considerably higher construction standards than regular refugee camps. Operational maintenance must be fully supplied through the camp management. In particular, cleaning and disinfection of accommodation and sanitation areas need to be carried out on a regular and ongoing basis. Prepared food should be provided and individual food preparation should be prohibited. The transit camp will therefore need kitchen facilities, wet food distribution and a hall for food consumption. In view of the expected short-term stay, a minimum of 3 m^2 per person is needed.

93. Standards for the construction of transit facilities are:

Accommodation: in barracks, long houses (open plan or subdivision for groups/families of 5 persons) heated in cold climates. For example, a tent of 85 m^2 can accommodate approximately 14 to 25 persons;

i. Sanitation: 20 persons per latrine, 50 persons per shower. Regular and intensive maintenance is required;

ii. Water supply: absolute minimum provision of 7 litres/person/day plus water required for kitchens, cleaning and sanitation;

iii. Food preparation: approximately 100 m^2 per 500 persons;

iv. Storage: 150 to 200 m^3 per 1,000 persons;

v. A public address system;

vi. Lighting;

vii. Arrival zones and departure zones which are separated from accommodation zones;

viii. Administrative offices and staff accommodation;

ix. One health post;

x. Security fencing (depending on circumstances).

Public Buildings and Communal Facilities

- Public buildings should be used only as short term accommodation to gain time to provide more suitable shelter;
- Right from the beginning, intensive maintenance of infrastructure and utilities should be provided;
- The UNHCR shelter standards should be applied.

94. Public buildings such as schools are sometimes used initially as shelter. This is particularly the case in cold conditions which demand very rapid shelter response.

95. Where possible such accommodation in public buildings should be a temporary solution. The supporting infrastructure of the building (water, electricity, sanitation) will deteriorate very quickly with concentrated use, to the extent that living conditions can become dangerously unhealthy. The buildings decay rapidly primarily because they are unsuited to such large numbers and lack the necessary infrastructure and utilities. In addition the very low sense of responsibility by its inhabitants contributes to the deterioration.

96. The normal use of the building has to be suspended with various social and economic consequences (the buildings might otherwise be used for example as schools, sanatoria, workers' or students' dormitories, sports halls and hotels). Both local and national governments are therefore reluctant to transform public buildings into humanitarian shelter.

97. In order to ensure a healthy environment, it is particularly important to ensure regular operational and preventive maintenance in public buildings. Neglecting to maintain a building from the outset can have serious health consequences for the refugees, and economic consequences for the host government.

98. The UNHCR minimum shelter standard of some 3.5 to 5.5 m^2 per person should be applied, as well as the standard for public sanitation (maximum 20 persons per toilet/-latrine). Public buildings, such as schools, are not equipped to serve the sanitation needs of large populations including basic toilet use, as well as personal hygiene such as laundry and cleaning dishes.

13

Commodity Distribution

■ CONTENTS

Situation

Emergency situations are characterized by an urgent need to distribute life sustaining commodities such as food, shelter materials, cooking implements and fuel. The fair distribution of commodities is often problematic and groups and individuals from among the refugees can use the confusion of the emergency to obtain unfair control over the resources which are distributed.

Objectives

To provide life-sustaining commodities to the refugee families, fairly, according to specified rations, selection criteria and priorities.

Principles of response

- The design of the distribution system should be based on a thorough understanding of the social structure of the refugees;
- The refugees should be kept continuously informed on the design of the distribution system, on the timing of distributions and on the quantity of commodities to be distributed;
- All groups among the refugees should be appropriately involved in the design and operation of the distribution system. Particular care must be taken to involve women;
- The family as the basic social unit plays the key role in meeting basic needs of individuals, therefore, the family unit should be the target of commodity distribution;
- The commodity distribution cycle should be regular and predictable. Irregularities in the distribution cycle increases the tendency of the refugees to circumvent the system.

Action

- Use community services structures (or set up new structures if necessary) to consult the refugees on the design and operation of the commodity distribution system;
- Select and implement a commodity distribution system;
- Set up a system by which information on the operation of the commodity distribution system can be regularly conveyed to the mass of the refugees;
- Allow the refugees themselves to monitor the fairness of the distribution system.

Introduction

- Distribution passes control over a commodity to the intended beneficiaries. Distribution must be fair, and commodities must be distributed according to specified rations, selection criteria and priorities;
- Distribution must be monitored to ensure that it is fair and reaches vulnerable groups;
- However ingenious the distribution system devised, it is unlikely to work fairly without the support of the refugees themselves;
- UNHCR's distribution systems should provide material assistance to and through families.

1. The principles in the chapter apply to the distribution of both food and non-food items, although food often forms the bulk of the commodities distributed. This chapter provides brief guidance on the subject. The handbook "Commodity Distribution: A Practical Guide For Field Staff" is essential reading for those who plan to set up and run a commodity distribution system (see Key References at the end of the chapter).

When to start distribution

2. There is usually a degree of uncertainty when planning distributions. Ideally, distribution of commodities should start only after a full needs assessment has taken place and when the size of the beneficiary population is accurately known. However, the reality of almost all emergency programmes is that distributions must start prior to these ideal conditions being reached. Try not to start distribution until there is at least a minimum framework in place to build upon, and a plan as to how subsequent distributions will be improved.

Choosing a Commodity Distribution System

3. Two basic issues are:

i. How much responsibility should be given to the refugees themselves; and,

ii. What resources are available to set up and run the system (including time, space, experienced staff as well as financial resources (see Table 1).

4. There are three broad categories of distribution system (see Table 1). Note that the head of family can either be a woman or a man.

Distribution systems can be classified according to who receives the commodities.

5. There will probably be a period in the early stages of an emergency when it will not be possible to register or issue ration cards. However, effective distribution of commodities is possible without ration cards.

Table 1 – Commodity Distribution Systems

Through Group Leadership	Through Groups of Heads of Family	Through Individual Heads of Family
System Description		
Commodities are given in bulk to a representative of a large group of beneficiaries who further divides it among the group.	All of the commodities for the group of families are handed over to a representative of the group. The group usually consists of about 20 heads of family. The commodities are then immediately redistributed to the individual family heads by the representatives.	Commodities are handed over directly to each family head.
Types of situation in which these systems have been used		
◆ Early days of an emergency. ◆ Mass influx of refugees. ◆ No formal registration. ◆ Large populations.	◆ When the population is comparatively stable, and/or have ration cards. ◆ Where the beneficiaries are living in camps. ◆ Where the population is comparatively homogeneous.	◆ When the population is comparatively stable, and/or have ration cards. ◆ Where the beneficiaries are living in camps, settlements or integrated within the local population.
➤➤➤➤➤ Amount of resources needed increases ➤➤➤➤➤ ◄◄◄◄◄ Degree of self regulation by refugees increases ◄◄◄◄◄		

Components of Distribution Systems

General Considerations

6. The ideal distribution system should be safe and easily accessible to the intended beneficiaries.

- ❏ Safe: Distribution should be organized in such a way that the system is safe for all who use it. Particular attention should be given to women and the vulnerable;
- ❏ Accessible: Distribution points should be close to where people live and located so that the access of particular groups is not restricted. The timing of distributions should suit the beneficiaries.

7. The refugees themselves can provide the most effective monitoring and control of the distribution system. In order to do this they must be informed as to the type and quantity of commodities to be distributed and method and timing to be used.

A system needs to be put in place whereby the refugees can be continuously informed of changes in the quantity, type or method of distributions.

8. In the early stages of a new operation, particularly in large emergencies, effective control over distribution may not be possible. However, from the start, each action taken should contribute to a process whereby control by UNHCR is progressively established. For example the provision of plastic sheeting, tents and other shelter material is very important because it reduces the mobility of the population. Once it is issued, the population can settle and commodity distribution and other services will be easier to organize.

Refugee Involvement

9. Ensure the refugees are well informed (both women and men). They must know what they should receive, how much, when and how. This information should come to them directly rather than through their leadership.

The refugees should be able to see the distribution process for themselves as they are the best monitors and controllers of the process.

Ensure that the refugees participate at all levels of the distribution process. However, be aware of the dangers of non-representational leadership (see chapter 7 on coordination and site level organisation).

10. Irregularities in the distribution cycle undermine the confidence of the beneficiaries and increase their need to circumvent the system.

Logistical Considerations

11. In camps, the distribution system should allow beneficiaries to collect rations close to where they live (not more than 5 km away) and at regular monthly intervals. For dispersed populations refugees should not have to travel more than 5 to 10 km to distribution sites.

12. In the case of food distribution, it is usually preferable to distribute dry uncooked rations in bulk. Avoid mass cooked food distribution for the general ration (see chapter 15 on food and nutrition).

Managerial Considerations

13. Distributing relief commodities involves several organizations and many individuals, for example, the government, WFP and NGOs. Co-ordination structures must be put in place, including regular meetings of all interested parties. The frequency of these meetings will depend on the situation. At the start of an emergency daily meetings will probably be needed. As the situation normalizes the frequency of meetings can be reduced to one per month.

14. It is important to understand the roles and responsibilities of the main actors involved at various stages of commodity distribution. In the case of food distribution the modalities of distribution as well as the reporting requirements are set out in a tripartite agreement between UNHCR, WFP and the implementing partner. The respective roles of UNHCR and WFP in relation to food aid are set out in their Memorandum of Understanding (Appendix 3). See Chapter 15 on food and nutrition for more information on food distribution and on of the role of WFP.

15. The family, as a basic social unit, is the target of distribution. This applies to food and non-food items. Providing assistance to and through families is effective as the basis for the distribution system and also supports the family unit. However this does not mean that the ration has to be handed to each family directly. In some situations distribution can be more effective through groups of families or other community structures.

16. Avoid payment in kind to distribution workers. It makes monitoring difficult and, in

times of shortages, vulnerable people may be deprived of commodities in order to pay staff.

17. In camps, aim to have at least 1 distribution site per 20,000 refugees.

18. Plan to have a minimum of 2 distribution staff per 1,000 beneficiaries.

The Role of Refugee Women

UNHCR Policy

19. UNHCR's policy is to ensure the maximum possible appropriate involvement of refugee women in all aspects of distribution. Determining the nature of this involvement requires consultation with refugee women and men and a careful evaluation of the totality of the needs and responsibilities of refugee women and their families. Failure to take these considerations into proper account can have negative implications that go well beyond the distribution system itself.

20. In the great majority of refugee communities, the objective of fair distribution will be best served by having an appropriate balance of men and women. However, it is normally women, and in particular single female heads of household, who are either under-represented or excluded.

Areas of Women's Involvement

21. There are three areas where refugee women can be involved:

- ❏ In the decision-making processes and monitoring;
- ❏ In the distribution itself (women supervise and/or hand out the commodities); and,
- ❏ In collecting the commodities (where they are distributed to women not men).

22. Women must be directly involved in decision-making and monitoring, including being involved in planning the system and determining their own participation in its implementation. Women should be members of the commodity distribution or food committees.

23. Women should choose representatives who will be involved in the distribution itself. The extent and nature of this participation will depend on factors specific to that situation.

24. If women themselves feel that the most effective way to ensure that they receive their fair share and to retain control of its use thereafter, is by actually collecting, or at least being present at the distribution of food and non-food items for their household (whether or not they are its head), this should be ensured.

Monitoring

25. Monitoring the distribution system is an important management responsibility of UNHCR. General principles of monitoring are described in chapter 8 on implementing arrangements. Monitoring distribution includes monitoring the actual distribution of the commodity and spot checks in the camps on distribution days. See chapter 15 on food and nutrition, and "Commodity Distribution: A Practical Guide For Field Staff", for more details about monitoring distribution systems.

Key References

Commodity Distribution: A Practical Guide For Field Staff, UNHCR, Geneva, 1997.

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Health

■ CONTENTS

Situation

It is well known from experience that emergencies result in excess loss of life (high mortality) and increased incidence of diseases (high morbidity). The diseases mainly responsible for high mortality and morbidity are measles, diarrhoeal diseases (including cholera), acute respiratory infections (pneumonia), malnutrition and malaria. The factors which increase the risk of disease and which should be addressed in any emergency response include an unfamiliar environment, poverty, insecurity, overcrowding, inadequate quantities and quality of water, poor environmental sanitation, inadequate shelter and inadequate food supply.

Objectives

- To promote the enjoyment of the highest attainable standards of physical and mental health[1], and to prevent excess mortality and morbidity.

Principles of Response

- Priority should be given to a Primary Health Care (PHC) strategy focusing on the vital sectors of water, food, sanitation, shelter and physical planning. In addition, preventive and basic curative health services should be provided. The health of the majority of the refugees is more likely to be affected by these measures than by individual care;
- Refugee participation in the development and provision of health services is essential;
- Services provided for refugees should be at a level equivalent to that appropriate to host country nationals – i.e. there must be *parity*;
- The health programme should also be *sustainable*. It is sometimes better not to start activities which cannot be maintained, than to cease supporting activities which both implementing partners and beneficiaries have come to take for granted;
- The health services must be of a quality that ensures that programmes, providers and institutions respect patients' rights and comply with nationally and internationally accepted health standards and principles of medical ethics;
- Many countries will not have sufficient human and material resources to respond adequately to the extraordinary needs generated by an emergency. Experienced national and international NGOs should be mobilized to initiate urgent life saving measures. Rapid integration with the Ministry of Health (MOH) is essential;
- Health services should take into account the particular vulnerability of children under five years during emergencies. Priority should be given to immunizations, feeding programmes, oral rehydration therapy, Vitamin A prophylaxis, basic curative care and family health;
- Health services should also take into account the special needs of women who play a central role as primary health care providers and at the same time bear a disproportionate share of suffering and hardship;
- A UNHCR Health Coordinator should be appointed with responsibility for the health programme and for ensuring that nationally and internationally accepted standards and best practice are adhered to, in close coordination with the national health authorities and other organizations.

Action

- Assess the health and nutritional status of the population and identify the critical health risk factors in the environmental conditions;
- Establish priority needs, define the required activities to meet those needs and determine the required human, material and financial resources to perform these activities;
- In accordance with these activities, set up community-based health services and devise the appropriate organizational and coordination mechanisms both with the health partners and the other relevant sectors of assistance;
- Promote basic health education for the refugees and train refugee health workers;
- Monitor and evaluate the effectiveness of the services and adjust as necessary;
- Ensure that decisions about the health services are based on proper assessment and surveillance;
- Communicate information about the emergency situation and the health services for advocacy purposes.

[1] *International Covenant on Economic, Social and Cultural rights", 1996, Article 12.*

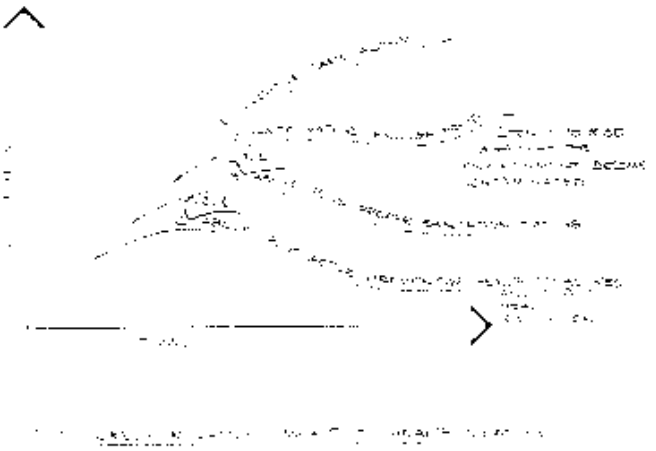
Introduction

1. Good health, depending as it does on so many non-medical factors, is too big a subject to be left only to medical workers. This chapter is directed at non-specialist staff in the field. It does not pretend to give "medical answers" to health problems. It does however seek to show that proper assessment of problems, needs and resources, appropriate organization and coordination of public health and medical services based on a Primary Health Care (PHC) strategy are more important to the overall health status of refugees than curative medicine alone, see figure 1. These crucial organizational factors are often the responsibility of non-medical UNHCR staff.

their full participation; health care provided at a cost the community and the country can afford. Though no single model is applicable everywhere, Primary Health Care should include the following: promotion of proper nutrition, an adequate supply of safe water, basic sanitation, reproductive and child care, including family planning, appropriate treatment for common diseases and injuries, immunization against major infectious diseases, prevention and control of locally endemic diseases, education about common health problems and what can be done to prevent and control them".

At the heart of such a strategy there is an emphasis on preventive, as against curative care alone.

Figure 1



2. In an emergency, many refugees will be exposed to insecurity, poor shelter, overcrowding, lack of sufficient safe water, inadequate sanitation, inadequate or inappropriate food supplies and a possible lack of immunity to the diseases of the new environment. Furthermore, on arrival, refugees may already be in a debilitated state from disease, malnutrition, hunger, fatigue, harassment, physical violence and grief. Poverty, powerlessness and social instability, conditions that often prevail for refugees, can also contribute to increased sexual violence and spread of sexually transmitted diseases including the Human Immuno-deficiency Virus (HIV).

3. The World Health Organization (WHO) has summarized the concept of Primary Health Care as follows: "PHC is essential health care made accessible to everyone in the country; it is given in a way acceptable to individuals, families, and the community, since it requires

Health Assessment, Planning, Monitoring and Surveillance

- An assessment of the health and nutritional status is an essential start to the provision of health services;
- This must be done by experts with experience of emergencies and, if possible, local knowledge;
- The factors affecting the health of the refugees must be identified and a surveillance and reporting system established.

Initial Assessment

4. First, information should be obtained on the number of refugees[2] segregated by age (percentage of children under five years of age) and sex (male/female ratio). See chapter 11 on

[2] *Health experts sometimes call this number "the denominator".*

registration for more information on estimating the total number of refugees.

Age/sex breakdown can be estimated from:

i. Information collected during surveys;

ii. Information collected during mass immunization campaigns;

iii. Mass health screening on arrival;

iv. Information collected by community health workers.

5. The aim of the initial health assessment is to identify basic problems and needs and to establish priorities. It should be carried out by people with appropriate qualifications and relevant experience. There are obvious advantages in using national or locally-based personnel, but appropriate outside expertise can be made available quickly and should be requested through the Health and Community Development Section at Headquarters if necessary.

6. The priority should be to evaluate the incidence of the major causes of excess mortality and morbidity – measles, diarrhoeas, pneumonia, malaria and malnutrition.

7. Relevant information can be obtained from:

i. Direct observation;

ii. Reviewing baseline information regarding the country/areas of origin and asylum;

iii. Analyzing records at health facilities and interviewing health workers;

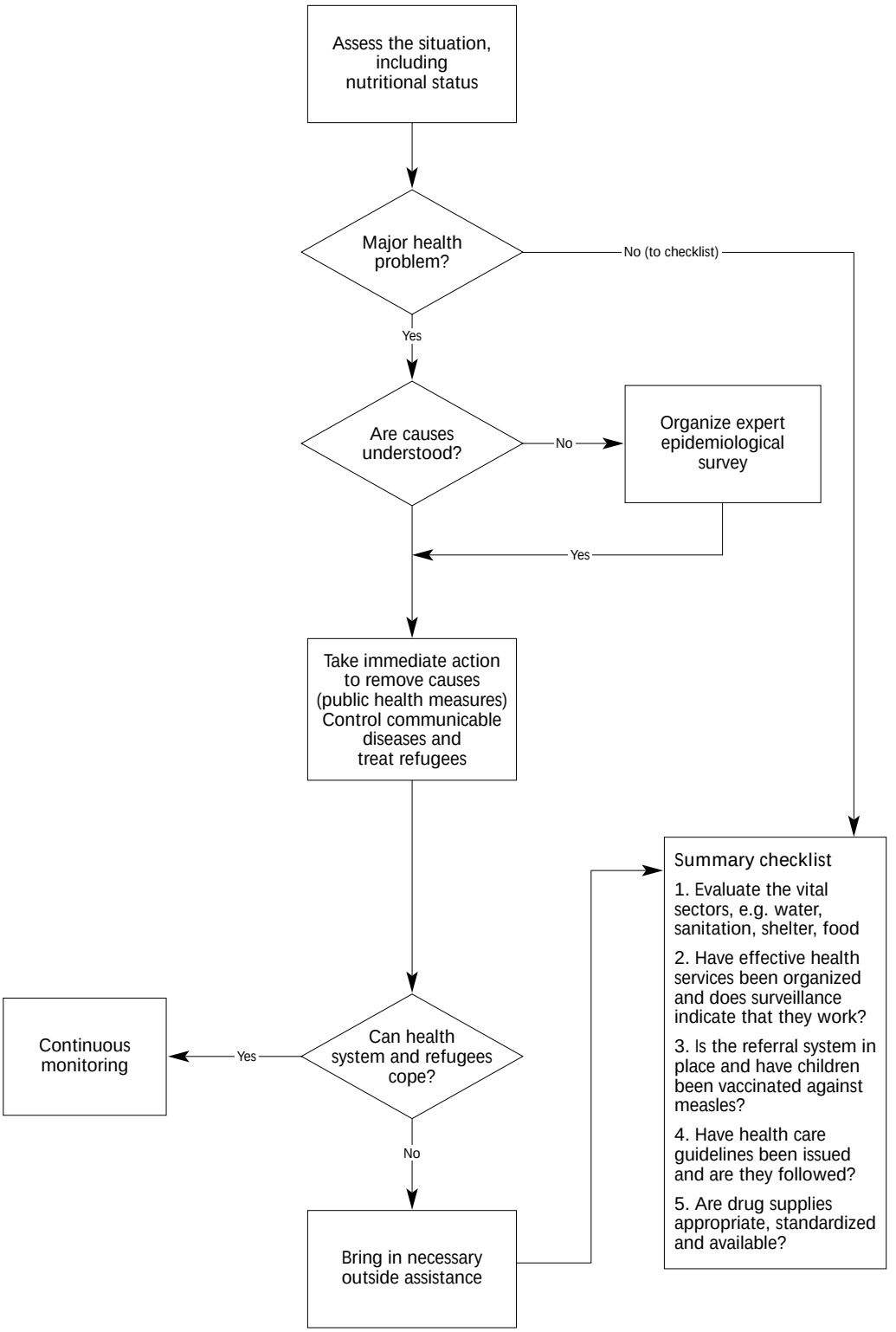
iv. Undertaking sample surveys (nutrition and mortality). These must be done by experts;

v. Population estimation and registration (see chapter 11 on population estimation and registration);

vi. Mass health and nutrition screening on arrival. This should focus on: (i) nutrition screening through visual inspection and measurement of the Mid Upper Arm Circumference ("MUAC"), (see chapter 15 on food and nutrition), (ii) checking for communicable diseases and vaccination coverage, and (iii) identifying patients in need of urgent referral. It is usually impractical to try to provide treatment in the screening line itself.

8. Figure 2 illustrates key management considerations for action in light of the initial assessment.

Figure 2 – Assessment and Response



Monitoring and Surveillance: The Health Information System

9. From the earliest stages of an emergency, a health information system should be put in place under the responsibility of the UNHCR Health Coordinator. The health information system should be simple, reliable, and action oriented, and its use will be essential to:

i. Quantify the health and nutritional status of the refugee population;

ii. Follow trends in health status and monitor the impact and outcomes of the relief programme;

iii. Detect epidemics;

iv. Evaluate programme effectiveness and service coverage;

v. Ensure that resources are targeted to the areas of greatest needs;

vi. Re-orient the programme as necessary.

10. Annex 1 sets out the tables and forms for collecting health-related information. However, to have a more comprehensive idea of the situation, information regarding water, food, sanitation, shelter and availability of soap should also be collected and analyzed (see the relevant chapters on water, nutrition, sanitation, and physical planning).

11. The health information system should be kept simple. The information to be collected should be adapted to suit the collectors' qualifications. Overly detailed or complex reporting requirements will result in non-compliance. In addition, only data that can and will be acted on should be collected. Communication and exchange of views among all the actors in the health information system are essential to secure the functioning of the system.

Only simple arrangements are effective in emergencies.

12. Health information in the initial stages of an emergency should concentrate on:

i. Demography (see chapter 11 on registration, also paragraph 4 above, and table 1 of Annex 1);

ii. Mortality and its causes (see tables 2.1 and 2.2 of Annex 1 and paragraph 14 below);

iii. Nutritional status (see Annexes 4 and 5 of chapter 15 on food and nutrition);

iv. Morbidity (see below, and table 3.1 of Annex 1).

13. Only when the situation stabilizes can the system be made more comprehensive. Information on mortality and morbidity should be collected as follows:

Mortality

14. Each health facility should keep a log of all patient deaths with cause of death and relevant demographic information. This information should be summarized in tables 2.1 and 2.2 of Annex 1, reported centrally and consolidated with other data. Because many deaths occur outside the health-care system, a community-based mortality surveillance system should also be established. Such a system requires identifying sites which people are using as cemeteries, employing grave watchers on a 24 hours basis, routinely issuing burial shrouds, and using community informants. Deaths that occur outside hospitals with unknown causes should be validated through verbal autopsy by health workers specifically trained for this task.

Morbidity

15. Each health facility providing out-patient services (including clinics for under five's and selective feeding programmes) should keep daily records. These records should be in the form of a log book or tally sheets at least, and should at least record the patient's name, age, sex, clinical and laboratory diagnosis and treatment. This information should be summarized in the forms set out as tables 3.1. in Annex 1 and reported centrally.

16. Diseases recorded in the health information system must have a case definition (i.e. a standard description) which will guide health workers in their diagnosis and ensure the consistency and validity of data. Where possible, case definitions that rely on clinical signs and symptoms (e.g. malaria) should be checked against a laboratory standard test (e.g. blood test for malaria).

17. In addition, the patient should be issued a health record card (or "Road to Health" card) on which the date, diagnosis, and treatment are recorded. Every contact a patient has with the health-care system, whether for curative or preventive services, should be noted on the health record card retained by the patient.

18. The health information system should be periodically assessed to determine its accuracy, completeness, simplicity, flexibility, and timeliness. The way programme planners and key

decision-makers use the information should also be assessed. The system should evolve as the need for information changes.

19. Camp and centrally controlled monitoring of health and nutritional status is essential if problems are to be identified in time to allow preventive and/or corrective actions to be taken and to adjust resource allocation. The refugees' health status should improve as public health services start to function adequately and the refugees adjust to their new environment.

20. However, a vigilant surveillance system must be maintained. Seasonal changes will affect health (for example temperature changes, and especially the rainy season) so seasonal variations in the incidence of disease will remain. The UNHCR Health Coordinator and her/his counterparts in the government and other partners will be responsible for the quality of this surveillance, the data required, who will interpret it and how to ensure action on the results and feed-back to all actors.

Mortality

21. The most important and specific indicators of the overall status of the refugee population are the Crude Mortality Rate (CMR), for the whole population and Under-5 Mortality Rate (U-5MR) for children under five years of age. These indicators are of crucial importance to managers of the operation and are also of great interest to the media, donors and relief agencies. A priority for the health surveillance system is to produce reliable information on death rates.

22. During the emergency phase, mortality rates should be expressed as deaths/10,000 persons/day so that sudden changes can be detected.

Crude Mortality Rate is deaths/10,000/day.
This is calculated as follows:

$$\frac{\text{Number of deaths} \times 10{,}000}{\text{Number of days} \times \text{total population}}$$

23. The objective of the overall assistance programme in the emergency phase should be to achieve CMR of <1/10,000/day and U-5MR of <2/10,000/day as soon as possible. These rates still represent approximately twice the "normal" CMR and U-5MR for non-displaced populations in most developing nations and should not signal a relaxation of efforts.

24. Age and sex-specific mortality rates have to be collected systematically and may indicate the need for targeted interventions. Table 1 below shows some benchmarks against which the daily Crude Mortality Rate (CMR) can be compared. Under-5 Mortality Rate benchmarks are usually twice the CMR.

Table 1 – Crude Mortality Rate Benchmarks

Average rate in most developing countries	0.5 deaths/10,000/day
Relief programme: under control	<1.0 deaths/10,000/day
Relief programme: very serious situation	>1.0 deaths/10,000/day
Emergency: out of control	>2.0 deaths/10,000/day
Major catastrophe	>5.0 deaths/10,000/day

Morbidity (incidence and types of disease)

25. Knowing the major causes of illness and the groups at greatest risk helps efficient planning of intervention strategies and the most effective use of resources. Morbidity incidence is the number of new cases of a given disease among the population over a certain period of time, usually expressed per 1,000. It is more useful to follow this than to keep a simple tally of cases, as trends can be followed over time, or compared with other situations. Morbidity incidence should be recorded as set out in Tables 3.1 and 3.2 in Annex 1.

Main Health Programmes

- The main causes of death and diseases in emergency situations are measles, diarrhoeas (including cholera), acute respiratory infections, malnutrition and malaria (where prevalent). Priority should be placed on programmes to reduce the negative impact of these diseases;
- Other causes of morbidity include tuberculosis, meningitis, vector-borne diseases, sexually transmitted diseases including HIV/AIDS, pregnancy and obstetric[3] complications, and childhood vaccine-preventable diseases;

[3] *Obstetrics: the branch of medicine concerned with childbirth and the treatment of women before and after childbirth.*

- The emotional stress of displacement, often compounded by harassment, violence and grief suffered by the refugees will combine to deplete their physical and emotional reserves and reduce their natural resistance to diseases;
- Experience underlines the importance of meeting the reproductive health needs of refugees, and most particularly of women and adolescents;
- Early emphasis should be placed on correcting environmental factors which adversely affect health.

Curative care

26. The peak of curative medical care is at the early stage, when refugees are most vulnerable to their new environment with the health hazards it poses and before it has been possible to achieve any major public health improvements. Even though curative care alone will not meet the objective of reducing excess loss of lives, it will create confidence among the refugees towards the health services.

27. Appropriate diagnosis and treatment protocols of major diseases must be defined in accordance with national protocols, if they are suitable to the refugee context. There may be some exceptions to this rule, but implementation of refugee specific protocols should always be previously agreed upon with national authorities.

28. Remember to take into account deaths occurring outside the health care system. A commonly documented error, committed by even excellent clinicians who have become absorbed in a health facility, is to fail to notice that cemeteries are being filled by refugees dying in their shelters, without having been identified or referred to receive appropriate curative services.

Immunization

29. Measles has been documented as being responsible for excess loss of lives, particularly but not exclusively among children under five years of age.

Immunization against measles for young children is the only essential immunization in the early stages of an emergency.

UNHCR advocates the immunization of children from 6 months up to 12 or even 15 years (rather than the more usual 5 years) because of the increased risks from the living conditions in refugee emergencies.

30. The decision as to whether or not to undertake a measles vaccination campaign at the onset of an emergency should be the responsibility of an expert. The campaign should ideally be associated with, but not delayed by, distribution of Vitamin A. The decision will be based on the vaccination coverage reported in the country and area of origin and its reliability, and whether there has been a recent epidemic or vaccination campaign. If there is a need for a measles vaccination campaign, it should not be delayed until other vaccines are available, and it should have appropriate mechanisms to ensure new arrivals are vaccinated. The provision of vaccines should be discussed with UNICEF (see the MOU between UNICEF and UNHCR, Appendix 3).

31. There are strong reasons, both medical and organizational, not to have a mass immunization programme with all vaccines. The most common causes of disease and death in the emergency phase cannot be cured or prevented by immunizations (except measles). Mass immunization programmes require a large number of workers, and vaccines need careful handling and controlled, refrigerated conditions. Therefore undertaking such a campaign may represent a misuse of time and resources in an emergency.

32. As soon as the emergency has stabilized there should be a complete Expanded Programme of Immunization (EPI), which should form an integral part of the ongoing long-term health programme. A standard EPI includes diphtheria, pertusis and tetanus toxoid (DPT), oral polio (OPV), and BCG (Bacille Calmette-Guerin) vaccines as well as measles. However, there should not be a vaccination campaign against any of these (apart from measles), nor should there be a complete EPI, unless the following criteria are met: the population is expected to remain stable for at least 3 months; the operational capacity to administer vaccine is adequate, and the programme can be integrated into the national immunization programme within a reasonable length of time (see the MOU between UNICEF and UNHCR, Appendix 3).

33. It is essential that adequate immunization records be kept. At the very minimum, personal immunization (or "Road to Health")

cards should be issued. In addition, an independent central register of all immunizations is desirable, to enable analysis of vaccination coverage.

Communicable Disease Control

- Emergency conditions, particularly overcrowding, poor sanitation etc. will facilitate the spread of communicable diseases;
- The aim is to prevent, detect, control and treat diseases;
- Refugees are at greatest risk if they are exposed to a disease against which they have not acquired immunity (e.g. measles, malaria etc.);
- Communicable disease outbreaks require an immediate on-the-spot expert investigation and close coordination of the response with the national authorities, WHO and partners as appropriate.

34. The main causes of death and morbidity among refugees in emergencies are:

i. Measles,
ii. Diarrhoeal diseases,
iii. Acute respiratory infections,
iv. Malaria (where prevalent).

Moreover, the interaction between malnutrition and infection, particularly among young children, contributes to increased rates of mortality.

Other communicable diseases – meningococcal meningitis[4], tuberculosis, sexually transmitted diseases (STDs), hepatitis, typhoid fever, typhus and relapsing fever – have also been observed among refugee populations. However, the contribution of these illnesses to the overall burden of disease among refugees has been relatively small.

Diarrhoeal Diseases

35. Diarrhoeal diseases represent a major public health problem and acute epidemics of shigellosis (causing bloody diarrhoea dysentery) and cholera, have become common in refugee emergencies and have resulted in excess loss of lives. In risk areas, it is essential to set up appropriate preventive measures as soon as possible. These measures include:

i. Adequate supply of potable water and an appropriate sanitation system;
ii. Provision of soap and education on personal hygiene and water management;
iii. Promotion of food safety and breast-feeding;
iv. Reinforced home visiting and early case detection;
v. Identification of an area ("cholera management unit") to manage patients with cholera in case an epidemic occurs.

36. It is not possible to predict how a cholera outbreak will develop. If proper preventive measures are taken less than 1% of the population should be affected. Usually however, 1 to 3% are affected but in extreme cases it can be more – even as much as 10%.

37. To be prepared to respond quickly to an outbreak, the above preventive measures should be accompanied by the establishment of appropriate protocols on case management. These protocols should be based on National or WHO protocols and should be founded on rehydration therapy, continued feeding and appropriate antibiotics (especially for shigellosis[5]). In addition, there should be a reliable surveillance system for early detection of cholera cases, to follow trends and determine the effectiveness of specific interventions.

38. A significant amount of material, financial and experienced human resources are likely to be needed to respond to a cholera outbreak and reduce the case fatality rate.

39. To facilitate an immediate response, cholera kits can be obtained from the Supply and Transport Section at Headquarters at short notice. Each kit can cover the overall management of some 500 cases. No efficient vaccine to prevent cholera outbreaks is as yet available.

Measles

40. WHO has classified refugees and displaced populations, especially in camps, as groups at highest risk for measles outbreaks. Indeed, this disease has been devastating in many refugee situations. Measles vaccination coverage should be as close as possible to 100%, if not, measures should be taken immediately to control the situation (see the MOU between UNICEF and UNHCR, Appendix 3, and paragraphs on immunization above).

[4] *See World Health Organization. Control of Epidemic Meningococcal Disease: WHO Practical Guidelines, 1995.*

[5] *See World Health Organization. Guidelines for the control of Epidemics due to Shigella Dysenteriae Type 1, 1995.*

Malaria

41. Malaria can also pose major problems. Its appropriate management and control is also a matter for experts and is based on the following:

i. Early case detection and appropriate treatment. It may be necessary to study drug resistance;

ii. Preventative treatment (chemoprophylaxis) particularly for pregnant women;

iii. Elimination of vector breeding sites;

iv. Vector control, including the distribution of insecticide-impregnated mosquito nets and periodic spraying, as indicated.

42. Chemical control measures such as spraying, or impregnated mosquito nets, may seem quite attractive but should only be taken upon expert advice as several factors must be considered such as: the habits of the refugees, seasonal variations, mosquito biting habits, transmission levels, national protocols about chemicals and registered lists of chemicals, and cost. Please see chapter 17 on environmental sanitation for guidance on vector control.

Acute Respiratory Infections

43. Pneumonia is the acute respiratory infection that has been documented as a cause for excess mortality, most particularly in the under five population. It is therefore essential to make sure that refugees are provided with adequate shelter and blankets as soon as possible. Health staff must be appropriately trained to diagnose and treat respiratory infections.

44. The more common diseases are outlined in table 2 below which illustrates the environmental impact on disease and indicates those improvements in living conditions which will bear directly on the health of the refugees.

Table 2 – Common diseases

Disease	Major contributing factors	Preventive measures
Diarrhoeal diseases	Overcrowding, contamination of water and food Lack of hygiene	• adequate living space • public health education • distribution of soap • good personal and food hygiene • safe water supply and sanitation
Measles	Overcrowding Low vaccination coverage	• minimum living space standards as defined in chapter 12 on site planning • immunization of children with distribution of vitamin A. Immunization from 6 months up to 12-15 years (rather than the more usual 5 years) is recommended because of the increased risks from living conditions
Acute respiratory infections	Poor housing Lack of blankets and clothing Smoke in living area	• minimum living space standards and • proper shelter, adequate clothing, sufficient blankets
Malaria	New environment with a strain to which the refugees are not immune Stagnant water which becomes a breeding area for mosquitoes	• destroying mosquito breeding places, larvae and adult mosquitoes by spraying. However the success of vector control is dependent on particular mosquito habits and local experts must be consulted • provision of mosquito nets • drug prophylaxis (e.g. pregnant women according to national protocols)
Meningococcal meningitis	Overcrowding in areas where disease is endemic (often has local seasonal pattern)	• minimum living space standards • immunization only after expert advice when surveys suggest necessity
Tuberculosis	Overcrowding Malnutrition High HIV prevalence	• minimum living space standards (but where it is endemic it will remain a problem) • immunization
Typhoid	Overcrowding Poor personal hygiene Contaminated water supply Inadequate sanitation	• minimum living space standards • safe water, proper sanitation • good personal, food and public hygiene and public health education WHO does not recommend vaccination as it offers only low, short-term individual protection and little or no protection against the spread of the disease
Worms especially hookworms	Overcrowding Poor sanitation	• minimum living space standards • proper sanitation, good personal hygiene • wearing shoes
Scabies[6]	Overcrowding Poor personal hygiene	• minimum living space standards • enough water and soap for washing
Xerophthalmia Vitamin A deficiency	Inadequate diet Following acute prolonged infections, measles and diarrhoea	• adequate dietary intake of vitamin A. If not available, provide vitamin A fortified food. If this is not possible, vitamin A supplements • immunization against measles. Systematic prophylaxis for children, every 4 - 6 months
Anaemia	Malaria, hookworm, poor absorption or insufficient intake of iron and folate	• prevention/treatment of contributory disease • correction of diet including food fortification
Tetanus	Injuries to unimmunized population Poor obstetrical practice causes neo-natal tetanus	• good first aid • immunization of pregnant women and subsequent general immunization within EPI • training of midwives and clean ligatures, scissors, razors, etc.
Hepatitis	Lack of hygiene Contamination of food and water	• safe water supply • effective sanitation • safe blood transfusions
STD's/HIV	Loss of social organization Poor transfusion practices Lack of information	• test syphilis during pregnancy • test all blood before transfusion • ensure adherence to universal precautions • health education • availability of condoms • treat partners

[6] *Scabies: skin disease caused by burrowing mites*

Reproductive Health[7]

45. Reproductive health care in refugee situations should be provided by adequately trained and supervised staff and should be guided by the following principle:

Reproductive health care should be available in all situations and be based on refugee, particularly women's, needs and expressed demands. The various religious, ethical values and cultural backgrounds of the refugees should be respected, in conformity with universally recognized international human rights.

46. The provision of quality reproductive health services requires a collaborative effort by a number of sectors (health, community services, protection, education) and organizations, which should provide reproductive health services based on their mandates.

