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United Nations High Commissioner for Refugees  
Handbook for Emergencies, Part 1: Field Operations

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**UNHCR**

United Nations High Commissioner for Refugees

**Handbook for Emergencies**

**UNITED NATIONS  
HIGH COMMISSIONER FOR REFUGEES**

**HANDBOOK FOR EMERGENCIES  
PART ONE: FIELD OPERATIONS**

**GENEVA December 1982**

## Using the handbook

Chapters may be located quickly using the key opposite. Each chapter starts with an annotated list of contents. In chapters 5-11 this is followed by an overview page setting out key considerations. Sections within these chapters and chapter 12 start with summaries. Points worthy of special attention are underlined throughout the text. Cross-references are by chapter, section and paragraph, e.g. "see ch.9.5.3."

For convenience, "Representative" is used to refer to the High Commissioner's representative in the country where the emergency occurs, regardless of the representative's official title. "Headquarters" refers to UNHCR Headquarters in Geneva. As is explained on page 1, "refugee" is used to describe any person of concern to UNHCR. "Statute" and "statutory" refer to the Statute of the High Commissioner's office (General Assembly resolution 428 (v) of 14 December 1950). "Operational partner" is used for convenience to describe an organization implementing all or part of the UNHCR emergency programme, without distinction as to funding. (The phrase more correctly describes an organization contributing its own resources to the programme; an organization wholly funded by UNHCR is termed an "implementing agency".)

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Part One of the handbook may be freely reproduced and adapted, with acknowledgement to UNHCR. It is also available in French and will be produced in Spanish; UNHCR would be grateful for copies of any translations into other languages.

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**NATIONS UNIES  
LE HAUT COMMISSAIRE  
POUR LES RÉFUGIÉS**



**UNITED NATIONS  
THE HIGH COMMISSIONER  
FOR REFUGEES**

Palais des Nations  
CH-1211 Genève 10  
Suisse

December 1982

FOREWORD TO THE FIRST EDITION

This first edition of the Handbook for Emergencies is intended to provide guidance on the management of refugee emergencies. It is the result of a considerable process of consultation, review and improvement. It replaces the provisional version issued in 1981 on which comments were invited. Although the Handbook will be subject to modification and change in the light of future experience, I believe that as it now stands it provides a common basis for action for all those, both inside and outside UNHCR, involved in the management of refugee emergencies.

  
Poul Hartling

## INTRODUCTION

The handbook is in two parts. This, the first part, is a guide to setting up emergency operations for large-scale influxes of refugees. The second part deals specifically with the internal UNHCR dimension of decision-making and organization in emergencies. The first is available to all those who work with refugees; the second part is for staff members of UNHCR.

The handbook was first produced as a single volume in a provisional version in September 1981. Comments were invited from reviewers and UNHCR staff members. Clearly the most tangible of the many suggestions that have been incorporated is the change in size: the provisional edition in its bulky binder is replaced by two smaller more compact volumes.

In addition to UNHCR, many international and national organizations have important roles, while governments of asylum have, of course, a special and unique responsibility. Although addressed primarily to UNHCR staff, the first part of the handbook seeks to offer a basis for common action for all those involved. The need and responsibility for the action suggested in the different chapters will, however, vary greatly in each emergency. Unless this qualification is borne in mind, a reader may get the false impression that the necessary action is always the responsibility of UNHCR.

This first edition reflects the growing attention both within UNHCR and outside to improving the management of refugee emergencies. These sudden and sometimes large-scale threats to life call for an organized systematic response. At all levels, from the solution to a technical problem in the settlement itself up to that of co-ordi-

nation between a government and participating international and voluntary agencies, there are lessons from past emergencies which should inform the management of new ones.

Drawing on this accumulated experience, the handbook is a manager's guide. Principles of response and possible solutions are proposed. However it makes no pretence to have all the answers. Each emergency poses its own set of problems. Those interested should look at some of the growing number of actual case studies of emergencies: both UNHCR evaluation reports, which are limited to internal circulation, and published articles.<sup>1/</sup> Although not itself including case studies, the handbook has set out to distil these experiences into useful principles.

Better informed management is not however a substitute for professional expertise. Indeed a major theme of the handbook is how to select the right expert advice. Nor does the handbook replace initiative, commitment and the other personal qualities which have enabled managers in the field and at Headquarters to put together successful emergency programmes in the past. But a UNHCR officer who confronts an emergency can now employ the handbook, and as a consequence will be much less likely to repeat the mistakes of the past. Those who suffer most from management errors are of course those whose voice is usually least clearly heard in the confusion of an emergency, the refugees themselves.

During the drafting of the handbook it sometimes seemed that there should be a third part in addition to the present two parts.

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<sup>1/</sup> See, for example, Disasters, the journal of the International Disaster Institute, which often contains articles on refugee emergencies, and Ross Institute (1982) Publication No. 14: Refugee Camp Health Care: Selected Annotated References.

This last part would be a "Refugees' Handbook" and would suggest to them ways of coping with relief and the relief worker. In the last few years much thought has been given to developing services and infrastructure for refugee settlements that are simple enough to work yet capable of meeting the needs of large numbers of people concentrated together. Interest has too often not gone beyond this essentially technical puzzle to the next step: how the refugees might overcome the strangeness of their crowded new environment and actively participate in its evolution. Too often the refugee remains daunted, a passive recipient of a relief whose system he or she does not understand.

Indeed improvements in the techniques of relief alone that are not matched by an increased refugee involvement can be self-defeating. It is increasingly clear that a refugee's first reception in the country of asylum can critically determine his or her ability to become self-sufficient.<sup>2/</sup> Ill-considered assistance at the start, however efficiently delivered, can create a dependency syndrome which may last for years. A first rush of inappropriate and unfamiliar relief goods can stifle the potential enterprise of the refugees and increase their sense of alienation. The cowed and silent refugee squatting on inhospitable terrain awaiting a relief handout has become an image of our times. Relief can impose its own imprisonment.

Within the limits of the host government's laws, refugees must be persuaded to take responsibility for their own welfare; inputs of outside assistance must be a sensitive response to needs that the refugees genuinely cannot meet on their own.

The refugees are often most able to help themselves, and thus be least reliant on outside assistance, if they are not grouped together in highly organized camps. Programme planners must overcome their instinct to endorse camps because they are convenient for the efficient delivery of outside emergency assistance. That early convenience too often becomes a long-term burden for refugee, host government and donor alike. Small, less formal groupings of refugees, provided their protection, access to land and related economic rights are assured, often enjoy much better prospects of self sufficiency than large highly planned but artificial settlements.

Nevertheless refugee settlements of the camp type seem to be here to stay. The various pressures of mass influx on countries of asylum and the occasional need to group refugees together for their own protection make it probable that these unsatisfactory and artificial institutions will survive. This handbook seeks to make even these institutions as "un-camplike" as possible and ensure that with active refugee participation they achieve an appropriateness in terms of services and infrastructure that neither sets them too far apart from local communities around them nor puts them in so close a dependence on international assistance that they can never escape it.

#### Acknowledgements

Very many individuals and organizations have helped UNHCR in the preparation of the handbook, not only directly but also indirectly through their work with UNHCR in recent emergencies. This help is most gratefully acknowledged. Particular mention should

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<sup>2/</sup> See, for example, Robert Chambers "Rural Refugees in Africa: Past Experience, Future Pointers", Disasters, Vol.6, No.1, 1982.



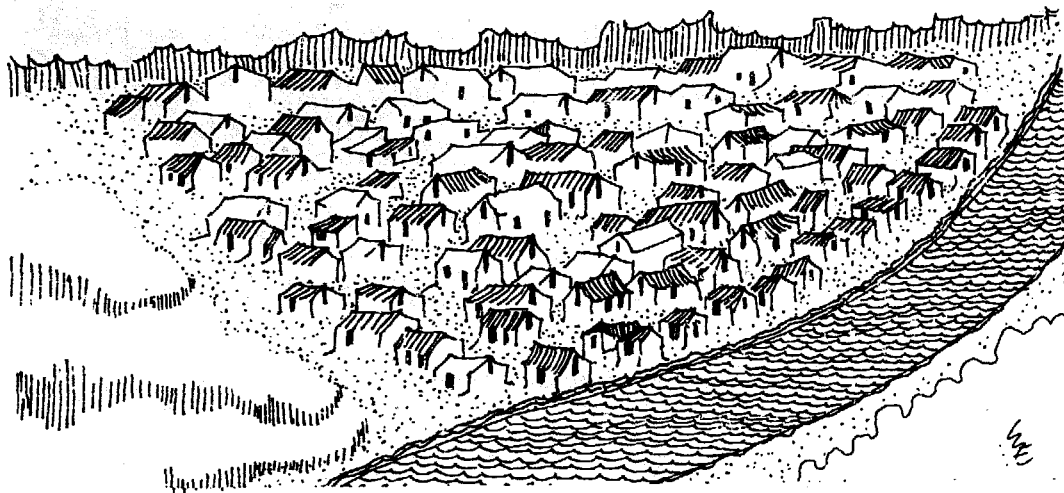
- Introduction -

be made of the assistance received from the Centers for Disease Control (USA), The International Committee of the Red Cross, The International Disaster Institute, Intertect, The League of Red Cross Societies, Oxfam, The Oxford Polytechnic Disasters and Settlements Unit, The Refugee Health Unit of the Ministry of Health, Somalia, The Register of Engineers for Disaster Relief ('K), The Ross Institute of the London School of Hygiene and Tropical Medicine, UNDRO, UNICEF, WHO and WFP. Mr Ludovic van Essche of UNDRO kindly prepared the graphics. The hand-

book has also drawn on many of the publications listed as "further references" at the end of chapters.

The handbook will be revised periodically; important changes will, of course, be communicated to UNHCR staff without delay. Responsibility for errors rests with UNHCR. Readers are requested to bring these, and suggestions for improvements, to the attention of:

The Emergency Unit,  
UNHCR, Palais des Nations,  
CH 1211 Geneva 10,  
Switzerland.