47. While resources should not be diverted from addressing the problems of the major killers (measles, diarrhoeal diseases, acute respiratory infections and malaria), there are some aspects of reproductive health which must also be dealt with in the initial phase of an emergency. The major objectives of reproductive health care in an emergency are to:

i. Prevent and manage the consequences of sexual violence;

ii. Decrease HIV transmission by respecting universal precautions[8] and guaranteeing the availability of free condoms;

iii. Prevent excess neonatal and maternal morbidity and mortality by providing clean home delivery kits, ensuring clean and safe deliveries at health facilities and managing emergency obstetric complications by establishing a referral system;

iv. Plan for provision of comprehensive reproductive health services, integrated into Primary Health Care, as soon as possible;

v. Identify a person responsible to coordinate reproductive health activities under the responsibility of the overall health coordinator.

48. As soon as feasible, when the situation has stabilized, comprehensive reproductive health services based on the needs of refugees should be put in place. These services should be integrated within the primary health care system and should address the following aspects:

Safe Motherhood

49. This should cover antenatal care, delivery care and postnatal care. All pregnant women should receive antenatal care services during pregnancy. All deliveries should be accompanied by a trained health care provider. A referral system to manage obstetric emergencies should be put in place. Within the first 4-6 weeks, mothers and their new babies should visit the health services and receive nutritional supplements, counselling on child spacing, and education about breast-feeding and infant care.

Prevention and Response to Sexual Violence

Please refer to chapter 10 on community services.

Sexually Transmitted Diseases including HIV/AIDS[9]

50. Experience shows that HIV spreads fastest in conditions of poverty and social instability – conditions which typify refugee emergencies. The priority should be on preventing HIV transmission: ensure there is respect for universal precautions and work closely with the community to promote HIV prevention strategies including condom education and distribution. Where blood transfusions are provided, ensure they are safe. Treatment of sexually transmitted diseases should be a routine part of the health services and should include appropriate follow up of partners.

Mandatory HIV testing in refugee circumstances, with the single exception of testing blood for transfusion, is not justified, and WHO has determined that, as a matter of policy, such testing should not be pursued.

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[7] *See: United Nations High Commissioner for Refugees. An Inter-agency Field Manual on Reproductive Health in Refugee Situations, 1995.*
UNFPA have developed a set of reproductive health kits which can be used as part of a programme to deal with reproductive health problems and the Health and Nutrition Unit or the Supplies and Transport Section at Headquarters should be contacted for details.

[8] *"Universal precautions" means procedures and practices by health workers to limit transmission of disease.*

[9] *United Nations High Commissioner for Refugees, UNAIDS and WHO. Guidelines for HIV Interventions in Emergency Settings, 1996.*

Family Planning

51. Family planning services should be initiated as soon as feasible. Ensure that the refugees are informed and understand their free choice in the matter.

Other Reproductive Health Concerns

52. Women who have complications such as spontaneous or unsafe abortion should be cared for by the referral system.

53. Programmes to eradicate harmful traditional practices including female genital mutilation should be implemented once the situation has stabilized. It is crucial to work closely with the refugee community in tackling this issue[10]. Culturally appropriate sanitary supplies should be distributed to women as soon as possible. Inadequate sanitary protection may prevent women from collecting material assistance.

Reproductive Health and Young People

54. Health workers should pay particular attention to meeting the reproductive health needs of young people as they may be at greater risk and have more limited access to appropriate services.

55. It is important to ensure that sufficient female health workers are trained in reproductive health in order to provide culturally appropriate health services including education in the community and at the health facilities. At least some of these health workers should be recruited from among the refugee community.

Tuberculosis control[11]

56. The prevalence of Tuberculosis (TB) has significantly increased in recent years worldwide, but a TB control programme is not a priority in the early stages of an emergency when mortality and malnutrition rates are very high.

57. Expert advice and involvement of the National TB control programme (often supported by WHO) are needed before starting a TB programme. Bad planning and poor implementation could result in more harm than good.

58. To increase the chances of success, TB programmes should only be started in stable situations, when Directly Observed Therapy[12] can be implemented, when funds, drugs, reliable laboratory services and trained staff are available.

Mental Health[13]

59. The psychosocial needs of refugees have often been neglected or even forgotten. However, health services should aim to promote the highest standard of both physical and mental health. It is easy to recognize that there is a heavy burden placed upon refugees from, for example, physical violence, grief and bereavement, fear and stress, an uncertain future and a sense of powerlessness.

60. Experience in identifying and dealing with the psychosocial problems of refugees (including Post Traumatic Stress Disorders) is limited, even so the following general guidance can be given. Any programme dealing with mental health must be community-based with the refugees themselves playing a major role. The programme must be based on a solid knowledge and understanding of the refugees' cultural background and integrated with the other services provided to refugees, and, from the outset, its long term sustainability must be ensured.

Capacity building

Health Education

61. The importance of health education is widely recognized. However, there are significant difficulties in persuading those most at risk to change long-established habits.

In the emergency phase, the priority topics should be those directly related to the immediate public health problems.

62. Health education should therefore focus on the disposal of human excreta and refuse, water management and personal hygiene. Many governments and organizations produce simple health education materials that may be useful. Trained refugee teachers and respected elders are likely to be more effective

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[10] See IOM/FOM (83/97; 90/97), Policies on Harmful Traditional Practices, UNHCR, 1997.

[11] World Health Organization and United Nations High Commissioner for Refugees. Guidelines for Tuberculosis Control in Refugees and Displaced Populations, 1996.

[12] Directly Observed Therapy is where the health worker is able to observe the treatment including that the medication is taken correctly.

[13] World Health Organization and United Nations High Commissioner for Refugees. Manual of Mental Health of Refugees, 1996.

than outsiders in communicating the basic principles and practices of health to their own people. At a later stage, information, education and communication should also be a major tool for the prevention and reduction of sexually transmitted diseases including HIV.

Training

63. As suggested by the definition of "emergency", extraordinary mobilization of resources, including human, will be needed to cope with the situation. Annex 2 sets out a suggested structure of the health service and numbers and qualifications of staff needed. Full staff support including community health workers, and health workers, doctors and nurses at health centres, health posts and clinics, with the necessary qualifications and experience, will not be instantly available.

Training will therefore be a cornerstone of an effective health and relief programme.

64. Training activities must be well targeted to meet the objective of the programme, and this is dependent on definition of roles and responsibilities among various levels of health care and identifying the necessary qualifications. Training must be part of the main health programme.

Medical supplies

65. There must be a policy on essential drugs. The aim of the policy will be to ensure a supply of safe, effective and affordable drugs to meet priority needs of the refugees. The Health and Community Development Section and the Supply and Transport Section at Headquarters issued an essential drugs list which is used to order drugs for UNHCR operations.

66. In order to foster the appropriate use of drugs, standard treatment protocols should be established. This will help rationalize prescription habits among the various partners and organize training activities. Protocols are usually based on national standards.

67. In the early stage of an emergency, it is often useful to resort to pre-packaged emergency health kits. The best known is the New Emergency Health Kit which has been developed through collaboration among many agencies (WHO, UNICEF, MSF, ICRC, UNHCR and others). The contents of the kit are intended to cover the needs of 10,000 people for 3 months during an emergency. The kit can be obtained at short notice through the Supply and Transport Section at Headquarters and can be used at the community level of health care and at health centres. The emergency health kit should only be used in the early stage of an emergency and not relied on for longer term needs.

68. As soon as possible, arrangements should be made for a regular supply of appropriate quantities of essential drugs from the UNHCR essential drugs list. The requests should be based on epidemiological surveillance and disease patterns. The Supply and Transport Section can also provide support for the purchase of drugs and their transport to the field.

69. It is of utmost importance to establish a system to monitor drug consumption. In major operations, a full time pharmacist may be needed to work with UNHCR. Over-prescription of medicines by health workers following pressure by refugees is not uncommon in refugee emergencies.

70. Donations of unsolicited drugs are often a problem during emergencies. A number of agencies (UNDP, UNHCR UNICEF, WHO, MSF and others) have jointly developed guidelines on drug donations[14] that provide donors and users with a list of drugs and supplies which can be sent to emergency situations. This is to help ensure that personnel in the field do not waste time sorting out "useless" donations (small quantities of mixed drugs, free samples, expired medicines, inappropriate vaccines, and drugs identified only by brand names or in an unfamiliar language). UNHCR's policy is that overseas medical supplies should be sent only in response to a specific request or after expert clearance. The WHO Representative, local diplomatic missions and all others concerned should be briefed accordingly.

Laboratory Services

71. Refugees are often remote from laboratory facilities. However, very simple laboratory services at the site level are usually adequate.

72. Reference laboratory services are required for epidemic management and control, (e.g., meningitis, shigellosis, cholera, hemorragic and relapsing fevers, high malarial endemicity, hepatitis etc.) to confirm/clarify diagnosis and perform antibiotic sensitivity. This should be discussed with the national authorities and WHO. Where blood transfusions

[14] *WHO, Guidelines for Drug Donations, May 1996.*

are provided, laboratory services will be absolutely essential to test all blood for HIV before transfusion.

Organization of Refugee Health Care

- There is no single model for organizing health services in refugee situations, but it is usually structured on three levels: community health posts and clinics, health centres, and referral hospitals;
- It is of the utmost importance to ensure good communication and feed-back between the various levels of health care;
- Priority should be given to using host country health facilities as referral centres and support should be agreed upon and provided to the facilities (see MOU between WHO and UNHCR, Appendix 3).

Introduction

73. The three levels of health care are summarized in Annex 2. The first level is at the community level with health posts, clinics and outreach services. At the second level is a health centre with basic facilities for out and in-patients departments, dressing and injections, a pharmacy, and a basic laboratory. At the third level is a referral hospital for emergency obstetric care and surgery, management of very complicated cases, performance of laboratory tests etc. Referral hospitals are usually national facilities at the district, regional or national level.

74. The refugees must have easy access to appropriate treatment. If the local national health facilities cannot be strengthened to meet the needs, alternative arrangements will be required. Unless treatment is provided at the right level, the hospitals or health centres will be swamped by refugees demanding treatment for simple conditions. Thus, a community-based health service is required that both identifies those in need of health care and ensures that this is provided at the appropriate level. Close coordination with community services is essential.

Community Level Health Care

75. Whether refugees are in camps or spontaneously settled among local villages, community level services are essential.

Community-level health care must be the mainstay of health services from the very beginning of the emergency.

76. This means basic health care is to be delivered at the community level in a decentralized manner with two components: (i) a peripheral clinic/health post and (ii) outreach services delivered by Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs). TBAs might be recruited among traditional midwives in the community. In order to be effective, CHWs and TBAs must be trained, supported and closely supervised. The role of CHWs and TBAs includes:

i. home visiting, identification and referral of sick people and malnourished children;

ii. identification of pregnant women and referral for antenatal, delivery and post natal care;

iii. basic health education;

iv. data-gathering for the health information system (deaths and their causes and the incidence of major communicable diseases);

v. responding to the needs of refugees who have been sexually assaulted.

As a guide, 1 CHW per 1,000 population and 1 TBA per 3,000 population should be the goal. Ideally, 50% of those trained should be women as same sex care is often preferred.

77. The clinic or health post will cater for the needs of approximately 5,000 refugees in crowded conditions but otherwise in reasonably good health. This should be a simple building with facilities for consultation, basic curative care (drugs from the New Emergency Health Kit), oral rehydration therapy, clinical procedures such as dressings (but not injections because of the risks of HIV transmission), a small lock-up pharmacy, simple equipment and sterilization facilities (electricity may not be available), data collection (log books to record patients and activities). Water and sanitation are essential in all health facilities.

The Health Centre

78. In support of the clinics/health posts, there should be a health centre for each refugee settlement (approximately 10,000 to 20,000 people). Very large settlements may require more than one. The health centre should be able to handle all but the most complicated medical, obstetric and surgical cases. More facilities should be available than at the clinics, including basic laboratory services, a central pharmacy and some beds for in-patients, in the range of one per 2,000 to 5,000 refugees. The health centre should

collect and consolidate health information from the various clinics and health posts. The health centre should also organize the main health programmes (EPI, reproductive health, tuberculosis) and the supervision and training of staff (at both first and second level).

79. An indication of the number and qualifications of health staff required is given in Annex 2.

Referral Services

80. The health centre must be able to refer patients to hospitals for treatment. Referral hospitals should provide emergency obstetric and surgical care, treatment for severe diseases, laboratory and x-ray services as well as supply and support for nationally controlled programmes (TB, leprosy, HIV/AIDS).

81. Only a small proportion of patients will require referral services. These services will usually be organized in national health facilities at the district, regional or national level, and ideally, referral should be made to the nearest national hospital. This has obvious advantages, not least the fact that the infrastructure already exists.

The programme should compensate the national referral structures for services provided to refugees.

82. The hospital(s) should be expanded or supported as necessary, for example with tents and additional health personnel as well as some financial and/or material support (drugs, supplies, food). Care must be taken not to swamp the local hospital. Close and direct coordination with the district or regional medical officer is essential.

83. An agreement should be signed between the parties, under the aegis of the Ministry of Health, which clarifies the conditions of assistance including cost per patient per treatment and in kind support (food and drugs). A written agreement is essential to avoid controversies.

84. It is only in certain circumstances that special refugee hospitals will need to be established, but generally this should be avoided. They should only be established when the needs cannot be met by existing or strengthened national hospitals, for example when refugee numbers are very large (much larger than the local population), when the nearest national hospitals are too far away, or for security reasons. The Supply and Transport Section and the Health and Community Development Section should be consulted prior to establishing or acquiring refugee specific field hospitals.

85. Whatever arrangements are made for hospital treatment and referral, there must be suitable transport to and from the referral hospitals. Facilities at the hospital must also provide for the needs of relatives and allow parents to be with young children.

86. Arrangements for referral must be such that only those patients specifically referred from the health centres are attended, with no refugees presenting themselves directly to the hospital.

87. Refugee emergencies are not usually characterized by large numbers of injured persons. However, when this is the case, there may be an initial requirement for the rapid deployment of a surgical unit which is normally quickly available. Pre-packaged (expensive) surgical kits can be obtained through Supply and Transport Section at short notice.

88. The UNHCR Health Coordinator should ensure that there is a system to record referrals and subsequent treatment and follow-up of the patients.

Human Resources and Coordination

- The health services must be developed **with** and not just **for** the refugees and in accordance with their needs and demands;
- The early appointment of a suitably experienced health coordinator to UNHCR's staff has proved essential. A reproductive health focal point should also be identified as early as possible;
- While the use and development of local expertise is preferable, it is often necessary to mobilize outside assistance in an emergency;
- The issue of staff salary and incentives should be discussed and solved from the outset;
- The Ministry of Health at all levels must be as closely involved as possible.

The Refugees

89. The refugees must be given responsibility for their own health. Outside health workers must understand the refugees' own concepts of health and disease. From the beginning, health services should be developed and operated with, rather than for, the refugees. If not,

the services will be less effective, may be distrusted and poorly used, and are unlikely to be sustainable.

90. Preventive services should always be free. In most situations, other health services are also offered free of charge. While this may well be justified, it should not be considered as a policy as it is often based on paternalistic attitudes. The issue of cost-recovery or payment for services should be regularly analyzed and most particularly when refugees are integrated within the local population (which may have to pay for services) or when refugees are benefiting from local integration and sources of income.

Staffing Needs

91. As a general principle, the order of preference for selecting health personnel, in cooperation with the national authorities, is:

i. Refugees;

ii. Experienced nationals or residents;

iii. Outsiders.

Most emergencies will require some combination of these sources.

92. Strong emphasis should be placed on the training, supervision and upgrading of medical skills of selected refugees, particularly in their former roles within the community. When selecting refugees, care must be taken to include women who may not come forward as readily as men. Full account should be taken of the experience of the traditional healers and midwives. Refugees may seek traditional treatments and experience has demonstrated the advantages of encouraging traditional methods of health care which complement other organized health services.

93. An important consideration may be the government's attitude to foreign medical personnel, including, for example, recognized qualifications and permission to practice medicine.

94. The issue of staff salary and incentives should be addressed at the onset. All agencies and organizations involved in the refugee programme should adhere to the same standards. The determination of salaries and incentives should be based on the national (or country of origin) standards and due account should be taken of assistance (free food, water, shelter etc.) received by refugees. In principle, all staff performing work on a daily basis, with clearly identified responsibilities and strict working hours, should receive a salary or an incentive.

95. Special attention should be given to the recruitment of local staff. The salary or incentive offered to them should be in line with national standards. Very frequently, refugee emergencies attract national personnel (commonly referred to as "brain drain") at the expense of national services which can create serious tension.

The National Health Authorities

96. Early involvement of the host government's central, provincial, and district health services is essential. To the extent possible, services provided to refugees should be integrated with national services. It will be particularly important to ensure integration and compatibility with certain treatment protocols, immunization programmes, communicable disease control and surveillance practices. Promoting good health for the refugees is clearly in the interest of the local population. In addition, supporting existing structures will help ensure that health services for refugees are sustainable and are at a standard equivalent to that of the host country nationals.

UNHCR Health Coordinator

97. In major emergencies, (e.g. when there is a prevalence of epidemics, many partners, large numbers involved) UNHCR must ensure that a Refugee Health Coordinator is appointed. The Health Coordinator should be a key member of the UNHCR programme staff. The person should take the lead role in this sector, or play a key supporting role to the national institution which takes the lead role.

98. The Health Co-ordinator's primary responsibility will be to ensure that the level and quality of services provided adhere to nationally and internationally accepted standards and medical ethics.

Other main tasks and duties include:

i. Participating and facilitating the consultation process among all concerned parties in order to carry out an appropriate problem, needs and resources assessment;

ii. Participating in, and facilitating the creation of, health and nutrition committees with the Ministry of Health, other UN agencies and non-governmental organizations (NGOs) where coordination will take

place to jointly identify priority activities, and to plan for their implementation by defining needed human, material and financial resources;

iii. Facilitating cooperation among all partners to ensure an appropriate implementation and monitoring of the programme as agreed upon at the coordination committee meetings;

iv. Setting up and participating in the implementation of an effective Health Information System;

v. Ensuring that joint protocols for medical treatment, staffing and training are established and that implementing partners adhere to them;

vi. Ensuring the identification of a qualified and experienced person to coordinate reproductive health activities at the start of the relief programme;

vii. Facilitating inter-sectoral coordination;

viii. Consolidate the reporting about the refugees' health and nutritional status;

ix. Assisting in setting up a medical evacuation plan for UNHCR staff.

99. Experience shows that it is in the first days and weeks of an emergency that excess mortality is recorded.

It is therefore vital that a UNHCR Health Coordinator is fielded immediately, at the very start of the emergency.

100. The quickest and most practical way to deploy a Health Coordinator is usually to send UNHCR staff or consultants. Headquarters should be consulted immediately on this. At a later stage, posts can be created or staff seconded from other UN agencies (UNICEF or WHO), or from the Ministry of Health.

Other Specialized Staff

101. The need for specialized staff should be carefully assessed by the UNHCR Health Coordinator or by the Health and Community Development Section at Headquarters. Such specialists include epidemiologists, specialists in public, reproductive and mental health, nutrition, tropical medicine, paediatrics, midwifery, pharmacy etc.

Experienced personnel with the right personality are more important than highly trained specialists, whose skills are often inappropriate.

102. Familiarity with the local culture, patterns of disease and the public health services and previous experience in emergencies are as important as an advanced knowledge of medicine and medical techniques.

Role of the UN and Specialized Agencies

103. *WHO*. The World Health Organization works directly with the Ministry of Health in almost every country in the world. The response to the health needs of the refugees and surrounding local populations should be closely coordinated with WHO. Details of this collaboration are described in the WHO and UNHCR Memorandum of Understanding, Appendix 3.

104. *UNICEF.* Collaboration with UNICEF in emergencies will focus on supply of measles vaccines and delivery/midwifery kits, as well as on health education (see Memorandum of Understanding between UNICEF and UNHCR for more details, Appendix 3)

105. *UNFPA.* Collaboration with UNFPA focuses on reproductive health matters and demography and there is a Memorandum of Understanding between UNFPA and UNHCR which details this collaboration, Appendix 3.

106. *UNAIDS.* UNAIDS is an inter-agency mechanism created in 1995 to support national HIV/AIDS programmes. Refugee health services must be integrated in these national programmes.

107. Through a standby arrangement with UNHCR, the Centre for Disease Control and Prevention (CDC Atlanta, USA) can supply, at short notice, experts for rapid health and nutritional assessment, improvement of epidemic preparedness and response in emergencies and set up Health Information Systems. Deployments are usually limited from four to eight weeks and can be arranged upon request through the Health and Community Development Section at Headquarters.

Role of NGOs

108. Operational and implementing partners are essential collaborators for UNHCR. All collaborators in the emergency health programme must be brought together to form health sub-committees at the central and field level as appropriate. Initially, these committees may have to meet daily or at least weekly, usually under the chairpersonship of a representative of the Ministry of Health, supported

by the UNHCR Health Coordinator. Ideally, members of the committee should have been identified at the contingency planning stage.

109. Activities of the health sub-committee include: allocation of tasks, exchange and pooling of information on health activities and with other sectors (e.g. food, water, sanitation etc.), setting up jointly agreed protocols for medical procedures, staffing levels and training, and problem-solving in general.

110. In emergencies, urgent outside assistance in the health sector is almost invariably necessary. This is because the immediate and specialized attention needed represents a burden that existing local structures are not designed to bear. District health services will almost never have the needed reserve capacity in terms of staff at all levels, infrastructure, medical supplies and technical expertise. This capacity can be developed over time, with the support from the central government and other UN agencies.

111. NGOs (international, regional or national) must be chosen with care and this is usually done by the government of the country of asylum. However, it is also the responsibility of UNHCR to advise the government on which organizations have proven competence in emergencies. Some agencies have experience in long-term situations but less in emergencies; others may be too narrow in focus, preferring to do purely curative work to the exclusion of public health, prevention, sanitation etc.

112. Small NGOs, especially those created in response to a specific situation, should first demonstrate appropriate competence before being engaged in the emergency phase.

The number of agencies involved should be kept to a minimum.

113. During the early stages of an emergency it is essential that the numbers of NGOs involved should be kept to the minimum necessary, and that those chosen should be professional, capable of deploying experienced personnel and with proven past experience in collaborating with both governments and UNHCR in the effective management of an emergency.

Organization of Response

114. A possible hierarchy of health services is outlined in Annex 2. It is based on a large-scale emergency involving a great number of health staff, both national and international. A smaller emergency will require fewer levels of organization. Note that the numbers and qualification of staff suggested is no more than an indication. Actual needs will depend on the health problems, the degree of isolation of the area and so on.

115. Once the pattern of disease and overall needs have been determined, situation-specific guidelines on standard procedures for health workers should be prepared, based on national or internationally recognized standards. These should cover all aspects of the services, including such subjects as basic principles, how the services are to be organized, including any selective feeding programmes, standardized treatment protocols, drug lists and supply, vaccination and reporting. The guidelines should be prepared by the UNHCR Health Coordinator in consultation with all concerned, issued under the aegis of the Ministry of Health if possible, and reviewed periodically, for example by a health coordination sub-committee. At least part of the guidelines should be translated into the language of the community health workers.

All organizations providing health care to the refugees should be involved in the preparation and required to observe standard guidelines.

Key References

An Inter-agency Field Manual on Reproductive Health in Refugee Situations, 1995. United Nations High Commissioner for Refugees, Geneva. To be updated in 1999.

Essential Drugs Manual: Guidelines for the Use of Drugs in Refugee Settings and UNHCR List of Essential Drugs, Geneva, 1989.

Famine-affected, Refugee, and Displaced Populations: Recommendations for Public Health Issues, July 24,1992/Vol.41/No. RR-13. The Centers for Disease Control, (CDC).

Guidelines for Tuberculosis Control in Refugees and Displaced Populations, 1996 World Health Organization and United Nations High Commissioner for Refugees.

Guidelines for HIV Interventions in Emergency Settings, 1996 United Nations High Commissioner for Refugees, UNAIDS and WHO, Geneva.

Manual of Mental Health of Refugees, 1996 World Health Organization and United Nations High Commissioner for Refugees.

Sexual Violence against Refugees, Guidelines on Prevention and Response, 1995 United Nations High Commissioner for Refugees, Geneva.

UNHCR, IOM/FOM (83/97; 90/97), Policies on Harmful Traditional Practices, 1997 United Nations High Commissioner for Refugees, Geneva.

Vector and Pest Control in Refugee Situations, April, 1997 United Nations High Commissioner for Refugees, Geneva.

In the early stages of an emergency it is essential to collect information on a weekly or monthly basis for the following tables:

Table Number	Table Description
1	Demographic information
2.1 A and B, 2.2	Crude Mortality Rate and Under five years old Mortality Rate Cause-specific-mortality
3.1	Morbidity Incidence
4.1 and 4.2 (set out in Annexes 4 and 5 of chapter 15 on nutrition)	Nutrition, Supplementary and Therapeutic Feeding Programmes
5.2	Main causes of discharge/deaths in In-Patients Departments
7.1	Deliveries: Birth (Total births and birth rate only)
7.4	Cholera/Meningitis/Hepatitis/Micro-nutrients deficiencies

Collection of the information required for the other tables should be progressively introduced as the situation stabilizes.

In order to detect problems and to monitor the impact of any health programme, it is necessary to collect information over time so as to follow trends. The tables below are designed to allow tabulation of information on a weekly or monthly basis. Graphical presentation of the same information will make it easier to detect trends. The tables may need to be adjusted to reflect the needs of actual situations.

1. Demographic Information

Table 1 – Population

Camp/area Names	Male under 5 years	Female under 5 years	Male over 5 years	Female over 5 years	Total Population
Total					

Sources of demographic information: registration ❑, Estimate ❑, Government ❑, Other ❑

% of total population which is under 5 =

% of total population which is female =

Note: demographic information does not necessarily have to be reported in a table format. The denominator used for calculation of rates could differ from the official working figure and this should be clarified.

2. Mortality

2.1 Mortality rates

Mortality rates (segregated by age and sex) **should be given per 10,000 per day**

A. Crude Mortality Rate: CMR

Table 2.1 A

Camp/area Names	Male		Female		Total	
	Number of deaths	Death Rate	Number of deaths	Death Rate	Number of deaths	Death Rate
Total						

B. Under five years old mortality rates (U-5 MR)

Table 2.1 B

Camp/area Names	Male		Female		Total	
	Number of deaths	Death Rate	Number of deaths	Death Rate	Number of deaths	Death Rate
Total						

Female / Male ratio:

A graph line (to show trends) for CMR and U-5 MR could be attached.

2.2 Cause-specific mortality

Tables 2.2 (2.2 A for total population and 2.2 B for under-five population).

	Male		Female		Total	
	Number of deaths	% of the total number of deaths	Number of deaths	% of the total number of deaths	Number of deaths	% of the total number of deaths
Malaria						
Pneumonia						
Watery diarrhoea						
Bloody diarrhoea						
Measles						
Meningitis						
Cholera						
Maternal death (2.2 A only)						
Peri/neo natal						
Malnutrition						
Total		100%		100%		100%

From table 2.2 A and 2.2 B, pie charts could be attached to the report.
The list of diseases is provided as an indication.

Comments on mortality:

3. Morbidity

3.1 Incidence (Number of new cases per 1,000 of the population for the period)

Tables 3.1 (3.1A for total population and 3.1B for under-five population).

	Male	Female	Total
Malaria			
Pneumonia			
Watery diarrhoea			
Bloody diarrhoea			
Measles			
Meningitis			
STDs			

The list of diseases is provided as an indication.

3.2 Out-Patient Department (OPD) consultations

Table 3.2 Number of consultations per refugee per year.*

Camp Names	Male	Female	Total
Average			

* from the total number of OPD consultations per camp, extrapolate to define the number of consultations per refugee per year. As an example: 10,000 consultations in one month in a camp of 30,000. 10,000 x 12 = 120,000 / 30,000 = 4 consultations/refugee/year.

Comments on morbidity:

4. Nutrition

4.1 *Supplementary Feeding Programme Monthly Report*

This table is contained in Annex 4 of chapter 15 on nutrition.

4.2 *Therapeutic Feeding Programme Monthly Report*

This table is contained in Annex 5 of the chapter 15 on nutrition.

4.3 *Food basket monitoring*

See chapter 15 on food and nutrition.
If undertaken, please specify by whom and the results.

Comments on nutrition:

5. In-Patients Department (IPD) activities

5.1 Activities

Table 5.1 (per week or month)

	Hospital Name	Hospital Name	Hospital Name
A. No. of patients end last week/month			
B. No of patients admitted			
C. No. of patients end week/month (A+B-D)			
D. No. Discharged of which:			
D.1 authorized	%		
D.2 unauthorized	%		
D.3 deaths	%		
D.4 transferred	%		
No. of beds			
Average length of stay (No. of days)			
Occupancy rate	%		

5.2 Main Causes of discharge/deaths in IPDs

Table 5.2 (per week or month).

	Hospital Name:		Hospital Name:		Hospital Name:	
	Number of cases	Number of deaths	Number of cases	Number of deaths	Number of cases	Number of deaths
Malaria						
Pneumonia						
Watery diarrhoea						
Bloody diarrhoea						
Meningitis						
Measles						

Comments on IPDs:

6. Referral system

6.1 Total number of patients transferred for admission and where:

6.2 Causes of transfer

Table 6.2

	Camp Name:		Camp Name:		Camp Name:	
	Number of cases	% of the total	Number of cases	% of the total	Number of cases	% of the total
Obstetrics						
Surgery						
Paediatrics						
Internal medicine						
Blood transfusion						
Total						

Comments:

7. Main Health Programmes

7.1 Reproductive Health

7.1.1 Safe motherhood

a. Deliveries: Birth

Table 7.1.1

Camp names	Number	Crude Birth Rate*
Total A: a1 + a2 + a3		

*Crude Birth Rate = $\frac{\text{Number of births in a year}}{\text{Total population}}$ x 1,000

- a1: total # and % of birth in health centre or hospital:
- a2: total # and % of birth assisted by a ***Trained*** Birth Attendant (but outside health centre or hospital):
- a3: total # and % of other births (i.e. A - (a1 + a2):
- total number and % of complicated deliveries:
- total # of cases of neonatal tetanus:
- total # and % of deliveries with adequate Tetanus Toxoid (TT) coverage:

b. Ante-natal care (ANC)

- total # of expected pregnancies per year:
- total # of new ANC consultations (last 3 months) and % compared to expected:
- % of women with three ANC visits at delivery:
- are supplements given to pregnant women? specify criteria and supplements provided:
- RPR test (syphilis test): % of positive tests:

c. Other information

- maternal mortality: # and incidence per 100,000 live birth per year:
- Peri/neonatal mortality: # and incidence per 1,000 live birth per year:
- # of abortions and % per number of pregnancies:
- low birth weight (below 2.5 kg): provide # and percentage per total number of births:
- # and percentage of total number of births having a post-natal consultation:

7.1.2 Sexual and gender based violence

- # of cases of sexual and gender based violence per month (incidence per 10,000):
- is there any special programme for Female Genital Mutilation (where prevalent)? if yes, give brief description:

7.1.3 STDs including HIV / AIDS

- enforcement of universal precautions:
- % of blood tested for HIV before transfusion:
- % of HIV positive among blood tested:
- distribution of condoms, # and percentage of acceptance:

7.1.4 Family Planning (every three months)

- number of new acceptors in last three months, per method:
- total # and % of acceptors per method:

7.1.5 Adolescents

Is there any special programme for adolescents? if yes, give a brief description:

Comments on reproductive health:

7.2 Extended Programme of Immunizations (EPI)

- measles vaccination coverage:
- other antigens coverage:
- are there any vaccine preventable diseases prevalent in the camps?:
- comments:

7.3 Tuberculosis (every three months and not usually during the emergency phase)

- expected number of new cases per year (i.e. prevalence in country of origin):
- treatment protocols:

Table 7.3

	January-March	April-June	July-September	October-Dec.
A. No. under treatment at beginning				
B. No. of new cases				
C. No. of discharged of which:				
C.1 cured	%			
C.2 defaulters	%			
C.3 deaths	%			
C.4 transferred	%			
Total at end of period: A + B - C				

7.4 Cholera/Meningitis/Hepatitis/Micronutrients deficiencies etc.

On daily, weekly and/or monthly basis: number of cases, number of deaths and attack rate (cumulative) and Case Fatality Rate (cumulative). Graphic representation could be attached to the report.

7.5 Mental health

Provide a description of the mental health programme.

7.6 Training activities

Provide a description of training activities which have taken place during the reporting period: type of training, by whom, to whom, etc.

7.7 Laboratory activities

8 Information on other vital sectors

- availability of potable water: # litres per person per day
- availability of functioning latrines per # of persons
- % of population with adequate shelter
- quantity of soap available per person per month
- specify vector control activities

	Unit/Location	Level	Health staff	Outline of major responsibilities
	• Health Coordinating committee with all partners, this may be decentralised as appropriate • Refugee Health Unit (with Ministry of Health if possible or as part of UNHCR programme team)	Capital/National Level	• UNHCR Health Coordinator or Health professionals, Nutritionist, Pharmacist, Health Administrator	• Planning and monitoring programmes • Preparation and dissemination of guidelines on standard procedures • Overall coordination and supervision • Procurement and supply of drugs and equipment
3rd level	Regional/district Hospital	Regional or district level	• If necessary: say, 1 doctor, 2 nurses to help existing staff (plus material support if required, especially food and drugs) • Cost per patient or per treatment could also be negotiated with the hospital	• Complicated obstetric cases and surgical emergencies on referral from settlement • Reference laboratory
2nd level	Health Centre (with limited beds for overnight stay, as guidance: 1 bed per 2,000 to 5,000 refugees)	Each refugee settlement of about 30,000	• As guidance: 2 doctors, 6-8 nurses, 1 midwife • About 10 health workers (1 health worker per 50 - 70 consultations per day)	• Supervision of settlement health services including training health workers and any selective feeding programmes • Treatment of patients not handled at 1st level • Security, distribution and use of drugs • Basic laboratory • Referral to third level
1st level	1 health post or clinic	Section level approximately 5,000 refugees	• As guidance, 1 nurse (from above) and 2-3 refugee or national health workers per section	• Section level services, both preventative and basic curative care • Supervision of outreach services
	The community	Outreach services (organized by section of, say 1 Community Health Worker per 1,000 and 1 traditional birth attendant per 3,000 refugees)	• Refugee Community Health Workers	• Identification of public and individual health and nutritional problems • Referring sick patients to health post • Home visiting • Basic surveillance of mortality and birth

15

Food and Nutrition

■ CONTENTS

Situation

In emergencies, food and nutritional security is often severely threatened. This causes increased risk of malnutrition, disease and death. Therefore, refugees will need partial or full food support. Some may also need nutritional rehabilitation.

Objective

To provide the refugees with sufficient quantities of appropriate food to maintain their health and nutritional status and, where necessary, to improve the condition of those who are already malnourished.

Principles of Response

- Measures to meet food needs should be appropriate and standardized, with responsibilities clearly defined, and the overall co-ordination ensured by a single organization;
- Whenever possible use familiar foods that meet nutritional requirements and maintain sound traditional food habits;
- The food distribution system should allow families to prepare their own meals;
- Pay particular attention to infant feeding and the needs of children, women and others prone to malnutrition;
- Maintain close co-ordination with the other vital sectors (health, water, environmental sanitation, etc.) and aim for maximum integration in existing services;
- Ensure the active involvement of a nutritionist.

Action

- Assess health and nutritional status and food needs as soon as possible;
- Ensure the availability of appropriate food and the necessary transport, storage, cooking fuel and utensils;
- Organize a general feeding programme for all refugees and, if necessary, selective feeding programmes to meet the additional needs of children, women and others;
- Monitor effectiveness of feeding programmes and make necessary changes.

Introduction

1. In an emergency, refugees may be completely dependent on external food sources. An initial assessment of their health and nutritional condition and their numbers must be made as soon as possible. The types of programmes needed will be determined by this initial assessment. Continuous monitoring of nutritional status will ensure that the emphasis on different programmes can be adjusted in order to reflect changing conditions.

2. The causes of malnutrition are often complex and multi-sectoral (see Fig 1). Therefore coordinating the food and nutrition programmes with health and other vital sectors is essential.

3. Assistance must be appropriate to the nutritional needs of the refugees and be culturally acceptable. Foods prepared locally with local ingredients are preferable to imported foods. Infant feeding policies require particular attention.

4. Certain groups are more at risk of malnutrition than others. These include infants, children, pregnant women and nursing mothers, the sick and the elderly. Special action is required to identify the malnourished and vulnerable and to meet their additional needs. Where the refugees have already suffered a prolonged food shortage, many will be malnourished by the time of the first assessment.

5. If the refugees are already suffering the effects of severe food shortage, immediate action must be taken to provide food available locally which is acceptable to the refugees.

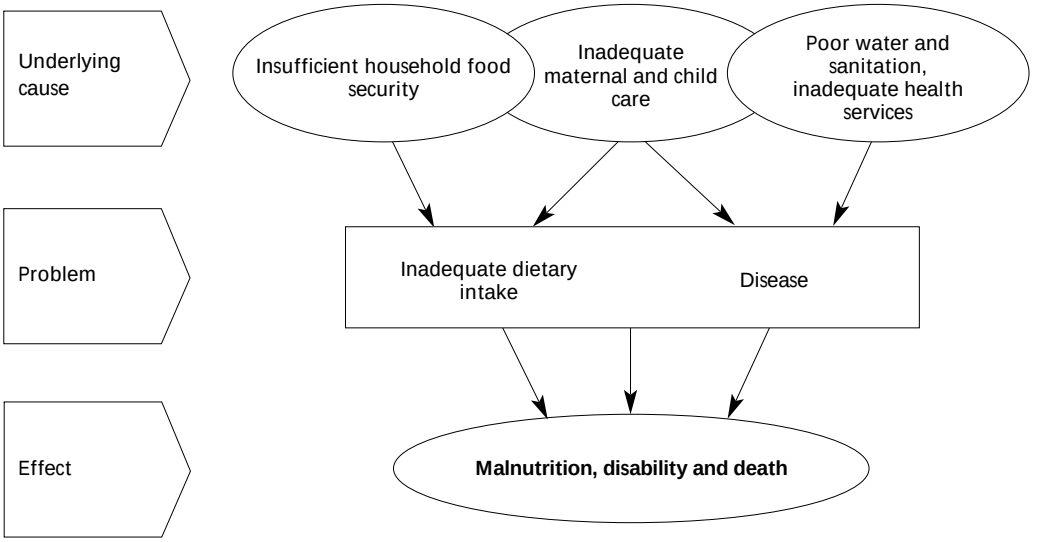
6. If insufficient acceptable food is available locally, it must be brought in from outside, initially by air if necessary. Flexibility and improvisation will be required, and time may be needed to develop the full response set out in this chapter.

7. This chapter should be read in conjunction with "Nutrition Guidelines" Médecins Sans Frontières (MSF), 1995, and UNHCR/WFP Guidelines for Estimating Food and Nutritional Needs, 1997 and Selective Feeding Programmes, 1999.

Organization of Food Support

- The World Food Programme (WFP), the food aid arm of the United Nations system, shares with UNHCR responsibility for meeting the food and nutritional needs of refugees;
- The Memorandum of Understanding (MOU) signed between WFP and UNHCR establishes the division of responsibilities and coordination mechanisms for refugee, returnee and internally displaced persons feeding operations;
- The aim of the food programme is to ensure the restoration and maintenance of sound nutritional status through a food ration that meets the assessed requirements, is nutritionally balanced, palatable and culturally acceptable;

Figure 1 – The Complex causes of malnutrition



Adapted from: UNICEF Conceptual Framework of Malnutrition, 1997.

- In most refugee emergencies a UNHCR food and nutrition co-ordinator should be appointed, who will have overall responsibility for co-ordination of all aspects of the food and nutrition programme;
- The refugees, and in particular refugee women, must be involved in the organization of these programmes;
- Simple nutrition education is an integral part of effective food support.

WFP/UNHCR Co-operation

The objective of WFP/UNHCR co-operation is the timely provision of the right amount of food, to ensure the restoration and maintenance of sound nutritional status.

8. The means to achieve this is through a food ration that meets the assessed requirements, is nutritionally balanced, palatable, culturally acceptable, and promotes gradual self-reliance of the beneficiaries. Essential to this objective is joint UNHCR/WFP planning, from the start of the emergency.

9. A Memorandum of Understanding (MOU) (see Appendix 3) exists between UNHCR and WFP covering cooperation in the provision of food aid. Under the terms of the MOU, WFP meets the emergency food needs of refugees, returnees, and, in specific situations, internally displaced persons, and provides associated logistic support. The terms of the MOU only apply when the beneficiaries in the country of asylum number more than 5,000, irrespective of their country of origin or their location within the country of asylum. UNHCR will meet the food needs of persons of its concern who are outside the scope of the MOU.

10. Within the scope of the MOU, WFP has the lead responsibility for mobilizing the following food commodities (whether for general or selective feeding programmes) and the resources to deliver them.

WFP resourced commodities include:
i. Cereals;
ii. Edible oils and fats;
iii. Pulses and other sources of protein;
iv. Blended food;
v. Iodized salt;
vi. Sugar;
vii. High energy biscuits.

11. WFP is also responsible for arrangements for milling cereals and transporting WFP commodities to agreed extended delivery points (EDPs), and for the operation and management of the EDPs. UNHCR is responsible for the transportation of all commodities from the EDP to the final destination and for final distribution.

12. Under the MOU, UNHCR is responsible for mobilizing and transporting complementary food commodities and for the provision of the necessary micronutrients (vitamins and minerals) when they cannot be met through the ration.

UNHCR resourced commodities include:
i. Local fresh foods;
ii. Spices and other condiments;
iii. Tea;
iv. Dried milk;
v. Therapeutic milk.

13. UNHCR and WFP have developed a common set of guidelines[1] for estimating food and nutritional needs in emergencies and in selective feeding programmes[2]. These guidelines should be used to assess the food needs for both the general and selective feeding programmes.

Extended delivery Points (EDP)

An EDP is the location at which WFP hands over a consignment of food to UNHCR or its implementing partner. WFP is responsible for the consignment and all costs incurred in moving and storing it, until UNHCR or its representative collects it from the EDP. In all cases the location of EDPs must be agreed jointly by UNHCR and WFP.

EDPs should be positioned to give cost effective and logistically practical delivery, while avoiding the imposition of undue hardships on the beneficiaries because of travel distance and/or difficult access. Whenever possible the EDP should be at the same place as the final distribution point, or, if not, then as near as possible to it. An EDP should be established for approximately every 10,000 beneficiaries.

Joint Assessment and Planning

14. UNHCR and WFP should carry out a joint assessment of the overall food, nutrition and related requirements in consultation with

[1] *WFP/UNHCR Guidelines for Estimating Food and Nutritional Needs in Emergencies, UNHCR/WFP, 1997.*

[2] *UNHCR/WFP Guidelines for Selective feeding Programmes in Emergencies, WFP, UNHCR, Geneva, 1999.*

government authorities, operational partners and experts.

The first requirement is a knowledge of the numbers, nutritional status and food habits of the refugees.

Assessing nutritional status is discussed in detail below. The joint UNHCR/WFP assessment for the food assistance programme should cover the following:

Basic Information

i. Numbers and demography (see chapter 11 on registration);
ii. Current nutritional status;
iii. Milling possibilities;
iv. Food commodity preferences of the beneficiaries;
v. Capacity of the family to prepare, store, and process the food;
vi. Access to cooking fuel, utensils and distribution containers;
vii. Food availability now and over time;
viii. Availability of local food for purchase;
ix. Ease of access to food supplies;
x. Groups at risk – identify who and how many;
xi. Degree of and prospects for self-reliance;
xii. Coping strategies.

Other Important Information

i. Health status and health services;
ii. Environmental health risks;
iii. Community structure;
iv. Food distribution systems;
v. Socio-economic status;
vi. Availability of human resources;
vii. Logistics constraints;
viii. Storage capacity and quality;
ix. Delivery schedule of food and non-food commodities;
x. Other agencies' activities and assistance currently provided: quantity, items and frequency, and selective feeding programmes.

15. WFP and UNHCR should draw up plans covering: the number of beneficiaries, the composition of the food basket, ration size, duration of assistance, and directly related non-food inputs which may have an impact on the nutritional status of the beneficiaries (for example, cooking utensils, cooking fuel and milling equipment).

16. The main considerations to take into account when responding to food and nutritional needs of refugees are set out in figure 1.

17. Special consideration should be given to the needs of women, children and groups-at-risk. The views of the beneficiaries, especially those of women, should be sought. The proposed food assistance programme should also take into account the need to minimize the environmental impact of cooking the food provided.

Coordination

18. A UNHCR coordinator should be appointed as focal point for food and nutritional issues. In smaller operations, either the programme officer or the logistics officer could be appointed as food coordinator. If technical expertize is not available initially within UNHCR then assistance should be sought from government nutritionists, UN agencies or NGOs.

19. The food and nutrition coordinator's responsibilities are to establish standard procedures, including procedures for general food distribution, coordinate feeding programmes, monitor and evaluate the feeding programmes, and ensure close coordination and integration with community services, health and other sectors. The coordinator should act as the focal point within UNHCR for coordination with WFP and NGO's. Where the food coordinator is not her/himself a nutrition specialist, an experienced nutritionist will also be needed to provide the food coordinator with the necessary technical advice.

Role of Refugees and Nutrition Education

20. The refugees must be involved from the start in the organization and management of the feeding programmes. Special training will be necessary for refugees.

21. The provision of simple nutrition education for the refugees is always necessary when unfamiliar foods or new methods of cooking cannot be avoided. This should be organized in conjunction with nutrition education activities and provide guidance on: proper infant feeding, feeding sick children, treating diarrhoea, basic food hygiene and preparing available foods for maximum nutritional benefit.

Cooking Fuel

22. Particular attention must be paid to the provision of cooking fuel and the control and

management of the natural resources in the vicinity of the camp. Failure to deal with this can quickly lead to destruction of the vegetation in and around the site causing lasting damage to the environment, with direct effects on the health and well-being of refugees and local people and friction with the local population. Fuel needs and consumption vary considerably[3] – factors affecting the use of fuel include:

i. *food preparation, cooking techniques, fuel type and preparation.* Soaking beans prior to cooking, ensuring lids are used on pots, ensuring wood is dry and chopped, and that fires are put out after cooking – all these make considerable fuel savings and can be incorporated into environmental awareness raising and training programmes. Other steps to facilitate efficient fuel use are to ensure that the pots supplied have lids.

ii. *type of stove.* It may be possible to use local technology to modify existing types of wood or charcoal burning stoves in order to make them more fuel efficient. Simple improvements and local technologies are best. Note that the social and economic implications of a new technology are usually more important in determining whether it will be adopted than the effectiveness of the technology itself. The promotion and use of improved stoves must closely involve the refugees.

iii. *type of food.* Freshly harvested foods take less cooking time, also using milled rather than whole grain and using pre-cooked food make considerable fuel savings. The environmental implications of the food basket need to be taken into account with WFP.

iv. *availability (or "price")* of fuel itself. This is often the most significant factor affecting per capita fuel consumption. The provision of fuel wood and managing and controlling the use of natural resources around a refugee camp is discussed further in chapter 12 on site planning.

Nutritional Assessments

◆ The nutrition assessment should be carried out as soon as possible by an experienced nutritionist;

◆ Nutritional assessment should include anthropometric surveys as well as food security information;

◆ Regular assessment is necessary both to monitor the nutritional status of the community as a whole and identify individuals and groups who need special care and food assistance;

◆ Information must be gathered on mortality and morbidity in addition to malnutrition rates, in order to understand the underlying causes of malnutrition and to identify people who are most affected.

Introduction

23. An initial assessment of the nutritional status of the refugees should be made as soon as possible and should be carried out by an experienced nutritionist. The extent of malnutrition has important implications for what form the emergency response will take, and will enable early decisions to be taken on the components of the rations and on the requirement for any additional selective feeding programmes.

24. The nutritional assessment should be followed by regular nutrition surveys under specialist supervision to monitor the condition of the population as a whole.

25. Where conditions and/or results of the initial assessment or later surveys indicate a need for selective feeding programmes, individuals will need to be identified and registered for these programmes. Their individual progress should then be monitored through periodic measurements at the feeding centres.

26. The initial nutrition assessment and the periodic nutrition surveys of the population as a whole should be done by measuring the weight and height of a random sample of the child population (as explained below). Initially such surveys should be carried out every two to three months. When conditions have stabilized, once every six to twelve months is sufficient. Any change or trend in nutritional status can thus be detected and appropriate adjustments made in the assistance programmes.

There is a serious nutritional emergency where the malnutrition rate is either over 15%, or over 10% with aggravating factors (e.g. an epidemic). Such a situation requires urgent action.

[3] *Average fuel-wood consumption per person per day in different refugee camps has varied from 0.9 kg to 4 kg.*

Recognizing and Measuring Malnutrition

27. Malnutrition can be recognized by clinical signs (such as oedema and micronutrient deficiencies) and by anthropometry (body measurements). Measurements such as weight-for-height are used as an objective assessment of nutritional status, which quantifies the nutritional situation at one point in time, and allows comparisons over time.

28. Mortality and morbidity information will assist in understanding the underlying causes of malnutrition and identify people who are most affected. Child mortality rates are particularly important.

In an emergency a high child mortality rate is very often associated with high levels of malnutrition.

Death rates among children who are severely malnourished can be about six to ten times greater than those who are healthy and well nourished in the same population.

29. ***Weight-for-height in children,*** is the best indicator to assess and monitor nutritional status of populations. The actual weight of a child is calculated as a percentage of the standard weight for a normal child of that height, or as a Z score. It is the most sensitive indicator of acute malnutrition and is preferred for nutrition surveys and for measuring individual progress in feeding programmes. It is usually young children aged between 6 and 59 months who are measured in nutrition surveys, because young children are the first to show signs of malnutrition in times of food shortage and are the most severely affected. When the ages of children are not known, 65 cm and 110 cm height are used as the cut off points instead of 6 and 59 months.

30. ***Body mass index*** (BMI) (Weight in kg)/(Height in m)^2, is used for assessing the nutritional status of adults by assessing the degree of thinness (see table 1).

31. ***Oedema*** is an essential nutrition indicator and indicates kwashiorkor (see Annex 3). Oedema is characterized by swelling in both feet due to an abnormal accumulation of fluid in intercellular spaces of the body.

32. ***Mid-upper-arm-circumference***
The mid upper arm circumference (MUAC) is measured on the left arm, at the mid-point between elbow and shoulder. MUAC should only be used as part of a two-step screening exercise. In the first step the MUAC of children is measured. Those falling below a certain cut-off circumference are then channelled to weight-for-height measurement to determine their nutritional status and whether they should be included in selective feeding programmes.

33. ***Weight-for-age*** and ***height-for-age*** are not such useful assessment indicators in emergencies as age is often difficult to determine. This can be used for growth monitoring of individual children, and in assessing long-term (chronic) malnutrition.

Moderate and Severe Malnutrition

34. The standard cut-off points to describe malnutrition, are between 70% and 80% weight-for-height (or between -3 and -2 Z scores) for moderately malnourished and less than 70% weight-for-height (or < -3 Z scores) for severely malnourished.

Children with oedema are always classified as severely malnourished.

Table 1 summarizes the key malnutrition indicators.

Table 1: Key Nutritional Indicators*

Malnutrition	Children under 5 years			Adults BMI
	Weight-for-height (W/H)% of median value [4]	Weight-for-height (W/H) in Z scores or SD's [5]	MUAC	
Moderate	70% to 79%	-3 to -2 Z	110 mm to<125 mm	16 - 17
Severe	less than 70%	less than -3 Z or oedema	< 110 mm, oedema	less than 16

* Results expressed by different methods are not directly comparable

[4] *Percentage below the median "reference" weight-for-height values.*

[5] *Standard deviations (SDs, or Z score) below the median "reference" weight-for-height values.*

General Feeding Programme

- A mean figure of 2,100 kcal per person per day is used as the planning figure for calculating the food energy requirements of refugees in emergencies in developing countries[6];
- Everyone in the population, irrespective of age or sex, should receive exactly the same general ration (i.e. same quantity and type of foods);
- The food basket should be nutritionally balanced and suitable for children and other groups at risk;
- Every effort should be made to provide familiar foodstuffs and maintain traditional food habits;
- The level of fat intake should provide at least 17% of the dietary energy of the ration. Protein intake should provide at least 10-12% of the total energy;
- The diet must meet essential vitamin and mineral requirements;
- Particular attention should be paid to locally prevalent nutrient deficiencies.

General Ration

35. Every effort should be made to provide familiar foodstuffs and maintain sound traditional food habits. Expert advice on the ration size and composition is essential and should take full account of local availability of food commodities. Staple food should not be changed simply because unfamiliar substitutes are readily available. Inappropriate foods often lead to waste and lower the morale of the refugees.

36. The first concern is to ensure that energy and protein requirements are met. The planning figure for the average minimum daily energy requirement per person per day for a developing country population at the beginning of an emergency is 2,100 kcal. See Annex 1 for examples of rations which meet this requirement. This average requirement is calculated on an average population containing men, women and children of different age groups. However, a complete ration should be provided to each refugee without distinction.

A minimum requirement of 2,100 kcal per person per day is used as the planning figure for a developing country population at the beginning of an emergency.

A population which contains mostly active adults may require considerably higher average energy intakes. In addition, a higher ration is vital for survival in a cold climate.

37. The daily energy requirement can be adjusted when the situation has stabilized[7] and detailed data is available. Factors to be taken into consideration are:

i. Age and sex composition of the population;

ii. Activity level;

iii. Climatic conditions;

iv. Health, nutritional and physiological status;

v. People's access to other food sources e.g. agriculture, trade, labour.

38. The food basket should comprise: a staple food source (cereals), an energy source (fats and oils), a protein source (legumes, blended foods, meat, fish), salt and possibly condiments (such as spices). Fresh foods should be included in the food basket for essential micronutrients. The level of fat intake should provide at least 17% of the dietary energy of the ration, and protein intake should provide at least 10-12% of the total energy.

39. When certain food commodities are not available, they can be replaced for a maximum of one month by other available food items in order to maintain the adequate energy and protein level. Substitution in energy value, should an item not be available, is:

Corn Soy Blend (CSB) for beans	1:1
Sugar for oil	2:1
Cereal for beans	2:1
Cereal for oil[8]	3:1

E.g. the energy from 20 g of sugar can substitute for that from 10 g of vegetable oil.

40. Cereal flour, rather than whole grain, should be provided, especially at the beginning of an emergency. Considerable fuel savings are made by using milled rather than whole grain. If whole grains are provided, local milling should be made available and the cost compensated for.

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[6] *The Management of Nutritional Emergencies in Large Populations, WHO, Geneva, 1978.*

[7] *See for further information: WFP/UNHCR Guidelines for Estimating Food and Nutritional Needs in Emergencies, 1997.*

[8] *One way only, note that oil cannot be used in place of cereal.*

41. Essential vitamin and mineral requirements must also be met. The basic food commodities distributed through the general ration do not normally cover the required amounts of vitamins and minerals. Therefore, deficiencies often arise among populations entirely dependent on external food aid and within a population among vulnerable groups like infants, pregnant women and nursing mothers. Particular attention should also be paid to locally prevalent nutrient deficiencies.

42. The risk of specific nutrient deficiencies can be estimated from the composition of the general ration and access the population has to other food sources in the area. Possible options for providing vitamins and minerals are:

i. Provide fresh food products;

ii. Promote the production of vegetables and fruits;

iii. Add to the ration a food rich in a particular vitamin and micronutrient such as fortified cereals, blended foods, or condiments;

iv. Provide supplements in tablet form, which is the least preferred option.

43. Wherever possible the refugees should be encouraged to grow vegetables themselves: the production of fresh food by refugees not only improves and diversifies the diet but saves fuel and provides an opportunity to generate some income. Larger plot sizes and the provision of appropriate seeds would facilitate this, however, it can be difficult to encourage refugees to produce fresh food because of their uncertainty as to the length of their stay and problems of access to land.

Food Distribution

44. The need for a fair, efficient and regular food distribution cannot be over-emphasized. This is discussed in chapter 13 on commodity distribution. There are two main types of distribution: dry ration and cooked meals.

45. Dry food distribution (which is taken home) has major advantages over cooked food distribution. It allows families to prepare their food and to use their time as they wish, permits them to continue to eat together as a unit and is more culturally and socially acceptable. It also reduces the risk of the spread of infectious diseases.

46. Cooked meal distribution requires centralized kitchens with adequate utensils, water and fuel (the requirement is less than the amount required for family cooking), and trained personnel. The refugees usually sit together in a feeding compound, although in some circumstances families can carry the cooked meal to their accommodation. At least two meals must be served each day.

Cooked meals are much more difficult to organize efficiently than dry ration distribution, particularly for large numbers.

Cooked meal distribution to the whole population is therefore only provided under exceptional circumstances when the refugees do not have access to adequate water and/or cooking fuel and in insecure situations.

47. In addition to cooking pots, fuel and utensils, the refugees must have containers and sacks to protect and store their food rations. Oil tins and grain bags will be useful, and contracts with suppliers, at least for initial deliveries, should not require their return.

Monitoring the General Feeding Programme

48. The general feeding programme can be monitored by:

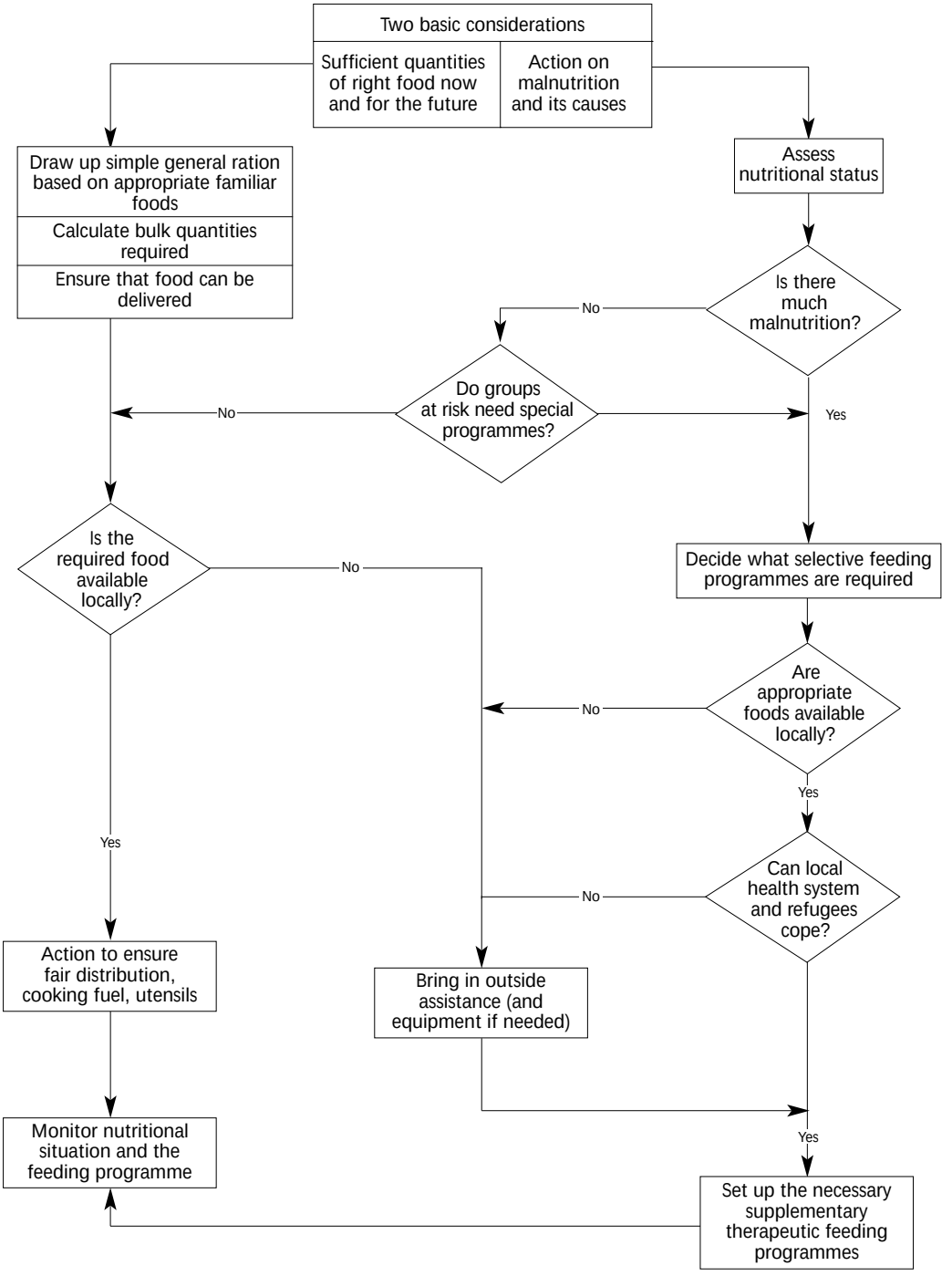
- ❏ Food basket monitoring: Comparing the quantity and quality of food collected by the refugees at the distribution site on distribution days compared with the planned ration, Also by monitoring after the distribution at household level through house visits (on distribution day);
- ❏ Discussing the quality and quantity of the rations regularly with the refugees;
- ❏ Investigating complaints.

For more information on how to monitor the general food programme see UNHCR's Commodity Distribution: A Practical Guide For Field Staff, and MSF's Nutrition Guidelines.

Selective Feeding Programmes

- ◆ The objective of a selective feeding programme is to reduce the prevalence of malnutrition and mortality among the groups at risk;
- ◆ Selective feeding programmes provide **extra** food for the malnourished and at-risk groups – this food must be in addition to (not a substitute for) the general feeding programme;
- ◆ The programme must actively identify those who are eligible for the selective feeding programmes, using criteria described in this chapter.

Figure 2 – Response to food and nutritional needs



General Principles of Selective Feeding Programmes

49. Where malnutrition exists or the needs of the groups at risk cannot be met through the general ration, special arrangements are required to provide extra food. This is organized through different types of selective feeding programmes which take into account the degree of malnutrition and associated risks. In the emergency phase of an operation, selective feeding programmes are part of an emergency measure to prevent excess mortality. However, preventing excess mortality should be a combined strategy of selective feeding, public health and emergency health care. Ref. Figure 2.

The organization of these programmes should be integrated from the beginning with community and health services and especially with Mother and Child Health Care programmes (MCH).

50. Malnutrition develops particularly among infants, children, pregnant women, nursing mothers, the elderly and the sick. Their vulnerability stems from the greater nutrient requirements associated with growth, the production of breast milk, repair of tissues and production of antibodies. Malnutrition results in lower resistance to infection, which in turn results in further malnutrition. Small children are particularly susceptible to this cycle of infection and malnutrition. Sick children must eat and drink even if they do not have an appetite, are vomiting, or have diarrhoea. Because children are unable to eat a large volume of food, it is necessary to prepare food in a concentrated form (giving the required nutrients in less volume), and to provide more frequent meals.

51. Certain other groups or individuals may be at risk of malnutrition for social or economic reasons. These include unaccompanied children, the disabled, single-parent families, and the elderly, particularly those without family support. In some communities specific social or cultural practices and taboos may put constraints on meeting the nutritional needs of certain persons, for example pregnant women and nursing mothers or even sick children.

52. Even if the overall quantity of food is sufficient there may be other causes such as:

i. Inequities in the distribution system reducing access to food for certain groups;

ii. Inaccuracies in registration or unfair distribution of ration cards;

iii. Infections;

iv. Faulty feeding or food preparation habits.

Selective feeding programmes are not a substitute for an inadequate general ration.

53. The following types of selective feeding programmes are contemplated:

i. Supplementary Feeding Programmes (SFP)

   a) Targeted SFP

   b) Blanket SFP;

ii. Therapeutic Feeding Programmes.

To be effective, the extra ration provided must be additional to, and not a substitute for, the general ration.

Supplementary Feeding Programmes (SFP)

54. Targeted and blanket supplementary feeding programmes provide extra food to groups at risk, in addition to the general ration, as dry take-home or wet on-the-spot feeding for a limited period of time.

55. A targeted SFP aims to rehabilitate those who are moderately malnourished. These could be children adults or older persons and/or individuals selected on medical or social grounds, e.g. pregnant and nursing women and the sick. This is the most common type of supplementary feeding programme.

56. A blanket SFP provides a food (and/or micronutrient) supplement to all members of a certain vulnerable group regardless of their individual nutritional status in order to prevent a deterioration in the nutritional status of those groups most at risk (usually children under five, pregnant women and nursing mothers.

57. Supplementary feeding programmes can be implemented either by giving wet or dry rations.

Therapeutic Feeding Programmes (TFP)

58. A TFP aims to reduce deaths among infants and young children with severe protein-energy malnutrition (PEM). The forms of PEM are described in Annex 3. Generally the target group is children under 5 years with severe malnutrition. Therapeutic feeding can either be implemented in special feeding centres or in a hospital or clinic. TFP involves intensive medical and nutritional treatment. Therapeutic milk (TM) is used for treatment of severely

malnourished children. However if TM is not available, high protein milk can be used (dried skimmed milk, oil and sugar) mixed with vitamin mineral supplements.

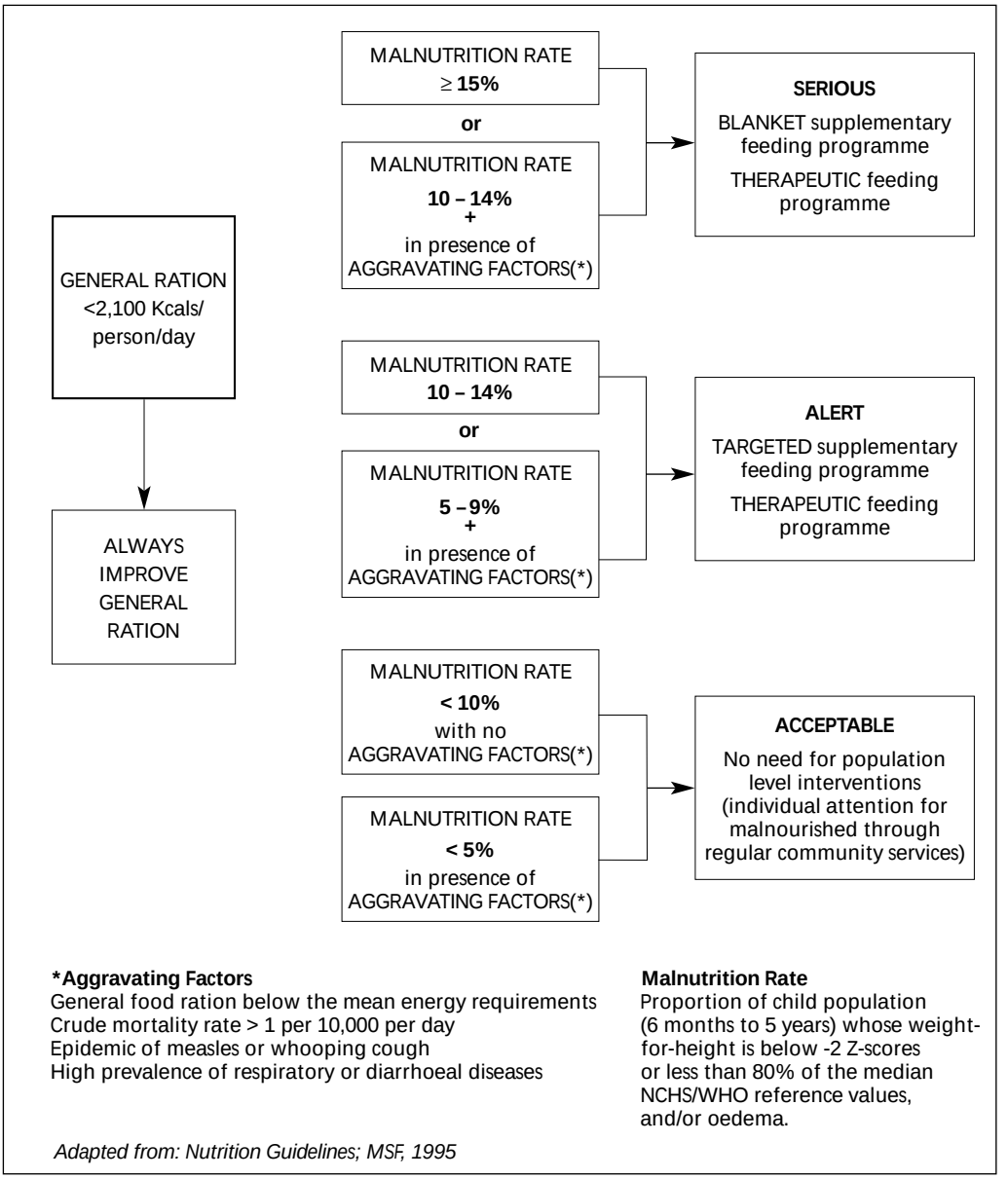
Starting a Selective Feeding Programme

59. The decision to start a selective feeding programme is based on the prevalence of malnutrition and other aggravating factors. Aggravating factors include high mortality (more than 1 person per 10,000 per day), measles epidemic, high prevalence of infectious diarrhoea, general ration below minimum requirements. The prevalence of malnutrition is assessed from the initial and ongoing nutrition assessments and surveys.

In all situations, remember that it is more important to address the root causes of malnutrition than to address symptoms through selective feeding programmes.

60. The effectiveness of these programmes will be severely compromised if an adequate general ration is not provided.

Figure 3 – Selective Feeding Programmes



***Aggravating Factors**
General food ration below the mean energy requirements
Crude mortality rate > 1 per 10,000 per day
Epidemic of measles or whooping cough
High prevalence of respiratory or diarrhoeal diseases

Malnutrition Rate
Proportion of child population (6 months to 5 years) whose weight-for-height is below -2 Z-scores or less than 80% of the median NCHS/WHO reference values, and/or oedema.

Adapted from: Nutrition Guidelines; MSF, 1995

61. Figure 3 provides guidance on deciding when to initiate selective feeding programmes. Clear criteria for the termination of these programmes should be defined from the beginning.

Identifying Those Eligible

62. Selective feeding programmes must be based on the active identification and follow up of those considered at risk. Beneficiaries can be identified by:

- ❏ House to house visits to identify all members of a targeted group (e.g. children under five, elderly people);
- ❏ Mass screening of all children to identify those moderately or severely malnourished;
- ❏ Screening on arrival (for example with the registration exercise);
- ❏ Referrals by community services and health services.

63. Table 2 below summarizes the main objectives, target groups and criteria for selection of beneficiaries of selective feeding programmes.

Table 2 – Types of Selective Feeding Progammes

Programme	Objectives	Criteria for selection and target group
Targeted SFP	• Correct moderate malnutrition • Prevent moderately malnourished from becoming severely malnourished • Reduce mortality and morbidity risk in children under 5 years • Provide nutritional support to selected pregnant women and nursing mothers • Provide follow up service to those discharged from therapeutic feeding programmes	• Children under 5 years moderately malnourished: → between 70% and 80% of the median weight-for-height or: → between -3 and -2 Z-scores weight-for-height • Malnourished individuals (based on weight-for-height, BMI, MUAC or clinical signs): → older children (between 5 and 10 years) → adolescents → adults and elderly persons → medical referrals • Selected pregnant women (from date of confirmed pregnancy) and nursing mothers (until 6 months after delivery), for instance using MUAC <22 cm as a cut-off indicator for pregnant women • Referrals from TFP
Blanket SFP	• Prevent deterioration of nutritional situation • Reduce prevalence of acute malnutrition in children under 5 years • Ensure safety net measures • Reduce mortality and morbidity risk	• Children under 3 or under 5 years • All pregnant women (from date of confirmed pregnancy) and nursing mothers (until maximum 6 months after delivery • Other at-risk groups
TFP	• Reduce excess mortality and morbidity risk in children under 5 years • Provide medical/nutritional treatment for the severely malnourished	• Children under 5 years severely malnourished: → < 70% of the median weight-for-height and/or oedema or: → < -3 Z-scores weight-for-height and/or oedema • Severly malnourished children older than 5 years, adolescents and adults admitted based on available weight-for-height standards or presence of oedema • Low Birth Weight babies • Orphans < 1 year (only when traditional care practices are inadequate) • Mothers of children younger than one year with breast feeding failure (only in exceptional cases where relactation through counselling and traditional alternative feeding have failed)

64. The links between different selective feeding programmes and the criteria for entry and discharge from a programme are shown in figure 4 below.

Planning and Organizing a Selective Feeding Programme.

Organizing a Supplementary Feeding Programme

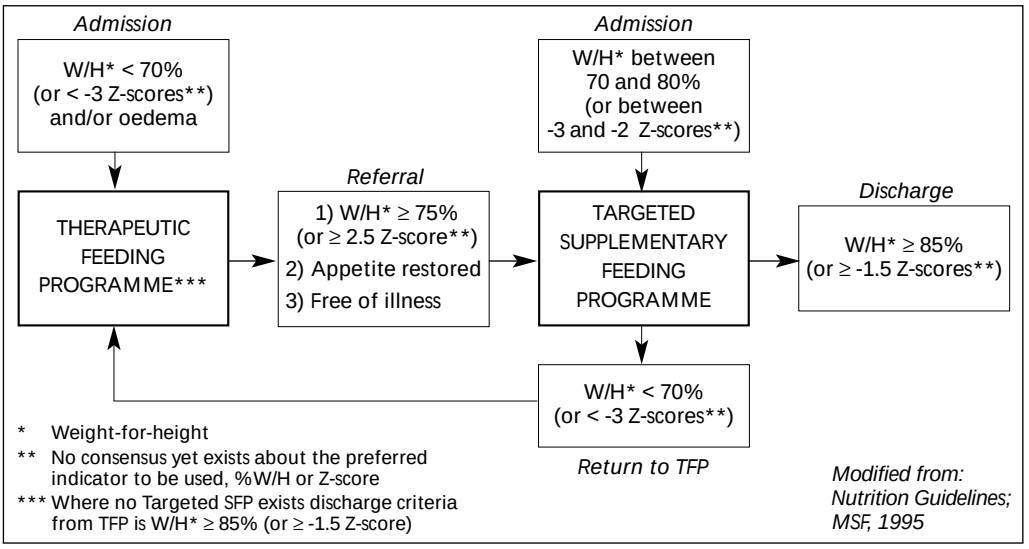
65. Supplementary feeding programmes can be implemented either by providing wet rations or dry rations.

i. Wet rations are prepared in the kitchen of a feeding centre and consumed on-site. The beneficiary, or child and caretaker, have to come for all meals to the feeding centre every day;

ii. Dry rations are distributed to take home for preparation and consumption. Rations are usually distributed once a week.

66. In most situations dry take-home SFP programmes are preferable. The advantages of dry instead of wet rations for SFP include:

Figure 4 – Admission and discharge Criteria



i. Much easier to organize;

ii. Fewer staff are needed;

iii. Lower risk of transmission of communicable diseases;

iv. Less time-consuming for the mother;

v. The mother's responsibility for feeding the child is preserved.

The ration for dry feeding however has to be higher than for wet feeding in order to compensate for sharing and substitution. Wet rations are typically given in situations where insecurity prevents dry rations from being taken home safely or where access to cooking facilities are limited. See Table 3 below for some of the main considerations when organizing a selective feeding programme.

Organizing a Therapeutic Feeding Programme

67. Therapeutic feeding programmes are either implemented in specially organized feeding centres or in hospitals or clinics. They involve intensive medical and nutritional treatment as well as rehydration. The programme should be easily accessible to the population, near to or integrated into a health facility. The treatment should be carried out in phases (see Table 3), the length of which depend on the severity of malnutrition and/or medical complications. At least during the first week of a TFP, care has to be provided on a 24-hour basis.

Table 3

Organization of Selective Feeding Programmes			
	Supplementary Feeding Programme		**Therapeutic Feeding Programme**
Organization	• On site wet feeding • Some medical care On site feeding would usually only be considered for targeted SFP	• Take home dry feeding This is the preferred option for both blanket and targeted programmes	• On site wet feeding + • Intensive medical care + • Psychological stimulation during rehabilitation phase
Size of extra ration	• 500 - 700 kcal/ person/day, and • 15-25 g protein	• 1,000 - 1,200 kcal/person/day, and • 35-45 g protein	• 150 kcal/kg body-weight/day/ patient. and • 3-4 g protein per kg body-weight/day/patient
Frequency of meals	Minimum 2 meals/day	Ration distributed once per week	Frequent meals. Phase 1: 8-10 meals over a 24 hour period Rehabilitation phase: 4-6 meals

68. One of the main constraints to the implementation of a TFP is the lack of experienced or insufficient staff to manage the programme. Proper training of both medical and non-medical personnel is essential before starting the programme. The refugees, particularly the mothers of patients, must be involved in managing the TFP centres.

Planning the quantity of food needed for selective feeding

69. The amount of food needed for the selective feeding programme will depend on:

i. The type of selective programme;

ii. The type of commodities;

iii. The expected number of beneficiaries.

70. This information should be based on precise demographic information and on the prevalence of malnutrition taken from the results of the nutritional survey. The nutritionist will advise on the appropriate commodities and type of programme.

71. However, in some circumstances, estimates on the prevalence of malnutrition and expected number of beneficiaries may need to be made for planning purposes, when for example a registration and nutrition assessment have not yet been carried out. See table 4 below for a projected demographic breakdown for a typical population.

72. If it is apparent that there is, or is likely to be, a major nutritional emergency, the following assumptions can be made for planning purposes:

i. 15 to 20% may suffer from moderate malnutrition;

ii. 2 to 3% may be severely malnourished;

iii. The breakdown of a typical population, by age, is as follows:

Table 4

Projected Breakdown by Age	
age groups	% total population
0-4 or under 5	15-20%
Pregnant	1.5 - 3%
Lactating	3-5%

73. For example, to estimate the number of beneficiaries for a targeted SFP and TFP, both for children under 5 years:

If the total population = 30,000
Estimated number under 5 yrs = 4,500 – 6,000 (15-20%)

Estimated prevalence of moderate malnutrition (15%) gives 675-900 children

Estimated prevalence of severe malnutrition (2%) gives 90-120 children

With these numbers the estimated food requirements can be calculated by multiplying the estimated number of beneficiaries for each programme by the ration scale appropriate for each beneficiary, as follows:

Quantity of Commodity req. =
Ration / person / day x no. benef. x no. days

Monitoring Selective Feeding Programmes

74. The effectiveness of impact of the selective feeding programme should be monitored at regular intervals.

75. Selective feeding programmes should be monitored and evaluated to assess their performance in relation to the established objectives[9]. Monitoring and evaluation will involve the regular collection and analysis of:

- ❏ Process indicators such as attendance, coverage and recovery rates, to evaluate the success in implementation and trends in the programme over time;
- ❏ Impact indicators such as malnutrition prevalence, mortality rate and numbers served, to evaluate the effectiveness and efficacy of the programme.

76. The effectiveness of selective feeding programmes can be measured through nutrition surveys and the regular collection of feeding centre statistics. Specific forms for monthly reporting on supplementary and therapeutic feeding programmes are attached as Annexes 4 and 5. A nutrition survey results form (weight-for-height) is also attached (Annex 6).