## ABBREVIATIONS

FAO	Food and Agriculture Organization of the United Nations
ICM	Inter-Governmental Committee for Migration
ICRC	International Committee of the Red Cross
ILO	International Labour Organization
LRCS	League of Red Cross Societies
NGO	Non-governmental organization (voluntary agency)
OUA	Organization of African Unity
PAHO	Pan American Health Organization
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Co-ordinator
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UNIPAC	UNICEF Packing and Assembly Centre, Copenhagen
WFP	World Food Programme
WHO	World Health Organization

CHAPTER 1: AIM AND PRINCIPLES

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1.1 Definition and aim

1. The majority of UNHCR's programmes begin as a result of an emergency: a sudden influx of refugees <sup>1/</sup>. The organization and procedures of UNHCR reflect this; much of UNHCR's normal work is in effect an emergency response. There are, however, situations that are clearly exceptional. This handbook addresses the needs of such situations.

2. The distinction is one of degree: a theoretical definition for the purposes of this handbook might be that an emergency is any situation in which the life or well-being of refugees will be threatened unless immediate and appropriate action is taken, and which demands an extraordinary response and exceptional measures. It should be noted that an emergency can develop in an existing programme.

3. What is important is less a definition than the ability to recognize in time the development of situations in which an extraordinary response will be required of UNHCR in order to safeguard the life or well-being of refugees.

4. Much of the handbook is concerned with guidelines on the material assistance likely to be needed when large numbers of refugees, often of rural origin, cross frontiers to seek asylum. Such emergencies are, of course, not the only situations which demand an extraordinary response of UNHCR. Equally swift action and intervention will be required in emergencies that concern protection, for example when events suddenly place in danger refugees who had previously enjoyed asylum in safety. However, action in these emergencies will depend to such a large extent on the specific

circumstances that too detailed guidelines are unlikely to be useful.

5. The aim of UNHCR's emergency response is to provide protection to persons of concern to UNHCR and ensure that the necessary assistance reaches them in time.

1.2 Responsibilities

Governments and UNHCR

1. Governments are responsible for the security and safety of, assistance to and law and order among, refugees on their territory. UNHCR provides material assistance to refugees at the request of governments. The statutory function of providing international protection to refugees and seeking permanent solutions for their problems is, however, always UNHCR's responsibility.

2. Whatever the organizational manner in which UNHCR provides emergency assistance in response to a government request, UNHCR is responsible for ensuring that the immediate needs of the refugees are met in an effective and appropriate manner. However responsibilities for practical implementation are allocated, all those involved, both inside and outside the UN system, should have clearly defined responsibilities within a single overall programme, whether the aid is provided through multi-lateral or bilateral channels. Only thus will duplication of effort and gaps be avoided.

UN organizations

3. Responsibility for co-ordinating the response of the UN system to a refugee emergency normally rests with UNHCR. In certain cases special arrangements may be made by the Secretary-General.

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<sup>1/</sup> For convenience, "refugee" is used in this handbook to refer to all persons of concern to UNHCR. The different categories are described in chapter 2.2.

4. The material needs of refugees are likely to cover sectors for which other organizations in the UN system have special competence, as, for example, FAO, WFP, WHO and UNICEF in the food, health and water supply sectors. UNHCR will seek assistance and expertise from such organizations and from UNDP as appropriate, and the implementing arrangements agreed with the government may give specific responsibilities to other UN organizations.

5. There is a clear distinction between UNHCR's responsibilities and those of the Office of the United Nations Disaster Relief Co-ordinator, the focal point in the UN system for disaster relief matters. UNDRO is, inter alia, responsible for the co-ordination of relief assistance to persons compelled to leave their homes as a result of, or as a precautionary measure against, the effects of natural and other disasters such as earthquakes, volcanic eruptions, droughts, floods, storms, and epidemics and also aviation, maritime, industrial or nuclear radiation accidents. Where victims of such disasters include refugees, UNHCR is responsible for helping to provide the refugees with the necessary assistance in close co-ordination with UNDRO.

6. In exceptional or complex disasters which do not fall solely within the mandate of any single organization, for example one with both natural and man-made origins, causing both internal and external population displacements, special arrangements will be made by the Secretary-General to designate a lead entity with overall responsibility for co-ordinating the response of the UN system.

#### Other organizations

7. The International Committee of the Red Cross (ICRC), the League of Red Cross Societies (LRCS) and the national Red Cross and Red Crescent societies have long provided assistance to refu-

gees in emergencies. So have a great many non-governmental organizations (NGOs). These organizations often act as UNHCR's operational partners, in which case the division of responsibilities is determined by the implementing arrangements agreed between them, the government and UNHCR. Similar arrangements would set out the responsibilities of any inter-governmental or other governmental organizations involved.

#### The refugees

8. Beyond the right to international protection under the Statute of UNHCR and under the 1951 Refugee Convention and 1967 Protocol, if applicable, all refugees - as indeed all persons - have certain basic human rights. These are enshrined in the Charter of the United Nations and in the Universal Declaration of Human Rights: the fundamental right to life, liberty and security of person; the protection of the law; freedom of thought, conscience and religion; and the right to own property. Refugees have the right to freedom of movement, although it is recognized that, particularly in cases of mass influx, security considerations and the rights of the local population may dictate restrictions. Chapter 2, Protection, describes in more detail the rights of refugees in humanitarian law.

9. Refugees and displaced persons also have, of course, responsibilities towards the country where they have sought refuge. These are set out in Article 2 of the Convention: "Every refugee has duties to the country in which he finds himself, which require in particular that he conform to its laws and regulations as well as to measures taken for the maintenance of public order."

#### 1.3 Principles of response

1. Whatever the framework of responsibility for a particular refugee emergency, certain prin-

principles of response are likely to be valid. Some of these are common themes in the chapters that follow, where they are discussed in more detail.

2. By definition, the needs of a refugee emergency must be given priority over other work of UNHCR. This is essential if the aim of ensuring protection and timely assistance is to be met. Of particular importance is the priority given to deploying enough UNHCR staff of the right calibre and experience to the right places and arming them with the authority, funds, material and logistical support needed. Leadership and flexibility are required of UNHCR in an emergency.

The measures must be appropriate

3. An appropriate response in the provision of material assistance requires an assessment of the needs of the refugees that takes into account not only their material state and the resources available, but also their culture and background and those of the nationals in whose country they are granted asylum. What is appropriate will vary with time: in the early stages of a major emergency special measures that rely heavily on outside assistance may be necessary but, as a general principle, the response should draw to the extent possible on local resources, materials and methods, and should, for example, avoid regimented refugee camps. Solutions should be sought that can be readily implemented with existing resources and simple technologies.

4. It is an important responsibility of UNHCR to determine with the government and operational partner(s) the standards of assistance that are appropriate. This requires expertise in a number of disciplines. The guidelines in chapters 6 to 11 suggest general considerations, to be modified in light of the circumstances of each emergency. What is to be decided for each sector is the correct

level of total assistance from all sources.

5. As a general principle, the standards of assistance must reflect the special needs of the refugees as a result of their condition, physical situation and experiences, while at the same time taking account of the standards enjoyed by the local population.

6. If the standards have been correctly determined, they cannot later be lowered without risk to the refugees. The refugees must, for example, receive a minimum basic food ration. The outside contribution required to meet the standards will, however, naturally be reduced as the refugees become self-sufficient.

7. A final general principle in considering the appropriateness of the measures is that from the start resources must be divided between the immediate needs and action aimed at longer-term improvements and the prevention of problems. For example, resources must be devoted to general public health measures as well as to the treatment of individual diseases, which will include many that could be prevented by better water and sanitation.

Involve the refugees and promote their self-sufficiency

8. Inherent in the foregoing is the need to involve the refugees in the measures taken to meet their needs and to plan all components of the operation in such a way as to promote their self-sufficiency. Obvious as this principle is, the pressures of an emergency often make it easier to organize a programme from the outside for, rather than with, those whom it is to benefit.

9. There are three levels to the involvement of refugees. The first is in the overall planning and organization, for example the determination of what is the best

and culturally most appropriate solution to a problem, given the constraints of the situation. This level requires that the refugees have a social organization within their community that is properly representative. As the previous social structures may have been severely disrupted, this may take time to develop but will be important to the success of the emergency operation and the future of the refugees. Meanwhile, urgent action to meet evident needs must of course be taken.

10. The second level of involvement is in the practical use of the refugees' skills and resources wherever possible for the implementation of the programme. Where suitably qualified or experienced refugees exist, such as nurses, teachers and traditional health workers, they must obviously be used. Where they do not, outside assistance should ensure that refugees are trained to take over from those who are temporarily filling the gap. The appropriateness of this is evident: the refugees themselves should run their own community services to the extent possible.

11. At the same time, other traditional skills - for example in construction or well-digging - should be harnessed. While specific measures to develop self-sufficiency will vary with each situation, their aim should always be to avoid or reduce the refugees' dependence on outside assistance. The more successful measures are generally those based on methods and practices familiar to the refugees.

12. The third level is the education of the community on life in their new situation, which may be markedly different from their previous experience. Public health education in such matters as the importance of hygiene in crowded conditions, mother and child care and the use of unfamiliar latrines is an example. As another example, if unfamiliar foods or preparation

methods have to be used, immediate practical instruction is essential. Education and guidance of this sort are best given by the refugees, with outside assistance.

13. If the emergency operation involves the refugees in this way from the start, its effectiveness will be greatly enhanced. Furthermore, such an approach will allow the refugees to maintain their sense of dignity and purpose, encourage self-reliance and help to avoid dependency.

#### Work for durable solutions

14. When an emergency occurs, actions taken at the very outset can have important longer-term consequences. To secure protection may be of crucial importance; intervention may be necessary to save lives, and a clear and consistent policy from the beginning will have an important long-term effect. Similarly, the immediate response of the international community to a major influx of refugees must take into account the ultimate aim of promoting a durable solution to the problem. This requires that the response both encourages the self-sufficiency of the refugees and avoids prolonged dependency on outside relief, and that it does nothing to prevent the promotion of a long-term solution as soon as possible.

15. As a general principle, the best solution is always voluntary repatriation. Where this is not possible, assimilation within the country of asylum (local settlement) is in most circumstances preferable to assimilation within another country (resettlement), particularly for large groups and in cases where resettlement would take place in a cultural environment alien to the refugees. There may, however, be situations in which resettlement is the only way to ensure protection. It is evident that resettlement is a solution that in some circumstances may effectively foreclose the possibility of voluntary repatriation.