77. Trends in health and nutrition indicators can be related to many different factors. Actions in other sectors such as water, shelter, or community services may help explain a positive outcome.

Criteria for Closing Programmes

78. Once the number of malnourished is significantly reduced, it may be more efficient to manage the remaining severely malnourished individuals through health facilities and through community based programmes. The specific criteria for closing each selective feed-

[9] For further reference, consult Chapter 8: Evaluation of Feeding Programmes in the MSF Nutrition Guidelines.

ing programme will depend on the degree of success in reducing the main aggravating factors mentioned in Figure 3 and on the degree of integration between these feeding programmes and mother and child health (MCH) activities and other support services offered by the refugee community.

79. After closing selective feeding programmes, any deterioration of the situation should be detected by nutrition surveys undertaken at regular intervals and review of morbidity and mortality data. This is especially important if the overall situation remains unstable.

Infant Feeding and use of Milk Products

- Breast-feeding is best for babies and must be promoted and continued for as long as possible;
- Ban baby bottles completely;
- Weaning foods must be appropriate; foreign baby foods and special foods often are not;
- Infant formulae should be avoided and used only under strictly controlled conditions, with a cup and spoon;
- Re-stimulate lactation[10] in cases where milk production has been affected by stress and use wet nursing where appropriate;
- Milk products, especially powdered milk, and infant formulae can cause health problems (as described below) and they are often inappropriate.

80. Human milk is the best and safest for infants and children under two years. Breast-feeding provides a secure and hygienic source of food, often initially the only source of food, as well as antibodies giving protection against some infectious diseases. Breast feeding must be encouraged for as long as possible. Every effort must be made to promote or re-stimulate lactation even among sick and malnourished mothers. Experience has shown that this can be done. Mothers may need to receive extra food to encourage breast-feeding and provide the additional calories and nutrients required. This should be done through the feeding programmes.

81. The problems associated with infant formulae, milk products and feeding bottles are exacerbated in a refugee emergency. Clean boiled water is essential but rarely available, careful dilution of the feeds is of critical importance but difficult to control, mothers are unlikely to be familiar with the use of infant formulae, and the instructions are often in a foreign language. Infant formulae, if unavoidable, should be distributed from health or feeding centres under strictly controlled conditions and proper supervision. Infant feeding bottles must never be distributed or used; they are almost impossible to sterilize and keep sterile under emergency conditions and are therefore dangerous. Babies should be fed by clean cup and spoon if necessary. Appropriate weaning foods should be introduced while breast-feeding is continuing. Weaning foods should be locally available foodstuffs and as far as possible be prepared in the traditional manner. Overseas donations of tinned baby foods are rarely appropriate.

Policy On Use of Milk Powder[11]

i. Never distribute milk powder, by itself, to take home. It should be mixed with cereal flour, six parts cereal to one part milk powder;
ii. Never let liquid milk be carried home;
iii. Only use dried milk in supervised wet feeding programmes as a high energy drink mixed with oil and sugar;
iv. Dried skimmed milk should always be fortified with Vitamin A and have a shelf-life of more than six months.

Key References

Calculation of Nutritional value of Food Commodities (NUT-VAL), an EXCEL spreadsheet which can be used to calculate the nutritional value of ration scales, UNHCR, Geneva, 1998.

Commodity Distribution: A Practical Guide For Field Staff, UNHCR, June 1997.

IOM 88/89 – FOM 76/89 Policy for acceptance, distribution and use of milk products in refugee feeding programmes, UNHCR, Geneva, 1989. Also available in French.*Memorandum of Un-*

[10] *Re-stimulate lactation refers to the re-establishment of an adequate volume of milk release. This is achieved by increasing suckling and through social peer support.*

[11] *UNHCR IOM 88/89/FOM 76/89 Policy Directive for acceptance, distribution and use of milk products in refugee feeding centres, UNHCR, Geneva.*

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WFP/UNHCR Guidelines For Selective Feeding Programmes in Emergency Situations, WFP/ UNHCR, 1999.

Glossary

Anthropometric measurements	Assessment of body size and composition which reflects food intake, physical activity and disease. Most common anthropometric indicators include weight, height and arm circumference.
Baseline data	Data collected at the beginning of a programme that can be compared with similar data collected later and so used to evaluate the impact of interventions or to monitor trends.
Body Mass Index (BMI)	(weight in kg)/ (height in m)^2 which is used for assessing the nutritional status of adolescents and adults.
Fortified blended food	A flour composed of pre-cooked cereals and a protein source, mostly legumes, fortified with vitamins and minerals, e.g. corn soya blend (CSB), wheat soya blend (WSB) used for feeding programmes.
Fortification	Adding micronutrients to foods, e.g. iodized salt and fortified blended food.
Kilocalorie	Unit of energy used in nutrition, 1 Kcal = 4.17 kilojoules.
Kwashiorkor	Severe form of malnutrition characterized by oedema (swelling) particularly of the lower parts of the arms and legs.
Marasmus	Severe form of malnutrition in which the person becomes wasted.
Micronutrients	Minerals and vitamins.
Mid-upper arm circumference (MUAC)	Circumference at the mid-point of the left upper arm, which is an indicator of malnutrition and used as a tool for screening.
Nutrients	Those parts of food that are absorbed and/or used by the body i.e. carbohydrate, protein, fat, alcohol, vitamins and minerals.
Oedema	An abnormal accumulation of fluid in intercellular spaces of the body. In case of nutritional oedema this is oedema due to a deficiency in the diet.
On-site feeding	Cooked meal eaten at the feeding centre.
Stunting	Low height for age. Comparing the height of a child of a certain age with the height of reference (healthy) children of the same age indicates the level of chronic malnutrition.
Take-home rations	Dry rations that are given to people to take and prepare at home.
Therapeutic milk	Special milk used for rehabilitation of severely malnourished persons.
Wasting	Abnormal loss of fat and/or muscle tissue which is indicated by a low weight for height, a low body mass index or observation (thinness).
Xerophthalmia	Clinical signs in the eye caused by Vitamin A deficiency.
Weight-for-Height	The weight of a person at a certain height compared with the reference weight for that height.

All foods are made up of five basic types of nutrient in addition to variable amounts of water.

Carbohydrates, the main source of energy, provide 4 kcal/g. They are mostly starches and sugars of vegetable origin, and are a major component of cereals and tubers.

Fats and oils provide the most concentrated source of energy, and have more than twice the energy content per weight of carbohydrates and proteins (9/kcal/g).

Proteins are body-building substances required for growth and tissue repair. Protein is found in foods of animal origin and in cereals and legumes and provide 4 kcal/g.

Vitamins and minerals are needed in small quantities for the adequate functioning of the body and protection against disease. Fresh vegetables and fruits are a good source of vitamins. Water soluble vitamins are fragile and cannot be stored (Vitamins Bs and C), whereas fat soluble vitamins can be stored in the body (Vitamin A and D). Important minerals are iron, sodium, iodine, zinc, magnesium, potassium, etc. Individual vitamins and minerals or combinations are found in all foods in very variable amounts.

Energy and Protein Intakes

If the energy intake is inadequate, some protein will be burnt to provide energy. That is, it will be used in the same ways as carbohydrate or fat. More than 20% of the energy requirement should be supplied from fats and oils which greatly enhance the palatability of the diet and increase energy density (important for younger children). Energy requirements vary widely even in normal individuals. They are also increased by physical activity. Much higher energy and protein intakes are required for the treatment of malnutrition, when the aim is rehabilitation rather than maintenance.

Food and Diets

Most diets in most countries contain adequate amounts of all the nutrients required for good health if enough of the diet is taken to satisfy the individual's energy requirements. Even a growing child, if healthy, requires no more than 10% of total calories to be supplied from protein sources.

Annex 1 (cont.) – Nutritional Value Of Food Commodities

COMMODITY	Nutritional Value / 100 g			Price per MT in US$
	Energy Kcal	Protein (g)	Fat (g)	
Cereals				
Wheat	330	12.3	1.5	165
Rice	360	7.0	0.5	280
Sorghum / Millet	335	11.0	3.0	200
Maize	350	10.0	4.0	170
Processed Cereals				
Maize meal	360	9.0	3.5	225
Wheat flour	350	11.5	1.5	240
Bulgur wheat	350	11.0	1.5	220
Blended Food				
Corn Soya Blend	380	18.0	6.0	320
Wheat Soya Blend	370	20.0	6.0	390
Soya-fortified bulgur wheat	350	17.0	1.5	240
Soya-fortified maize meal	390	13.0	1.5	270
Soya-fortified wheat flour	360	16.0	1.3	240
Soya-fortified sorghum grits	360	16.0	1.0	190
Dairy Products				
Dried Skim Milk (enriched)	360	36.0	1.0	1,900
Dried Skim Milk (plain)	360	36.0	1.0	1,800
Dried Whole Milk	500	25.0	27.0	2,200
Canned cheese	355	22.5	28.0	1,850
Therapeutic milk	540	14.7	31.5	2,200
Meat and Fish				
Canned meat	220	21.0	15.0	1,950
Dried salted fish	270	47.0	7.5	1,500
Canned fish	305	22.0	24.0	2,000
Oils and Fats				
Vegetable oil	885	-	100.0	750
Butter oil	860	-	98.0	2,300
Edible fat	900	-	100.0	950
Pulses				
Beans	335	20.0	1.2	440
Peas	335	22.0	1.4	375
Lentils	340	20.0	0.6	500
Miscellaneous				
Sugar	400	-	-	350
High Energy Biscuits	450	12.0	15.0	1,250
Tea (black)	-	-	-	1,235
Iodized salt	-	-	-	150
Dates	245	2.0	0.5	1,900
Dried fruit	270	4.0	0.5	1,200

Note: The prices quoted are free-on-board (FOB) and therefore do not include transportation costs. The prices shown are as of 1998 and will vary over time. This information is regularly updated and published by WFP and is available from WFP HQ's or from their offices in the field.

Annex 1 (cont.) – Characteristics of Common Foods

	Food type	Vitamins and minerals	Comments
1.	Cereal grains (rice, corn, sorghum, oats, etc.)	Contain vitamin B and iron. However these are reduced by milling, i.e. the whiter the flour the greater the loss of vitamins.	The main source of both energy and protein in most diets.
2.	Legumes / oilseeds (beans, peas, soya, ground-nuts, etc.)	B complex vitamins. Most contain significant quantities of iron and calcium.	Legumes are particularly useful when eaten with cereals as the proteins complement each other.
3.	Whole tubers and roots (yams, taro, cassava, sweet potato, potato, etc.)	Variable but generally low, except for potatoes which are rich in vitamin C.	Bulk and low protein content makes them unsuitable as staple foods in emergencies.
4.	Vegetables and fruits	Important source of vitamins and minerals. Variable quantities of B and C vitamins. Dark green leaves or yellow/red pigmentation usually indicates vitamin A compounds.	
5.	Meat, milk and dairy products, eggs, etc.	Good sources of B vitamins. Whole milk and eggs also good source of vitamin A. Milk and eggs provide significant amounts of calcium.	Usually consumed in very small quantities in normal times. They are more readily used by the body than proteins of vegetable origin. Therefore small quantities useful to improve the quality and palatability of diet.
6.	Fish, dried	Rich source of calcium and iron. Contains B Vitamins.	A concentrated source of protein for those who like it. Therefore acceptability trials essential before use.
7.	Fats and oils	Fats derived from milk are sources of vitamin A and D, while vegetable fats contain no vitamin A and D, except for red palm-oil.	Useful way to increase energy intake without increasing bulk of diet. Improves palatability and helps in food preparation.

Examples of adequate full rations for the affected population entirely reliant on food assistance[12]

Five types of rations are shown to illustrate differences due to such factors as the food habits of the population and the acceptability and availability of the commodities in the region.

Items	Rations (quantity in grams per person per day)				
	Type 1*	Type 2*	Type 3*	Type 4**	Type 5*
Cereal flour/rice/bulgur	400	420	350	420	450
Pulses	60	50	100	60	50
Oil (vit. A fortified)	25	25	25	30	25
Canned fish/meat	–	20	–	30	–
Fortified blended foods	50	40	50	–	–
Sugar	15	–	20	20	20
Iodized salt	5	5	5	5	5
Fresh veg./fruits	–	–	–	–	100
Spices	–	–	–	–	5
Energy: kilocalories Protein (in g and in % kcal) Fat (in g and in % kcal)*	2113 58 g; 11% 43 g; 18%	2106 60 g; 11% 47 g; 20%	2087 72 g; 14% 43 g; 18%	2092 45 g; 9% 38 g; 16%	2116 51 g; 10% 41 g; 17%

** For rations 1, 2, 3, & 5 the cereal used for the calculation is maize meal*

***This ration has rice as a cereal; the low percentage energy for protein is acceptable due to its high quality; the slightly low fat content is in line with food habits in rice-eating countries*

Examples of Typical Daily Rations for SFPs (in grammes per person per day)

	Take-home or dry ration		On-site feeding or wet ration				
Item	Ration 1	Ration 2	Ration 3	Ration 4	Ration 5	Ration 6	Ration 7
Blended food, fortified	**250**	**200**	**100**			**125**	**100**
Cereal					**125**		
High Energy Biscuits (HEB)				**125**[13]			
Oil, fortified with vitamin A	**25**	**20**	**15**		**20**	**10**	**10**
Pulses			**30**		**30**		
Sugar	**20**	**15**				**10**	**10**
Salt, iodized			**5**				
Energy (Kcal)	**1250**	**1000**	**620**	**560**	**700**	**605**	**510**
Protein (g)	**45**	**36**	**25**	**15**	**20**	**23**	**18**
Fat % Kcal	**30**	**30**	**30**	**30**[14]	**28**	**26**	**29**

[12] *WFP/UNHCR Guidelines for estimating food and nutritional needs. December, 1997.*

[13] *WFP Specification.*

[14] *High Energy biscuits with 15% fat meet the energy density requirement.*

Protein-energy malnutrition (PEM) is likely to be the most important health problem and a leading cause of death during an emergency. There are several forms:

> ***Marasmus*** is marked by the severe wasting of fat and muscle, which the body has broken down for energy, leaving "skin and bones". It is the most common form of PEM in nutritional emergencies.
>
> ***Kwashiorkor*** is characterized essentially by oedema (swelling which usually starts in the feet and legs), sometimes accompanied by a characteristic skin rash and/or changes in hair colour (reddish). The hair becomes sparse.
>
> In ***Marasmic kwashiorkor*** there is a combination of severe wasting and oedema.

Children under 5 years are usually the most affected, but older children and adults are also often at risk or affected. The treatment of severe forms of PEM is presented in the section on selective feeding programmes.

Vitamin and mineral deficiencies can cause long-lasting or permanent disabilities and can be fatal. The deficiencies most likely to occur include:

> ***Iron*** *deficiency* (1) causes ***anaemia***. (signs: pallor of skin and eyelids, fatigue, weakness and shortness of breath); (2) increases the risk of haemorrhage, infection and death associated with childbirth; (3) increases rates of low-birth-weight and (4) impairs the cognitive development of infants and children.
>
> ***Iodine*** *deficiency* causes not only ***goitre*** but also some impairment of intellectual development of children and of reproductive performance in women. Severe maternal deficiency can cause cretinism in the offspring. Best prevented in emergencies by the use of Iodized salt.
>
> ***Vitamin A*** *deficiency* causes ***Xerophthalmia***, blindness and death. Eye signs: poor vision in dim light, dryness of conjunctiva or cornea, foamy material on the conjunctiva or clouding of the cornea itself. These signs may appear after several months of an inadequate diet, or following acute or prolonged infections, particularly measles and diarrhoea.
>
> ***Vitamin B1 (Thiamine)*** *deficiency* causes ***beri-beri***. Symptoms and signs: loss of appetite, malaise and severe weakness, especially in the legs; may also lead to paralysis of the limbs or swelling of the body, heart failure and sudden death. Beri-beri occurs when the diet consists almost exclusively of white polished rice or starchy staple such as cassava.
>
> ***Vitamin C*** *deficiency* causes ***scurvy***. Signs: swollen gums which bleed easily, swollen painful joints, easy bruising. This occurs due to a lack of fresh vegetables and fruits.
>
> ***Niacin*** *deficiency* causes ***pellagra***. Signs: skin rash on parts of body exposed to sunlight; diarrhoea; and mental changes leading to dementia. This occurs especially where maize and sorghum are the staples and there is a lack of other foods.

Prevention involves ensuring that people receive or have access to a variety of foods that contain sufficient quantities of essential vitamins and minerals. This also includes fortified food items distributed in food aid, access to local markets, and produce from home gardens.

Treatment consists of administering therapeutic doses of the missing nutrients. The distribution of multi-vitamin tablets to the entire refugee population is a waste of time and money, since they contain insufficient quantities of individual vitamins to correct deficiencies.

[15] *Adapted from: The Management of Nutritional Emergencies in Large Populations, WHO, Geneva, 1999 (in press).*

Annex 4 – Reporting Form: Supplementary Feeding Programme

Country: Period: Total population:
Location: Under (<) 5 population
Agency: Moderate malnutrition rate:
Target <5 (moderate malnutrition rate *<5 pop):
Theoretical coverage <5 (new total (J)/Target):

	CATEGORIES							
	< 5 years		≥ 5 years		Pregnant women	Lactating women	TOTAL	
	M	F	M	F				
Total at end of last month (A)								
New Admissions:								
< 80% WFH or < -2 Z-score								
Others								
Total New Admissions (B)								
Re-admissions (C)								
Total Admissions (D=B+C)								
Discharged in this period:								percentage for <5 yrs (target):
Discharges (E)								E/I* 100% = (>70%)
Deaths (F)								F/I* 100% = (<3%)
Defaulters (G)								G/I* 100% = (<15%)
Referrals (H)								
Total Discharged (I=E+F+G+H)								
New Total at end of this month (J=A+D-I)								

Average length of stay in the programme
(from all or a sample of 30 recovered children) (target <60 days) =

$$\frac{\text{Total No of days of admission of all (or 30) recovered children}}{\text{No of recovered children (or 30)}}$$

Comments:

Annex 5 – Reporting Form: Therapeutic Feeding Programme

Country: Period: Total population:
Location: Under (<) 5 population
Agency: Moderate malnutrition rate:
Target <5 (moderate malnutrition rate *<5 pop):
Theoretical coverage <5 (new total (J)/Target):

	CATEGORIES							
	< 5 years		≥ 5 years		Adults		TOTAL	
	M	F	M	F	M	F		
Total at end of last month (A)								
New Admissions:								
< 70% WFH or < -3 Z-score								
Kwashiorkor								
Others								
Total New Admissions (B)								
Re-admissions (C)								
Total Admissions (D=B+C)								
Discharged this month:								percentage for <5 yrs (target):
Discharged (E)								E/I* 100%= (>75%)
Deaths (F)								F/I* 100%= (<10%)
Defaulters (G)								G/I* 100%= (<15%)
Referrals (H)								
Total Discharged (I=E+F+G+H)								
New Total at end of this month (J=A+D-I)								

Causes of death:

Average weight gain during last month (from all or a sample of 30 children) (target: >8 g/kg/day) =

$$\frac{\text{weight at end of month (or on exit)} - \text{lowest weight recorded during month}}{\text{lowest weight recorded in last month } \mathbf{x} \text{ No of days between lowest weight recorded and end of month (or on exit)}}$$

Average weight gain for ***marsmus*** (include only children in phase II) =
Average weight gain for ***kwashiorkor*** (include only children in phase II after complete loss of oedema) =

Average length of stay in the programme (from all or a sample of 30 recovered children) (target <30 days) =

$$\frac{\text{Total No of days of admission of all (or 30) recovered children}}{\text{No of recovered children (or 30)}}$$

Annex 6 – Nutrition Survey Reporting Form

Country:
Camp:
Date of reporting:

Population	Male		Female		Total
	number	%	number	%	number
total population					
under five population					

Survey						
date:	...../...../...../					
method:	random – systematic – cluster					
sample size:						
under five population (6-59 month or 65-110 cm)	Male number	%	Female number	%	Total number	

Results							
weight-for-height % median				weight-for-height Z-score			
category	number	%	confidence interval	category	number	%	confidence interval
<70% and/or oedema				≤3 and/or oedema			
>70 and >80%				≥3 nd ≥2			
total				total			

Other results:
(mean Z-score, mean SD, family size, % children in each category that is attending feeding center)

Comments/Observations:

Action/Intervention:

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Water

■ CONTENTS

Situation

Water is essential to life and health. In emergencies, it is often not available in adequate quantity and quality, thus creating a major health hazard.

Objective

To provide sufficient safe water for the refugees and to meet communal needs in the most cost-effective way.

Principles of response

- Give priority to quantity while respecting quality;
- Refugees should be directly involved in the development and operation of the water supply;
- Ensure consideration of water supply at the site selection and planning stages and coordinate response closely with physical planning, public health and environmental sanitation measures;
- If at all possible, avoid the need to treat water – it is better to use a source that does not need treatment. Treatment plants must always be correctly operated and maintained. If large numbers of refugees are concentrated in camps, disinfection of drinking water is absolutely necessary. Other types of treatment should be considered according to the characteristics of the raw water;
- Provide a reserve supply and spare capacity to meet temporary difficulties and the needs of new arrivals;
- Take account of seasonal variations in water quantity and quality;
- Seek expert advice and coordinate closely with the appropriate national services.

Action

- Calculate the water requirement and organize an immediate assessment of water supply possibilities;
- Make an inventory of water sources and assess all sources in terms of their water quality and yield;
- Protect existing water sources from pollution and provide good quantities of water of a reasonable quality;
- Improve access to supplies by developing sources and a storage and distribution system to deliver a sufficient amount of safe water, including a reserve supply;
- Ensure regular testing of water quality;
- Set up infrastructure for operation and maintenance;
- Maintain and update information on water resources obtained during needs assessment; planning, construction, operation and maintenance.

Introduction

1. People can survive longer without food than without water.

The provision of water demands immediate attention from the start of a refugee emergency. The aim is to assure availability of enough water to allow its effective distribution in the required quantities, and to ensure that it is safe to drink.

Adequate storage capacity and back up systems for all components of a water system must be assured; interruptions in the supply may be disastrous.

2. If it is evident that available sources are inadequate (in terms of yield or water quality), arrangements must be made to find alternative sources. If necessary, water may have to be imported to the site (by truck, barge, pipelines, etc.). Where even the most basic needs for water cannot be safely met by existing resources, or when time is needed for further exploration and development of new sources, refugees should be moved to a more suitable location.

3. Water quality is difficult to assess. Always assume that all water available during emergencies is contaminated, especially if it is taken from surface water bodies (lakes, ponds, rivers, etc.). All sources of water used by refugees must be separated from sanitation facilities and other sources of contamination. In many circumstances, treatment will be needed to make the water safe to drink. Safety of the water must be assured right through to its consumption in the household.

4. As it is difficult to predict the life-span of a refugee camp, it is best to plan on a cost-effective, long-term basis.

5. Figure 1 (a and b) shows some of the considerations for planning an emergency water supply system.

6. The sectors of water, sanitation and site planning are highly interdependent. This chapter should be read in conjunction with the chapters on these topics.

Assessment and Organization

- An immediate, on the spot, assessment of local water resources in relation to needs is essential;
- Technical expertize is required and local knowledge is most important. Outside expertize should be brought in only when clearly necessary;
- Involve the refugees, use their skills and train them to operate and maintain the system;
- Technology and equipment should be simple, reliable, appropriate and familiar to the country;
- Refugees may compete with the local population for water resources. This may cause problems between the two groups;
- Available sources must be protected from pollution at once;
- The water supply system must be supported by appropriate environmental health measures and hygiene.

An immediate, on the spot assessment in relation to needs is essential.

7. The government's central and local authorities should be involved as much as possible in this assessment. Knowledge of the local terrain and conditions is indispensable and expertize from outside the country should be brought in only when clearly necessary.

Figure 1a – Needs and Resources Assessment

General considerations for planning an emergency water supply system

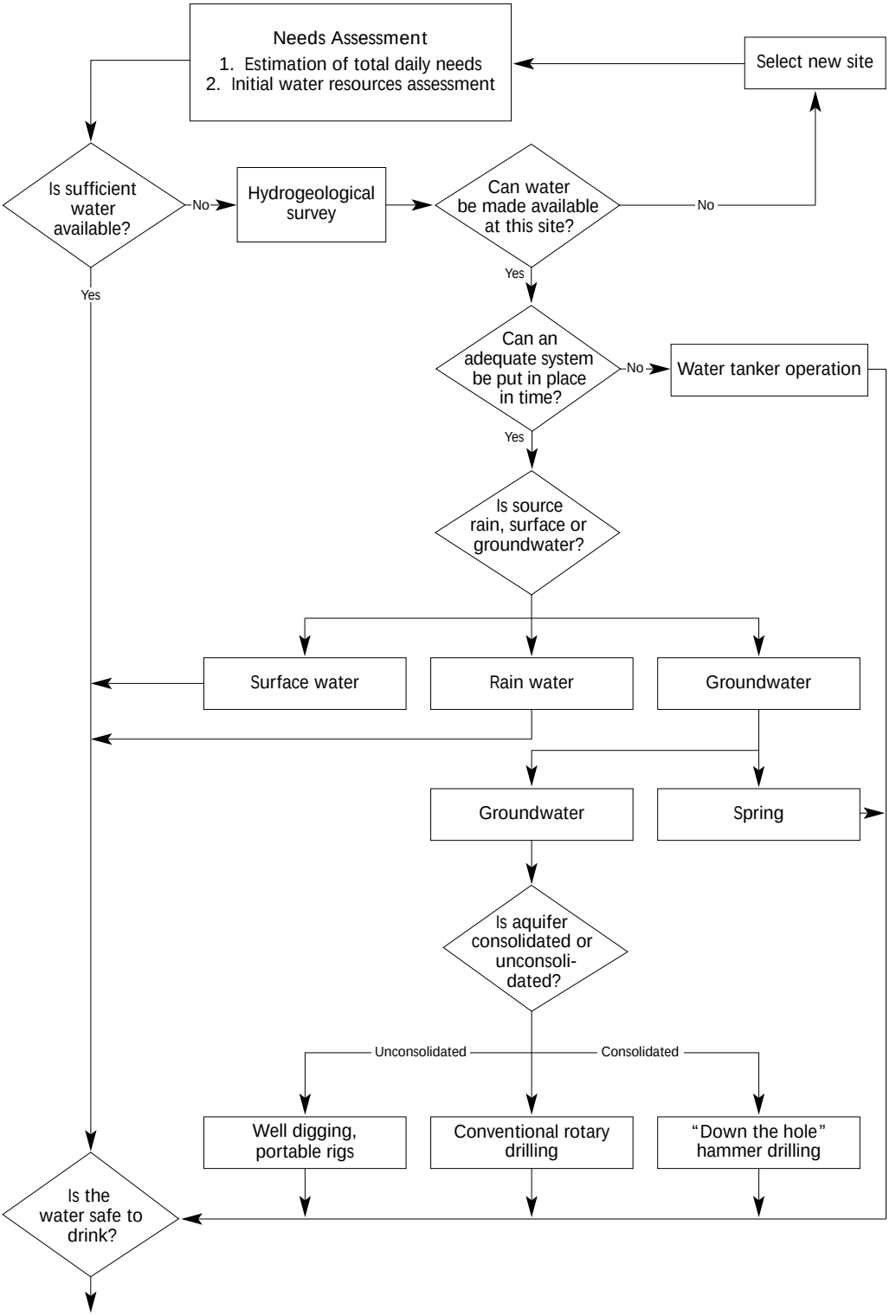
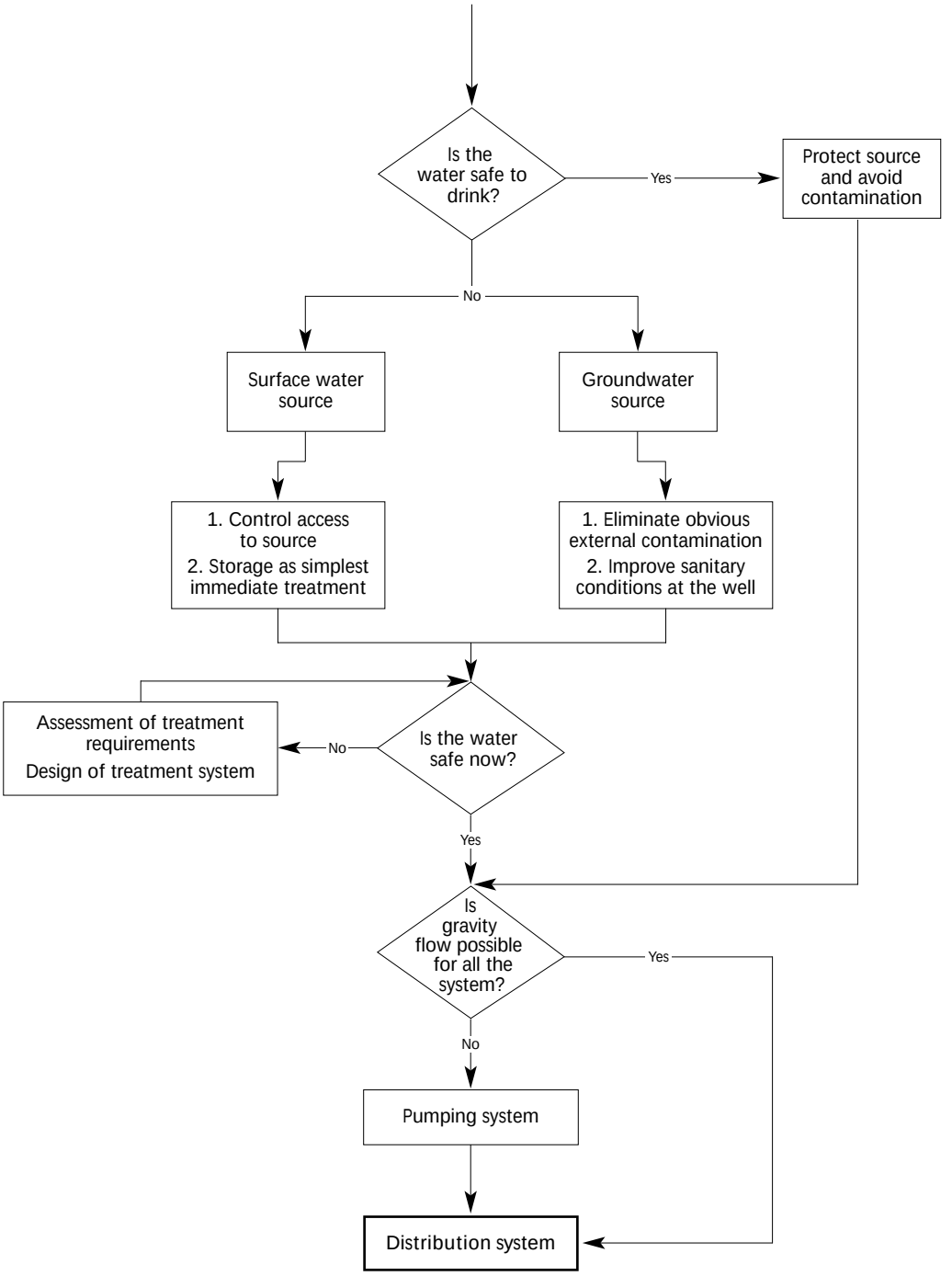


Figure 1b – Needs and Resources Assessment

General considerations for planning an emergency water supply system



8. Available sources must be protected from pollution at once. Rationing of scarce water may be needed initially in order to ensure survival of the weak and equity in distribution to the rest of the refugee population. The design and construction of a water supply system should be cost-effective and efficient bearing in mind long term needs, and should use simple but appropriate technology to facilitate operation and maintenance.

Assessment

9. The objective of an assessment of water resources for human consumption is to ascertain the availability of water (its quantity and quality) in relation to the demand.

10. Estimating the need, or demand, for water does not require special expertize, however, the assessment of supply possibilities does. Assessing the supply means identifying possible sources, and assessing the potential for developing and exploiting those resources.

11. Sources of water can be identified by: the local population, the refugees themselves, the lie of the land (groundwater is often near the surface in the vicinity of rivers and in other low places; its presence at shallow depths is usually indicated by some types of vegetation); maps (topographical, geological), remote sensing imagery (satellite images, aerial photography), previous surveys of water resources; national or foreign experts (hydrologists, hydro-geologists); and water diviners.

12. Assessing the water resources requires expertise in for example water engineering, sanitation and in some cases logistics. It includes assessing topographical advantages (gravity) and disadvantages (pumping requirements), and analysing the overall environment of the refugee sites. Further surveys will be necessary to organize the water supply system and should cover relevant information on the refugees, other beneficiaries, and the socio-economic characteristics of the host community. The results of such assessments and surveys should be systematically filed to ensure that such data will be available for future reference.

13. UNHCR maintains a standby arrangement with certain organizations whereby qualified and experienced water engineers and other experts can be provided at short notice for deployment to emergencies. (See Appendix 1, Catalogue of Emergency Response Resources, for further details). If it becomes clear that locally available expertize will not suffice, assistance from the Programme and Technical Support Section at Headquarters should be requested without delay.

14. Seasonal factors must always be carefully considered.

Supplies that are adequate in the rainy season may dry up at other times.

Local knowledge, historical and hydrological information and statistical interpretation should all be taken into account to determine the seasonal patterns.

Organization

15. Bear in mind that the economic and social bases of refugee groupings differ from those of the host communities. In addition, an influx of refugees may over-strain water resources used by the local population and lead to tension between the two groups. Special arrangements should be made with local authorities and other implementing partners for adequate operation and maintenance arrangements; the technology used in the water supply systems should be carefully evaluated to ensure it is appropriate and that long term operational needs (fuel, spare parts, management, etc.) will be within reach of the refugees and camp managers.

16. The provision of safe water could become impossible without the beneficiaries' understanding and cooperation. To the extent possible the system should be developed in collaboration with the refugees who should be involved with its operation and maintenance from the start.

Even the best system needs continuing maintenance, otherwise it will break down.

Refugees without prior experience should be trained.

17. In order to be effective, water quality control and treatment have to be combined with improved personal hygiene and environmental health practices. Basic public health education stressing the importance of avoiding pollution of the water by excreta and of the use of clean containers in the household, will be essential. The water supply system design and construction must be closely coordinated with site planning and layout and must be supported by health, education and environmental measures, in particular sanitation.

As a general rule, technology should be kept simple. It should be appropriate to the country and should draw on local experience.

Where pumps and other mechanical equipment are necessary, supplies should be standardized as far as possible.

Locally available material and equipment should be used as much as possible.

Local familiarity, availability of spare parts, fuel and ease of maintenance are priority considerations.

18. Both organizational and technical aspects of the complete water supply system need to be carefully monitored. The use of the system must be controlled and water wastage or contamination prevented. Maintenance must be assured, and technical breakdowns quickly repaired.

The Need

- Demand: Calculate on at least 15 litres per person per day. Absolute minimum survival allocation is 7 litres per day.
- Quality: To preserve public health, a large amount of reasonably safe water is preferable to a smaller amount of very pure water;
- Control: The water must be safe: test the physical, chemical and bacteriological quality of new sources before use and regularly thereafter, and immediately following an outbreak of a disease which might be caused by unsafe water.

Quantity

19. Minimum water needs vary: it increases with air temperature and physical exercise. As a general indication, the following amounts of water are desirable:

Minimum daily requirements:

Minimum survival allocation: 7 litres per person per day. This should be increased to 15-20 litres per person as soon as possible.

Communal needs and a spare capacity for possible new arrivals should be added.

Health centres: 40-60 litres per patient per day;
Feeding centres: 20-30 litres per patient per day.

20. Further needs may include: livestock, sanitation facilities, other community services, irrigation and construction of camp infrastructure (e.g. roads or concrete structures). The more convenient the supply, the higher will be the consumption.

21. Give priority to quantity while respecting quality. A reduction in the quantity of water available to individuals will directly affect the overall health status of the refugee population. As supplies are reduced, personal and domestic hygiene suffers, and the reduction is reflected in increased incidence of parasitic, fungal and other skin diseases, and diarrhoeal diseases. Even those individuals who may have traditionally lived on less than the normally recommended amount of water will require more water when living in a refugee camp, because of crowding and environmental factors.

22. The availability of water will be a factor in deciding on a sanitation system. Pit latrine systems do not need water to function; but showers, washing, laundry or pour-flush toilet facilities all require water.

23. Water will also be needed for livestock in many refugee situations. Take great care to avoid pollution or depletion of scarce water resources by livestock, separation of human water supply points from those used by animals is a must. As a rule of thumb, cattle need about 30 litres of water daily. Water will also be needed to irrigate food (vegetable gardens, crops) cultivated by refugees. Annex B of UNHCR's Water Manual provides additional indicative figures on water requirements including livestock and agricultural crop needs.

24. Water will probably be of little use in controlling major fires on refugee sites owing to a lack of sufficient quantity and pressure.

If more refugees are expected to arrive, plans must allow for a substantial spare capacity over the initially assessed needs.

Quality

25. The water must be both acceptable to the refugees and safe to drink. Water that tastes and looks acceptable will be drunk by refugees who may unknowingly expose themselves to the dangers from microbiological organisms. Water-borne diseases are not usually as serious or widespread a problem as the water-washed diseases such as skin and eye infections which result from insufficient water from personal hygiene.

Thus, a large quantity of reasonably safe water is preferable to a smaller amount of very pure water.

26. The most serious threat to the safety of a water supply system is contamination by faeces; once the water has been contaminated it is hard to purify it quickly under emergency conditions.

27. Water may contain pathogens, particularly certain viruses, bacteria, protozoan cysts and worm eggs which are transmitted from faeces to mouth. Water contamination by human faeces is the major concern, although animal faeces in water may also cause disease transmission. Water contamination by urine is a significant threat only in areas where urinary schistosomiasis (Schistosoma haematobium) is endemic.

By far the greatest risk associated with polluted drinking water is the spread of diarrhoea, dysentery and infectious hepatitis (Hepatitis A).

28. Diarrhoea and dysentery are caused by a variety of viruses, bacteria and protozoa. The numbers of viruses and protozoa in water will always decrease with time and will always decrease most rapidly at warm temperatures. Bacteria behave similarly, but in exceptional circumstances may multiply in polluted water. The infectious dose of the viruses and protozoa is typically very low, whereas the dose of bacteria needed to establish an infection in the intestine may be large.

29. New water supplies should be tested for bacteriological quality before use and existing ones checked regularly and tested again immediately following any outbreak of disease which might be caused by unsafe water.

30. Potability analysis involves studying the chemical, physical and bacteriological characteristics of the water. Although it is possible to examine water for a specific pathogenic organism, a much more sensitive test for routine analysis uses an indicator organism, called Escherichia coli (coliform, or E-coli), which is a normal inhabitant of the intestine of warm-blooded animals and is excreted in large numbers. If these bacteria are found in water, faecal pollution is indicated and the sample is therefore potentially dangerous.

31. Concentrations of faecal coliform are usually expressed per 100 ml of water. As a guide:

Faecal Coliform/100 ml	Water Quality
1 - 10	reasonable quality
10 - 100	polluted
100 - 1000	very polluted
> 1000	grossly polluted

32. In cases where the water is disinfected by chlorination, it is easier and more appropriate to test for the presence of free available chlorine than for bacteria. The presence of free chlorine in the range between 0.2 mg/l and 0.5 mg/l at the distribution point shows that the bacteria have almost certainly been killed and that the water cannot be heavily polluted with faecal or other organic matter.

33. The water must, of course, be safe at the time of consumption or use in the household, not just at the distribution point. Domestic hygiene and environmental health measures to protect the water between collection and use are important. The water in storage tanks and any tanker trucks should also be tested periodically.