Monitor the effectiveness of the response

16. Whatever the nature of the emergency, the action required of UNHCR is likely to vary with time and as circumstances change. It is essential that the effectiveness of the response is kept constantly under review and action adjusted as necessary and in time. This will require sound monitoring and reporting systems, to detect deterioration or change, and also a continuous review of the aims of UNHCR's assistance, both in terms of bringing the emergency to an

early end and for the promotion of a durable solution.

17. Such monitoring must also ensure that the funds provided voluntarily to UNHCR by governments, NGOs and private individuals are being used to the best advantage. This is inherent in the principle of appropriate response. It should be borne in mind that whatever funds may be available in the early stages of an acute humanitarian emergency, the passage of time will produce financial constraints. Thus it is important that potential donors can see that the action proposed is indeed essential.



CHAPTER 2: PROTECTION

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**2.1 Introduction**

1. In an emergency it must first be established that the persons involved are of concern to UNHCR and thus entitled to protection. The legal basis for securing this protection and its aim must be clearly understood. This chapter addresses these questions.

2. All UNHCR staff must be familiar with the key international instruments covering the protection of refugees. Of fundamental importance are the "Statute of the Office of the United Nations High Commissioner for Refugees" (General Assembly resolution 428 (V) of 14 December 1950), which sets out the High Commissioner's functions and responsibilities towards those who fall within its scope, the two universal international instruments that set out the responsibilities of States parties to them: the "1951 Convention Relating to the Status of Refugees" and the "Protocol Relating to the Status of Refugees of 31 January 1967", and on the regional level, the Organization of African Unity "Convention Governing the Specific Aspects of Refugee Problems in Africa" of 10 September 1969. The Collection of International Instruments Concerning Refugees (UNHCR, Geneva 1979), the Handbook for Determining Refugee Status (UNHCR, Geneva 1979) and the collection of Conclusions on the International protection of Refugees adopted by the Executive Committee of the UNHCR Programme are essential complementary reading.

3. The High Commissioner's protection responsibilities have been placed on him by the General Assembly. Thus the international protection activities of UNHCR are not dependant upon a request by the government concerned. These activities reflect UNHCR's universally recognized right of initiative in exercising its protection responsibilities as an entirely non-political humanitarian and social body.

4. The need for immediate action to secure protection will frequently occur before a determination of status is possible. Where those seeking refuge may be of concern to UNHCR, the Statute of the Office calls for action on their behalf. Furthermore, the aim is to secure treatment in accordance with universally recognized humanitarian principles not directly linked to the status of those in need. In short, when in doubt, act.

5. Speed of intervention to secure protection where necessary is thus the first priority. The most effective means of securing protection is a UNHCR presence where the refugees are.

6. It should be borne in mind that action taken at the outset in an emergency may have significant long-term consequences, both for continued protection, including perhaps for other groups of refugees within the country, and for the promotion of durable solutions.

**2.2 Persons to whom UNHCR extends protection**

1. UNHCR's fundamental task is to provide international protection to refugees and to seek permanent solutions for their problems. The need for international protection arises from the fact that refugees, unlike ordinary aliens, no longer have the protection of their former home country. The reasons for this are evident from the definition contained in UNHCR's Statute of a refugee as a person who is outside his country of origin and who, due to well-founded fear of persecution, is unable or unwilling to avail himself of that country's protection. Persons who meet this definition are refugees irrespective of whether or not they have been formally recognized as refugees by a national authority or UNHCR.

2. Persons wishing to be admitted into a country as refugees are generally described as asylum seekers. In some cases they may be

considered as refugees as a result of a group determination, as explained in paragraph 3 (2) below. If, however, a decision on a group determination cannot yet be made, which may be the case at the start of an emergency, the High Commissioner nevertheless intervenes on behalf of asylum seekers in order to ensure that they are granted at least temporary asylum, and that they are not sent back to their country of origin or to any other country where they may fear persecution, pending the determination of their refugee status and the granting of durable asylum.

3. A person's refugee status may be established in three main ways:

(1) by the High Commissioner, as the result of an individual determination that the criteria in paragraph 6 of the Statute are met;

(2) by the High Commissioner, as for (1) but for a caseload as a whole on the basis of a so-called prima facie group determination. This is common at the start of an emergency, where (1) would be impracticable;

(3) by States party to the 1951 Convention/1967 Protocol.

4. Various General Assembly resolutions have widened UNHCR's original competence to act, extending this beyond refugees within the meaning of UNHCR's Statute to:

(1) displaced persons, in the sense of persons outside their country of former habitual residence who may not necessarily qualify as refugees within the terms of the Statute but who are nevertheless in refugee-like situations;

(2) former refugees and displaced persons repatriated to their country of origin;

(3) in specific cases (subject to a request by the Sec-

retary-General or the General Assembly), persons displaced as a result of man-made disasters within the territorial limits of their country of origin.

5. These extensions of UNHCR's competence mean that the Office also has protection responsibilities towards displaced persons as described in (1). Persons described in (2) and (3) fall outside the terms of the Statute, the 1951 Convention and the 1967 Protocol. When providing assistance to persons in these categories, UNHCR nevertheless acts in the spirit of the Statute and has at least a moral responsibility to ensure that fundamental and internationally recognized humanitarian standards are adhered to.

6. There are, however, some groups of persons where caution may need to be exercised: UNHCR is not competent to intervene on behalf of active combatants and persons bearing arms. Protection of such persons may fall within the competence of the ICRC. Attention is also drawn to the exclusion clauses in Chapter II, 7(d) of the Statute relating to persons for whom there are serious reasons to consider that they have been guilty of crimes against peace, war crimes, crimes against humanity, serious non-political crimes outside the country of refuge, or acts contrary to the purposes and principles of the United Nations. It should be noted that the provisions of the Universal Declaration of Human Rights on asylum from persecution are similarly qualified by the exclusion of such persons. Persons thus excluded do not fall under the High Commissioner's competence. It is, however, unlikely that all those in a major influx would be so excluded, and when protection is clearly an urgent humanitarian need, the benefit of the doubt should be accorded at least until a considered opinion is available. Headquarters must, of course, be informed immediately of action

taken and advice sought as necessary.

### 2.3 The aim and action to achieve it

1. The aim of international protection is to ensure that treatment of refugees is in accordance with internationally accepted basic standards, and especially the principle of non-refoulement according to which refugees may not be forcibly returned to a country where they have reason to fear persecution. This principle figures in paragraph 1 of Article 33 of the 1951 United Nations Convention, to which acceding States may not make a reservation: "No Contracting State shall expel or return ("refouler") a refugee in any manner whatsoever to the frontiers of territories where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion." (Paragraph 2 of Article 33 provides for very limited exceptions for refugees reasonably regarded as a danger to the security or community of the country where they are.)

2. Before this aim can be realized, asylum seekers must of course be admitted to the State in which they seek refuge, without any discrimination as to race, religion, nationality, political opinion or physical incapacity. "Everyone has the right to seek and to enjoy in other countries asylum from persecution" (Universal Declaration of Human Rights, Article 14 (1)). Operative paragraph 2 of General Assembly Resolution 428(V), adopting the Statute, calls on governments to co-operate with the High Commissioner in the performance of his functions, inter alia, by "admitting refugees to their territories".

3. Thus when an influx of persons who may be of concern to UNHCR occurs, the overriding priority is to ensure that at least temporary asylum is granted to

them. An on-the-spot presence and quick action are generally crucial to the attainment of UNHCR's objectives, particularly where there is danger of refoulement or abuses of human rights such as arbitrary detention or mistreatment. It should be noted that UNHCR does not, as a principle, favour the granting of merely temporary asylum or refuge, preferring rather to emphasize the need to grant durable asylum. However, this may not be immediately possible, and Representatives and field officers may decide that in the circumstances only temporary asylum should be requested, without prejudice to subsequent efforts to obtain durable asylum.

4. The conclusions of the Expert Group on Temporary Refuge in Situations of Large-Scale Influx which met in Geneva from 21-24 April 1981 state that it is essential that after admission asylum seekers should be treated in accordance with the following minimum basic human standards:

(a) they should not be penalized or exposed to any unfavourable treatment solely on the ground that their presence in the country is considered unlawful and they should not be subjected to restrictions on their movements other than those which are necessary in the interests of public health and order;

(b) they should enjoy the fundamental rights internationally recognized, in particular those set out in the Universal Declaration of Human Rights;

(c) they should be treated as persons whose tragic plight requires special understanding and sympathy; they should receive all necessary assistance and they should not be subject to cruel, inhumane or degrading treatment;

(d) there should be no discrimination on the grounds of race, religion, political opinion, nationality or country of origin;

(e) they are persons before the law enjoying free access to courts of law and other competent administrative authorities;

(f) the location of asylum-seekers should be determined by their safety and well-being as well as by the security needs of the receiving State. Asylum-seekers should, as far as possible, be located at a reasonable distance from the frontier of their country of origin. They should not become involved in subversive activities against their country of origin or any other State;

(g) they should be provided with the basic necessities of life including food, shelter and basic sanitary and health facilities;

(h) family unity should be respected;

(i) all possible assistance should be given for the tracing of relatives;

(j) adequate provision should be made for the protection of minors and unaccompanied children;

(k) the sending and receiving of mail should be allowed;

(l) material assistance from friends or relatives should be permitted;

(m) appropriate arrangements should be made, where possible, for the registration of births, deaths and marriages;

(n) they should be granted all the necessary facilities to enable them to obtain a satisfactory durable solution;

(o) they should be permitted to transfer assets which they had brought into the territory to the country where the durable solution is obtained; and

(p) all steps should be taken to facilitate voluntary repatriation.

5. The same conclusions continue: "Asylum-seekers shall be entitled to contact the Office of UNHCR. UNHCR shall be given access to asylum seekers. UNHCR shall also be given the possibility of exercising its function of international protection and shall be allowed to supervise the well-being of persons entering reception or other refugee centres."

6. These conclusions were endorsed by the forty States Members of the Executive Committee of the High Commissioner's Programme at the Committee's 32nd Session. The standards reproduced above should form the basis and framework for action by UNHCR, and particularly by field officers, to ensure protection in an emergency. Some of the international instruments that may be invoked are discussed in the next section. Actual courses of action to secure the rights described in this chapter are outlined in Part 2.

#### 2.4 International instruments

1. In addition to the Statute, 1951 Convention and 1967 Protocol, there are a number of international instruments that may help protect refugees. In all circumstances, the Charter of the United Nations and the Universal Declaration of Human Rights place certain general obligations on Member States of the United Nations of particular relevance to UNHCR's international protection function. The Charter and Universal Declaration are the two best known and least challenged of the expressions of humanitarian principle that may be invoked by UNHCR, reaffirming as they do faith in fundamental human rights, the principles of justice and international law and the equality of all before the law.

2. Attention may also be drawn to the International Covenants on human rights, and in particular paragraph 1 of Article 2 of the International Covenant on Civil and Political Rights:

"Each State Party to the present Covenant undertakes to respect and to ensure to all individuals within its territory and subject to its jurisdiction the rights recognized in the present Covenant, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status."

3. The principle of non-refoulement has found specific expression in various international instruments adopted at the universal or regional levels. The principal instruments are the United Nations Declaration on Territorial Asylum, the Final Act of the United Nations Conference on the Status of Stateless Persons, the OAU Refugee Convention, and the American Convention on Human Rights. For example:

"No person (entitled to invoke article 14 of the Universal Declaration of Human Rights) shall be subjected to measures such as rejection at the frontier or, if he has already entered the territory in which he seeks asylum, expulsion or compulsory return to any State where he may be subjected to persecution." U.N. Declaration of Territorial Asylum, adopted by G. A. resolution 2312 (XXII), 1967, Article 3, para. 1.

"In no case may an alien be deported or returned to a country, regardless of whether or not it is his country of origin, if in that country his right to life or personal freedom is in danger of being violated because of his race, nationality, religion, social status, or political opinions." American Convention on Human Rights ("Pact of San José, Costa Rica" 1969, Article 22, paragraph 8.

4. Instruments for the benefit of refugees established at the regional level have important implications for UNHCR's protection function. A notable example is the

OAU Convention, under which the term "refugee" is defined in Article 1 not only as in the Statute of the Office, 1951 Convention and 1967 Protocol but, more broadly, as applying:

"to every person who, owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality."

In this particular case the wider definition of the term "refugee" is broadly consistent with the term "displaced person" as used in paragraph 2.2.4 (1) and has the same implication for UNHCR's protection responsibility. Where both universal and regional instruments with different definitions or provisions apply, UNHCR should seek to ensure that the more liberal is followed.

5. In countries that are parties to the relevant instrument(s) UNHCR's protection function is naturally facilitated. Article 35 of the 1951 Convention obliges States parties to the Convention to co-operate with UNHCR in the exercise of its functions and in particular to facilitate UNHCR's duty of supervising the application of the Convention's provisions. Even when an emergency occurs in a country not party to the international instruments, these may nevertheless be brought to the attention of the government, for they define standards of treatment which are internationally recognized, as evidenced by the large numbers of Contracting States. Similarly, the moral strength of conclusions of the Executive Committee is not limited to States Members, for the Members are elected by and act on behalf of the international community as a whole.

## 2.5 The Geneva Conventions and Protocols and the International Committee of the Red Cross (ICRC)

1. The ICRC, as a promoter of international humanitarian law, plays an important role in reinforcing the international protection of refugees and displaced persons, particularly in situations of armed conflict: protection of refugees is an important preoccupation of international humanitarian law applicable in armed conflicts. In addition to the functions of supervision entrusted to the Protecting Powers by the four Geneva Conventions of August 1949 and their additional Protocols of 1977, the ICRC is also entitled to visit and assist all the persons protected by the Conventions. It may even assume the humanitarian tasks imparted to the Protecting Powers by the Conventions whenever no such Powers could be designated.

2. Refugees and displaced persons are protected persons under the Fourth Geneva Convention when they "find themselves, in case of a conflict or occupation, in the hands of a Party to the conflict or Occupying Power of which they are not nationals". This Convention further provides for the reunion of dispersed families, for the supervision of all places where protected persons are, and for general humanitarian activities.

3. Article 44 of the Fourth Convention provides:

"In applying the measures of control mentioned in the present Convention, the Detaining Power shall not treat as enemy aliens exclusively on the basis of their nationality de jure of an enemy State, refugees who do not in fact enjoy the protection of any government." (emphasis added)

4. Article 70 of the Fourth Geneva Convention, dealing with

offences committed before occupation, also provides:

"Nationals of the Occupying Power who, before the outbreak of hostilities, have sought refuge in the territory of the occupied State, shall not be arrested, persecuted, convicted or deported from the occupied territory, except for offences under common law committed before the outbreak of hostilities which, according to the law of the occupied State, would have justified extradition in time of peace." (emphasis added)

Persons who fled their home country before the outbreak of hostilities and found refuge or asylum in the occupied country thus rank as refugees.

5. The relevant provisions were further strengthened by Article 73 of Protocol I additional to the Geneva Conventions and relating to the protection of victims of international armed conflicts, which states:

"Persons who, before the beginning of hostilities, were considered as stateless persons or refugees under the relevant international instruments accepted by the Parties concerned or under the national legislation of the State of refuge or State of residence shall be protected persons within the meaning of Parts I and III of the Fourth Convention, in all circumstances and without any adverse distinction." (emphasis added)

6. Concerning the reunification of dispersed families, Article 26 of the Fourth Geneva Convention provides:

"Each Party to the conflict shall facilitate enquiries made by members of families dispersed owing to the war, with the object of renewing contact with one another and of meeting, if possible. It shall encourage, in particular, the work of organizations engaged on this task provided they

are acceptable to it and conform to its security regulations." (emphasis added)

This Article is concerned with the re-establishment of family ties and therefore applies solely to members of dispersed families. The parties to the conflict not only must allow members of dispersed families to make enquiries, they must facilitate such enquiries. The main aim of this Article is the safeguarding of family unity and the re-establishment of contacts between members of a family group. The obligations on the parties in this regard are reaffirmed and reinforced in Article 74 of the Additional Protocol I.

7. Concerning the supervision of places where protected persons are, Article 143 of the Fourth Geneva Convention, inter alia, provides:

"Representatives or delegates of the Protecting Powers shall have permission to go to all places where protected persons are, particularly to places of internment, detention and work.

"They shall have access to all premises occupied by protected persons and shall be able to interview the latter without witnesses, personally or through an interpreter.

"The delegates of the International Committee of the Red Cross shall also enjoy the above prerogatives."

Owing to the role it plays in armed conflicts, the ICRC can

therefore sometimes visit detainees who are of concern to the High Commissioner but to whom UNHCR representatives may have no access. These visits, which can have great humanitarian value, are a direct complement to the action of UNHCR.

8. Concerning general humanitarian activities, Article 10 of the Fourth Convention provides:

"The provisions of the present Convention constitute no obstacle to the humanitarian activities which the International Committee of the Red Cross or any other impartial humanitarian organization may, subject to the consent of the Parties to the conflict concerned, undertake for the protection of civilian persons and for their relief."

The above Article allows any initiative or activity that may appear necessary for the benefit of protected persons, even if not explicitly or implicitly foreseen by the Convention. Such right of initiative granted to the ICRC or to any other impartial humanitarian organization is considered as a prerogative of utmost importance by the International Red Cross.

9. Close working relationships and regular consultations exist between the ICRC, the League of Red Cross Societies and UNHCR in matters of common interest. It should be noted that the services of the ICRC Central Tracing Agency (see chapter 11) and ICRC travel documents can be a valuable source of protection for refugees.



CHAPTER 3: NEEDS ASSESSMENT AND IMMEDIATE RESPONSE

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## NEEDS ASSESSMENT AND IMMEDIATE RESPONSE

### 3.1 Introduction

1. To be effective, emergency assistance has to be based on a sound assessment of the refugees' most immediate needs and no two refugee emergencies are alike.

2. The initial assessment must be carried out as quickly as possible to allow immediate action. More detailed assessments will follow as the emergency phase dovetails into longer-term programmes. Needs evolve in the course of an emergency operation so assessment never stops.

3. Guidelines for specific sectors of assistance follow in chapters 5 to 11. Here the initial needs assessment is linked to the immediate response.

4. A number of organizations may already be delivering emergency assistance. They will be a valuable source of information on the situation, and the assistance they are giving and intend to give must be taken into account in deciding UNHCR's immediate response. There may be other programmes, established before the emergency, which can be extended to the refugees.

5. Where the emergency concerns the immediate protection of refugees, rather than their need for material assistance, the priority will be to obtain information on the actual situation, position of the government(s) and possibilities for resolution. An on-the-spot UNHCR presence will be very important. Action in such emergencies will depend on the circumstances and is not considered in this chapter. Certain general guidelines are given in the previous chapter.

### 3.2 Needs assessment

#### Organization

1. An initial assessment of the situation and needs must be carried out on the spot as soon as it is clear that a refugee emergency

may exist. This must involve the government. Immediate access to the area where the refugees are located is, of course, a prerequisite. The emphasis must be on quick, practical steps: establishing a presence at or near the refugee site for first-hand information, interviewing refugees, utilizing other available sources of information both in the area and in the capital, and mobilizing local expertise and resources. Rarely will relief aid from abroad arrive in time to preserve life in the first days of an emergency.

2. While an organized approach is necessary, time must not be lost because the desired expertise is not immediately available. A quick response to obviously urgent needs must never be delayed because a comprehensive assessment has not yet been completed.

3. A detailed assessment must be undertaken as soon as possible. Brief indications of the types of expertise that may be required are given below, with more detail given by sectors in later chapters. Local expertise is generally best when available. Sources include government departments, the UN system, bilateral aid and voluntary agencies, universities and consulting firms in the country. Headquarters' assistance should be requested if necessary.

4. Where UNHCR is not already present in the country, the assessment mission will be organized by Headquarters. Whenever possible, the assessment team would include those who are going to implement the emergency operation in the field. The participation of one or more officers who will return to Headquarters with the results of the assessment has obvious advantages, but where UNHCR is already present, initial action must not be delayed pending the arrival of a Headquarters mission.

5. Participation in the needs assessment by other organizations

- Needs assessment and immediate response -

and individuals likely to be involved in the emergency programme will be extremely valuable.

6. To assess the material needs of refugees in an emergency is to measure, as quickly and effectively as is possible, their actual condition and the resources at their disposal against what is needed for their survival and immediate well-being. So standards establishing what is needed must be set. To the extent possible, the needs assessment should first answer the questions in the following paragraphs. Some of these questions may seem from a field perspective less important than others. However this is in fact the essential minimum information required for the launch of an emergency programme which includes, among other non-field but vital aspects, the alerting of potential donors. The exercise will also prove to be a foundation for the field's own subsequent programming process.