34. Where drinking water is scarce, use non-potable, brackish or salty water for washing.

Immediate Response

- If even the minimum amount of water cannot be made available in time from local sources, the refugees should be moved.
- Whatever the water source, take immediate action to prevent pollution by excreta. (See chapter 17 on environmental sanitation for further details).
- Organize a distribution system that prevents pollution of the source and ensures equity if there is insufficient water.

35. Short-term emergency measures may be necessary while the longer term supply system is being developed or pending the move of the refugees to a more suitable site. If the locally available water supply is insufficient to meet the minimum needs of the refugees, arrangements must be made to bring in water by truck.

36. If this is not possible, the refugees must be moved without delay. Often, however, the quantity of water available will meet initial minimum needs; the immediate problem would be water quality.

37. The refugees will be using either surface water or, less often, ground water (well or springs) – usually whatever water is closest, regardless of quality. Whatever the water source, take immediate steps to prevent pollution by excreta.

The best immediate response is likely to be organizational.

38. Work with community leaders to organize the refugee community and make the community aware of the possibilities and dangers of existing water sources and convey the idea of trying to prevent pollution of these sources by excreta. If the source is flowing, supplies must be drawn off upstream and a special area set aside for this. Then allocate an area for washing, and finally downstream of the settlement, allow any livestock to drink (see figure 2). Fence off parts of the river banks as necessary, and beware of any dangers in the water, such as reptiles.

39. Where the source is a well or spring, fence off, cover and control the source.

Prevent refugees from drawing water with individual containers that may contaminate the source.

40. If possible, arrange to store water and to distribute it at collection points away from the source. Not only does this help avoid direct contamination but storage can make water safer.

41. From the start, families will need to be able to carry and store water at the household level. They must be able to transport at least 10 litres (from water distribution points to the household) and store at least 20 litres per household (1 household = 5 persons). Suitable containers (10-20 litres) are essential. Collapsible jerry-cans are recommended, especially when their transportation to the site may involve airlifts. Jerry-cans must have narrow inlets to prevent contaminating objects getting in. For this reason, buckets and other wide necked containers are not recommended. Sometimes empty cooking oil containers or the like are available which may be appropriate.

If the immediately available supplies of water are insufficient, action to ration supplies and to ensure equitable distribution will be a priority.

42. Rationing is difficult to organize. The first step is to control access to the sources, using full-time guards if necessary; uncontrolled distributions are open to abuse. Distribution at fixed times for different sections of the site should be organized. Vulnerable groups may need special arrangements. Every effort must be made to increase the quantity of water available so that strict rationing is unnecessary.

43. In parallel to these steps, action must be taken to improve the quantity from existing sources and the effectiveness of any distribution system. Plan how the need for water may best be met in the longer term. The following sections outline the main considerations.

Water Supply Systems

(See Water Manual, Chapter 12)

- A water supply system is a combination of structures (intakes, pumping sets, treatment, storage and distribution facilities and drainage outlets) necessary for the production (collection, treatment, storage) and distribution of potable water;
- Ensure the system components are compatible with each other and appropriate in view of the supply and demand, and can be maintained from locally available resources and at the lowest possible cost;
- The system will have to be planned, designed, constructed and put into operation in a short period of time (involving the refugee population as much as possible). The complexity of the task requires professional expertize which should be sought at the beginning of the project. Pay attention to long-term operation and maintenance requirements from the start.

44. As soon as possible, make an overall plan for the longer term water supply system. At least some elements of the plan will be problematic – there is often a lack of basic data or difficulty in obtaining the planning or design tools (cartography, hydrological data, etc.). The following steps should be taken:

i. Search for adequate sources;

ii. Preliminary surveys. Assess water quantity and quality (see above). Assess topographical advantages (gravity) and disadvantages (pumping requirements). Collect additional, relevant information on the refugee community, on any other beneficiaries, on the social and economic characteristics of the host community, on the overall environmental framework of the refugee sites;

iii. Implementation arrangements. Analyze the possibilities and constraints of all parties interested in the project and allocate responsibilities for project implementation, including operation and maintenance. Clarify arrangements for funding, contractual procedures, project monitoring, financial matters and reporting;

iv. Production of the design concept (see Chapter 12, paragraph 2, UNHCR's Water Manual). Consider the alternatives, taking into account implementation time, technology considerations and cost-effectiveness;

v. Detailed surveys. To refine all aspects and details of the adopted design. These include further water analyses, identifying building materials, further measurements of water production at sources, detailed topographical surveys of the position of water sources, storage tanks and distribution points;

vi. Production of final designs;

vii. Organization of refugee involvement on the project. Identify relevant skills and expertize among the refugees. Organize refugee committees;

viii. Implementation of the project. Besides construction, other inputs are required, such as the technical supervision to ensure that construction is carried out in accordance with previously approved plans and that payments for construction reflect the real value of the works accomplished;

ix. Organization of operation and maintenance, including the organization of a committee in which refugees and relevant assistance sectors are represented (health, sanitation, community services). Ensure there is continuous engineering support and employ a caretaker or a group of caretakers to carry out the operation and maintenance tasks.

45. See UNHCR's Water Manual for additional information and details on these issues (chapter 6, paragraphs 1, 36; chapter 11, paragraphs 2, 3, 11; chapter 12, paragraphs 5, 12-8, 16).

46. An ill-conceived or badly managed water supply system will soon create problems. The long-term needs of the refugees should be considered while searching for solutions to the emergency needs. All efforts to avoid long-term problems will prove, with time, very valuable.

Water Sources

(See UNHCR Water Manual Chapter 6)

- Rain water, groundwater from springs and wells or water from municipal and private systems are usually of better quality than surface water from sources such as rivers, lakes or dams and should be used if available;
- Surface water should be considered to be contaminated and must be treated prior to use;
- Physical protection of the source from pollution will be essential;
- New or repaired sources and equipment should be disinfected before use;
- Develop a data bank of water sources.

Introduction

47. There are three main natural types of fresh water: surface water (streams, rivers, lakes), groundwater (underground or emerging as springs) and rain water.

48. Considerations in choosing between alternative sources of water in an emergency include:

i. Speed with which source can be made operational;

ii. Volume of supply;

iii. Reliability of supply (taking into account seasonal variations and, if necessary, logistics);

iv. Water quality, risk of contamination and ease of treatment if necessary;

v. Rights and welfare of local population;

vi. Simplicity of technology and ease of maintenance;

vii. Cost.

49. Take careful account of systems and methods already in use locally. Adoption of well-proven and familiar techniques, combined with action to improve protection against pollution is often a sound solution.

50. Besides organizational measures to protect the water supply, some form of treatment may be necessary. However, if possible use sources that do not require treatment. The treatment of unsafe water, particularly in remote areas, can be difficult and requires trained supervision to be reliable.

51. Gather as much technical information as possible on the different water sources to allow a simple cost-benefit analysis of alternative solutions. The decision on which sources

to develop and the technological approaches to be used should take into account the need to develop systems to efficiently cover both immediate and longer-term needs.

Surface Water

Water from streams, rivers, ponds, lakes, dams and reservoirs is rarely potable; its direct use is likely to require treatment measures that may be complicated to plan and implement during most refugee emergencies.

Rainwater

52. Reasonably pure rain water can be collected from the roofs if these are clean and suitable. This method can only be the major source of water in areas with adequate and reliable year-round rainfall; it requires suitable shelter and individual household storage facilities. It is, therefore, not a suitable solution in most refugee emergencies.

Every effort should be made to collect as much rainwater as possible.

53. Small rainwater collection systems, for example using local earthenware pots under individual roofs and gutters, should be encouraged. Allow the first rain after a long dry spell to run off, thus cleaning the catchment of dust, etc. The supply of water that may be collected by this method is estimated as follows:

54. One millimeter of yearly rainfall on one square metre of roof will give 0.8 litres per year, after allowing for evaporation. Thus, if the roof measures 5 x 8 metres and the average annual rainfall is 750 mm, the amount of rain water which may be collected in a year equals: 5 x 8 x 750 x 0.8 = 24,000 litres per year or an average of 66 litres per day (on many days there will be none).

55. Rain water may be a useful supplement to general needs, for example through special collection for community services such as health and feeding centres, where the safety of water is most important. It should also be noted that surface water is particularly likely to be contaminated in the rainy season. Thus rain water may be a useful source of safe water for individual use at a time when other water is plentiful but unsafe.

Groundwater

56. Groundwater is contained in aquifers. Aquifers are rocks or groups of rocks capable of transmitting, storing and yielding water. They may be formed by loose sediments (silt, sand, gravel), fractured rocks or otherwise porous rocks (fractured lavas, granites, metamorphic rocks, sandstones, etc.). The microbiological quality of groundwater is usually very good in view of the filtration undergone by water in its transit through rock pores (An exception to this filtering effect is when the size of the fractures in the rock is large.)

57. The use of groundwater during refugee emergencies would almost always be the preferred solution: if available, groundwater usually provides the most cost-effective alternative to obtain quickly the necessary quantity and the best quality. However, the decision to use it for long term needs should be made after a detailed assessment of the aquifer and all factors relating to the recharge, transmission and release of water and on the availability of relevant expertize and equipment.

Springs are the ideal source of groundwater.

58. Water from a spring is usually pure at the source and can be piped to storage and distribution points. It should be taken off from above the refugee camp site if possible. Care should be taken to check the true source of spring water, as some apparent springs may really be surface water which has seeped or flowed into the ground a short distance away. The yield of water from a spring may vary widely with the seasons. It will be at its minimum at the end of the dry season and early in the rainy season. Seek local advice.

It is essential that spring water be protected against pollution at the source.

59. This can be by a simple structure built of bricks, masonry or concrete, from which the water flows directly through a pipe to a tank or collection point. Care must also be taken to prevent contamination above the take off points.

If the need for water cannot be met by springs, the next best option is to raise groundwater.

60. Groundwater can be raised by infiltration galleries, tube wells, dug wells or boreholes. (Infiltration galleries extract groundwater horizontally, for example through tunnels and/or ditches). The choice of method will depend on the depth of the water table, yield, soil conditions and availability of expertize and equipment.

61. Without good groundwater resource surveys, preliminary test drilling, or clear local evidence from nearby existing wells, there is no assurance that new wells or boreholes will yield the necessary amount of water of the right quality. They can also be expensive.

A hydrogeological survey must be undertaken before starting any extensive drilling programme.

62. The yield of infiltration galleries, wells or boreholes depends on the geological formation in which they are constructed, the topographical characteristics of the site, the construction techniques and the pumping equipment to be used. Any new well or borehole must first be developed to full yield by an initial period of pumping at a fast rate. This pumps out finer soil particles, allowing water to pass more easily into the well. Yields can be raised by increasing the size of the well below the water table, for example in the case of a shallow well, by an infiltration gallery across the line of groundwater flow. If wells are sited too close together, yields will be reduced.

63. Wells, boreholes, infiltration galleries and pumps should be disinfected immediately after construction, repair or installation, as they may have been polluted during the work – two or three buckets of a 2.5% chlorine solution in water would be a suitable disinfectant. They should be located where surface water and, in particular, any seasonal rain or flood water, will drain away from the well head. They should be above and at least 30 metres away from any sanitation facilities and their discharge. Special techniques are used in the design and construction of these facilities to avoid the pollution of their water.

Sea Water

64. Sea water can be used for almost everything but drinking, thus reducing fresh water requirements. In locations where no adequate sources of fresh water exist but where sea water is near, desalinisation is one possible but costly option. Neither of the two basic methods – distillation using the sun's heat nor the use of modern desalinisation plants – is likely to meet immediate fresh water requirements in a major refugee emergency, and is therefore strongly discouraged. If no fresh water sources are available at a given site, relocation of the refugees must be considered as a matter of urgency.

Municipal and Private Systems

65. Existing municipal and private water supply systems in the vicinity of the refugees, for example those belonging to industrial or agricultural establishments, may be able to meet part or all of the need during the emergency phase and should be used where possible before taking unnecessary measures to develop other sources. A substantial increase in the yield and quality of such systems may be possible.

Pumping Equipment

(See UNHCR Water Manual, chapter 7)

- Pumps will generally be needed in refugee emergencies. Seek expert local advice on what is suitable and remember that operators, fuel and spare parts will be needed;
- As much as possible, use gravity rather than pumps for water distribution and treatment systems;
- Emergency water supply solutions involving pumps should be designed to ensure long-term and effective operation: avoid ad-hoc solutions;

66. Once an adequate source of water has been established, arrangements are needed to store and distribute the water to meet minimum needs.

The distribution system should use gravity whenever possible: gravity fed systems are much less costly and easier to maintain than pumping systems.

67. In areas subject to seasonal flooding, or where the level of a river source varies markedly, great care must be taken in placing any pumps, distribution, storage and treatment systems. It may even be necessary to mount a pump on a raft.

68. Water can be raised in two basic ways: by hand, using some kind of water container or bucket, or by using pumps (which may be driven by hand or engine). Nobody should be allowed to put individual containers into the source. A captive rope and bucket carries a low pollution risk. In this system, only the single rope and bucket that is fixed to the well is used to draw water – refugees fill their own containers from this captive bucket. The system is more reliable and much cheaper than a pump.

Where it can meet the demand, a hand operated system is to be preferred. Not more than 200 people should depend on a well with one rope and bucket.

69. The main uses of pumping equipment in refugee water supply systems are:

I. Pumping water from wells or boreholes;

ii. Pumping water from surface water intakes;

iii. Pumping water into storage reservoirs.

70. Additionally there may be a need to use pumping equipment for other purposes, for example, feeding water treatment plants, boosting the flow through long pipelines, feeding water tankers. Gravity flow systems should be used as much as possible for these purposes as a way to minimize pumping requirements.

71. All pumps have moving parts and require regular maintenance. Professional advice should be sought on the selection and placing of pumps. Local familiarity, fuel supplies, spares, ease of maintenance and, above all, reliability, will be the major considerations in pump selection. Hand-pumps may be appropriate because they reduce dependence on outside supply of spare parts and fuel. However, in a refugee emergency, the sudden and large concentration of people requires maximum output of available water. Motorized pumps have a far greater output and may, therefore, be indispensable.

72. In some circumstances, pumps powered by solar panels may be suitable. The currently available pumps are expensive for their output but very reliable and involve no direct running costs. The pumps naturally work best in direct sunlight but will still work with light cloud cover. A solar pump might be a solution when the output of a handpump would be insufficient but large mechanised pumps are not necessary.

73. The theoretical capacity required of the pump depends on available storage, likely demand, and variations in demand throughout the day. A reserve for breakdowns, new arrivals, etc. should be provided. The minimum daily period during which a pump should be idle is that required to allow the level of water in the source to recover to its old level. Pumps should not be operated at night. Always have a pump on standby in a major supply system to cover repairs and maintenance.

Treatment

(See Water Manual, Chapter 8)

- The most serious threat to safety of a water supply is contamination by faeces;
- Only treat water to the extent necessary. Disinfection of drinking water is required if large numbers of refugees are concentrated in camps;
- All water treatment methods require some expertize, regular attention and maintenance;
- In refugee emergencies, the priority is to improve the physical and the bacteriological characteristics of drinking water. Only under very special circumstances would the improvement of chemical quality be considered;
- Cloudy or turbid water should be clarified before disinfection because chlorinating cloudy or turbid water is ineffective;
- Water purification tablets or boiling are not generally appropriate for large scale water treatment.

Introduction

74. The potability of any source has to be assessed before a decision to use it for human water supply is taken.

75. The importance of trying to find a source that does not require treatment is obvious.

If treatment is necessary it should be the minimum required to ensure acceptably safe water, using appropriate technology and a reliable operational and maintenance system.

76. Correct plant operation and maintenance must be assured. If large numbers of refugees are concentrated in refugee camps, disinfection of drinking water is absolutely necessary. Other types of treatment should be considered in accordance with the characteristics of the raw water.

77. Determining how to treat water on a large scale is best done by experts. However, simple and practical measures can be taken before such help is available. Full explanations of all treatment methods applicable in refugee emergencies are given in Chapter 8 of UNHCR's Water Manual. All methods require regular attention and maintenance.

78. Besides the physical measures to protect water at its source and initial disinfection of water sources (usually by chlorine), there are four basic methods of treatment: storage,

filtration, chemical disinfection and boiling. These can be used singly or in combination.

Storage and Sedimentation

79. Storage is the simplest method of improving water quality. It causes some pathogens to die off and any heavy matter in suspension to settle ("sedimentation").

Leaving water undisturbed in containers, tanks or reservoirs improves its quality.

80. Storage of untreated surface water for 12 to 24 hours will already cause considerable improvement in its quality; the longer the period of storage and the higher the temperature, the greater the improvement. Be aware, however, that in refugee emergencies, it is very seldom that the amount of water available would be enough to allow the water intended for drinking purposes to be stored for more than a few hours before it is distributed to users. Where sedimentation tanks are used, their capacity alone should equal one day's consumption, thus allowing sedimentation to take place overnight.

81. Longer storage time can help control schistosomiasis (bilharzia), as the parasites die if they do not reach the fresh water snail within 24 hours of excretion by an infected person, or if they do not reach a human or animal host within 48 hours of leaving infected snails. Thus two day's storage would provide an effective barrier to transmission of the disease, provided snails do not enter the tank.

82. Sedimentation clarifies cloudy water which can be greatly speeded up by the addition of aluminium sulphate (Alum). A two-tank system is often used, the first tank being a settling tank with the second storing the clarified water. If additional treatment (e.g. chemical disinfection) is required, it can be done in the second tank, and a third one used for storage if necessary.

83. Great care should be taken to prevent pollution of stored water. Storage tanks must always be covered: the dangers of contamination of open tanks more than offset the advantages of direct sunlight. The storage area should be fenced off, and if necessary guarded, to prevent children playing or swimming in the water.

Filtration

84. Sand filtration can be an effective method of water treatment. A proper slow sand filter works in two ways. Passage of the water through the sand physically filters out solids, and, more importantly, a thin and very active layer of algae, plankton, bacteria and other forms of life develops on the surface of the sand bed. This is called the "schmutzdecke", where micro-organisms break down organic matter.

85. The rate of filtration depends on the surface area, depth and type of sand through which water is passed, and the depth of water above the level of the sand surface. The usual size range of the sand is 0.3 - 1 mm. Provided the rate of filtration is slow enough, the quality of the treated water is very good.

86. Many types of sand filters are described in the available technical guides (See key references). A packed drum filter can be improvized if drums and sand are available and this may be a good way of providing limited quantities of safer water quickly, for example for a health centre. The water passes down through sand on a 5 cm layer of gravel and is drawn off at a rate that should not exceed 60 litres per hour for a 200 litre drum. If a tap is used, unfiltered water equal to the amount drawn off is simply added to the top. Other types of sand filters include the slow sand filters, the horizontal sand filters and the river bed filters or infiltration galleries (suitable only where the bed is permeable). These can be used to treat larger amounts of water but are likely to be more difficult to set up quickly and effectively. For a river source a possible intermediate measure is to dig a well close to the bank. The water recovered will be river water but will have been filtered through the bed and bank.

Chemical Disinfection

87. Disinfection of water on a large scale is a rule in all refugee emergencies. Purification of wells, sand filters, pumps and piped water systems will be required initially. Iodine or various forms of chlorine can be used for disinfection and purification. Chlorine is more widely used, cheaper and often more readily available. The most generally suitable form of chlorine for refugee emergencies is calcium hypochlorite powder. Expert advice is essential for large-scale chlorination. As with all other water treatment methods, disinfection requires regular attention; it will be of little value if it is not fully reliable. Whilst clear water usually only requires chlorination, turbid water usually requires sedimentation and/or filtration before the chemical disinfection. Chlorination should therefore take place after any sedimentation

or filtration process has been undertaken. It requires at least thirty minutes to act.

88. Care must be taken to ensure strict control of any chemical disinfection process and particularly to test the water for chemical residual levels after each disinfection and before distribution. After chlorination, and once chlorine has reacted, (about 30 minutes after dosage) there should be at least 0.5 mg/l (0.5 parts per million) of free available chlorine left in solution, in other words, still available to kill bacteria. The amount of chlorine required to achieve this is usually a broad indication of the level of pollution. If the amount of free available chlorine is much above 0.5 parts per million, people may not be prepared to drink the water; over-chlorinated water tastes unpleasant and will have the reverse of the desired effect if people therefore prefer untreated water.

89. A pocket size chloroscope (chlorine comparator kit, preferably of the DPD[1] type) tests for residual chlorine levels. It consists of two tubes, each containing a measured quantity of the water under test, which can be visually compared for colour. One of the two tube samples is coloured by the addition of a chlorine sensitive reagents (o-toludine, a common reagent, should be avoided, as it decomposes in hot climates; it is also a poor indicator if the water has been over-chlorinated). The other tube is looked at through a range of standard coloured glass slides; the chlorine concentration can be read-off directly after matching the colour of the tube with the added reagent with that of the nearest standard. This test is simple and all treatment plant attendants should be trained to use it to check frequently the water quality. In view of the fact that water may be kept in storage, after chlorination, for some time before distribution, and bearing in mind that residual chlorine levels tend to drop with time, it is important to ensure any water leaving the plant should have, at least, a residual chlorine content of 0.4 mg/l (or parts per million) of free available chlorine to be regarded as safe.

90. When chlorination equipment is not working, the water should not normally be distributed. Therefore to ensure a continuous water supply, back-up chlorination equipment should be available in any water treatment plant.

91. Chlorine and iodine water purification tablets are also available, but are rarely suitable for water treatment for large populations. They may be used in health or supplementary feeding centres.

Boiling

92. Boiling is the surest method of water sterilization. At low altitudes, water that is simply brought to the boil can be assumed to be free of pathogenic bacteria. Boiling should, however, be continued for one minute for every 1,000 metres of altitude above sea level, as the boiling temperature reduces with altitude. Prolonged vigorous boiling is often recommended but is not necessary to destroy the faecal-orally transmitted pathogens; it wastes fuel and increases the concentration of nitrates in the water. Water with high nitrate content is dangerous for very young babies. Domestic fuel supplies may, in the longer term, be the determining factor: boiling requires about 1 kg of wood per litre of water. However, if the refugees have traditionally boiled their water and can continue to do so, this should be encouraged and, at least initially, might make the need for other types of treatment less urgent.

[1] *DPD is Diethyl-P- Phenylene Diamine.*

Storage

- All refugee sites must be provided as soon as possible with adequate water storage facilities;
- Water storage may be the only means of ensuring a constant availability of water to cover the needs of a camp population at a given site;
- In general, use local technology for the design and construction of storage tanks or reservoirs. However, using prefabricated tanks may sometimes be the only way to provide water quickly enough;
- Ensure that the size, location and overall design of storage tanks are compatible with all other system components and design characteristics.

93. In nearly all systems, it will be necessary to store water in covered tanks between the sources and distribution points. As well as providing an essential reserve both during the emergency and for long-term use, storage will facilitate monitoring, collecting, treating and distributing safe water.

All refugee sites must be provided as soon as possible with facilities to store an adequate reserve of water.

94. The size of the reserve to be used will depend on the number of people and on the nature of the water supply system.

Water can be stored in various locations:

i. At the water collection point in tanks;

ii. In central storage tanks (before or after treatment) to balance supply with demand and to allow for gravity-fed distribution;

iii. At distribution points in tanks, including public stand-pipes or other service points at health centres, camp administration facilities, staff houses, etc.;

iv. At the refugee household level in small containers. These containers should not be the same as the ones used to collect and transport water from distribution points.

95. Whatever the type of storage needed, adequate enclosure should be provided to prevent any contamination from humans, animals, dust or any other source. A tight cover and dark storage also prevent algal growth and breeding of mosquito larvae.

96. In areas with pronounced dry and rainy seasons, the construction of a reservoir to collect water may be an option, despite the dangers of pollution and of mosquito breeding. An erosion-protected overflow spillway should always be provided in this case. Catchment tanks for the collection of surface water can also be considered. Pits are dug in the ground to catch and hold the water which runs off hard ground during heavy storms. They need special lining to hold the water and should be covered if possible.

97. Tanks above ground may be needed where the water table is very high and contamination cannot otherwise be avoided. Many types of simple, air portable, butyl rubber storage tanks are available, and some can be supplied with a complete distribution system. Headquarters' advice should be sought if local resources cannot meet this need.

Distribution

(see Water manual, Chapter 10)

- An appropriate water distribution system should ensure an even coverage of water needs among camp beneficiaries;
- Keep the distribution system simple;
- Under normal circumstances, water distribution in refugee camps should be carried out through public distribution stand-pipes;
- The water distribution system should minimize waste.

Refugees must have easy but controlled access to water.

Ideally, no dwelling should be further than 100 metres or a few minutes' walk from distribution points.

98. Experience has shown that where people have to fetch water from considerable distances, they tend either not to fetch enough to limit water-washed diseases or to collect water from closer but contaminated sources. Water distribution will be an important consideration in the layout of the site. The areas round the distribution points should be paved with stones or gravel, or protected by boards, with a run off structure to allow proper drainage.

99. Water can be distributed to individual users in many ways, depending on local conditions. Uncontrolled access by individual co sumers to primary water sources should be avoided.

A distribution system should have a sufficient number of outlets to ensure that people do not need to wait for long periods to have access.

100. Service and administrative buildings should be provided with private connections.

Equity in the distribution of scarce water is an extremely important consideration.

101. While vulnerable groups (the sick, wounded, most severely malnourished, children, pregnant and lactating women and the disabled) should have adequate and assured allocations, scarce water must be evenly shared among the rest of the population. Refugees should be encouraged to assume responsibility for equitable distribution. Arrangements should be carefully monitored to detect and prevent abuses. In some situations, water meters have proved a cheap and effective way of identifying excessive use and reducing consumption.

102. The main components of a water distribution system are the pipes themselves. Between source, storage and distribution points, water for domestic use should flow only in pipes to protect its quality. Other system components are break-pressure tanks, valves, service reservoirs and the watering points.

103. Standpipes and push taps are recommended to be used as outlets where possible. Multiple tap standpipes are normally constructed, each installation having usually between 5 and 10 individual taps. Taps are very vulnerable and spares must be available. Where water supplies are limited and the site is crowded, valve distribution points which can be chained shut may be the only effective solution.

There should be at least one tap per 80-100 refugees and no more than 200 refugees per handpump or per well with one rope and bucket.

104. The larger the number of people using a single source or outlet of water, the greater the risk of pollution and damage. Whatever the final distribution system, this must be carefully controlled and supervized – guards are often needed.

105. The design, construction, operation and maintenance of the water supply system should be carried out bearing in mind the need to minimize water wastage (from taps, pipes etc.) This is particularly important in systems based on low yield water sources or on those requiring treatment or pumping.

106. The community itself will also generate a certain amount of waste water. This must not be allowed to become a danger to public health, and it may instead be usefully recycled, for example to water livestock, irrigate vegetable gardens or in pour-flush latrines.

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17

Environmental Sanitation

■ CONTENTS

Situation

Overcrowding, a harsh environment and disruption of normal sanitation habits can threaten the lives and well-being of the refugees in emergencies. Proper sanitation is a key aspect of the hygiene cycle involving water and health and is fundamental to a multi-sectoral approach in emergency response.

Objective

To prevent the spread of disease and promote a safe environment for the refugees.

Principles of Response

- The co-operation of the refugees is essential for success. Programmes must be developed with them, and, to the extent possible, run by them. The measures taken must be culturally acceptable to the refugees;
- Swift provision of a basic system for human waste disposal is better than delayed provision of improved systems;
- Take full account of sanitation needs in site selection and layout;
- Make full use of locally available human, material and technological resources. This includes using both skilled and unskilled refugee labour, using public health or sanitary engineering expertise available in the national institutions, and relying on the traditional practices of the refugees and the local people;
- The materials and technology chosen should be as simple as possible;
- The sanitation programme must include provisions for continuous maintenance of the sanitation facilities and services;
- The best guarantee that latrines will be used and kept clean is to allocate them on an individual or family basis. Refuse disposal should be arranged on a community basis;
- Wherever possible, restrict the use of chemicals (for the control of rats, flies and other pests particularly) to specific places and for a limited period of time. Environmental measures should be favoured instead.

Action

- Localize defecation and prevent contamination of the water supply;
- Collect baseline data on the site and draw a sketch of the area to locate potential zones for sanitary facilities;
- Develop appropriate systems for disposal of excretia, garbage, and wastewater. Control vectors of public health importance such as mosquitoes, flies, fleas, lice, bugs, rodents and other vermin;
- Plan the amount of facilities and services to be provided. Optimum standards are: for excretia disposal: one latrine per family; for refuse: one bin of 100 litre capacity for 10 families or 50 persons; one sanitarian for every 5,000 persons, and one sanitation assistant for every 500 persons;
- Establish sanitation teams for the construction and maintenance of infrastructure;
- Set up services for vector control and burial of the dead;
- Establish a monitoring and reporting system for all environmental health services in co-ordination with the general health surveillance system;
- Include environmental sanitation as an integral part of health education.

Introduction

1. Environmental sanitation includes: safeguarding water quality; disposal of human excretia, waste water and garbage; insect and rodent control; safe food-handling practices; and site drainage. All these services, and the provision of health care, are very much interrelated and should be considered together. In particular, this chapter should be read in conjunction with the chapters on water, on health and on site planning.

2. Disruption and crowding people together who are accustomed to living in different and less crowded conditions, makes adequate sanitation of critical importance. Basic services are often lacking and habits may have to change. In these conditions, indiscriminate disposal of human and other waste poses a serious threat to health.

3. Due to unfavourable environmental factors or unfavourable socio-cultural habits the implementation of sanitation programmes in refugee camps can be difficult. Additional constraints include:

i. Sites that are easily flooded, barren and/or inaccessible;

ii. Lack of space;

iii. Limited availability of local materials due to either natural factors or considerations related to environmental protection;

iv. Limited time for the community to get organized if only in a rudimentary way; and,

v. Lack of qualified personnel.

4. The key to reducing health hazards is to have acceptable and practical waste disposal systems. These must be developed in co-operation with the refugees and be culturally appropriate, even if circumstances necessitate a departure from traditional practices. Special public health education may be required.

5. The refugees must also run the services to the extent possible. Monitoring will be essential: the effectiveness of the services will depend to a significant degree on regular and thorough maintenance and inspection.

Basic Principles And Standards

- Take full account of sanitation needs in site selection and layout;
- Analyse sanitation and environmental hygiene issues as part of the initial needs and resources assessment;
- Seek professional advice from those with local knowledge;
- Consult and involve the refugees in the design and location of sanitary facilities, and particularly their maintenance;
- Educate the refugees as part of the public health education programme and devote special attention to sanitation matters at school for refugee children.

6. As stressed in the chapter on site planning, environmental sanitation will be a very important consideration in site layout, and the organization and operation of the sanitation services must be integrated with other community services.

7. Developing adequate sanitation in a refugee emergency is difficult; but correcting mistakes is even more difficult. Expert advice should be sought from a public health engineer who is familiar with the habits of the refugees and nationals of the country of asylum, and if possible has experience of refugee emergencies. Assistance should first be sought locally from sources such as government departments, the UN system, NGOs, universities, consultants or contractors. If these cannot meet the need, Headquarters' assistance should be requested.

8. Good sanitation depends to a great extent on the attitudes of the community and the people who run the system. The systems and services developed should be able to operate effectively with a minimum of outside involvement. Refugees themselves must be trained to run the environmental sanitation programmes.

9. The public health education programme must place proper emphasis on the importance of sound environmental sanitation practices. The link between excretia contamination and disease must be clearly understood by all.

Whatever the success of the sanitation system with adults, children will present a special challenge.

Children are both the main sufferers from excretia-related diseases and also the main excreters of many of the pathogens that cause diarrhoea. Teaching environmental sanitation in schools is therefore essential.

10. Measures to contain human excretia and to dispose of refuse should be taken immediately. Since it is almost impossible to

Table 1: – Number and Types of Sanitary Facilities Required

	FIRST OPTION	SECOND OPTION	THIRD OPTION
EXCRETIA DISPOSAL	1 latrine / family	1 cubicle / 20 persons	1 cubicle / 100 persons or defecation field
	STORAGE	**TRANSPORT**	**FINAL DISPOSAL**
REFUSE/GARBAGE	1 bin, 100 litres / 10 families or 50 persons	1 wheelbarrow / 500 persons and 1 tipper / 5,000 persons	1 pit (2 m x 5 m and 2 m deep) / 500 persons **and** 1 incinerator and 1 deep pit for each clinic

estimate how long refugees will stay in a given site, more durable facilities should also be established simultaneously. For example, once a defecation field has been established, latrine construction should begin at once; the greater the time lag between those two actions, the more difficult to shift people from their previous habit (defecation in the open) to subsequent building and use of latrines. Even in hot, dry climates, human excretia disposed of on the ground can favour the transmission of diseases.

11. Communal facilities, especially latrines are difficult to maintain in a permanent state of cleanliness. However, refuse management (especially transportation and final disposal) is better to organize on a communal basis. Domestic wastewater drainage requires a combination of both individual and communal systems. Drains collecting wastewater from each household have to be connected to main ones which will channel those waters away from the living quarters.

12. General norms and standards related to specific activities (excretia disposal, solid waste, vector control, etc.) should be seen as indicative only and be adapted in each case to the prevailing social, cultural and physical conditions. Table 1 above gives standards which can help to work out a preliminary quantitative estimate of the most urgent needs.

13. Surveys of the status of environmental sanitation programmes should be carried out regularly and corrective action taken (see Annex 1, Environmental Sanitation Survey Form).

Human Resources And Organization

- ◆ Appoint a focal point;
- ◆ One sanitarian for every 5,000 persons and one sanitation assistant per 500 persons should be recruited from among the refugees or from other sources;
- ◆ Community participation is the key to successful sanitation projects.

14. A focal point for sanitation must be appointed at the very start of the emergency, and responsibilities of various partners clearly defined. There are not many agencies specializing in environmental sanitation.

15. The first step in appointing the focal point is to investigate the availability of local expertise (a civil engineer specialized in sanitary engineering as an ideal example). Recourse to outside assistance has to be contemplated if local expertise is not available.

16. At camp level, sanitation teams or brigades, provided with basic hand-tools, should be set up to carry out urgent tasks (digging trenches or pits for excretia and waste disposal). A health education programme should be launched simultaneously. Each team should be headed by staff who have good knowledge of sanitation (including medical and engineering aspects).

One sanitarian for every 5,000 persons and one sanitation assistant per 500 persons should be recruited.

17. It is always more efficient to have only one agency responsible for both sensitizing people to environmental sanitation and supervising related activities. Education for environmental sanitation should focus on the "how and why" of hygienic containment of human excretia, and simple methods for waste disposal and hygiene at household level (water storage in the home, habitat and personal hygiene, etc.) Women, teachers, leaders, and school children should be the first target of such a programme.

18. Community participation is a key to the success of sanitation projects. Health education and sensitization are a prerequisite to that participation. It should nevertheless be recognized that it takes time to convince both the commu-

nity and individuals about benefits they can expect from a sanitary environment. Concrete examples such as pilot latrines near clinics, market or other places are therefore very important to support environmental health programmes.

19. Refugees should be provided with tools and basic materials (and incentives in some cases) to encourage them to contribute to the improvement of their own living conditions. They should be gradually integrated into the sanitation teams, the ultimate goal being that the refugees themselves should do most of the maintenance tasks.

20. Annex 2, Resource Inventory Form, gives a checklist of the human and material resources needed for environmental sanitation.

Human Excretia Disposal

- Take immediate action to localize excretia disposal and prevent contamination of the water supply;
- Carefully consider cultural and physical factors and ensure that appropriate anal cleaning materials and hand-washing facilities are available;
- Communal trench latrines may be needed initially, but in most circumstances pit latrines are much better;
- Ensure that latrines can be used at night and are safe for women and children.

Introduction

21. The priority is to create an efficient barrier against faecal contamination. This can be assured through a sufficient number of sanitary facilities, ensuring that these facilities are properly used and kept clean, and do not become the source of problems such as bad smells and flies, and do not collapse when it rains.

The most common cause of breakdown is inadequate maintenance, even for properly designed and installed systems.

22. The best guarantee of proper maintenance is the individual family allocation of latrines. Breakdown of latrines will lead to contamination of the environment and a high risk of infection and disease. There must be regular inspection and maintenance.

Even when in working order, latrines will not be used unless they are clean. Latrines must be cleaned daily.

23. Individual families will be responsible for their own units, but where communal latrines are unavoidable, special arrangements to keep them clean will be essential. Particular attention must be given to the maintenance and cleanliness of the latrines serving community facilities such as health centres. Refugee workers with proper supervision will be required. It may be necessary to pay or otherwise compensate those who are responsible for keeping communal latrines clean and operational.

24. Disinfectants would prevent the biological degradation of excretia. However the regular addition of soil, ashes or oil, if available, to trench or pit latrines may help control insect breeding and reduce odours.

Disinfectants should not be poured into the pits or tanks of latrines.

25. Two main factors will affect the choice of an excretia disposal system: the traditional sanitation practices of the refugees and the physical characteristics of the area, including the geology, the availability of water, rainfall and drainage. Failure to take proper account of these can easily result in the system itself rapidly becoming a health hazard.

26. The essential starting point is to find out the traditional sanitation practices of the refugees and how these can be modified to reduce health risks in a refugee emergency. The following information will be required:

- ❏ Previous sanitation system and practices;
- ❏ Method of anal cleaning;
- ❏ Preferred position (sitting or squatting);
- ❏ Need for privacy;
- ❏ Segregation of sexes and other groups or individuals with whom it is culturally unacceptable to share a latrine;
- ❏ Cultural practices for children;
- ❏ Cultural taboos (for example, against contact with anything that may have touched excretia of others);
- ❏ Social factors, including likelihood of community action to ensure proper use of proposed system;
- ❏ Need for special orientation (direction) of latrines in some cultures;
- ❏ Systems used locally in neighbourhood of site.

27. Arrangements must be made to assure the availability of appropriate anal cleaning materials at or near all latrines. This is essential for hygiene.

The latrines must be safe for children, and must be able to be used at night.

Pay attention to security for women: for communal units some form of lighting should be provided and it may be necessary to provide guards.

Immediate Action

28. Initially the refugees are likely to defecate indiscriminately, contaminating their environment and often the water supply. In consultation with the community leaders, the best first step is to demarcate defecation fields to localize and contain excretia.

29. Designate an area or areas (about 50 m x 50 m each) away from the dwellings and down wind, but sufficiently close to be used. Separate areas for men and women are usually desirable. Within the defecation field, strips of land – roughly 1.5 m wide, 20 m long, on each side of a central access path – will be used, one after the other, beginning with strips farthest from the entrance.

30. Based on a recommended surface area of 0.25 m^2 per person per day, exclusive of access paths, defecation fields of the size above would be sufficient for about 250 people during a month, or 500 people during two weeks. Operating defecation fields beyond one month is not advisable.

31. Fence the area(s) and provide privacy by means of partitions and shallow trenches (in the strips) and spades, if possible. Covering excretia with ash, lime or just soil lessens health risks. Locate such areas where the surface water run-off will not cause contamination. Protect the area with cut-off ditches.

32. A publicity campaign will be required to encourage refugees to use these areas and not defecate indiscriminately near dwellings or the water supply. At least one attendant should be assigned to each defecation field. To the extent possible, hand-washing facilities should also be installed nearby.