Numbers, location, pattern of arrival and characteristics

7. (1) Approximately how many refugees are there?
- (2) Where are they located?
- (3) Are more arriving? Where? How many? Up to how many could come?
- (4) Are they arriving in groups of scattered individuals or as families, clans, tribal, ethnic or village groups and by what means are they travelling?
- (5) Did those already there arrive in a similar manner?
- (6) What are the approximate proportions of men, women, children (ages 0-4, 5-14, 15 and over)?
- (7) Ethnic/geographic origin (urban or rural)?

- (8) Sedentary or nomadic background?
- (9) Skills and language(s)?
- (10) Customary basic diet?
- (11) Customary shelter?
- (12) Customary sanitation practices?

Health status (chapters 7 and 8)

8. (1) Are there significant numbers of injured or sick persons?
- (2) Signs of severe malnutrition?
- (3) A high mortality rate?
- (4) Specially vulnerable groups?
- (5) What was their condition before the emergency?

Assessment of the health status of refugees requires expertise; nevertheless an early assessment is essential and preliminary conclusions must be reached as soon as possible.

Material condition

9. Have the refugees brought or are the following available:
  - (1) Sufficient clothing, blankets, etc. to meet immediate needs?
  - (2) Food?
  - (3) Shelter material?
  - (4) Domestic utensils?
  - (5) Livestock?
  - (6) Funds (and can they be fairly exchanged for local currency)?
  - (7) Other possessions (vehicles etc.)?

- Needs assessment and immediate response -

Characteristics of location

10. These are given as site selection criteria in chapter 6; an assessment based on the following criteria will provide the information on which a decision can be made to try and move the refugees if the location is very unsatisfactory; if this is not necessary, it nevertheless establishes the advantages and drawbacks of particular sites allowing corrective actions to be incorporated in the emergency action plan.

- (1) Space;
- (2) Security;
- (3) Accessibility (all-season) and proximity to sources of essential supplies (building materials, cooking fuel etc);
- (4) Environmental conditions and seasonal variations;
- (5) Water (chapter 9);
- (6) Soil topography and drainage;
- (7) Vegetation;
- (8) Land rights and impact on local population.
- (9) Is there grazing land and potential areas for cultivation?

Expertise may be required in geology, physical planning and public health engineering, especially water and sanitation.

Social needs (chapter 11 )

11. (1) Are there individuals or groups with special social needs (for example, the mentally or physically disabled, unaccompanied children, single parent families, the sick and destitute, unsupported elderly refugees)?

(2) Are their immediate material and emotional needs being met satisfactorily and if not what outside assistance is needed?

(3) Are many refugees separated from other members of their families?

Spontaneous arrangements and assistance being provided

12. (1) What arrangements have the refugees already made to meet their most immediate needs?

(2) What assistance is already being provided by the local population, the government and other organizations?

(3) Can the above provide a durable basis for their survival and well-being at their present location?

(4) Is present assistance likely to continue, increase, decrease?

Means to deliver assistance

13. (1) Can effective implementing arrangements be made quickly and locally (chapter 4)?

(2) If not, what are the alternatives?

(3) Is there already an identified refugee leadership with whom it will be possible to co-ordinate the delivery of assistance?

(4) What are the logistical needs and how can they be met (chapter 5)?

- Where will the necessary supplies come from?

- How will they reach the refugees?

- What storage is needed, where and how?

- Needs assessment and immediate response -

- Are there essential items which can only be obtained outside the region and whose early supply will be of critical importance (e.g. food, trucks)?

(5) What arrangements are required to co-ordinate the emergency programme with all concerned (chapter 12)?

(6) What are the needs for UNHCR personnel, and experts not provided under implementing arrangements (chapter 4) and UNHCR programme support (offices, vehicles, communications, equipment, etc.)?

### 3.3 Immediate response

#### Protection

1. Unless the refugees' right to asylum is assured there can be no assistance programme. Action to this end, and to ensure their security and fundamental human rights, as set out in chapter 2, will be the overriding priority. The importance of a UNHCR presence where the refugees are has been stressed in that chapter. Specific measures may be needed, for example to meet the special protection needs of the vulnerable (unaccompanied children, single young girls, minorities etc.), and to protect the refugees against arbitrary actions of outsiders and against groups within their own number who may pose a threat to the safety of other refugees.

#### Organizational considerations

2. The priority once needs have been assessed will be to provide vital assistance wherever the refugees are. There will also, however, be key organizational or planning decisions to take, some of which may determine the future shape of the whole operation. These often include the points summarized below; decisions on them should be seen as a part of the immediate response. If they go by default or are wrong they will be very difficult to correct later.

(1) The location of the refugees. This will have a major influence on all sectors of assistance: If the refugees are not concentrated together in settlements, they should not be brought into them unless there are compelling reasons for breaking their present pattern of spontaneous informal settlements. If they are already in settlements which judged by the criteria in 3.2.10 above are unsatisfactory, move them. The difficulty in moving refugees from an unsuitable site increases markedly with time. Even if those already there cannot be moved, divert new arrivals elsewhere.

(2) Reception or transit centres. These are generally recommended when an influx is likely to continue. In some circumstances they are essential for the protection of asylum seekers.

(3) Control at the sites. Determine the optimum population in advance and plan for new sites accordingly. Keep careful control of actual occupation of the site as refugees arrive, so that sections prepared in advance are filled in an orderly manner.

(4) Numbers and registration. An accurate estimate of numbers is a prerequisite for any effective assistance. Delivery of help to all in need will require at least family registration and a fair distribution system. The sooner this is established the better. (See ch.12.6)

#### Material assistance

3. While certain immediate material needs will usually be obvious, the specific types and amounts of emergency assistance required will depend on the standards established for each situation. An indication of appropriate general standards is given by sectors of assistance in the chapters that follow. These standards must be adjusted in the light of three main considerations: the general condition of the refugee popula-

tion (people in extreme distress will need extraordinary measures); immediately available resources (for example, unfamiliar food may have to be used if there is nothing else); and the customs and levels to which the refugees and the local population are used. The standards established for emergency assistance must be consistent with the aim of ensuring the survival and basic well-being of the refugees, be fairly applied for all refugees, and be respected by all involved.

4. Gathering the information summarized in paragraphs 7-13 of the previous section, on the one hand, and the establishment of standards, on the other, will allow the immediate unmet needs to be determined. The most urgent actions must be taken with whatever local material and organizational resources are available, even if the information at hand is incomplete. The following paragraphs indicate actions that are likely to be priorities.

5. Ensure the capacity to act. The first priority is to provide the organizational capacity required to meet the needs of the emergency. Enough UNHCR staff of the right calibre and experience must be deployed. Emergency procedures for the allocation of funds, implementing arrangements, food supply, local purchase, and recruitment of personnel may need to be invoked. With the government, the resources of other UN organizations, particularly UNDP, UNICEF, WHO and WFP, and of the NGO sector must be mobilized within the framework of a plan for immediate action.

6. UNHCR must establish a presence where the refugees are, with assured communications with the main office and thence with Headquarters. The organization of the necessary logistical capacity to deliver the assistance will be of critical importance.

7. Meet the most urgent survival needs: food, water, emergency shelter, health care and sanitation, ensuring fair distribution.

(i) Involve the refugees and promote their self-sufficiency from the start. Involving the refugees in outsiders' plans for their welfare is often difficult. But if it is not done the effectiveness of the emergency assistance will be severely reduced, and an early opportunity to help the refugees to start to recover from the psychological effects of their ordeal may be missed.

(ii) Food. Ensure that at least the minimum need for energy is met; a full ration can follow. Set up special feeding programmes if there are clear indications of malnutrition. Establish storage facilities.

(iii) Water. Protect existing water sources from pollution and establish maximum storage capacity with the simplest available means. Transport water to the site if the need cannot otherwise be met.

(iv) Emergency shelter. Meet the need for roofing and other materials from local sources if possible. Only request outside supplies (e.g. tents) if absolutely necessary.

(v) Health care. Provide the necessary organizational assistance, health personnel and basic drugs and equipment in close consultation with the national health authorities. Although the immediate need and demand may be for curative care, do not neglect preventive and particularly environmental health measures.

(vi) Sanitation. Isolate human excreta from sources of water and accommodation.

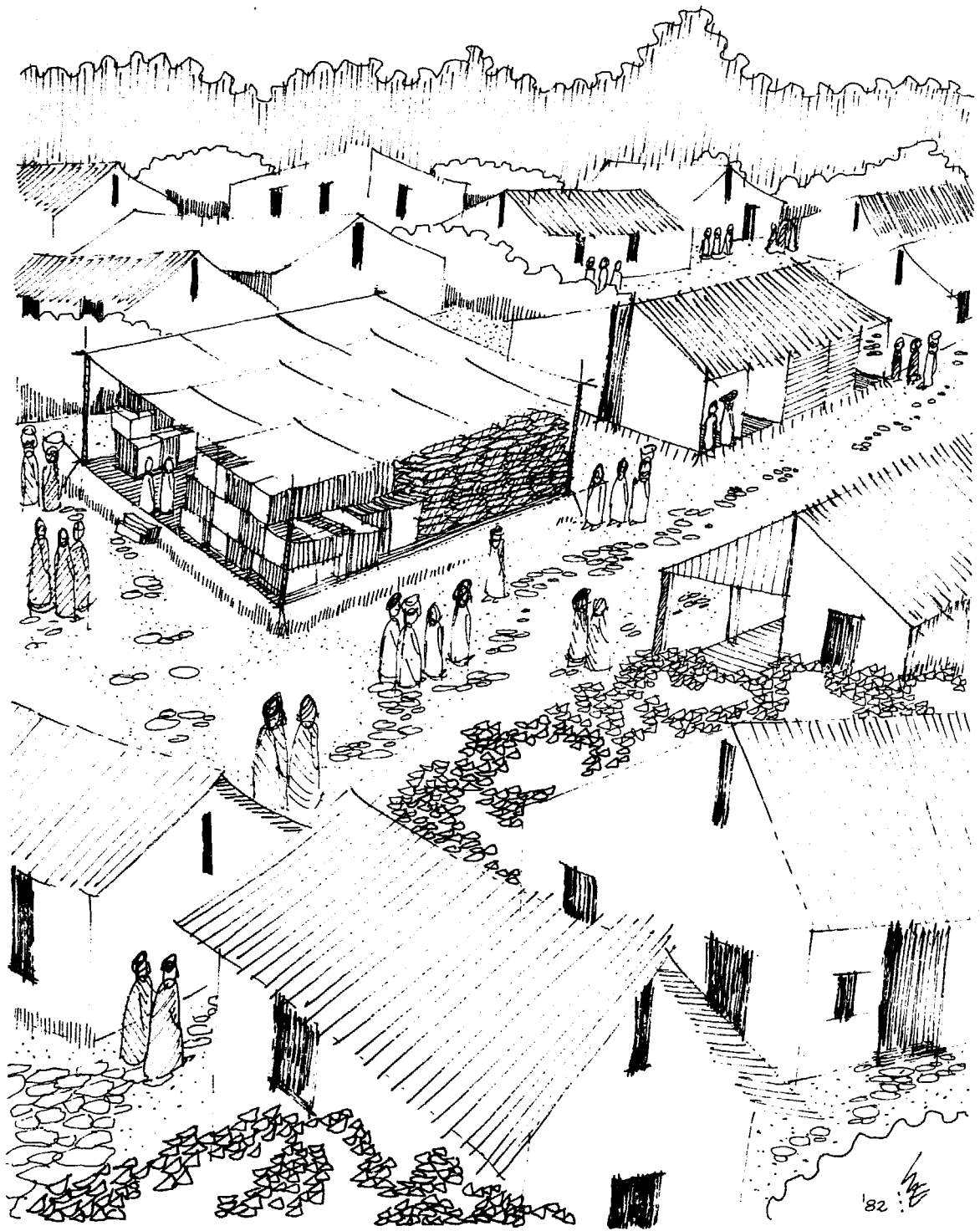
8. Take steps to meet the social needs and reunite families if necessary. Surveys may be neces-

- Needs assessment and immediate response -

sary to identify those in need, who often do not come forward. Tracing may be required. If groups of refugees have been split they should be reunited. Special measures to ensure the care of any

unaccompanied children will be a priority.

9. Once these and other priority measures are underway, begin the wider planning process.





CHAPTER 4: IMPLEMENTING ARRANGEMENTS AND PERSONNEL

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## IMPLEMENTING ARRANGEMENTS AND PERSONNEL

### 4.1 Introduction

1. Appropriate arrangements to implement an emergency programme will be fundamental to its success. The single most important factor in determining whether or not sufficient emergency assistance reaches the refugees in time will probably be the people involved in organizing and implementing the programme, whether they work directly for UNHCR, the operational partner(s), other organizations or are from among the refugees themselves. The right people must be available where and when needed.

2. Whenever possible, UNHCR seeks to implement material assistance programmes through an operational partner, rather than directly. There are a number of reasons for this policy, the origins of which are reflected in the Statute of UNHCR. Article 1 requires the High Commissioner to seek "permanent solutions for the problem of refugees by assisting Governments and, subject to the approval of the Governments concerned, private organizations...". In accordance with the first sentence of Article 10, "The High Commissioner shall administer any funds, public or private, which he receives for assistance to refugees, and shall distribute them among the private and, as appropriate, public agencies which he deems best qualified to administer such assistance."

3. UNCHR has an unique statutory responsibility for providing international protection to refugees and seeking permanent solutions for their problems. No such uniqueness, of course, characterizes arrangements for the actual provision and distribution of emergency assistance to the refugees. There are obvious advantages in implementing a programme through national organizations or those already familiar with the country. Many organizations and agencies, both governmental and non-governmental, have as much, or

more, experience and expertise as UNHCR in directly implementing assistance programmes for refugees, because this is not normally UNHCR's role.

4. Whatever the implementing arrangements, overall responsibility remains with the government, assisted by UNHCR. In a non-operational role, UNHCR is responsible for assisting governments in the assessment of needs and the development of assistance programmes to meet them, and for monitoring and controlling the implementation by others of programmes financed by UNHCR. UNHCR always retains responsibility for accounting to donors for the proper expenditure or use of their contributions, and ensuring, within the limits of available means, that basic needs are met.

5. There are circumstances in which it may be clearly in the interests of the refugees for UNHCR to assume greater operational responsibility, at least during the initial emergency phase of the programme. No general guidance can be given on the most appropriate implementing arrangements and the desired degree of UNHCR's operational involvement. These will vary for each emergency situation, and also with time as the programme evolves. UNHCR's role may therefore range from completely non-operational to a high degree of operational responsibility. Where the latter is the case, UNHCR must take swift direct action to ensure that the necessary personnel and expertise are available.

6. Mechanisms to ensure the co-ordination of the overall programme are discussed in chapter 12.

7. UNHCR's responsibility for the security, well-being and proper administration of its own staff is self-evident. While UNHCR has no legal obligation towards others working for the refugees, there is a clear moral responsibility for UNHCR to do all that is

reasonably possible to help the government to ensure their security. Administrative aspects, for example visas, communications and transport, are the responsibility of individuals or their parent organization, not UNHCR. It is, however, obviously in everyone's interests that such matters do not hinder the delivery of assistance. Some common arrangements in the context of a NGO co-ordination mechanism may be possible.

8. Figure 4-1 overleaf shows some of the considerations discussed in this chapter in diagrammatic form in the context of the overall emergency response.

#### 4.2 Implementing arrangements

##### Role of the government

1. The government's concurrence must, in accordance with Article 1 of the Statute, be sought on the proposed implementing arrangements. There are often a number of factors, both practical and political, to consider. At the start of an emergency, the government itself frequently has full operational responsibility. For example, a new influx is often first assisted by the local district and provincial authorities. If the government assumes the role of operational partner, UNHCR's direct operational responsibilities are likely to be limited.

##### Role of UN organizations

2. In addition to UNDP, particularly where UNHCR was not previously present, the two UN organizations most likely to be directly concerned in the early stages of a refugee emergency are WHO and WFP. Their roles are described in chapters 7 and 8 respectively. Other possible formal implementing arrangements in the emergency phase might involve UNICEF, especially with regard to water supply.

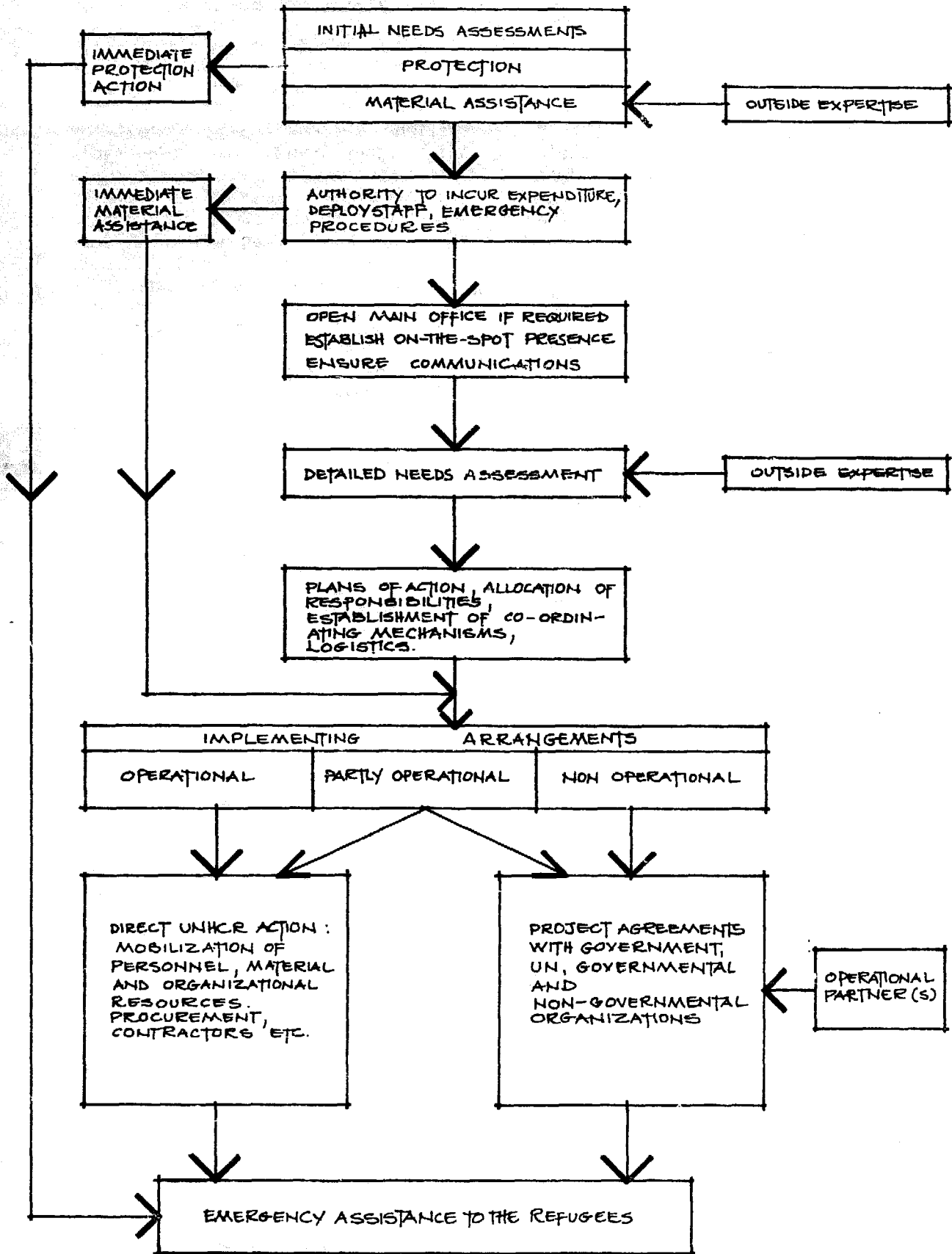
##### Other operational partners

3. The scale and needs of the emergency may be such that a number of different implementing arrangements are needed in the various sectors. One organization might have operational responsibility for health care, for example the national Red Cross Society supported by the LRCS, and another for logistics. Even within a sector, operational responsibility may have to be "sub-contracted". For instance, under the overall responsibility of the national Red Cross Society, different NGOs might have responsibility for the health care of different refugee groups or communities. Overall operational responsibility should not, however, be divided.