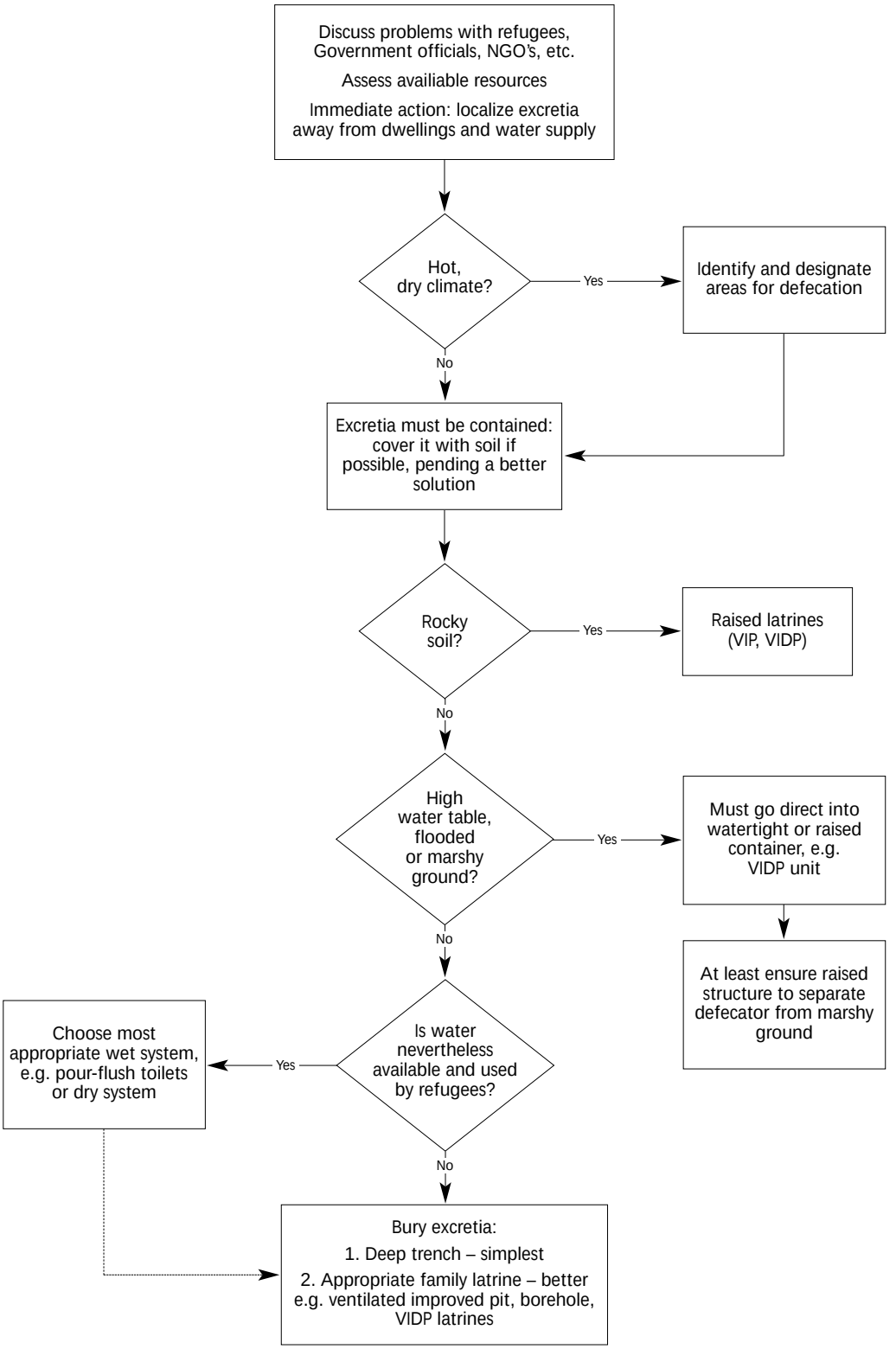
Selection of a System: Basic Considerations

33. The selection of an excretia disposal system suitable for a particular situation requires consideration of a number of factors. In an emergency, however, time is the critical factor. Pollution of the environment by excretia, with all its attendant risks, cannot be stopped without immediate sanitation measures. Thus the range of choice is always much more limited at the very outset of an emergency.

34. Temporary systems, to meet the most immediate needs, will have to be improved or replaced by others as soon as possible, in order to maintain adequate sanitation standards.

In emergency sanitation, act first and improve later.

Figure 1 – Considerations in Excretia Disposal



35. Figure 1 illustrates some considerations to be taken into account in excretia disposal.

36. The design of sanitary facilities should be governed by cultural factors (discussed above) and by the following physical considerations:

i. *Flies and smells:* these can be reduced by: installing vent pipes topped with anti-corrosive screens; covering faeces regularly with ash; treating latrines with biological larvicides to control fly larvae; using fly traps, etc.;

ii. *Flooded pits or collapsed walls:* these can be avoided by ensuring proper construction including having a raised superstructure, well-built base and mound, pit lining, and good drainage. Sometimes these steps are not taken because of, for instance, financial considerations. However, a large number of latrines built quickly and cheaply will not necessarily solve environmental health problems;

iii. *Life-span:* to dig a pit for excretia is not a very exciting exercise. Normally, the pit should be designed to last two to three years (the capacity of a dry pit should be at least 0.07 cubic meters per person per year). If its dimensions have not been properly calculated, people will have to dig a new pit a short time later. Community members would understandably be reluctant to do this and the site would become covered with pits, some containing un-stabilised faecal matter hazardous to human health. In addition, shortage of space limits the number of latrines which can be built;

iv. *Cleanliness and privacy:* Communal installations are rarely kept clean and become unusable within a very short period of time and encourage transmission of diseases. Therefore family latrines should be preferred whenever possible. Sanitary facilities should preserve users' privacy. Cubicles should be partitioned off within each block. At family and individual level, socio-cultural considerations often make it compulsory to build separated units for men and women. Disregard for these simple criteria might result in misuse and abandonment of facilities;

v. *Location:* groundwater pollution must be nil or at a minimum. Latrines should be at least 30 m from any groundwater source and the bottom of any latrine at least 1.5 m above the water table. Latrines must be close enough to users' shelters to encourage their use (not more than 50 m). They must be far enough from shelters and other buildings to prevent potential smells and pests from bothering or harming the population (at least 6 m from shelters if possible).

37. There are a number of latrine options: once cultural and physical factors have been taken into account, the key factors to consider are low cost, simplicity of construction and ease of maintenance.

Trench Latrines

38. Trenches can be used for a few months. If necessary, and where space is available, this solution can continue for longer periods, with new trenches being dug as old ones fill up.

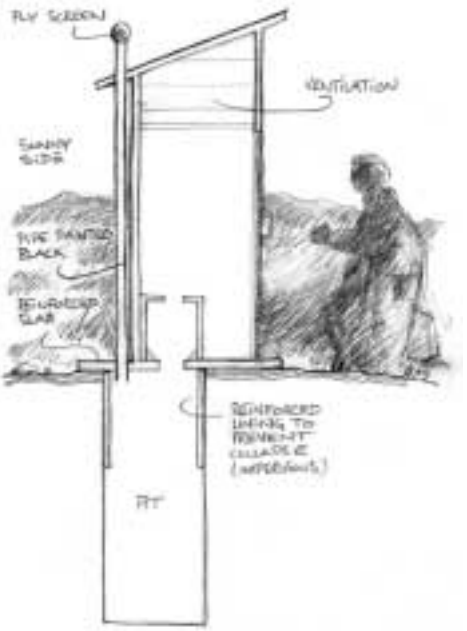
Trench latrines should be dug 1.8 to 2.5 m deep and 75-90 cm wide. Recommended length per 100 persons is 3.5 m.

39. A platform and structure will be needed, providing a seat or squatting hole as appropriate, with lid. When the trench is filled to within 30 cm of the top, it must be covered with soil and compacted. Trench sides must be shored up if there is a danger of collapse.

Pit Latrines

40. The pit latrine is the most common excretia disposal system used around the world

Figure 2a



(see figure 2a). It has major advantages over a trench latrine. It consists of four basic components: a pit, a base, a squatting slab (or plate) and a superstructure.

41. If used by only one family these latrines are usually well maintained. Pit latrines can also be used in clusters as communal facilities.

42. Pit latrines are most suitable in conditions of low to medium population density – up to about 300 persons/hectare – but have been used satisfactorily in areas with twice this density. Space is needed not only for the construction of one pit latrine per family, but also for new pits when the old ones are full. This is an important consideration when pit latrines are used as communal facilities.

43. When the pits are three-quarters full, they must be filled with soil and the superstructure and squatting plate moved to a new pit. Applying layers of ashes as the pit fills will speed up the decomposition of excretia and in time the site can be used again.

44. The pit should be about one meter across and over two meters deep. The rim of the pit should be raised about 15 cm off the ground and ditches should be dug around the base to divert surface run off. The pit wall should always be reinforced for one meter below ground level to prevent collapse.

45. The basic variety has both odour and insect problems, but these can be considerably reduced by making the simple improvements of the ventilated improved version (VIP) (see figure 2b), and by adding oil and using lids.

Where pit latrines are used, the ventilated improved version should be built whenever possible.

46. In a VIP latrine the vent pipe should be at least 15 cm in diameter, about 2.5 m high, painted black and placed on the sunny side of the latrine for maximum odour and insect control. Blackening the external surface of the vent pipe only marginally increases the venting velocity, but this factor may be of greater importance under "no wind" conditions. The vent pipe must be fitted with an insect proof gauze screen (so it works as a fly trap). The hole should not be covered by a lid as this impedes the air flow.

Bore-Hole Latrines

47. Bore-hole latrines (figure 3) are dug with a hand auger or mechanical drill and require a smaller slab than a pit. The bore-hole is 35-45 cm in diameter and any depth up to 7 meters. The advantage of the bore-hole latrine is that it can be constructed quickly as a family unit if augers are available. The disadvantages are that the side walls are liable to fouling and fly breeding, they are smellier than vented systems and the risk of ground water contamination is greater because of the depth.

Figure 2b

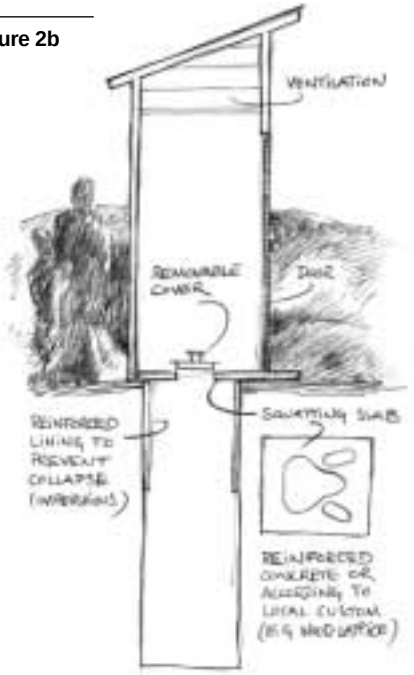
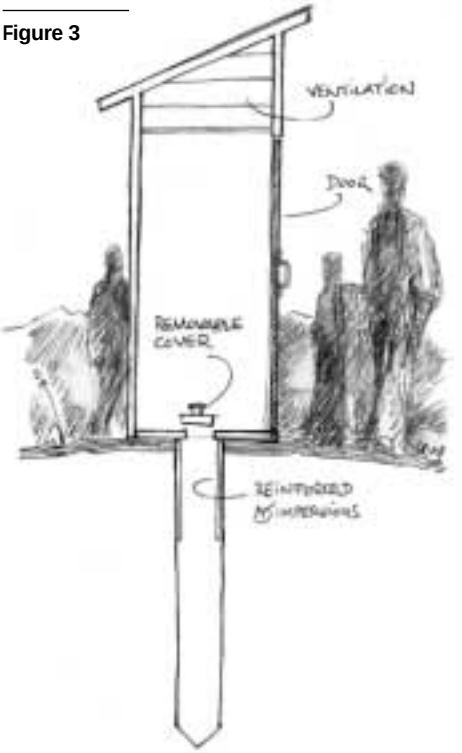


Figure 3

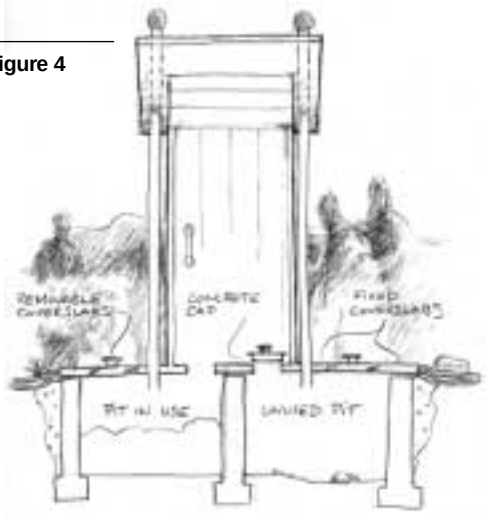


Ventilated Improved Double-Pit (VIDP) Latrine

48. Raised (or built-up) pits can be used where it is not possible to dig deep pits because the water table is high or excavation is difficult (for example in rocky ground).

49. The VIDP latrine (figure 4) (also called alternating-twin pit ventilated latrine) has two shallow pits, both of which are ventilated by separate vent pipes capped with fly screens. It is a good option in crowded areas which may become even more crowded, as it preserves the space needed for replacement latrines.

Figure 4

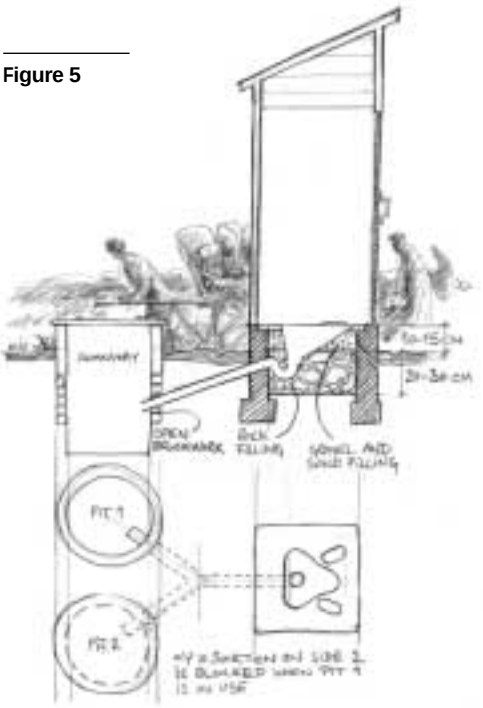


50. Two pits give more flexibility. A pit fills up in two to three years, and it should then stand for at least one year. This gives enough time for the night soil to dry out and decompose, so that it can be removed more easily and not pose a health hazard. While the full pit is decomposing, the other pit is used. The two pits must not be used at the same time.

Pour-Flush (PF) Latrine

51. Pour-flush latrines (figure 5) are simple in design but need permeable soil for their soak-away. A water seal is made by a U-pipe filled with water below the squatting pan or seat. It is flushed by hand with some 1-3 litres of water into a pit or soak-away. This system is suitable where water is used for anal cleaning and where refugees are used to flushing. It is not suitable where paper, stones, corncobs or other solid materials are used for anal cleaning. Pour-flush latrines will be used properly only if water is readily available. A large container with a 3 litre dipper should be made available close by the latrines.

Figure 5



Stabilization Ponds

52. Where liquid effluent has to be disposed of in impermeable soil, stabilization (oxidation) ponds are a simple and cheap solution, particularly in hot climates. Various systems are described in the technical references. If ponds are used they must be securely fenced off.

Solid Wastes

- Improper garbage disposal increases the risk of insect and rodent-borne diseases, and an effective system must be established for the storage, collection and disposal of garbage;
- Garbage disposal areas must be designated and access to them restricted;
- Large amounts of dust can damage health. Preventing destruction of vegetation is the best preventative measure against dust.

General Considerations

53. The quantity of garbage generated by refugees is often not considered substantial and it therefore tends to be neglected. However, the daily amount of garbage as well as its weight can be significant, in market places in particular.

Uncontrolled accumulation of garbage is unhealthy, and promotes an increase in rodent and insect borne disease.

At the beginning of an emergency hygiene and waste disposal is usually poor, so vermin and other pests including rodents proliferate very rapidly.

54. Food is occasionally distributed to refugees in metal cans. How those are disposed of should be given particular consideration not only for aesthetic reasons but also because of health hazards (injuries to children, potential breeding sites for mosquitoes, etc.). In addition, this kind of garbage is far from biodegradable.

55. Medical waste (used syringes and needles, contaminated bandages, laboratory specimens, etc.) generated by health centres, are a hazard. Access to medical sanitary services should be well controlled, and the waste should be treated separately, without delay (see below).

The safe disposal of all medical waste requires particular attention.

There should be routines for the storage, collection and disposal of garbage – this will be particularly important in high-density sites.

Garbage Management

56. Storage: metal drums can be used as refuse bins at individual dwelling level. A 200 litre drum cut in half is often used. Bins should have lids if possible and drainage holes in the bottom. A ratio of one container (100 l capacity) per 10 families has proved to be effective. The containers should be placed throughout the site in such a manner so that no dwelling is more than about 15 meters away from one. Using concrete structures as refuse bins is neither economical nor practical: they are difficult to empty properly so rodents are encouraged and garbage is dispersed around the area.

57. Collection and Transportation: garbage should be collected from the containers regularly, daily if possible. Camps near a city could benefit from existing refuse-dump services. Using tractors with trailers is expensive and should be considered as a last option and only for large and densely populated camps. Wheelbarrows and/or carts (hand or animal carried) are usually more appropriate.

58. Disposal and Treatment:

i. Sanitary land-filling (also known as controlled tipping) remains the most advisable method. Areas designated for burying garbage should be well away from dwellings, and fenced off;

ii. Incineration is justified on a small scale and usually only for medical waste. After each incineration, cover the waste with a layer of soil;

iii. Composting is an attractive option but requires technical knowledge, which may not be available. In addition, garbage must be sorted to produce good compost.

Dust

59. Large amounts of dust carried in the air can be harmful to human health by irritating eyes, respiratory system and skin, and by contaminating food. The best preventive measure is to stop the destruction of vegetation around the site. Dust can also be controlled by spraying roads with water or oil, especially around health facilities and feeding centres, and limiting or even banning traffic.

Wastewater

◆ Sources of waste water must be controlled as soon as possible and drainage provided.

General Considerations

60. This aspect of environmental sanitation should always be considered from the beginning. Drainage prevents water from stagnating around water distribution points, and drains the rainfall as well as domestic wastewater originating from various sources (toilets, showers, kitchens, etc.). Other measures to help control vectors include eliminating ponds.

61. Drainage can very quickly become a problem and corrective measure are difficult once shelters and other infrastructure have been built. For example, people often wash next to water sources, causing problems which could be avoided if special separate washing areas are constructed with duckboards or stones and proper drainage.

62. Some families manage to channel wastewater away from their homes and use it to irrigate vegetable gardens. Although this should be encouraged it should not disrupt the main drainage system.

63. Good drainage should be a priority at the following locations:

i. Water points (standpipes, taps, handpumps);

ii. Sanitary facilities such as showers, toilets and washing areas. Waste water from these places should either be used to irrigate veg-

etable gardens and fruit trees or drained into absorption trenches or soak-away pits;

iii. Shelters: household members usually manage to protect their shelters from runoff waters by means of perimeter drains. It is nevertheless important to ensure that such water is collected and disposed of through main drains.

Treatment

64. In some circumstances, waste water should be treated, for example waste from sewers collecting effluent from pour-flush toilets. Some treatment package units are available on the market; but these are usually expensive, complex, and difficult to operate and maintain.

65. However, there is a broad range of waste water treatment technology. Sanitary engineering professionals should be consulted to select the most appropriate technology.

Pest and Vector Control

- Insects and rodents carry and spread diseases and can spoil food supplies;
- Physical screens are the best immediate measures;
- Preventive action to eliminate or limit breeding areas and conditions favourable to the vectors is the best long-term solution;
- Specialist supervision of all chemical measures and local knowledge of resistance is necessary;
- Avoid chemical control where possible.

General Considerations

66. The environment in a refugee emergency is typically favourable to the proliferation of disease-carrying insects and rodents ("vectors"), which can also destroy or spoil large quantities of food.

67. Flies tend to breed in areas where food or human excretia are present, mosquitoes where there is stagnant water, and rats where there is food, garbage and cover. As a result of overcrowding and inadequate personal hygiene, lice, fleas, mites, ticks and other arthropods may also cause health problems. Table 2 gives an indication of common vectors and related diseases.

68. Reducing the numbers of flies, mosquitoes and rodents quickly in an emergency is difficult and physical screens may be the best immediate measure. Over the longer term, the most effective method of controlling insects and rodents is preventive: to improve personal hygiene, sanitation, drainage, garbage disposal and food storage and handling practices and thus make the environment less favourable for the vectors. Examples of practical measures are the removal of stagnant waste water, regular garbage collection, use of oil in latrines and provision of soap and sufficient water for washing. The recommended monthly supply of soap is 250 g soap per person per month. The programme should provide for regular inspection and be integrated with other public health measures.

69. The problems should be discussed with the refugees and education given on the significance of vector control. Where solutions unfamiliar to the refugees are employed, these must be carefully explained.

70. Whatever the nature of nuisances and pests, one should avoid having systematic recourse to chemical control by means of pesticides (insecticide, rodenticide, molluscicide, etc.). Such products are costly and toxic to both human beings and the environment. There is a risk of poisoning during transport, storage, handling and of course spraying the chemicals. Also, pests can develop resistance to the chemicals.

Table 2 – Vectors Which May Pose Significant Health Risks

VECTOR	RISKS
Flies	Eye infections (particularly among infants and children), diarrhoeal diseases
Mosquitoes	Malaria, filariasis, dengue, yellow fever, encephalitis
Mites	Scabies, scrub typhus
Lice	Epidemic typhus, relapsing fever
Fleas	Plague (from infected rats), endemic typhus
Ticks	Relapsing fever, spotted fever
Rats	Rat bite fever, leptospirosis, salmonellosis

Physical Control

71. Measures described in this chapter to deal with excretia and waste disposal will also help control pests (flies and rodents particularly).

72. The elimination of stagnant water and other breeding and resting sites for mosquitoes through drainage is important and the drainage network must be maintained.

Chemical Control

73. Obtaining precise information on chemicals which are used or authorized to be used in the country (i.e. registered list of pesticides if any) should be the first priority.

Insecticide spraying carried out on a routine basis must be avoided, and in any event should be consistent with the rules and procedures in force in the host country.

74. Advice from specialists, particularly medical entomologists, should be sought to minimize the risks and to maximize the impact on target-species.

75. Staff assigned to such tasks must be trained on technical aspects, informed about health hazards linked with handling and spraying of pesticides, and protected by means of adequate clothing (mask, boots, gloves, etc.).

76. The use of rodenticides should always be adopted in agreement with medical staff. Rats are favoured carriers of vectors (such as fleas) of bubonic plague and murine typhus. When these diseases may be present it is more important to take measures directly against the vectors themselves – i.e. the fleas, rather than the rats – because destroying the rats will simply cause the fleas to leave the dead bodies of the rats and become more of a threat to people.

77. The body louse is the only proven vector of louse-borne epidemic typhus and relapsing fever. If there is a serious increase in body louse infestation, quick action is required by properly trained personnel. This generally involves dusting individuals' inner clothing and bedding with an insecticide or the use of clothing fumigants. There is widespread resistance in lice to some insecticides and expert local advice must be sought.

General Hygiene

- Sanitary engineering must be complemented with sufficient health education, sensitization and community participation.

78. Habitat hygiene, food hygiene and personal hygiene, while being integral parts of environmental sanitation, are a matter of health education and community sensitization rather than of sanitary engineering. It is nevertheless worth underlining that the most effec-

tive manner to sustain "soft" activities such as education in general and health education in particular is to complement them with "hard", visible and concrete activities on the spot.

79. Community participation in sanitation activities is a key to successful implementation, however, to make participation work in practice, the community members must have the necessary resources – human, institutional and material – to enable them to take on their responsibilities.

80. Activities to improve living conditions should take place at all levels – site, community, family and individual – and not be restricted to just one level. Elementary rules of hygiene should be observed by everyone.

81. There are three essential steps to improve living conditions:

- ❏ Avoid overcrowding and overpopulation, which increase transmission (through direct or indirect contact) of diseases brought about by vectors such as fleas and lice;
- ❏ Reduce faecal/oral transmission risks by ensuring systematic hand-washing before cooking and eating;
- ❏ Encourage personal hygiene including clean clothes by providing amenities such as showers and laundering areas and basins. This will also reduce contact with water bodies that have been polluted by excretia, reducing the risk of disease including bilharziasis (schistosomiasis).

Disposal Of The Dead

- ◆ Suitable arrangements for disposal of the dead are required from the start of an emergency;
- ◆ Action should be co-ordinated with the national authorities;
- ◆ Burial is the simplest and best method where acceptable and physically possible. Arrangements should be made to allow traditional rituals;
- ◆ Before burial or cremation, bodies must be identified and the identifications recorded.

82. Suitable arrangements for the disposal of the dead are required from the start of a refugee emergency. The mortality rate may well be higher than under "normal" conditions. The authorities should be contacted from the outset to ensure compliance with national procedures, and for assistance as necessary.

83. Dead bodies present a negligible health risk unless the cause of death was typhus or plague (when they may be infested with infected lice or fleas) or cholera. Funerals for persons dying from cholera should be held quickly, near the place of death. Efforts should always be made to restrict funeral gatherings of persons dying from any of these three diseases, and to restrict feasting and ritual washing of the dead, by intensive health education or by legislation, as appropriate.

84. Health considerations provide no justification for cremation, for which sufficient fuel may often not be available. Whenever possible, the customary method of disposal should be used, and the traditional practices and ritual should be allowed. Material needs, for example for shrouds, should be met. The necessary space for burial will need to be taken into account at the site planning stage, particularly in crowded conditions.

85. Before burial or cremation, bodies must be identified and the identification recorded, and, if possible, cause of death recorded. This is particularly important for the control, registration and tracing of disease. If the whereabouts of relatives are known, the most immediate relation should be notified; and steps must be taken to assure the care of minors who, as the result of a death, are left without an adult to look after them.

86. When handling corpses workers should protect themselves with gloves, face masks, boots and overalls. The workers should wash thoroughly with soap and water afterwards. Although the HIV virus cannot survive for long in a dead body, care should be taken with bodily fluids.

Key References

A Guide to the Development of On-Site Sanitation, WHO, Geneva, 1992.

Chemical Methods for the Control of Arthropod Vectors and Pests of Public Health Importance, WHO, Geneva, 5th edition 1997.

Manuel d'Utilisation des Désinfectants, UNHCR, Geneva, 1994.

Sanitation and Disease: Health Aspects of Excretia and Wastewater Management, Feachem & al, Wiley & Sons, 1983.

Vector and Pest Control in Refugee Situations (also in French), PTSS, UNHCR, Geneva, 1997.

Vector Control: Methods for Use by Individuals and Communities, WHO, Geneva, 1997.

Annex 1: – Environmental Sanitation Survey Form

Country: Date: ...../...../.....

Camp/Settlement: Camp Population:

Prepared by:

I. Living Areas

A. Excretia Disposal

Ratio of latrine seats to people: 1/.....

	Total	V.I.P.*	Rudimentary	P.F.**	Other
Private Latrines					
Public Latrines					

Comments: _____

_____

B. Refuse Disposal

	Capacity (Litres)	Number	Max Distance from dwelling (m)
– Individual pits:	☐	☐	☐
– Garbage Bins	☐	☐	☐

	Wheel-barrow	Truck	Other
– Transportation:	☐	☐	☐

	Landfill	Incineration	Other
– Final Disposal	☐	☐	☐

	Dimensions	Number
Communal refuse pits	long___x Wide___x Deep___x	☐

Comments: _____

_____

* V.I.P. = **V**entilated **I**mproved **P**it

P.F. = **Pour-**F**lush

II. Public Places

C. Existing Facilities

Schools

*Latrine Type	P.F.	V.I.P.	Rudimentary	Other
	☐	☐	☐	☐

1 seat /_____ boys
1 seat /_____ girls
1 urinal /_____ boys

*Refuse collection	Yes	No
	☐	☐

Hospitals

*Latrine Type	P.F.	V.I.P.	Rudimentary	Other
	☐	☐	☐	☐

*Refuse collection	Buried	Burnt
	☐	☐

Markets

*Excretia Disposal	Good	Poor	None
	☐	☐	☐

*Refuse collection	Good	Poor	None
	☐	☐	☐

Comments: _____

_____

D. Drainage

– at water posts	Good	Poor	None
	☐	☐	☐

– around latrines	Good	Poor	None
	☐	☐	☐

– camp drainage network	Good	Poor	None
	☐	☐	☐

Comments: _____

_____

E. General Characteristics

– topography	Flat ☐	Moderate ☐	Steep ☐
– soil	Rocky ☐	Clay ☐	Sandy ☐
– water table distance from ground surface	Rainy Season _____ m	Dry Season _____ m	

F. Community water supply

– sanitation at source	Good ☐	Poor ☐	None ☐
– sanitation at distribution point	Good ☐	Poor ☐	None ☐
– individual water containers	Capacity		_____ litres
– storage at home	Capacity _____ litres	Clean Y – N	Covered Y – N
– chemical used for water disinfection	Chlorine ☐	Other ☐	None ☐
– points of application of above chemicals	Source ☐	Storage Tank ☐	Home Container ☐

Annex 2: – Environmental Sanitation – Resource Inventory Form

Country: Prepared by:

Camp: Population:

Date: ...../...../.....

A. Implementation	**Name(s)**
Governmental authorities	
International organisations	
Private sector	
NGO's	

B. Human Resources			**Number of Workers**
Is there a spraying team?	Y	N	
Is there a drainage team?	Y	N	
Is there a sanitation team?	Y	N	
Is there an organised workshop?	Y	N	
Number of sanitarians:			
Number of health workers: (assigned to sanitation tasks)			

C. Tools	**Description**	**Specification**	**Quantity**
Axe			
Crowbar			
Iron bar cutter			
Pickaxe			
Shovel			
Spade			
Tape metre			
Other (please specify)			

D. Equipment	**Description**	**Specification**	**Quantity**
Cement mixer			
Mortar bucket			
Mould (latrine slab)			
Mould (brick)			
Wheelbarrow			
Sprayer			
Spraying equipment			
– overall clothing			
– masks			
– gloves			
– boots			
Other (please specify)			

E. Chemicals	**Item**	**Unit**	**Quantity (stock in Hand)**	**Comments**
Vector control				
–				
–				
Water Treatment				
–				

17 Environmental Sanitation

18

Supplies and Transport

■ CONTENTS

Situation

Refugee emergencies are often in locations removed from the main sources of supply and communications arteries. Exceptional efforts may be needed to ensure the provision of supplies and services. However without these, the whole operation will fail.

Objective

The timely delivery of the materials needed for the refugee operation.

Principles of Response

- There should be a single, unified "supply chain" with standardized procedures and coordinated with external agencies such as WFP. The term "supply chain" includes the sourcing, procurement, transport, import, management, storage and distribution of goods and services required to meet operational needs;
- Duplication of supply chain support within the UNHCR operation must be avoided;
- A single coordinating body of all the relevant UN agencies may be required to implement certain aspects of the supply chain such as transportation and storage (e.g. a "UN Joint Logistics Cell");
- Request urgently needed supplies from the UNHCR Central Emergency Stockpile if they are not available locally;
- Ensure there is good communication between offices involved in the supply chain and timely information exchange regarding logistical capacities and constraints;
- Transport and storage arrangements must have spare capacity: things often do not go according to plan, needs, and the demand for supplies, may increase;
- Seek technical assistance when necessary.

Action

- Make a comprehensive plan for all supply chain functions. Integrate supply chain arrangements in the overall planning from the start, coordinate with all sectors, and take into account any special requirements;
- Identify weak elements in the supply chain and inform operational managers of actions rendered critical due to lead time (the delay between the request for material and its arrival);
- Seek out knowledge on local conditions and assess implementing possibilities with local suppliers, or other agencies.

Introduction

1. The vital role of the supply chain must not be overlooked in the initial planning, and the input of a logistics specialist is required on any assessment mission. The more remote the location of the refugees, the more difficult will be the logistical problems, yet these are the situations where logistic support or the lack of it becomes the key to success or failure.

The ability to deliver the right supplies to the right place at the right time and in the right quantities is a prerequisite for an effective emergency operation.

2. The supply chain must provide for international purchase, transport, swift unloading and duty-free clearance on arrival, local purchase, transit storage, onward transportation, and final distribution, with proper stock control at every stage. Figure 1 shows the likely major components of the system in diagrammatic form.

3. Logistical support can be disrupted by unpredictable events and many factors outside UNHCR's control including customs delays, breakdowns, looting, and the vagaries of nature. Furthermore, the numbers requiring assistance often increase during the emergency phase of an operation.

The supply chain must provide for spare capacity because available capacity may become quickly overwhelmed.

Organization of the Supply Chain

- A single coordinated operation is essential and duplication of supply chain services must be avoided;
- This requires a clear understanding of overall needs and the responsibilities for meeting them;
- Three key qualities of a good supply chain are: rapidity, flexibility and security.

Assessment

4. A clear understanding of the overall needs by all concerned is essential. Needs assessment and planning should be carried out together with government, WFP and NGO partners.

5. An easily understood and comprehensive list of requirements is essential as the starting point for meeting the basic material needs. Without it, great confusion can result. With such a starting point, the balance of needs, requirements and distribution can be continuously monitored, and the effect of these relief goods or services will be immediately apparent.

Planning

6. Three key qualities of a good supply chain are: rapidity, flexibility and security. These three qualities depend on good coordination and communications as well as good planning. When planning for and developing the supply chain, ensure:

i. *Rapidity:* Response time is critically important in emergencies, and advance planning is essential to optimize resources, and not waste time correcting avoidable mistakes or inefficiencies. Planning must take into account lead times;

ii. *Flexibility:* Logistics is dictated by the circumstances of the operation and terrain, and must be able to quickly adapt to rapid changes in circumstances. Plan for the worst case scenario, and build in the required flexibility and adaptability;

iii. *Security:* The security of personnel and relief goods must be a priority in the logistics plan. Security risks vary from theft and looting to war;

iv. *Coordination:* Coordinate planning and implementation with other agencies, in particular WFP who often have good local transport and logistical capacity. WFP is normally responsible for food supplies up to the agreed Extended Delivery Point – see chapter on food and nutrition.

Avoid duplication of logistical services by different organizations and ensure a single, coordinated operation.

A single coordinating body of all the relevant agencies may be required to implement certain aspects of the supply chain such as transportation and storage (a "UN Joint Logistics Cell") – guidance on setting this up is given in MCDU's **UN Joint Logistics Cell: Standard Operating Procedures**. Ensure effective coordination by: advising team members and staff from other organizations of minimal lead times, respecting deadlines and delivering the expected supplies at the time and place agreed and keeping to agreed loading and transport schedules;

v. *Comprehensive planning:* Have an overview of the whole operation when planning for and managing services, materials, staff and time;

vi. *Spare capacity:* The logistics plan must provide spare capacity, taking into account factors which would cause delays (such as vehicle breakdowns);

vii. *Cost-effectiveness:* Ensure proper maintenance of warehouses, efficient stock control, and well negotiated contracts (e.g. for transport, warehouses, customs clearance, and maintenance). Ensure purchases are made from competitive sources in accordance with UNHCR regulations – although initial purchases may be made with speed as a foremost concern, plan follow on supplies in good time to be able to purchase from competitive sources;

viii. *Good communication:* A regular exchange of information between the offices involved in the supply chain is essential. Headquarters should give the Field as much notice as possible of procurement and shipment of goods or services, estimated times of arrival (ETA), changes in delivery schedules, and of contributions in kind. The field should advise Headquarters of any changes to importation laws, acknowledge receipt and distribution of consignments, and advise Headquarters of contributions in kind.

There must be good communications facilities at dispatch and arrival points as well as mobile communications sets on surface transport.

ix. *Clear responsibility:*

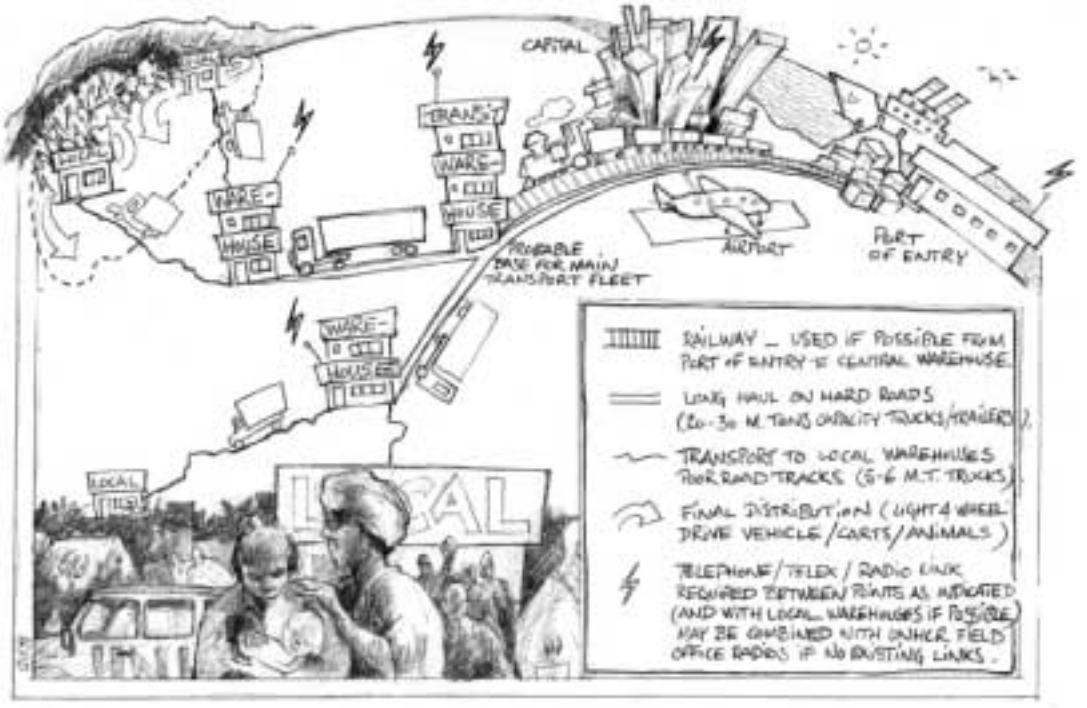
Whatever the arrangements in the field, the line of responsibility and reporting to UNHCR by the operational partners must be clear.

The major decisions about supply chain issues should be taken by the same person with the appropriate responsibility and authority;

Local and Other Resources

7. The supply chain should use local resources and knowledge to the extent possible. Where there is a good existing warehousing and distribution system, outside assistance may not be necessary. Where outside assistance is required, sources include:

Figure 1



i. Supply and Transport Section at Headquarters (which handles procurement, logistics, fleet management, and contracting);

ii. Government disaster agencies or emergency corps, and Government Service Packages from donor governments (see chapter on implementing arrangements);

iii. An NGO or commercial firm with appropriate experience.

Setting up the Supply Chain

8. The circumstances of each emergency will determine what type of supply chain support is required – whether it is directly implemented by UNHCR, through an operational partner or as a commercial contract.

9. Steps to establish the supply chain include the following:

i. Make arrangements for the duty-free import/export of relief goods, and duty free and tax free purchase of relief goods with the appropriate governmental authorities. To avoid delays, this must be done before the goods are due to arrive;

ii. Investigate the possibility of using local suppliers;

iii. Select warehouses appropriate for their purpose (for storing food or non-food items; for transhipment, storage or distribution). Ensure that access roads and doors allow easy loading and offloading;

iv. Select appropriate transport for goods and/or passengers: determine the type and the number of light and heavy vehicles, vessels, aircraft and trains needed. Calculate fuel and maintenance requirements (tyres, lubricants, parts and mechanics);

v. Use temporary assistance during peak demand for staff;

vi. Provide the necessary staff support equipment such as office equipment and supplies, light and water, vehicles, freight handling items, power, communications, and accommodation;

vii. Put in place a documentation and filing system, and use standard forms to report on the status of relief goods. Advise and train personnel on procedures.