4. Where the government is not the operational partner, there would be obvious advantages in the selection, with the government's approval, of a national organization with the required capacity, or a NGO active in the country. Some locally-based organizations may already be delivering emergency assistance. At least for the initial relief phase, consideration should be given to using the national Red Cross or Red Crescent Society in a wider implementing role than just health care; any approach to them should be co-ordinated with the LRCS through UNHCR Headquarters. The LRCS may be able to help strengthen quickly the capacity of the national society to implement the emergency programme. Similarly, non-national NGOs already working in the country may be strengthened by their headquarters.

5. Where no suitable operational partner is immediately available within the country, UNHCR may initially have to assume a considerable degree of direct operational responsibility. At the same time, steps should be taken to identify and organize others to assume these responsibilities as soon as possible. Direct UNHCR operational involvement will require the rapid

- Implementing arrangements and personnel -



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deployment of more UNHCR staff than would otherwise be necessary. Key members of the team should already have direct operational experience of the management of an emergency programme, that is of the immediate delivery of assistance at the site level which is normally the responsibility of the operational partner.

6. UNHCR's operational responsibility may extend beyond the overall management to some or even all of the sectors of assistance. In extreme cases this may also require UNHCR to employ the specialists, such as doctors, nurses and public health engineers, who would otherwise be employed by the operational partner(s). However, every effort should first be made to find organizations with the expertise to implement these programmes. Many NGOs have great experience of refugee emergencies and some can deploy teams at short notice, both for specific sectors and for general management. In addition to their own staff, they will also know of a wide circle of individuals with the appropriate skills and experience.

7. A number of governmental organizations have relevant expertise. These include national disaster corps, organizations concentrating on a specific sector, such as health, and certain governmental overseas aid organizations. National disaster corps are able to intervene quickly for a limited duration, and are generally best used for urgent, clearly-defined and self-contained tasks.

8. Headquarters should be consulted on the proposed implementing arrangements. If suitable operational partners are not available from within the country, detailed information on requirements, with possible suggestions for meeting them and other relevant factors (for example, political constraints), should be conveyed to Headquarters as soon as possible. In certain circum-

stances, commercial contractual arrangements may be made with organizations, agencies or industry.

9. Special implementing arrangements may be needed in a protection emergency where as a last resort refugees have to be moved from one country of asylum to another, often by air. UNHCR's traditional operational partner in many such situations has been the Inter-governmental Committee for Migration (ICM), while the ICRC may be closely involved and issue travel documents. Transportation arrangements should, of course, not be delayed, but Headquarters' advice must be sought at once, both on implementing arrangements and on financial aspects, including reductions in commercial air fares and procedures for chartering aircraft if necessary.

#### Contractual arrangements

10. A formal signed agreement is required between UNHCR and any party disbursing UNHCR funds and certain standard clauses must figure in any such agreement. Conclusion and signature of the agreement may take time. Where a suitable operational partner is available locally, it may be necessary to exchange letters of intent to conclude the agreement, in order not to delay disbursement of funds and the start of the programme. Guidance is given in Part 2.

11. The Financial Rules for Voluntary Funds Administered by the High Commissioner provide that sub-agreements may be concluded under the authority of a letter of instruction "when a representative has to cope with an urgent situation and must conclude a sub-contract with a local agency without delay". Subsequent agreements with operational partners would normally be drawn up by Headquarters for signature in the field.

12. The form of the agreement will depend on the circumstances, and on the identity of the operational

partner. Where the government is not an operational partner, a tripartite agreement is sometimes concluded between the government, UNHCR and the operational partner, setting out the responsibilities of each party, for example the government's undertakings in respect of such matters as the facilitation of the import and transport of relief supplies (traffic and landing rights, tax and customs exemptions, etc.), communications, and its own contributions to the programme (land, services, etc.). Alternatively, separate agreements may be concluded between UNHCR and the government, and UNHCR and the operational partner(s).

13. The agreement with the government covering the provision of assistance is quite separate from the administrative agreement that governs the status of the High Commissioner's representation in the country. Where such an agreement, often referred to as the "Branch Office Agreement", needs to be concluded, special instructions will be given by Headquarters.

14. For implementing arrangements with partners not already in the country, agreements will generally be concluded by Headquarters in close consultation with the Representative, particularly where the transfer of funds takes place at Headquarters and not at the field level. Operational arrangements with other UN organizations are generally made at Headquarters' level.

#### Administrative expenditure by operational partners

15. As a general principle UNHCR does not meet the administrative costs of other organizations or agencies. However, the actual cost of direct programme support expenditure incurred by the operational partner may be met, if necessary, by UNHCR under the terms of the agreement, whose text and budget should make clear exactly what

administrative expenditures are to be covered. Where the government is the operational partner, the necessary personnel are generally regarded as a "matching" contribution. UNHCR does not meet unspecified general administrative overhead costs or percentage service charges. Headquarters' advice should be sought on levels of administrative expenditure by operational partners.

#### Direct UNHCR expenditure

16. Even when UNHCR has no direct operational responsibility, there is likely to be a need for direct UNHCR project as well as programme support expenditure. This might include, for example, international procurement by UNHCR, clearing, storage and internal transport expenses for contributions in kind, and a limited direct operational expenditure, particularly initially, by UNHCR field officers at the site of the refugees. Contractual arrangements with operational partners should take account of this as necessary, clearly identifying any funds foreseen for such direct expenditure by UNHCR if there would otherwise be risk of misunderstanding. A three-column budget or schedule may be helpful, showing direct expenditure by the operational partner, by UNHCR and the total.

### 4.3 Personnel

#### General

1. Many chapters in this handbook, including this one, stress the importance of experts and appropriate expertise and experience, particularly that gained in the country or region, for the effective management of refugee emergencies. This is indeed essential, and an unprofessional approach can have disastrous consequences for the refugees. However, experience suggests that the other qualities of those who manage refugee emergencies, at whatever level and whoever they work for,

are even more important. No amount of expertise and experience can substitute for organizing skills, flexibility, a readiness to improvise, the ability to get on with others and work under pressure no matter how difficult the conditions, tact, sensitivity to other cultures and particularly to the plight of refugees, a readiness to listen, and, not least, a sense of humour.

2. Responsibility for meeting agreed personnel needs rests with Headquarters, except where specific authority for local recruitment has been given to the Representative. Where staff are made available to UNHCR by organizations, the financial arrangements will depend on the circumstances.

#### UNHCR field staff requirements

3. A staffing table should be drawn up as soon as possible. Much will depend on implementing arrangements, but, depending on the scale of the emergency, the need for at least the following international staff should be considered:

Representative  
Deputy Representative  
Field Officers deployed at the  
site of the refugees  
Protection Officer  
Programme Officers  
Public Information Officer  
Finance Officer  
Personnel Officer  
Administrative Assistant  
Secretary

4. Particular attention must be paid to the administrative staff. An experienced administrative assistant will be an essential member of the team if a new office is being opened, and in large emergencies experienced finance and personnel officers are likely to be necessary. Without persons with these skills, the effectiveness of the whole operation will be prejudiced, and the senior staff will have to devote a disproportionate amount of time to

UNHCR internal administration at the expense of the refugees. Local administrative staff must, of course, be identified and trained, but this in itself requires experienced supervision.

5. The overriding staffing priority is to fill the key managerial posts, at the very least those of the Representative, Deputy, Senior Programme Officer and the Heads of field or sub-offices outside the capital, with experienced UNHCR staff of the right calibre. Prior experience of an emergency operation is, of course, a great advantage. This requirement may mean changing, at least for the duration of the emergency, the Representative in a country where a major emergency is added to a previous small-scale programme. For emergencies in countries where UNHCR was not previously present, it will inevitably mean very short notice re-deployment of senior and middle-level staff. Filling the key field posts quickly and correctly is difficult, but it is generally simply a question of determining relative priorities, and in a refugee emergency there is no doubt where the priority lies.

6. If the need for professional field staff cannot be fully met from within UNHCR, the choice is broadly between turning to individuals known to UNHCR, or to organizations. The former may be the better option where UNHCR is less operational and the latter where UNHCR is more operational when, as has already been suggested, it may be better to meet the needs with a team rather than piecemeal. There is, however, one special case of the former: where some suitable UNHCR professional staff can be recruited locally. The procedures to be followed in such circumstances are given in Part 2. The UN Volunteers Programme is a potential source of more junior-level personnel.

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Experts

7. Each refugee emergency will require a certain number of specialist skills. Whether these persons work for UNHCR or the operational partner will depend on the implementing arrangements. Expertise may also be required directly by the government and UNHCR for the needs assessment and initial phases of the emergency. To a certain extent this may be available from within UNHCR, in the Emergency and Specialist Support Units. An indication of the types of expertise which may be needed in each sector is given in the chapters that follow.

8. The use of specialists already in the country and familiar with it has obvious advantages. Experience in refugee emergency situations will also be very valuable.

Sources include the government, universities and other teaching centres, the UN system and the NGO community. Where suitable persons are not available within the country, how they are obtained will again depend on the implementing arrangements. As a general rule, it is better for UNHCR to seek specialist assistance from organizations known to have such expertise and relevant experience before approaching individuals directly.

9. In summary, provided both UNHCR Headquarters and the field have a clear indication of who is required and why, and of what resources are already available within the country, it should be possible to meet the immediate personnel needs in a refugee emergency quickly. This task must be recognized as the prerequisite to the success of the operation.



## CHAPTER 5: SUPPLIES AND LOGISTICS

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## CHAPTER 5: SUPPLIES AND LOGISTICS

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### Need

Refugee emergencies are often in locations removed from the main sources of supply and communications arteries. Exceptional efforts may be needed to ensure logistical support. Without it the whole programme will fail.

### Aim

The timely delivery of the basic material needs of the refugees.

### Principles of response

- Arrangements must provide a single, centrally co-ordinated logistics operation, with standardized procedures.
- Most immediately needed supplies are often available locally. Avoid overseas supply if possible.
- Transport and storage arrangements must have a spare capacity: things go wrong and more refugees arrive.

### Action

- Make logistical arrangements an integral part of overall planning from the start.
  - Identify and take the critical leadtime actions (for example overseas procurement of trucks).
  - Take expert advice on local conditions and assess implementing possibilities.
  - Seek outside assistance if necessary.
-

### 5.1 Introduction

1. The ability to deliver the right supplies where and when they are needed is a prerequisite for an effective emergency operation.