Supplies

◆ Assess what is readily available on the local market: if locally available items are appropriate, make at least initial purchases locally;

◆ The basis for UNHCR procurement is competitive tendering;

◆ Standard specifications have been developed for common items;

◆ Certain emergency relief items are stockpiled centrally by UNHCR and can be accessed quickly in an emergency.

Introduction

10. The basis for all UNHCR procurement is competitive tendering. This process is made easier and more efficient by standard specifications.

11. Headquarters' Supply and Transport Section gives advice and provides support on all procurement and logistics matters and is responsible for international procurement. Guidance on local purchase can also be sought from other UN organizations. Tendering procedures are described in Annex 2 to chapter 8 on implementing arrangements.

12. When drawing up tender documents and purchase orders it is essential that all specifications, quantity, required delivery, packaging and payment terms be clearly stated. Care must be taken to ensure that contract terms protect the rights and immunities of UNHCR. Requests for tenders should in any event include UNHCR's standard conditions of sale. Advance payments and cash transfers to suppliers must be authorized by Headquarters.

13. If procurement is to be undertaken by implementing partners on behalf of UNHCR, the principles of competitive bidding must be followed (see **A Programme Management Handbook for UNHCR's Partners**, section 4). UNHCR staff should monitor local and international procurement made by implementing partners for the UNHCR-funded programmes.

14. Care should be taken to avoid purchasing different qualities of the same items.

Local and International Procurement

15. If emergency relief items are available locally, compare prices where possible with the international market. Use catalogues or send local prices to the Supply and Transport Section in Headquarters who will advise on the most appropriate course of action. Assess what is readily available on the local market: if locally available items are appropriate, make at least initial purchases locally. At the same time however, consider the cost-effectiveness

of continuing such local purchases beyond the initial phase of the emergency, compared with making those purchases internationally.

16. Local procurement can offer a number of advantages over international purchases. These could include:

i. lower prices;

ii. speed and flexibility of delivery;

iii. local acceptance;

iv. benefits and incentives to the local economy (particularly in areas affected by a large refugee influx).

17. However, the disadvantages of local purchase could include:

i. higher prices;

ii. inappropriate quality;

iii. sudden price increases (due to sudden heavy demand) on the local market, adversely affecting the local consumer population and causing resentment;

iv. higher maintenance costs.

18. As a rule, no more than 15% would be an acceptable premium for prices of locally procured goods over the total delivered cost of internationally procured goods[1].

Local Procurement

19. When the capacity of the local market is limited, care must be taken to avoid price increases caused by organizations bidding against each other for the same supplies. Provided there is clear agreement on the needs, coordination of purchases and even combined orders among the organizations concerned should be possible.

International Procurement

20. UNHCR has entered into a number of long term supply agreements ("frame agreements") for a range of products. The purpose of these agreements is to ensure the availability of goods of a standard quality at competitive prices, and reduce total lead time. These items include blankets, plastic sheeting, essential drugs, kitchen sets, semi-collapsible jerry cans, and buckets. Support and office items supplied under frame agreements include light vehicles, vehicle tires and tubes, generators, ballistic armour, computer and telecommunications equipment, and some office equipment and supplies.

21. The UNHCR **Catalogue of Most Frequently Purchased Items** gives summary specifications, reference number, price (US$), country of origin, and, where relevant, production capacity, production lead times and estimated shipping times. It also includes a list of current frame agreements.

22. When requesting Headquarters to make a purchase, be sure to use both the reference number for a product, and the name and date of publication of the catalogue. If specifications are not available for the product wanted, inform the Supply and Transport Section of the purpose of the product and the context in which it will be used.

23. Bear in mind lead times for international purchase can be lengthy.

Emergency Stockpiles

24.

Certain common relief items are stockpiled centrally by UNHCR, or by suppliers on behalf of UNHCR, and can be accessed quickly in an emergency.

The UNHCR stockpile includes the operations support items listed in the Catalogue of Emergency Response Resources (see Appendix 1). These items can be ordered through Headquarters.

25. Other UNHCR operations in the region may hold stocks that could be made available – these offices should be approached directly about the most urgent requirements.

26. UNICEF, WHO, WFP, the IFRCS and NGOs also maintain emergency stockpiles with supplies which may be available to UNHCR.

Specifications and Catalogues

27. There are a number of catalogues of products with detailed specifications. Using standard specifications (and frame agreements) is not intended to limit choice, but simplifies supply, and ensures better integration of equipment, spare parts and services. Generic specifications also make the procurement and tendering process fairer (e.g. comparing prices). Annex 1 gives detailed specifications of certain common relief items.

28. Catalogues of specifications include:

i. **UNHCR Catalogue of Most Frequently Purchased Items.** This is published annually by UNHCR's Supply and Transport Section, and distributed to all field offices. It gives brief specifications, price, and lead times.

[1] *IOM116/94 FOM120/94, UNHCR 14.12.94.*

ii. **IAPSO Emergency Relief Items.** This is a two volume catalogue published by the Inter Agency Procurement Services Office (IAPSO) of the United Nations. A large number of standard specifications adopted by UN are available in this catalogue, and there are additional IAPSO catalogues on other items (see key references).

iii. **UNICEF Supply Catalogue.** UNICEF also produces a large illustrated catalogue.

Considerations in Product Choice

Environment

29. UNHCR has a policy, also applicable in emergency situations, to ensure awareness and supply of environmentally friendlier products. Impact on the environment is considered an integral part of product quality. Where two or more suppliers are offering items which are substantially the same in terms of specifications, price, quality, and delivery time, the policy is to select a product whose manufacture, use and disposal is less harmful to the environment. For further details see **Environmentally Friendlier Procurement Guidelines,** UNHCR, 1997.

Shelter

30. For shelter, local materials and methods of construction should be used where possible, combined with tarpaulins or polythene sheeting if necessary. Except for nomadic tribes, tents are not a satisfactory type of long-term shelter. They are, however, a valuable last resort in emergencies. Remember that tents may deteriorate rapidly if stored for any length of time, particularly if humidity is high.

In-Kind Donations

31. In-kind donations should always be evaluated against actual needs and cultural appropriateness. All offers for in-kind donations should be discussed with Donor Relations Services and the Supply and Transport Section in Headquarters before being accepted (see chapter on implementing arrangements). Particular attention should be given to packaging (which must meet transport requirements) and expiry dates of products offered.

Clothing

32. Used clothing is often offered in emergencies but is generally an unsatisfactory way of meeting a need for clothing and should be discouraged. It often arrives in poor shape, dirty or badly sorted and will frequently be inappropriate for the customs of the refugees. Consider the alternative of purchasing particularly locally made clothes, and ensure that what is provided is culturally acceptable.

Transport

- Vehicle fleets should be standardized (same makes and models);
- Ensure there are sufficient drivers, fuel, lubricants, spare parts, tyres, maintenance personnel and facilities;
- It may be necessary to improve access roads, bridges, airport, or other infrastructure;
- A substantial margin of spare transport capacity (10-20%) must be provided;
- With health and community services, assess particular requirements for transporting refugees in a repatriation operation, and/or distribution for vulnerable groups.

International Transport

33. Arrangements must be made in advance with the relevant authorities for priority clearance and duties exemptions.

Air

34. In the emergency phase, supplies from abroad may arrive by air. Provide Supply and Transport Section at Headquarters with an update on the handling capacity of the airport (state of equipment, working hours, etc.) and the list of documents required for import and export of relief supplies.

Sea

35. As soon as details of the arrival of relief supplies by sea are known, arrangements should be made for clearance and priority allocation of an alongside berth and/or handling of cargo. In principle, relief supplies should be loaded only on vessels with the capacity for self-discharge. Whenever discharging alongside, they should do so directly onto trucks if possible. Arrangements for onward movement of the supplies and any interim storage necessary must also be made well in advance of the estimated time of arrival of the ship.

National Transport

Transport Networks

36. In many countries, existing transport services do not have a large spare capacity or may not serve the area where the refugees are located.

37. Where a suitable rail network exists, this can be an effective way of moving supplies. However, many railway systems are either congested or short of rolling stock (the locomotives and carriages used by railways) and long delays may be encountered. In most cases, onward movement by road to the final destination will be necessary.

38. Assess rail, road and inland waterway capacity, journey times, reputable transport contractors, freight rates, capacities and facilities at transhipment points (for example transferring goods from ferry or rail to road), and availability of fuel supplies and maintenance facilities.

Evaluate various transport corridors (including reception capacity) for cost and speed of delivery – even airlifts may not always significantly reduce delivery time.

Road Transport

39. Light vehicles will be needed for staff and for specific purposes such as ambulances, and heavy vehicles for transporting cargo, and for transporting refugees in repatriation operations.

40. There must be appropriate servicing facilities, including fuel, spare parts, and administrative support. Special arrangements, e.g. establishing workshops, may be necessary.

Managing a transport fleet requires strong administrative skills, good communications and close coordination with the procurement and other functions to ensure efficient timing for collection and delivery.

Assessing and planning vehicle needs and servicing facilities is described in Annex 2.

41. Drivers must be given training in UNHCR procedures. A sufficient number of drivers must be hired to ensure that recommended working hours are not exceeded.

Accident rates increase markedly with tired drivers.

A system must be established to monitor and control vehicle use, (see Annex 4 for an example of a vehicle log sheet). For light vehicles, drivers should be assigned to a specific vehicle for which they should be responsible.

42. In some situations, urgent action may be necessary in order to improve access roads. Technical advice will be of paramount importance in deciding how improvements should be made (seek advice through Programme and Technical Support Section at Headquarters). These improvements could be undertaken by the ministry of transport (or appropriate authority), perhaps supported by refugee labour. In some situations, careful briefing will be required about alternative routes in case usual roads are impassable.

43. Vehicles, bicycles, or animal or hand carts could be used for final distribution. Observe how local movement of supplies normally takes place.

Transport Capacities

44. If a commodity is to be transported by truck, the number of trucks needed should be calculated from the following information:

i. The quantity of goods to be transported in weight and volume;

ii. Type of truck available and its capacity in weight and volume;

iii. How long a round trip takes (including loading and offloading);

iv. Time allowed for routine maintenance capacity or time allowed for other known factors (driver breaks);

v. A margin for unpredictable events (such as breakdowns, accidents, bad weather, road and bridge repairs). The size of this margin will depend on many factors including the likelihood of new arrivals and the need to build up buffer stocks near the refugees. In difficult conditions, the theoretical capacity might need to be increased by 25% or more.

45. To give an example for food:

i. The number of refugees served is 30,000 who need 500 g/person/day, which is total 15,000 kg / day, or 15 MT /day;

ii. Truck capacity is 20 MT per truck;

iii. The rainy season journey time from the port of entry to a regional warehouse serving the 30,000 refugees is 3 days out and 2 days back;

iv. One day per round trip is added for routine maintenance;

v. The road surface can take a truck and trailer with a combined payload of 20 MT.

46. Therefore it will take 6 days for one truck to transport one 20 MT load, and 30,000 refugees will require 90 MT of food every six days.

Therefore the theoretically required capacity is for 4.5 such trucks. In such circumstances, it is clear that six trucks would be the prudent minimum.

47. Appendix 2 (Toolbox) sets out the capacities of different means of transport.

Transporting people by road

48. Logistical support will be necessary when transporting people for e.g. repatriation operations or relocating refugees to another site. Ensure there is close coordination with health and community services. Take particular care to look after vulnerable individuals, and minimize any risk of family separation. Passengers must be registered on a passenger manifest, wristbands should be used whenever possible, and water and food provided if it is a long journey. Ensure trucks have safe access (for example ladders).

49. When transporting medically vulnerable individuals such as pregnant women, it is preferable to use buses or ambulances. If trucks must be used, weigh the trucks down with sand bags to minimize the roughness of the transport. If there is a risk that some passengers might have a contagious disease, disinfect the vehicles after the journey.

50. Determine the number of light and heavy vehicles needed. These could include minibuses for 8-12 passengers to transport staff and vulnerable individuals, ambulances or mobile clinics (ask health staff about specifications), vehicles for transporting possessions, and mobile workshops.

51. If a convoy is necessary, plan for escort vehicles at the front and back of the convoy. If the operation involves many journeys over a short distance, consider having roving patrols with telecommunications, in case there are problems or breakdowns.

Reception of Goods

- Have a single consignee and address and inform Headquarters of any changes;
- Use the internationally accepted marking and packaging standards;
- Inspect goods on arrival and register insurance claims: supplies can get lost or arrive damaged;
- Advance arrangements with appropriate government authorities and freight forwarders will be necessary for rapid handling of supplies from abroad;
- Develop and promulgate a clear policy for customs clearance procedures for NGOs.

Consignment

52. Ensure offices sending supplies know who the consignee is. The consignee would normally be the Representative, with an indication in brackets of any special instructions, for example "For (*name of project/NGO*)".

Have the same consignee and address for all items required from abroad for the UNHCR emergency operation.

However, where UNHCR was not previously present it may be better to consign c/o a UN organization already well known in the country, for example UNDP, provided no delays will result. Similarly, there should be a single consignee and address at the camp level.

53. Whether purchases are made locally or abroad, proper packing, labelling, marking are essential. All organizations and donors need to use a uniform system for marking or labelling relief consignments – use the following guidelines:

i. *Colour code:* the colours used for the relief supplies are: red for foodstuffs, blue for clothing and household equipment, and green for medical supplies and equipment;

ii. *Labelling:* if necessary the consignment should bear one of the international hazard warning signs (fragile, no hooks, keep dry, etc.). Consignments of medicines should state on the outside of the package the content and the medicines' expiration date and whatever temperature controls are necessary. English or French should be used on all labels and stencilled markings, though another language may be added. It is essential that the final destination (or port of entry) appears at the bottom of the label in very large letters;

iii. *Markings:* all international or regionally procured goods will normally be marked with the UNHCR project code, purchase order numbers, commodity, packing specifications, port of entry and the consignee. Relief supplies should always be packed by commodity type. Mixed consignments create problems in warehousing and in the ultimate distribution at the receiving end. The colour code recommended loses its value if, for example, medical supplies are packed in the same container as food;

iv. *Size and weight:* packing units should be of a size and weight that one person can handle (ideally, 25 kg; up to a maximum of 50 kg) since mechanical loading and unloading equipment may not be available at the receiving end.

Advance notice should be sent to the consignee. The following information (preferably in one document) is essential, for safe transport and ease of handling at the receiving end:

i. Name of sender (or "shipper") – normally the Supply and Transport Section in Headquarters;

ii. Name of consignee;

iii. method of transport, the name of the vessel or the number of the flight or truck, estimated time of arrival, port or airport of departure, and name of transporter (e.g. aircraft of shipping company);

iv. A detailed list of contents, including weight, dimensions, and number and type of packing units;

v. A pro-forma invoice or gift certificate showing the value of the consignment;

vi. If the consignment is insured then the type of insurance, name of company, etc.;

vii. The clearing agent, including the name of the person to be contacted in the receiving country;

viii. Instructions or special requirements for handling and storing the supplies.

An acknowledgement should be sent to the sender as quickly as possible after consignments are received, and indicate whether the goods were received in good order and/or there was any loss or damage.

Clearance Procedures

54. The supplies coming in for the operation may far exceed the scope of the routine arrangements between the authorities and the local UN community. Problems and delays may be avoided by discussing in advance the procedures to be followed by UNHCR with senior officials in the foreign ministry, ministry of finance, customs authorities, and airport and port authorities. The aim is immediate release of incoming supplies.

Arrangements for clearance procedures and duties exemptions must be made in advance.

55. Arrangements will need to be made with:

i. The Civil Aviation Authorities (CAA) and airport authorities for priority clearances for relief flights (whether international or national) and waiver of fees. These arrangements include: over-flight clearance; free landing rights, air traffic control and parking; priority handling of aircraft and charges at cost for handling services;

ii. The ministry of finance and customs authorities for exemption from duties and taxes of goods and services (such as the tax element of landing fees and fuel tax). Ensure the ministry of finance (as well as the CAA) have been advised in advance of planned airlifts for the operation.

56. UNHCR's cooperation and/or implementing agreement with the government should allow for the duty-free import of all items, provided that they are required for the operation (see chapter on implementing arrangements, and the UNHCR Checklist for the Emergency Administrator). Special duties exemption and customs clearance procedures may have to be developed for the emergency.

Implementing partners' clearance

57. UNHCR can undertake the customs clearance for implementing partners' relief supplies, provided these meet the purposes of the emergency operation. This will allow some control over the arrival of clearly unsuitable goods, and help in the coordination of material assistance.

58. Guidelines should make it clear to all potential consignors that UNHCR will undertake to clear only supplies for which notification is received prior to dispatch and which are considered appropriate. The guidelines should be made available to implementing partners active in the operation and to new implementing partners on arrival.

Guidelines on customs clearance for implementing partners should be drawn up as early as possible in the operation.

A copy of these guidelines should be shared with Headquarters and reference to this general procedure made in any NGO briefings at Headquarters, as well as in the first few general sitreps.

Handling costs and other fees

59. The expenses incurred in customs clearance, handling, storage, and onward movement of supplies belonging to UNHCR should

be budgeted for. UNHCR might receive supplies procured by an implementing partner on their behalf, in which case all expenses involved should normally be borne by the implementing partner, and UNHCR will be the "consignee of convenience" (not the "owner" or "donee"). However, in certain circumstances and provided the supplies are items directly foreseen in the UNHCR operation (for example blankets, tents), UNHCR may also meet onward transportation costs.

Inspection and Damage

60. All consignments must undergo a visual and quantitative inspection on arrival (by staff) and some deliveries will be required (under government regulations) to undergo a qualitative inspection by a government designated inspection company.

61. If during the inspection, visible damage is noted, the damage must be clearly indicated on the shipping documents and a claim lodged against the last transporter within three days of receipt of the goods. The claim should indicate the dollar value at which UNHCR holds the transporter fully responsible for the loss or damage. A copy of the claim should be sent to the Supply and Transport Section in Headquarters who will follow up. The value of the loss or damage must include any associated transport costs. If damage is not visible and the packaging is undamaged, transporters will only accept a claim if it is lodged within seven days of receipt of the goods.

Do not accept supplies that do not meet contract specifications.

Headquarters should always be informed immediately of any damage or shortfalls or if the products do not meet specifications.

Insurance

62. Some damage, whether during transport or storage, is inevitable and considerable sums may be involved in the loss. Internationally procured supplies are insured against loss or damage in transit if their value is over a certain threshold ($200,000 in 1998) or the goods are non-expendable (such as vehicles and computers). Insurance claims must be registered at once.

Storage

- There must be appropriate storage capacity, correctly sited;
- The requirement for buffer stocks must be properly calculated and forecasted – do not hoard "just to be prepared".

Basic Requirements

63. Goods must be protected from damage due to bad handling or improper stacking; the adverse climatic effects of the sun, rain, cold or humidity; attacks by pests; and bacteriological decomposition of both food and non-food items over time.

64. Storage facilities may be required for:

i. Initial storage near the port of entry;

ii. Transit storage at certain key transhipment locations;

iii. Local storage no farther than one day's transport from the refugees;

iv. Storage at camps.

See figure 1 for information about location of storage facilities.

65. Warehouses must be accessible in all seasons and weather – plan well in advance of the winter or rainy seasons. Existing government warehousing should be used if it meets operational requirements.

66. Security of supplies must be ensured. Warehouses must be secure against theft, and should be lit if possible. Storage for local purchases should be the responsibility of the supplier whenever possible. Particular attention must be paid to those items requiring special storage.

67. A single large building is better than several small ones, as long as there are sufficient loading doors and access ramps. The doors must be large enough to allow for quick loading and offloading and small enough to keep control of the entry and alleyways.

68. Organize the distribution and storage system so that supplies are handled a minimum number of times. This will not only incur less costs, but also less damage and loss. Remember the rule "first in first out" for stock management and avoid offloading in the rain.

Considerations in Warehouse Selection

69. Warehouses should be well-constructed, dry, well-ventilated, and provide protection from rodents, insects and birds. The floor should be flat and firm and the building should be easy to access, with suitable arrangements for loading and unloading (e.g. a ramp or platform).

70. When selecting a warehouse check the following:

- ❏ State of the roof and ventilation;
- ❏ State of the walls and whether they are water tight;
- ❏ State of the floor, its insulation and general water drainage;
- ❏ Number of traffic lanes and doors;
- ❏ Availability of handling equipment and labour;
- ❏ Utilities (water, electricity, toilets, fire protection);
- ❏ Office space and lodging for drivers and guards;
- ❏ Special configuration as necessary for example for fuel, construction material, water reserves;
- ❏ Fences, guards, and secure doors and windows.

71. Warehouse capacity required will depend on the nature, variety and quantity of goods supplied, the numbers of refugees they serve, and what outside support they need. Buffer stocks of essential items, particularly food and fuel, should be built up close to the refugees.

Sufficient stocks should be on hand to cover likely interruptions in the delivery schedule. As a rule of thumb, this should cover one to three months distribution.

Conversely, care should be taken not to hold unnecessarily large stocks of items that are not immediately required by the refugees, e.g. seasonal items such as heaters or blankets.

72. The volume of a warehouse necessary to store a given commodity may be roughly estimated as follows. First calculate the volume of the goods. As an indication:

1 Metric Tonne of	Occupies approximately
grain	2 m^3
medicaments	3 m^3
blankets (approx. 700 heavy blankets per bale)	4-5 m^3
blankets (loose)	9 m^3
tents (approx. 25 family tents)	4-5 m^3

If the goods can be stored to height of 2 metres, the minimum surface area occupied by the goods will be half their volume. Increase this surface area by at least 20% to allow for access and ventilation.

73. For example, the approximate size of a store to hold 2 months' supply of the cereal staple for 30,000 refugees receiving an individual cereal ration of 350 g/day would be:

350 g x 30,000 x 60 days = 630 MT

1 MT of grain occupies 2 m^3

Therefore 630 MT occupies 1,260 m^3.

1,260 m^3 stored to a height of 2 m gives a surface area of 630 m^2, add 20% for access = 756 m^2 of floor space. A building some 50 m long by 15 m wide would therefore be indicated.

Warehouse construction

74. If suitable storage facilities do not exist, they may have to be built. Local techniques, materials and practices are likely to be the most appropriate in the longer term. However, for rapid construction, it may be necessary to use prefabricated (tent) warehouses as a temporary measure. These should be carefully sited, protected from surface water by digging ditches if necessary, and with raised platforms inside (for example using pallets, or groundsheets on sand). The contents must not touch the tent walls. Prefabricated warehouses are held as part of the UNHCR central emergency stockpile. They are 24 m long x 10 m wide with a capacity of between 750 to 1,100 m^3.

Stock Management

- ◆ Effective stock management and security are imperative and must cover the whole supply chain through to the final distribution to families or individuals;
- ◆ Report on stock levels, movements, losses, damage and distribution using the UNHCR Commodity Tracking System (CTS).

75. The stock management system should ensure that initial low quantities of goods can be put to best use and quickly into distribution.

A sound stock management and distribution system is essential in order to identify potentially critical shortages in time and assure final delivery to the beneficiaries.

Levels of relief may not meet total requirements of the beneficiaries – the agencies involved must identify what goods should be immediately distributed and to whom.

76. The stock management and distribution system should identify what has been ordered, where the goods are, when they will be delivered, and where they have been distributed. This information must be available to those responsible for the operation.

77. Control mechanisms include verifying the bulk consignments on arrival, physical stock checks in the warehouses, individual ration cards or distribution checks at the sites and carefully calibrated measures (scales) for final distribution. The nature of these mechanisms will depend on the circumstances, but they must be in place from the start and they must provide real and not just theoretical control. The supplies actually distributed to the refugees must be reconcilable with those known to have been delivered, those remaining in storage, and those which are lost or damaged.

78. In the emergency phase certain basic controls should be established at once, in addition to the controls over actual distribution. These are described in Annex 3.

79. The UNHCR Commodity Tracking System (CTS) is a computerized tool for stock management, which uses information from purchase orders and shipping and warehouse documentation (described in Annex 3), to track goods from their arrival at the port of entry of the country of operation, to the final distribution point. An additional module ("pipeline management module"), which can be attached to the CTS, tracks goods from the point of source (globally) to the port of entry.

80. The stock control and distribution system (including CTS) provides information to fulfil reporting obligations – ensure the system takes account of reporting needs as specified by Community Services, Field and Programme Officers. See UNHCR Commodity Distribution, A Practical Guide for field staff for further guidance, in particular on setting up a reporting system for distribution.

81. A Motor Item Management system, (MIMS) is a computerized tool for fleet management, which keeps track of the maintenance and repair of vehicles, generators, etc., of fuel consumption, vehicle insurance, and the registration of vehicles, their re-deployment and disposal.

82. Assistance with setting up the CTS or MIMS can be obtained from Supply and Transport Section, Geneva.

Key References

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Stock Management, (Guide No. 6), ITC, Geneva, 1985.

Supplies and Food Aid Field Handbook, UNHCR Geneva, 1989 (this is the same as Chapter 10 of the UNHCR Manual).

UNHCR Manual, Chapter 4, UNHCR, Geneva, 1996.

UN Joint Logistics Cell: Standard Operating Procedures, MCDU, Geneva, 1997.

Annex 1: – Standard specifications for certain common relief items

These specifications can be useful in drawing up tender requests where local purchase is possible, to assist in negotiations with suppliers, and to give a clear indication of what could otherwise be supplied at short notice through Headquarters (some items are available in the emergency stockpile – see Appendix 1, Catalogue of Emergency Response Resources).

1. Woven Dry Raised Blankets (Type A) (for warm climates)

Composition:	Woven, minimum 30% wool. Balance of new cotton/synthetic fibres;
Size:	150 x 200 cm, thickness 4 mm;
Weight:	1.5 kg;
T.O.G.: (thermal resistance of garment)	1.2 - 1.6;
Finish:	10 stitches/decimetre or ribbon bordered 4 sides;
Packing:	In compressed water tight wrapping in pressed bales of 30 pcs. Each bale of 30 pcs would be about 0.3 m^3 volume and weigh approx. 48 kg.

2. Woven Dry Raised Blankets (Type B) (for cool climates)

Composition:	Woven, minimum 50% wool. Balance of new synthetic fibre;
Size:	150 x 200 cm, thickness 5 mm;
Weight:	1.5 kg;
T.O.G.: (thermal resistance of garment)	2.0 - 2.4;
Finish:	10 stitches/decimetre or ribbon bordered 4 sides;
Packing:	Compressed water tight wrapping in pressed bales of 30 pcs. Each bale of 30 pcs would be about 0.35 m^3 volume and weigh 50 kg.

3. Heavy duty plastic bucket, 10 litre

Type:	Heavy duty plastic bucket, multi purpose, with lid;
Material:	High density polyethylene (HDPE), food grade material, conical seamless design.
Handle:	Steel-wire bale handle, fitted with plastic roller grip, rust proof;
Thickness:	Minimum 1.0 mm;
Dimensions:	Approx. top diameter: 30 cm Approx. height: 30 cm; volume 0.01 m^3
Weight:	450 g.

4. Jerry Cans, 10 litre

Semi-collapsible jerry cans

	(Semi-collapsible jerry cans are the preferred option because of the much lower shipping volume, but they are sometimes difficult to obtain locally.)
Type:	Semi-Collapsible plastic jerry cans for drinking water;
Material:	Manufactured of food grade HDPE (i.e. containing no toxic elements);
Construction:	Semi-collapsible; built-in carrying handle, wide enough for adult hand; screw cap linked to container by polymide string; jerry can opening 35 mm (inner diameter); 0.6 mm thick walls; Impact resistance: Must withstand drop from minimum 2.5 m containing maximum volume;
Operating Temperature:	-20 to 50°C;
Weight:	200 g/pce;
Packaging:	150 pcs/wooden crate. Each crate weighs 49 kg, volume 0.38 m^3

Non-collapsible jerry cans

As above, except non-collapsible, weight 400 g/pce; 1 mm thick walls; jerry can opening 40 mm (inner diameter)

5. Kitchen Sets

Kitchen Sets – Type A

a) 1 aluminium cooking pot, 7 litre, minimum thickness 1.75 mm, with lid minimum thickness 1 mm, two cast aluminium handles, sandpaper finish.
b) 1 aluminium cooking pot, 5 litre, as above, minimum thickness 1.6 mm.
c) 5 aluminium bowls, minimum thickness 1 mm, 1 litre capacity, rolled edge border, sandpaper finish.
d) 5 deep aluminium plates, minimum thickness 1 mm, 1 litre capacity, sandpaper finish.
e) 5 aluminium cups, minimum thickness 1 mm, 0.3 litre capacity, with handle, rolled edge border, sandpaper finish.

f) 5 stainless steel table spoons, polished finish.
g) 5 stainless steel table forks, polished finish.
h) 5 stainless steel table knives, polished finish.
i) 1 kitchen knife with stainless steel blade, cutting edge 14/15 cm long, 2.5 cm wide with moulded plastic handle.
j) 1 galvanized steel bucket, 15 litre, 0.5 mm thick, tapered with raised bottom, curled brim and metal arch handle.

Packing: Individual carton: 30 x 30 x 33 cm = 0.02 m^2

Weight: Approx. 5.5 kg

Kitchen Sets – Type B

Consists of the following items: a, b, c, (or d) e, f and optionally i).

Packing: 4 sets per carton: 56 x 56 x 19.5 cm = 0.06 m^2

Kitchen Sets – Type C

Consists of the following items: a, c, (or d) e and f.

Packing: 4 sets per carton: 54 x 54 x 19.5 cm = 0.05 m^2

6. Reinforced plastic tarpaulins in sheets

Sheets are 4 m x 5 m each.

Material: Made of woven high density polyethylene fibre; warp x weft (12/14 x 12/14 per inch); laminated on both sides with low density polyethylene with reinforced rims by heat sealing on all sides and nylon ropes in hem; 1000 dernier Min. Stabilized against ultraviolet rays and excess heat for long outdoor exposure (1.5% loss of strength in yarn and in lamination); provided with strong aluminium eyelets or equivalent on four sides of the sheet at 100 cm centre to centre.

Dimensions: Thickness: 200-230 microns; weight 190 g/m^2; density 0.9-.95 kg/cubic decimetre.

Tensile strength: Min. 600 N both directions of warp and weft (BS 2576, 50 mm grab test or equivalent).

Tear resistance: 100 N Min. both directions (BS 4303 wing tear or equivalent).

Heat/cold resistance: Flammability: flash point above 200°C.

Colour: Blue one side white on reverse; UNHCR logo.

Weight: 4.8 kg per piece, packed in bales of five, weight per bale 22.5 kg; volume per bale 0.045 m^3.

7. Soap bars:

Composition: Min. 70% fatty acid: max. 20% moisture, max. NAOH 0.2% max. NACL 1.25%; no mercury content. Local standards of lower content of fatty acid might be acceptable.

Weight: Soap bars should be approx. 125 g/piece.

8. Double Fly double fold centre pole tent

Family sized tent.

External dimensions: 4.4 m x 4.4 m (outer fly), surface area 19.36 m^2, centre height 3 m.

Internal dimensions: 4m x 4m, floor area 16 m^2, centre height 2.75 m, side wall height 1.8 m (25 cm distance between outer and inner fly).

Material: Cotton canvas; 100% cotton yarn (10/2 x 10/2 twisted in warp 42/44, weft 24/26 threads per inch, plain weave); 15-16 oz/m^2. Canvas to be free of weaving defects and finishing faults adversely affecting strength, waterproofness and durability. Water proofing/resistance to water penetration by paraffin wax emulsion and aluminium acetate to withstand 20 - 30 cm hydrostatic head. Stabilization against decomposition of the fabric (rot-proofing) with copper napthanate.

Poles/ropes/pegs: 4 aluminium or bamboo poles for roof corners (2 m x 22 mm diameter); heavy duty sectional steel tube (or aluminium or bamboo) centre pole, plastic clad or galvanized (3 m x 50 mm diameter). Complete with ropes made of 9mm 3 strand polypropylene; 24 T-Type bars 40 mm x 40 mm, 50 cm long; 12 iron pegs (25 cm x 9 mm diameter), one iron hammer of 1 kg; one repair kit with one straight and one curved needle with 20 m of suitable thread for tent repair, illustrated assembly instructions with list of contents.

Groundsheet: Reinforced PVC groundsheet 250g/m^2.

Packing: All rolled into a canvas bag. Weight 100 - 130 kg, dimensions: 2 m x 50 cm diametre (0.4 m^3).

1. Assessing needs

Assessing vehicle needs involves not only calculating the vehicles which are needed, but also assessing what vehicles it will be possible to operate and maintain in the area of operation. Make sure that the existing infrastructure (roads, workshops and fuel) is fully evaluated before obtaining vehicles.

What will the vehicles be used for and how many are needed?

Heavy vehicles

i. Will the vehicles be used for – transporting people or relief supplies?
ii. What will be the frequency of use (one off transport, or scheduled deliveries for distribution)?
iii. What is the total quantity (of goods or people) to be transported?
iv. Are any special configurations necessary: if a truck is to carry dangerous goods e.g. fuel, ensure that dangerous goods regulations are followed.

Light vehicles

i. How many vehicles are needed for staff? In an emergency, it is advisable to have a ratio between light vehicles and international staff of 1:1. In more stable situations, slightly fewer vehicles per staff member may be acceptable.
ii. What special vehicles might be needed (e.g. ambulances for transporting vulnerable refugees)? The main categories of light vehicles which might be useful are: sedan and minibus (4x2 only), and station wagon, van, pick-up, and ambulance (both 4x2 or 4x4).

What configurations of vehicles are needed?

i. What is the condition of the routes that will be used? tarmac roads, good unpaved roads (with stone or macadam surface), sand or dirt trails, or no roads (in which case consider animals for transport).
ii. How long are the journeys expected to be?

Light vehicles

i. What configuration light vehicles should be used according to road conditions: 4x2 or 4x4?

Heavy vehicles

i. What configuration for heavy vehicles should be used according to the road conditions: 4x2, 4x4, 6x2 or 6x4?
ii. Should trailers be used? Trailers can be more economical, i.e. - with a relatively small investment one is able to transport twice the amount of cargo. The following configurations for heavy vehicles (trucks/trailers) could be appropriate:

i. Truck with trailer (6x2 or 6x4) with a combined capacity of 20-40 MT for transport up to 3,000 km 2-7 day trip, normally for use on tarmac roads;
ii. Truck (6x4, 4x4, 4x2) for intermediary distribution with a capacity of 10-15 MT (normally 1 day trip) on unpaved roads with stone or macadam surface,
iii. 5-10 MT capacity trucks on tracks and trails (generally for trips of half a day or less up to distribution points).

Trailers

Prior to purchasing trailers, the following additional questions should be considered:

i. Are the roads and bridges suitable to drive on with trailers?
ii. Are the drivers capable of driving with trailers?
iii. What are the regulations in the country regarding the weight and length of truck-trailer combinations?
iv. What type of trailer is needed? Can the trucks be operated with trailers or would tractor trailers be better? Can the trailer be transported on the truck on empty runs? Ensure there are air-brakes, a towing hook, extra fuel tanks and spare wheels. Particular attention must be paid to the tow-bar strength and number of axles.

What makes and models of vehicles would be appropriate?

i. What makes of vehicles are maintained (to supplier specifications) by local service dealers? The heavy vehicle fleet must be standardized to suitable makes and models already operating in the country. If a mixture of models of truck is unavoidable, it may still be possible to standardize to a single make.
ii. What is the availability of vehicles: the spare capacity of local transport companies, and possibility of purchasing new or second hand vehicles?

Infrastructure (fuel, workshops)

i. Is there a service network available with the know how to maintain the fleet, or will it be necessary to set up dedicated workshops and fuel stations?
ii. Are there sufficient spare parts and tyres in the local market, or must they be imported?
iii. Is fuel (diesel and gasoline) and are lubricants readily available in the area of operation? (note the number of fuel stations, capacity and likely availability of fuel at each).

2. Sourcing vehicles

Vehicles (whether light or heavy) can be: rented locally, provided by the government, loaned from another UN Office in the region, re-deployed from another UNHCR operation, or purchased. Heavy duty vehicles can also be provided under a standby arrangement (see Catalogue of Emergency Response Resources, Appendix 1). If trucks are to be purchased internationally, send a request to the Supply and Transport Section in Headquarters by completing the appropriate form (Operations Analysis Form for Trucks – request this from Headquarters if necessary).

In order to analyze the procurement options, take into account the following:

i. Expected length of operation. If the expected length of the operation is short, (3 - 6 months), or the situation is very unstable, it may be better to rent, loan or re-deploy rather than purchase vehicles, because of high initial costs;
ii. Comparative costs. Compare the cost of renting vehicles with the cost of purchasing them (including delivery costs). Consider purchasing second-hand vehicles if they are in good enough condition;
iii. Servicing and other benefits. Take into account that renting vehicles will include servicing and other benefits (such as drivers, insurance) which would need to be separately arranged if the vehicles are re-deployed, purchased, or loaned;
iv. Time. Light vehicles can be quickly deployed from the UNHCR emergency stockpile (see Appendix 3). Purchasing new vehicles can be very time consuming, because of long delivery times (up to 8 months if they are manufactured to order, which is usually necessary for the configuration of heavy duty vehicles for UNHCR operations). If there is an urgent need for heavy vehicles, inform Supply and Transport Section at Headquarters of the vehicle requirements and infrastructure, who will look into possible options (re-deployment, purchase etc.) in the international market and regionally. If it becomes necessary to purchase vehicles, early notification and action will be a priority;
v. Other options. Consideration could also be given to the possibility of "grafting" the heavy vehicle fleet onto a large national or regional transport organization. That organization's infrastructure, including workshops, offices, etc., would then be immediately available as would its accumulated experience of operating in the country.

The vehicles exclusively involved in the operation should be individually numbered and distinctively marked – for example, white with blue markings.

3. Fuel and Maintenance Facilities

There must be adequate servicing facilities, including sufficient supplies of fuel and spare parts. Maintenance and repair must be carried out regularly and as per manufacturers' standards, either through local service dealers or through a UNHCR workshop. Regular maintenance will prevent minor problems turning into major ones. Proper driving and care by the drivers can be an important factor in keeping vehicles on the road and prolonging their life. Adequate training, incentives and supervision will be the key to this.

Fuel and lubricants

- Assured supplies of fuel and lubricants must be available where they are needed (make sure oil and lubricants are in accordance with manufacturer's specifications – and new). This may require separate, secure storage arrangements and an additional fleet of fuel tanker vehicles. It may be necessary to establish fuel stations to ensure fuel supplies.

Spare parts and workshops

Consumable items (filters, shock absorbers, brake linings etc.) and spare parts must be available, especially tyres: tyre life may be no more than 10,000 km in rough desert or mountain conditions. Arrangements for maintenance and repair include:

i. Making use of or strengthening existing facilities:

   Existing commercial, government or UN facilities (e.g. WFP or UNDPKO) may be able to service additional UNHCR vehicles or could be strengthened in order to do so;

ii Establishing dedicated workshops:

   Workshops may have to be established by UNHCR solely for the operation – for example a central, fully equipped workshop, including personnel, tools, soldering capacity, spare parts store, and transport administration office. In addition, depending on the size and area of the operation, consider also having smaller workshops and transport administration offices closer to isolated destinations;

iii. Mobile workshops and heavy recovery vehicles may also be necessary:

   Always ensure there is recovery capacity for trucks, such as mobile workshops, recovery trucks, winches, etc.

This annex gives an indication of the basic components of a stock management system. The minimum level of controls necessary will vary with each operation. Simple controls and accounting established from the start will be much more effective than a sophisticated system later. No system will be effective unless it is understood by those required to operate it. Training will be required for all staff involved. All these documents are UNHCR forms apart from waybills. The computerized UNHCR Commodity Tracking System (CTS) relies on the information contained in this paper system.

1. Stock Control

i. Pipeline report: each order or consignment (including contributions in kind), should be tracked using a pipeline report. This records all stages of stock movement from the initial request for goods through, as applicable, requests for tenders, placing of order, notification of shipment, planned delivery time and place, actual time of arrival, and distribution details.

ii. A simple board where progress can be monitored visually is likely to be very useful and can be set up at once.

2. Source Documents

Source documents identify the quantity of the commodity, specifications, packaging, value and origin.

i. Purchase order. This defines the order: specifications, number of units ordered, price/unit, total price, packaging, date of purchase, supplier, destination etc. It should make reference to the legally enforceable standard conditions of contract.

ii. Contribution Advice Form (CAF)/Donation Advice Form (DAF). When contributions in kind are pledged, Fund-raising and Donor Relations Services in Headquarters issues a CAF or DAF. This gives similar information to a purchase order and the information should be used to track the goods until final distribution in order to account to the donor as stipulated in the CAF/DAF.

3. Authorization Documents

i. Release Request. This is a formal request for goods which authorizes warehouse staff to release goods from stock.

ii. Transporting/Warehouse Request. This gives formal approval for NGOs to use UNHCR transport or warehouse facilities for their goods.

4. Certification Documents

There are a number of documents which are used to certify that goods have been received, delivered, and/or sent in good order.

i. Waybill/Air Waybill/Bill of Lading. This is the shipping document and contract with the transporter showing the destination and accompanies the goods from the port of loading to the contracted destination in duplicate. This document is the basis for customs clearance and enables staff to check goods actually received against those loaded. Duplicate copies are also used by procurement staff to verify goods dispatched against those ordered (i.e. against the purchase order form). Where the movement is between UNHCR warehouses, use the delivery note (attached as Annex 4).

ii. Release Note. This is used when goods are collected at the warehouse and the goods leave UNHCR's stock control system – the person (driver or consignor, for example an NGO) who collects the goods certifies that goods have been received in good order.

iii. Delivery Note (see Annex 4). The delivery note is sent with the goods when they are transported (under UNHCR's control) to another location (for example another UNHCR warehouse). The receiver of goods signs the delivery note to certify that the goods have been received in good order, and a signed copy is returned to the sender. It is used when the goods have been sent by rail, road or barge (an "Aircargo Manifest" is used where the goods have been transported by air).

iv. Receipt Note: Where goods have been received without a delivery note or waybill/bill of lading, a receipt note is signed by the receiver of the goods and sent to the sender for certification.

5. Warehouse documents

Whatever the size of the warehouse or store and wherever it may be located, the minimum recommended book-keeping controls are those outlined below. They must be complemented by routine inspection to ensure goods are properly stored and protected, and by a periodic audit.

i. Daily Incoming Shipment Log Sheet. This is used to record basic details of all inward consignments – description of goods, quantity, supplier, name of person receiving and date of receipt, with cross reference to waybills (above).

ii. Daily Outgoing Shipment Log Sheet. This is used to record basic details of all outward consignments – description of goods, quantity, destination, and date of dispatch, (with cross reference to waybill, delivery or receipt note).

iii. Stock card (sometimes called a bin card). One stock card for each different commodity in the warehouse is used to record every in and out movement of that particular commodity, with cross reference to the appropriate entries in the incoming/outgoing log sheets. It gives a running balance. Where possible those actually receiving and issuing the goods should not also be responsible for maintaining the stock card.

iv. Daily stock report (see Annex 4). This gives basic details of goods in stock and the quantity, value, weight of these commodities for each warehouse location.

v. Loss/damage report: to report loss or damage to stock (whether incurred during transport or storage).

Movement of goods

The easiest control to ensure that goods reach their destination may be to make (final) payment (for the goods, of the driver or transporter, as applicable) conditional on return of the certified duplicate of the Delivery Note or Waybill. More comprehensive controls and measures (e.g. monitors) may be required later, and are anyway needed to ensure that goods reach their destination (in the worst case, this control only indicates that they did not). But provided the signatories for both authorization and receipt are carefully chosen, and signatures controlled (combining them with a UNHCR seal is recommended), this should be an effective initial safeguard.

Annex 4

UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES

Vehicle Daily Log Sheet

Date:	**Starting Mileage:**

Vehicle Check:

☐ Oil	☐ Water (Radiator & Windscreen Washer)	☐ Brakes (Foot & Hand)	☐ Front Lights	☐ Rear Lights
☐ Tool Kit & Jack	☐ Spare Tyre	☐ Vehicle Clean	☐ Full Tank	☐ Radio Check

Driver (Print Name):	**Driver's Signature:**

Destination	Passengers	Time Out	Time In	Official / Private	Starting km Reading	Ending km Reading

Fuel (liters):	Mileage when fueled:
Fuel (liters):	Mileage when fueled:
Engine Oil (liters):	Engine Oil (type):

Remarks:

Annex 4

UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES

Delivery Note

Distribution:	
2 copies for Destination *	(Yellow and Blue)
1 copy for UNHCR	(White)
1 copy for Driver	(Pink)
1 copy for Dispatch Warehouse	(Green)

Delivery Note No.

Page _____ of _____ Pages

Issuing Warehouse / Location (Consignor)	**Release Authority**
Receiving Warehouse / Location (Consignee)	**Convoy Number (if applicable)**
Final Destination	**Container Number (if applicable)**
Route	**Transporter (Print Contractor Name)**
Rail Wagon **Vessel or** **Vehicle Plate No.**	**Driver (Print Name)** **Signature**

Control No. PO or Donor	Item Description	Packing Unit (PU)	Pieces per PU	PU Weight Gross Kg	No. of PU Loaded	No. of PU Unloaded	Loss / Damage Remarks

Total No. of PUs Loaded _____ **Total Kg Loaded** _____

Delivery Note prepared by (Print Name):	Date	Signature
		OFFICIAL SEAL

** All items have been LOADED

Loading Supervisor (Print Name):	Date	Signature	Loading Time: Start Finish

** All items have been RECEIVED except as circled and as per remarks above, or on the reverse;

Unloading Supervisor (Print Name):	Date	Signature	Unloading Time: Start Finish

OFFICIAL SEAL

1. The Consignee at the receiving warehouse must check the quantity delivered and note any loss or damage.
2. ** Any losses or damages must be noted on this form by the Unloading Supervisor.
3. * The consignee at the receiving warehouse must sign all three copies of this Delivery Note and hand over two copies signed and stamped to the driver who will return the Blue copy to the Issuing Warehouse / Consignor.

UNITED NATIONS HIGH COMMISSIONER FOR REFUGEES

Daily Stock Report

Prepared by:
Checked by:
Distributed:

Organization / Office:	Location:	Date:

Commodity					Stocks Quantity in Pieces or Net Kgs				Remarks:
Control No. PO or Donor	Description (Specific)	Packing Unit (PU)	Pieces per PU	Net Kg per PU	Opening Balance	Issued	Received	Closing Balance	

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Voluntary Repatriation

■ CONTENTS

Situation

Voluntary repatriation operations, even when planned in advance, may have many of the characteristics of an emergency, as defined in this Handbook. They often have to be organized at short notice and require "an extraordinary response and exceptional measures". Mass unplanned repatriation, especially when carried out in less than optimum conditions can resemble an emergency caused by a sudden influx of refugees.

Objectives

To seek permanent solutions for the problem of refugees by assisting with their voluntary repatriation in safety and dignity and their successful and durable reintegration into their home society.

Principles of Response

- The decision whether or not to return home belongs to the refugees. They should neither be forced to return, nor prevented from doing so;
- The voluntary nature of the repatriation must be verified and safeguarded by UNHCR.

Action

- Deploy sufficient staff to collect information on the intentions of the returnees and to assess whether the repatriation is voluntary or not;
- Collect information in the country of origin concerning the conditions for return, share this information with the refugees;
- Define the nature of UNHCR's involvement in the repatriation, communicate this to all staff, and to governments and other agencies as appropriate;
- Provide assistance to returnees on the way home and upon arrival, if required, in line with the nature of UNHCR's involvement in the repatriation.

Introduction

1. Voluntary repatriation operations can have many of the characteristics of an emergency operation in that they too may require "extraordinary response and exceptional measures" and often have to be organized on short notice. This chapter gives brief guidance on voluntary repatriation particularly in emergency circumstances, but further reference must always be made to the Handbook, Voluntary Repatriation: International Protection, UNHCR, 1996.

2. Voluntary repatriation is the preferred solution for the plight of refugees. Article 1 of the Statute requires the High Commissioner, to assist "Governments and, subject to the approval of the Governments concerned, private organizations to facilitate the voluntary repatriation" of refugees falling within the scope of the Statute.

3. Voluntary repatriation is usually characterized either as:

i. "Organized" – i.e. where refugees return in an organized manner assisted by UNHCR, or

ii. "Spontaneous" – i.e. where refugees return by their own means rather than as part of an organized operation.

4. Spontaneous return may take place unexpectedly, sometimes in conflict situations. UNHCR needs to position itself to provide timely and effective protection and assistance along routes of return and in the country of origin. In addition information on the conditions prevailing in the country of origin should be provided to the refugees (e.g. concerning landmines, routes of return and border conditions).

Spontaneous, mass repatriations are the most likely to require an exceptional response and extraordinary measures.

UNHCR's Role in Voluntary Repatriation

5. UNHCR's role in voluntary repatriation includes the following:

i. Verify the voluntary character of refugee repatriation;

ii. Promote the creation of conditions that are conducive to voluntary return in safety and dignity;

iii. Promote the voluntary repatriation of refugees once conditions are conducive to return;

iv. Facilitate the voluntary return of refugees when it is taking place spontaneously, even if conditions are not conducive to return;

v. Organize, in cooperation with NGOs and other agencies, the transportation and reception of returnees, provided that such arrangements are necessary to protect their interests and well-being; and,

vi. Monitor the status of returnees in their country of origin and if guarantees given by the country of origin are adhered to. Intervene on behalf of the refugees if necessary.

6. UNHCR should maintain objective and up-to-date information about the situation in the country of origin. Personnel on the ground should stay in close touch with refugees' thinking on the possibility of voluntary repatriation, and keep the refugees and concerned governments informed accordingly.

7. A distinction should be made between "promotion" and "facilitation" of voluntary repatriation. Repatriation should only be promoted when it appears, objectively, that the refugees can return in safety and with dignity[1] and the return has good prospects of being durable. UNHCR can promote voluntary repatriation without being in charge of organizing all aspects of the return movement. Frequently, members of a group will make their own arrangements for return, with or without assistance from UNHCR.

8. When UNHCR does not consider that, objectively, it is safe for most refugees to return, but even so refugees indicate a strong desire to return voluntarily and/or have begun to do so on their own initiative, UNHCR must be careful not to promote the repatriation, but may take some steps to facilitate it.

UNHCR must make clear to the authorities and the refugees that support for such repatriation is based on respect for the refugees' free decision to repatriate and cannot be interpreted as an indication of adequate security.

9. Facilitating repatriation can, depending on the circumstances, include providing information to the refugees, advising on the limits of UNHCR protection and material assistance

[1] *"Safety" means legal safety, physical security and material security or access to land or means of livelihood. "Dignity" includes the concept that the refugees are treated with respect by national authorities including restoration of all their rights.*

during and after their return, negotiating amnesties, establishing a presence in the country of origin and monitoring their treatment. The issue of material assistance requires careful handling, so that assistance is not interpreted as a pull factor nor as promotion of repatriation by UNHCR.

10. Where there is a mass spontaneous repatriation in conditions where UNHCR does not consider that, objectively, it is safe for most refugees to return, and in emergency conditions, Headquarters advice should be sought to define UNHCR's role in such circumstances.

Conditions For a Voluntary Repatriation

11. In a voluntary repatriation, there must be:

- Safeguards as to the voluntary nature of the return;
- Safeguards as to treatment upon return;
- Continued asylum for those who do not repatriate and remain refugees.

Voluntary Nature of the Return

12. Ensuring the voluntary nature of the return includes ensuring

i. The decision to repatriate is made freely;

ii. The refugees are making an informed decision based on an accurate country profile;

iii. The decision is made expressly.

13. Voluntariness must be viewed in relation both to conditions in the country of origin (calling for an informed decision) and the situation in the country of asylum (permitting a free choice).

Voluntariness means there should be no pressure on the refugee to repatriate.

14. A field office should analyze both factors, relying for the first, to a large extent, on direct interviews with all segments of the refugee community, including women. Consider refugee attitudes both towards changed circumstances in their home country and towards the situation in the country of asylum.

15. Voluntariness also means that the refugees should not be prevented from returning. In certain situations, economic and political interests in the country of asylum may lead to interest groups trying to prevent repatriation.

16. What ever the nature of the repatriation, the refugees should be kept fully informed of the situation in the country of origin in order to guarantee the voluntary nature of the return. Though refugees are often already well informed, it may be necessary to provide additional information on the situation in their home country.

17. Information should be available about their planned reception and prospects for reintegration into national life. They will want to know if they have the right to repossess their old houses and land, what the type and amount of material support they will initially receive, what they can take with them, etc.

18. Many of their questions may be best answered by:

i. Arranging for refugee representatives (including women) to make a visit to the home area to see the situation at first hand, if this is possible (go and see visits);

ii. Assisting with the exchange of letters;

iii. Enabling communication by radio with relatives in the country of origin;

iv. Displays of information about home conditions;

v. Formal or informal discussions with recent visitors to the area of return, or through visits to the refugee camps of returnees or country of origin local authorities.

19. Whatever the method, care must be taken to ensure that the refugees are given as fair (and objective) a picture as possible of conditions in their home area.

20. The refugees must freely express their intent to repatriate. They may be unused to taking individual or family decisions of this nature, but programmes must be structured so that their rights in this regard are safeguarded, for example by using volrep declaration forms.

21. In instances of organized return, the use of a voluntary repatriation declaration form is recommended (see Annex 1). Where there is any risk of coercion, either from outside or by factions among the refugees, the form should be signed in private in front of a UNHCR officer or other neutral witness. He or she may need to interview the refugees to ensure that their decision is truly voluntary. Where circumstances allow, more informal confirmation of voluntariness than these may be used and simple lists of names may suffice.

In cases of massive spontaneous return, completion of a voluntary repatriation form will not be realistic and UNHCR must position officers along the routes of return to monitor, interview and intervene where necessary to determine if instances of coercion are taking place.

Treatment on Return

22. The durability of voluntary repatriation depends, to a large extent, on the protection given to returnees during their reintegration into their home country.

23. The state of origin bears responsibility for the protection of returnees, its nationals. However, UNHCR involvement with returnees is justified by virtue of its protection role on behalf of refugees and the Office's statutory responsibility to seek voluntary repatriation as a durable solution for refugees.

24. UNHCR cannot guarantee safe treatment to the returnees, though they will often request such assurances. UNHCR's involvement with returnees is set out in more detail in the UNHCR Handbook, the Voluntary Repatriation Handbook, which includes information on amnesties and monitoring.

Amnesties, Assurances, Guarantees

25. In any voluntary repatriation, appropriate legal safeguards are essential. UNHCR recommends that, in addition to conditions set out in a repatriation agreement, governments independently promulgate amnesties or legal guarantees for returnees. Such declarations should include the right to return, freedom of residence, and the provision of an amnesty. As a minimum, they should stipulate that returnees not be subjected to any punitive or discriminatory action on account of their having fled their country.

26. If the government consults UNHCR when drawing up an amnesty, it is particularly important to propose that the amnesty should be both:

i. A group amnesty – the amnesty should be extended on a group basis, rather than requiring individual determination;

ii. A blanket amnesty – the amnesty should whenever possible be a blanket one, not distinguishing between different types of prior 'crimes'. Such distinctions can create major problems, for example in a situation where a clear differentiation between political and criminal offenses may not be possible. Unless the amnesty is a blanket one, repatriates may not know if they are covered until they return, which may be too late. If a complete blanket amnesty is not possible, then a time limitation on the amnesty (offenses committed before or after or between given dates) should be the aim.

Monitoring

27. UNHCR must have direct and unhindered access to returnees to monitor their safety and reintegration conditions. This should include access to prisons or detention centers (liaison with ICRC and Human Rights will be important in this regard as well as information-sharing with other NGOs working with returnees).

28. If returnees are at risk due to inadequate state protection, UNHCR should intervene on their behalf as appropriate, for example by remedial action, or formal protest at local, national or even regional level, and ensure there is good reporting. If the insecurity persists, UNHCR would have to review its policy on return.

29. UNHCR's returnee monitoring role alone will never provide a mechanism for ensuring the safety of returnees and respect for international human rights standards in the country of return. It can be a helpful influence to enhance respect for amnesties, guarantees, the rule of law and human rights but should never be seen as a substitute for state responsibility.

Continued Asylum for Those who Remain Refugees

30. Any voluntary repatriation programme must be complemented by measures to ensure continued safe asylum of refugees and international protection for those who choose to stay longer in the country of asylum. Some refugees may continue to harbour a well-founded fear of persecution and who therefore do not wish to repatriate. There may be others who delay their decision, or even initially decide against repatriation, in order to see how the first fare.

31. This may mean the continuation of any existing operation, but for a reduced number of beneficiaries. Local integration in the country of asylum is the preferred option for a residual caseload of refugees who remain after the completion of a repatriation programme and who are unable for one reason

or another to return to their country of origin. However, in rare circumstances, it may mean a resettlement project of some kind for those who remain refugees.

32. If there is a serious problem of coercion, or intimidation, it may be necessary to move those who decide not to repatriate to another location immediately after they have reached this decision. This, too, should be foreseen and covered in any voluntary repatriation agreement.

Other Protection Concerns

Vulnerable groups

33. Throughout all phases of the operation particular attention has to be paid to vulnerable groups such as unaccompanied children, unaccompanied elderly, the disabled and chronically ill as well as specific needs of unaccompanied women and single heads of households. In large scale spontaneous repatriation movements, family members may become separated during the operation and it will be necessary to establish tracing services to reunite families. During registration the identity of vulnerable refugees, particularly those with special needs, and of persons with close links to the vulnerable in the country of asylum or country of origin, should have been recorded.

Preparing for Repatriation

34. The steps below should be considered in any kind of repatriation, including in emergency circumstances. The management principles described in chapters 1 to 9 should be referred to (e.g. planning, needs assessment and implementation) and reference should also be made to chapter 18 on supplies and transport.

Being Prepared for Spontaneous Repatriation

35. Proactive steps to ensure preparedness for spontaneous repatriation include:

i. Being well informed about the refugee caseload, in particular its origin, history, composition, reasons for flight, and its view of developments in the country of origin;

ii. Liaising closely with the UNHCR office in the country of origin to determine whether internally displaced people are returning home or other developments which could lead to a return movement. Such return movements are often sparked by refugee fears that they could lose their land, property or jobs if they do not return;

iii. Being in close touch with the prevailing concerns of the refugees.

36. If indicators for a spontaneous repatriation are present, contingency planning should take place, including identifying protection and material assistance needs in the country of origin and en route, and establishing a capacity for monitoring in areas of return including a direct UNHCR or operational partner presence.

Agreement Between the Parties

37. Whenever possible, a formal voluntary repatriation agreement should be concluded between the governments of the countries of asylum and origin and UNHCR in the form of a tripartite agreement. A tripartite commission should in any event be established as soon as possible when voluntary repatriation is forseen. However, it is important that UNHCR not enter into tripartite repatriation arrangements without due consultation with the refugees, and that their preoccupations are always kept foremost.

38. UNHCR's role in developing repatriation agreements is to:

i. Work with the two governments to ensure that any such agreement respects the basic protection considerations already outlined;

ii. Help provide material assistance, where necessary, to enable the agreement to be implemented;

iii. Monitor the return programme, with particular attention to protection, and to ensure free and unhindered access will be given to returnees. UNHCR should also be present in the country of origin to monitor returnee reintegration.

39. The actual content and scope of the formal agreement will depend on the circumstances. An example can be found in Annex 5 in the Handbook Voluntary Repatriation International Protection Handbook.

40. The question of whether those wishing to repatriate are in fact nationals of their claimed country of origin may arise. Responsibility for determining this rests with the government of the country of origin. However, if particular issues arise over nationality claims or problems related to statelessness that cannot be resolved at field level, contact HQ for advice on how to proceed.

Coordination

41. UNHCR is likely to be responsible for the practical coordination of an operation which by definition will involve more than one country.

42. Cross border communication and coordination between UNHCR offices on both sides of the border can make or break an operation.

The underlying principle of cross border coordination should be that voluntary repatriation operations have to be determined by the conditions, absorption capacity and preparedness in the country of origin.

43. One UNHCR officer should be designated with overall responsibility for the repatriation operation in countries of asylum and origin, and for the actual movement, for example the Representative in the country of origin. The need for a coordinator is even greater when substantial repatriation will take place from more than one country of asylum. The designation of a focal point officer at Headquarters is equally important.

Staff

44. Because of UNHCR's protection responsibilities, such operations are often staff-intensive in the field. UNHCR staff may be needed to:

- ❏ Witness the refugees' voluntary declaration of a wish to repatriate;
- ❏ Maintain a presence, sometimes a continuous one, in the settlements, along routes of return, at border crossing points and in the transit and arrival centers;
- ❏ Accompany the returnees during the journey;
- ❏ Monitor treatment of the returnees on return;
- ❏ Mount those parts of the logistical operation not contracted out to operational partners and monitor those that are.

Estimation of Numbers

45. An important element for planning is the number of refugees likely to repatriate, which will rarely be known accurately for a variety of reasons. Nevertheless, a best estimate will be required, and assumptions will need to be made. Plans must be flexible, taking into account the fact that a common pattern is a slow start as refugees wait to see how the initial movements go and how the first repatriates are received.

46. Information should be obtained on:

i. The numbers of refugees intending to repatriate. Estimates should be obtained by random sampling of intentions, discussions with refugee elders, leaders, women, teachers and others in touch with the community and who are aware of likely intentions. Assumptions can also be drawn from observing current spontaneous return and identifying obstacles being faced by the returnees;

ii. The number of refugees for whom repatriation is unlikely to be an option at this stage;

iii. Current location and numbers of refugees in the country of asylum;

iv. Province and district of origin (intended destination) in the country of origin. Determination of priority provinces and districts of return will be based on the number of potential returnees;

v. Lists of those with special needs.

47. Information for a repatriation operation, including iii – v above, should be computerized if possible using the FBARS (Field Based Registration System) and consist of information obtained during the initial registration when the refugees first arrived and periodically updated thereafter (see chapter 11 on registration and population estimation).

Likely Routes of Return

48. Identify principal routes of return from the refugee camp to the destination in the country of origin based on the likely methods of return (roads, trains, airports, etc.). Identify border crossing points (primary, secondary, tertiary and minor foot paths). Consider which routes are safer, and where there may be dangers of mines.

49. A range of maps with varying degrees of detail should be compiled. Data from FBARS can be imported into maps, charts and graphs. Use standard names and spelling for all locations since in may cases these may have changed.

Mass Information Campaign

50. In addition to ensuring the refugees have access to accurate information on conditions in the country of origin, they should also have direct access to information about the vol-

untary repatriation operation itself. Posters, leaflets, verbal presentations, radio and TV programmes, etc. in the refugees' language(s) should be used to explain as thoroughly as possible the envisaged voluntary repatriation operation. A simple leaflet, setting out the formalities to expect on arrival and arrangements made, can do much to help the repatriates and facilitate the reception process. It is important that at each stage of this information campaign care is taken to ensure it is as objective as possible and that no false expectations are raised. Do not hesitate to tell a refugee that the answer to some questions about specific conditions in the country of origin is not known.

It should also be made clear to the refugees that on return he or she is outside the scope of UNHCR's protection responsibilities and once more subject to national laws.

Departure

51. Registration: Annex 1 contains a sample registration form – the Voluntary Repatriation Form (VRF), including a declaration of intent to repatriate. Where the Field Based Registration System (FBARS) for the computerization of the registration data has been used, pre-completed VRF forms can be produced. These computer printed forms contain the required data on those individuals and families wishing to repatriate and the print-outs can be signed by those concerned.

52. Deregistration: Upon departure to their country of origin, repatriates have to be deregistered from any camp or assistance related records to ensure a proper scaling down and adjustment of assistance in the country of asylum.

53. Assembly prior to departure: Unless repatriation can take place directly from the settlements, special arrangements will be required for transit centers prior to the actual move, including transport, accommodation, food and basic health care as well as the orderly completion of the necessary administrative formalities. In some circumstances, registration may conveniently take place at the transit centers.

54. If repatriation takes place by means of organized transport, computerized passenger manifests, allocating passengers to convoys, could be prepared using the FBARS repatriation module. This will also allow the system to deregister refugees who are repatriating and exclude them from assistance in the camps.

On Route

Organized Repatriations

55. Identify sources of emergency assistance already available along the routes of return (medical facilities and potable water sources). Where sufficient assistance is not already available there will be a need to establish temporary "way-stations" for rest and overnight accommodation, food distribution (prepared food or cooking facilities), first aid stations, water points, etc. The form and degree of assistance required will, in part, depend on the means of transportation used by the returnees. Other issues for consideration include availability of fuel and facilities for vehicle repair.

56. A considerable UNHCR presence will be required to monitor and verify the voluntary nature of return, to assess needs and to coordinate with offices in the country of origin and asylum. They should provide up to date information on numbers, needs and likely routes to be used.

Mass Spontaneous Repatriations

57. Where UNHCR is providing assistance in mass spontaneous repatriation, the same issues need to be considered as above. However, providing the assistance to a large unorganized mobile population will present challenges, and there will be additional protection concerns. The following steps should be taken:

General Arrangements

- ❏ Establish or strengthen positions on the routes (way-stations) for the provision of protection and assistance for the mobile population. Factors determining location of way-stations include, availability of water and mode of transportation of the refugees. If the refugees are traveling mainly on foot, the distance between the way stations en route should be closer to one another than if the refugees are traveling mainly in vehicles;
- ❏ Establish a visible UNHCR presence at way-stations using flags, UNHCR stickers and other visibility material. Ensure that UNHCR staff can be clearly identified, particularly those in mobile teams;
- ❏ Designate which UNHCR office will have responsibility for which sections of the route;
- ❏ Make arrangements to support UNHCR staff living temporarily at way-stations by providing tents or other accommodation, drinking water, cooked meals, etc.;

- ❑ Establish mobile assistance along the routes, between way-stations;
- ❑ Install fax, PACTOR or other means of written telecommunication at UNHCR temporary offices along the route;
- ❑ Equip all UNHCR vehicles with communication equipment;
- ❑ Arrange for a common radio channel through which all organizations involved can communicate;
- ❑ Put one experienced radio operator and/or technician in charge of coordinating the telecommunications along the whole route;
- ❑ Have debriefing meetings in the evening and allocate tasks for the following day;
- ❑ Introduce a single common numbering system for all vehicles;
- ❑ Communicate the daily movement plan through staff meetings, bulletin boards and daily sitreps;
- ❑ Provide information to the refugees on the location of way stations, etc. through the placement of signs along the route in languages that the refugees understand, through announcements on local radio stations and announcements using megaphones;
- ❑ Make preparations for reception in the country of origin – at the border transit centers, and in likely districts of return, e.g. prepare the local population, as well as local government, and negotiate reception and treatment at the border;
- ❑ Establish or strengthen a presence in the country of origin to facilitate integration and monitor treatment of returnees.

Protection and material assistance

- ❑ Set up temporary water tanks with tapstands at way-stations (e.g. using bladder tanks);
- ❑ Fill water tanks by pumping from local sources or tankering, ensuring adequate treatment of the water;
- ❑ Preposition sufficient quantities of water treatment chemicals at way-stations and/or water collection points;
- ❑ Establish mobile water maintenance teams;
- ❑ Arrange for water tankering and refilling of water tanks at night if necessary;
- ❑ Fit water tankers with distribution taps for mobile water distribution;
- ❑ Provide refugees with small jerrycans (2-5 liter) which can be carried easily;
- ❑ Demarcate defecation areas (or trench or other latrines) at way-stations, designate people to encourage and control their use;
- ❑ Identify teams for cleanup of defecation (or latrine) areas, during their use and to restore the area following the end of the population movement;
- ❑ Preposition lime for cleanup of defecation areas;
- ❑ Reinforce existing hospitals and health centers which are on the routes with staff and supplies. Establish health facilities at way-stations and mobile health teams in between the way-stations. Ensure that there are adequate supplies of Oral Rehydration Salts with health centers and mobile health teams;
- ❑ Try to prevent refugees concentrating in one area to avoid transmission of epidemics;
- ❑ Preposition high energy biscuits or other convenient food (preferably types requiring little or no cooking) and distribute them at way stations;
- ❑ Position staff with responsibility for unaccompanied minors at all way stations;
- ❑ Establish mobile teams to identify and collect unaccompanied minors;
- ❑ Ensure that staff responsible for the care of unaccompanied minors are highly visible;
- ❑ Clearly define which types of people are to be considered "vulnerable" for the purposes of the population movement and ensure that all the organizations involved are using the same criteria for identification and care;
- ❑ Arrange separate transport to collect vulnerable persons, and their families.

Travel Formalities

58. Immigration formalities: Every effort must be made to avoid the need for individual or family clearance to repatriate by the country of origin before movement. Not only would this create major practical problems and delays, it would also be contrary to the spirit of any properly comprehensive general amnesty. If individual travel documentation is required at all, the registration form should suffice.

59. Customs formalities: Customs formalities are generally waived or simplified in repatriation operations but this should be checked well in advance. Special arrangements may be needed where the refugees wish to repatriate with personal possessions such as vehicles or livestock.

60. Health formalities: Health requirements (vaccination certificates, etc.) should not exceed those required for normal travelers. Extra vaccinations, e.g. cholera, typhoid, are sometimes requested on the grounds that without them the refugees would pose special health hazards. Where vaccinations are required, WHO's advice should be sought and if necessary they can be conveniently recorded on the registration form if the refugees are not already in possession of individual vaccination cards.

On Arrival in Country of Origin

61. The principle of return in safety and dignity does not cease to apply once the return movement is completed, but applies and should be monitored until such time as the situation in the country of origin can be considered stable, national protection is again available and the returnees are reintegrated into their community.

Registration on arrival

62. In certain situations, in particular in an emergency repatriation, it may be the case that no repatriation registration was undertaken in the country of asylum. In this case a system should be set up to register the returnee population to facilitate UNHCR access to all returnees in the different areas of return. In some circumstances, a returnee card may be appropriate.

Monitoring and UNHCR presence

63. A UNHCR presence is vital for returnee monitoring. Presence by other appropriate organizations, and liaison with them, is also important. The purpose of monitoring is to assess whether national protection has been effectively restored and extended to all returnees. The basic principle is non-discrimination – that returnees are treated the same as the resident population and are not targeted or discriminated against in any way. Monitoring should cover general conditions (human rights violations, and security, food security, access to basic facilities and property, freedom of movement, honouring of any guarantees), as well as random individual monitoring.

Reception by resident population

64. Where the return is spontaneous there may be less time to make preparations in the country of origin. Steps should be taken as soon as possible to prepare the resident local population for the arrival of the returnees to promote acceptance and integration if necessary.

Material Assistance

65. Material assistance and protection are interlinked and should be usually reinforcing. The provision of material assistance to returnees enhances the possibilities to monitor this population and is important in making return a lasting solution. Where assistance is given without discrimination on a community basis it can also help with acceptance of the returnees and integration. The question of the nature and degree of assistance programmes in the country of origin, as well as the length of time UNHCR should remain involved in the country of origin, are covered in more detail in the references listed below.

Access to land and property

66. Property is a key resource for returning refugees – either in terms of access to accommodation and return to one's home, or as a means of livelihood. Resolving this can be very complex, but must be addressed if the repatriation is to be successful and durable. UNHCR can play a role through negotiating with the authorities to protect the legitimate rights of returnees.

Landmines

(Please refer to chapter 23 on staff safety for safety advice on mines.)

67. The presence of landmines on main routes of return and in returnee settlement areas poses tremendous danger for repatriating refugees and is therefore a major protection concern to UNHCR.

The need for return "in safety and dignity" means that UNHCR cannot promote the voluntary repatriation of refugees in patently dangerous situations with the risk of injury or death.

68. Within the UN system, issues relating to mine clearance are primarily the responsibility of the department of Peace Keeping Operations (DPKO). Where necessary UNHCR may help fund minefield surveys and demarcation, but involvement in actual mine clearance is

exceptional and requires approval from Headquarters. The focus is therefore on less costly measures that lead to immediate risk reduction for the refugees like mine awareness campaigns. The danger of mines should be considered from the earliest stages of planning a repatriation.

69. The following activities should be considered:

Identification of return routes and potentially dangerous areas of return and landmine survey:

UNHCR should obtain reliable information on areas seriously affected by the presence of landmines and discourage refugees from traveling to or through such areas. While a landmine survey is a national responsibility, UNHCR may also be able to contribute information obtained through its presence in the country of origin as well as through interviews with refugees in the country of asylum. DPKO have a database on mines which includes country specific information on estimated numbers and types, and progress in clearance.

Repatriation method: The presence of mines may have an impact on the proposed repatriation method – for example it may be necessary to encourage refugees to repatriate by means of UNHCR organized transport rather than returning spontaneously.

Mine awareness campaign: If landmines are a factor, then mine awareness campaign should be part of the mass information campaign prior to departure in the country of asylum, and continue in the country of origin. Ensure that the campaign reaches all sectors of the population – both men and women should be involved with the planning and training activities of the awareness campaign. The campaign must be sensitive to levels of literacy, roles in society, and culture. It should cover: existence, appearance and danger of landmines, how to avoid injury, safe rescue procedures, and recognizing warning signs.

Demarcation (marking mined areas) and mine clearance. UNHCR should ensure that returnee areas and routes of return are included as priorities in national demining and demarcation plans. Returnees and local population must be taught about the demarcation signs used.

Key References

Registration – A Practical Guide for Field Staff, UNHCR Geneva, May, 1994.

Voluntary Repatriation: International Protection, UNHCR, 1996.

Voluntary Repatriation. Training Module. 2nd Edition, UNHCR, Geneva, 1993.

An example of the type of form that might be used for a large-scale repatriation is given below. Where FBARS is used, it produces a pre-completed form with information taken during registration, which will then only need the signature. This form can be modified to suit the requirements of the operation.

Notes for those drawing up the form

1. Agree the information required with the authorities. All of the items in the example below may not be necessary.

2. Agree who needs to complete a separate form. The example is designed to be completed by each person over 18 years old and unaccompanied children, but it may be sufficient to have the head of the family group complete one form for all accompanying dependents.

3. Agree on the number of copies and language(s): normally original plus three copies with the following distribution: original – authorities; UNHCR in country of asylum; copy 1 – applicant; copies 2 and 3 – for travel and arrival formalities.

4. If at all possible, print the forms in sets on 'pre-carboned' paper.

5. Draw up simple completion instructions.

UNHCR

Voluntary Repatriation Form

Linked Cases:

Family/Group No:

Family Name	First Name	Sex	Y O B	Place of Birth	Relationship
					PRA

Intended Departure Date: _____ Reception Center: _____

Intended Destination: _____ _____ _____

District Admin Post Location

I, the undersigned principle applicant, declare that I (and my dependents) after due consideration wish to be repatriated to _____

Applicant: Date: Witness:

General Considerations

Below are some advantages and disadvantages of the common means of transport. Whichever form of transport is used, the plan should also take into consideration:

1. Food, accommodation and minimum emergency health care during the journey. Where distances are short, it is recommended that only material assistance needed for the duration of the journey, plus, if essential, for the first few days after arrival, be distributed prior to departure. This will help reduce any incentive to "repatriate" several times;

2. Capacity to move all reasonable private possessions of the refugees, if at all possible at the same time as their owners. Remember that what refugees carry with them on return will be used to ensure more successful reinstallation and move more quickly towards self-sufficiency (i.e., roofing material, livestock, etc.);

3. Appropriate security and the maintenance of public order during all stages of the journey;

4. Arrangements for the safe transfer of the required documentation, passenger lists, registration forms, etc., and for keeping statistical records of the progress of the operation;

5. Escort or monitoring of the actual repatriation by or on behalf of UNHCR. At least for the first movements, a UNHCR staff member should accompany the returnees. Ensure voluntariness even during the movement stage.

ADVANTAGES	DISADVANTAGES
FOOT	
(i) Spontaneous and self-organized	(i) Returnees can take little household effects
(ii) No logistical requirements necessary	(ii) Requires first aid medical stations, provision of potable water and food along route
	(iii) Special assistance required for vulnerable groups (children, elderly, disabled)
	(iv) Increased security risk. Risk of separation of families
TRUCK	
(i) Can be used on most roads	(i) Open to elements
(ii) Usually available	(ii) Danger to passengers
(iii) Plenty of space for luggage	(iii) Uncomfortable
BUS	
(i) Greater passenger capacity in safety	(i) Limited luggage space except on roof
(ii) Faster than truck if roads allow	(ii) Slower unloading and loading (e.g. at border and road checks
(iii) More comfortable	

Notes for truck and bus

1. Assuming both bus and truck are available, the deciding factor may well be journey distance. If road conditions allow, a bus is usually preferred for longer journeys. Check with the refugees if a truck is acceptable, consider how small children would fare, what passengers would hold on to and how luggage will be secured. Some form of sun shade or other protection may be necessary.

2. For both truck and bus, the following facilities will be needed:
   – vehicle fuel;
   – food and water for repatriates during journey;
   – emergency health care;
   – breakdown or recovery service;
   – vehicle insurance for the country of destination.

3. For any movement by road, try to avoid having to change vehicles at the frontier. While it is generally easier to use vehicles from the country of asylum, consider if having those from the country of origin coming to fetch repatriates has advantages. Ensure that drivers do not work excessive hours and that they have immigration and other clearances through to the destination.

4. It may be difficult to keep trucks together in tightly grouped convoys, and this is often impracticable on dusty roads in any event. However, there must be one person clearly identified as responsible for each group of vehicles. Seek local advice on how to marshal and control the vehicles. Prearranged stopping points where all vehicles regroup, with the person in charge in the last vehicle is one solution. Make sure all drivers are aware of breakdown or accident procedures.

TRAIN

Advantages	Disadvantages
(i) Easy overall control including border crossing	(i) Much less flexible: secondary transport required to and from railhead
(ii) Plenty of luggage space	(ii) Often slower than road
(iii) Can be made self-sufficient (fuel, food, water, etc.) over longer distances	

Notes

1. Movement by rail rather than road may be the better solution where large numbers are repatriating to the same initial destination.

2. To avoid delays at the border, try and organize immigration, customs and health formalities either only at the final destination or by embarking officials who complete them during the journey.

AIR

Advantages	Disadvantages
(i) Swift, convenient and easily controlled	(i) High cost
(ii) Assembly and reception facilities are likely to exist already	(ii) Secondary transport required to and from airport
(iii) Optimum means for long distances and especially for the sick, disabled and otherwise vulnerable	(iii) Limited luggage capacity

Notes

1. For any large scale repatriation, existing commercial flights will be insufficient (and more expensive than chartering). In general, the most economical aircraft on a medium or long haul is a full wide-bodied jet (i.e. jumbo or airbus type).

2. UNHCR has considerable experience in chartering aircraft for repatriation operations. The agreement is likely to be concluded from Geneva and advice should be sought from Headquarters (the Regional Bureau and Supply and Transport Section) regarding procedures and standards of safety.

3. In addition to practical matters such as runway length, consider requesting from the governments concerned:

– concession to use duty free fuel (check fuel availability);
– waivers of in-flight route charges, landing and parking fees;
– payment only for actual cost of handling charges rather than the fixed commercial fees.

BOAT

Advantages	Disadvantages
(i) Greater passenger and luggage capacity	(i) Secondary transport to or from port required
(ii) Assembly and reception facilities already likely to exist	(ii) Slow and costly
(iii) Comfortable	(iii) Sea sickness