The vital role of logistic support must not be overlooked in the initial planning, and a logistics specialist may be required on any assessment mission. The more remote the location of the refugees, the more difficult will be the logistical problem, yet these are the situations where logistic support or the lack of it becomes the key to success or failure.

2. Logistical arrangements must provide for a spare capacity beyond that which would suffice if all goes well. There are high risks for the logistical support of any emergency operation as a result of many factors outside the control of UNHCR: delays, breakdowns, the vagaries of nature and the unpredictable. Furthermore, the numbers requiring assistance generally increase through the emergency phase of an operation.

3. This chapter does not cover all the points that may need to be considered in light of local conditions, nor is this a subject where a single general plan can be adapted to any local situation. Special expertise is available in this sector as in others and must be sought if necessary. However, it is not hard to recognize when things are going wrong in this sector.

### 5.2 Organization of logistical support

A single, centrally co-ordinated operation is essential and duplication of logistical services must be avoided.

This requires a clear understanding of overall needs and the responsibilities for meeting them.

Local knowledge must be sought, and outside logistical expertise obtained if necessary.

1. Every effort must be made to avoid duplication of logistical services by different organizations and to ensure a single, centrally co-ordinated operation. This is particularly important when local transport is inadequate and priorities have to be set for what is carried.

2. A clear understanding by all concerned of the needs is therefore essential: what is being or is to be supplied, when, how, and by whom. The UNHCR planning must be comprehensive, covering, for example, all the food needs regardless of action taken or being taken by other donors, and all blankets regardless of possible sources of supply. Where contributions in kind, or purchases with UNHCR funds, have been made against the total target by the time the UNHCR programme is promulgated, this must be taken into account, but the "start" figure must be the total needs. For example: "200,000 blankets are required to provide two for each refugee. By (date) 50,000 had been purchased and delivered by UNHCR and 80,000 known to be delivered or en route as contributions in kind (whether through UNHCR or bilaterally)". Requirements can of course be altered at any time in light of developments.

3. The actual sources of funding or contributions in kind may differ, but an easily understood, 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 can be continuously monitored, and the effect on this of donations in kind, whether through UNHCR or bilaterally, will be immediately apparent, as will whether these are within or outside the scope of the UNHCR programme.

- Supplies and logistics -

Only with such a comprehensive approach will it be possible to determine whether the refugees' needs are being met.

4. The circumstances of each emergency will determine what arrangements are required of UNHCR for logistical support, but whether directly by UNHCR, through an operational partner or as a commercial service, these arrangements must provide when necessary for overseas purchase and transport, swift unloading and duty-free clearance on arrival, local purchase, temporary storage, onward transportation, regional storage and final distribution, with proper stock control at every stage. Figure 5-1 shows the likely major components of the system in diagrammatic form. Where there is a developed local economy and an adequate internal transport network, such arrangements may not present major problems. Where there is not, action to ensure logistical support will be a - perhaps the - priority task for the field manager.

5. A close exchange of information between the field and Headquarters on all logistical aspects is essential. Particular attention should be paid by Headquarters to giving the field as much notice as possible of overseas transport arrangements, estimated times of arrival (ETAs) and changed schedules, and of contributions in kind in general; and by the field, to acknowledging receipt of consignments, and advising Headquarters of contributions in kind declared locally that fall within the programme.

6. An early assessment of the logistical support requirements is essential. The national authorities, local UN community and the supply or materials managers of large commercial concerns operating in the country will be important sources of advice on local capabilities. If it is clear that logistical support will present major problems, and if local

expertise is not available, the assistance of a logistics expert should be requested from Headquarters.

7. Specific arrangements to operate the logistical support system should depend on local resources and knowledge to the extent possible. Where there is a strong existing warehousing and distribution system, outside assistance should not be necessary. Where outside assistance is required seek Headquarters' advice. Possible sources include:

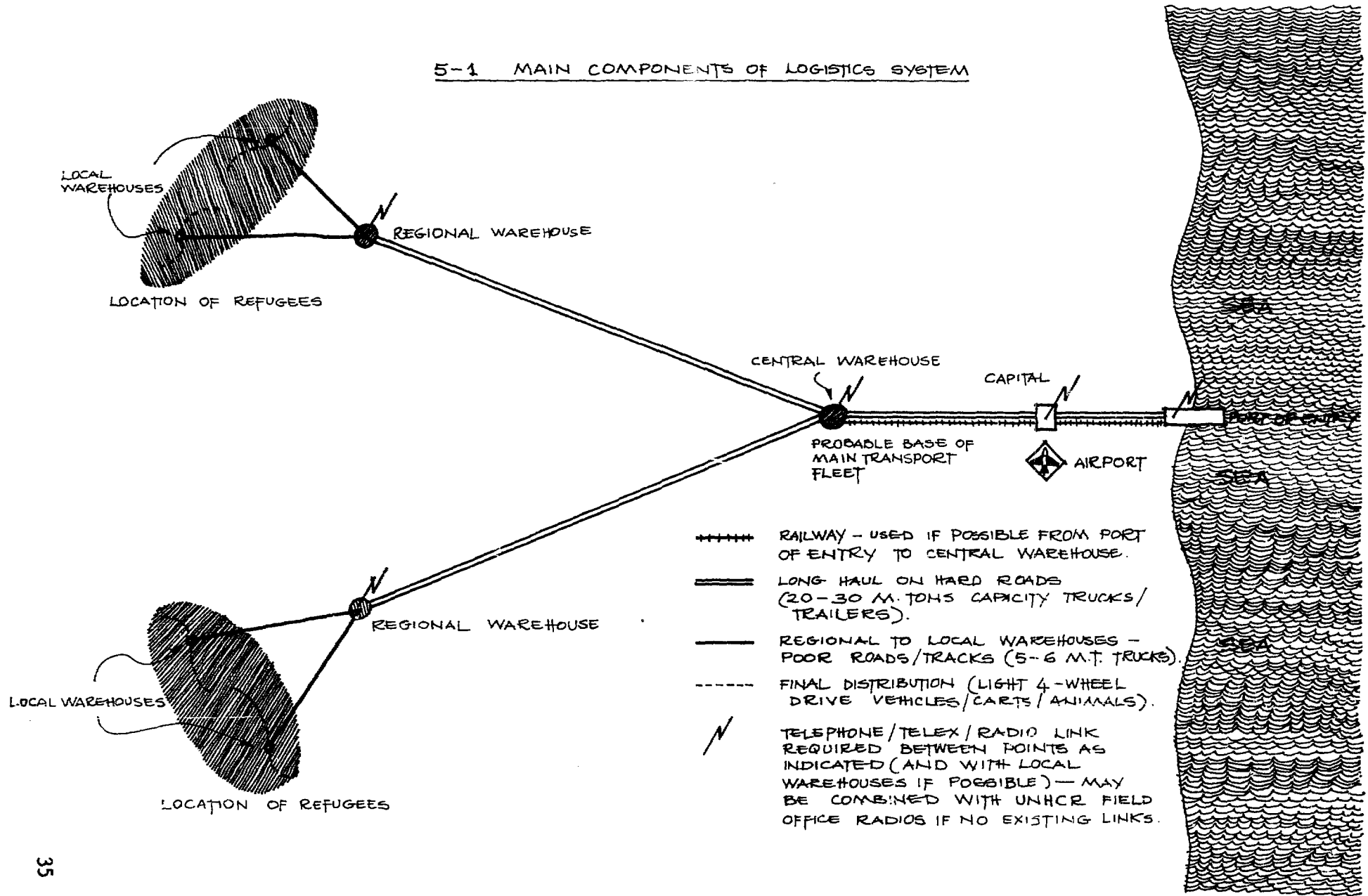
- a governmental disaster or emergency corps;
- a (large) NGO with appropriate experience;
- the ILO, which has experience in this field and would identify outside consultants as necessary;
- a specialist organization or commercial firm.

8. Where the local capacity is sufficient and the main requirement is organization of the food supply, this may be done by WFP. In any event, the operation must be very closely co-ordinated with WFP.

9. Whatever the arrangements in the field, the line of responsibility to UNHCR (or the operational partner) must be clear. The major policy decisions about both supply and transport should be taken by the same person. Decentralization of operational decisions to the regional level may be necessary, and should equally be to a single person.

10. While it is rarely necessary to have mobile communications sets on surface transport, assured communications between dispatch and arrival points is often essential. In some circumstances existing in-country radio or telephone communications links will be inadequate and a special network must be set

5-1 MAIN COMPONENTS OF LOGISTICS SYSTEM



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up. Details of how to establish a UNHCR radio network are given in Part 2.

### 5.3 Supplies

Make at least initial purchases locally if possible; it is quicker and the supplies are likely to be more appropriate.

Standard specifications have been developed for common items.

1. The consumable and durable supplies, equipment and material required in a refugee emergency generally fall under the following headings: food, water, medical supplies, sanitation, shelter (materials both for dwellings and community service buildings), domestic needs (utensils, soap and cooking fuel), cloth or clothing, education materials, the means of transport that may be necessary to deliver the foregoing, sufficient spare parts, and the fuel for vehicles and communal services. More details of what may be needed are given in the appropriate chapter.

2. At least for an initial period, the material needs can probably be met from within the country. This possibility must be fully explored before resorting to outside sources: the emergency supplies that must come at once from abroad are often limited to a few essential air-transportable items of relatively small bulk. The local purchase of immediately needed supplies has obvious advantages including quick delivery, more likely acceptability and stimulation of the local economy, though local suppliers often overestimate their ability to supply large quantities on time. To the extent possible, local purchases should require delivery to the store nearest to the location of the refugees, but where there are several suppliers it may be better to consolidate orders and deliveries.

3. Local purchase would normally be undertaken by UNHCR's operational partner, and it is important that field staff are able to monitor the progress of this. Details of procedures for local purchase by UNHCR are given in Part 2. Advice should in any case be sought from the local purchasing officers of other UN organizations, particularly UNICEF, and procurement advice or personnel assistance requested from Headquarters if necessary.

4. While local purchase is indicated given comparability in cost, quality and availability, in major emergencies local suppliers may be unable to meet continuing demand. This is particularly likely when the refugees form a substantial part of the total population of a region or even the country. In such circumstances bulk purchases from abroad will become necessary; these will generally be made by UNHCR Headquarters. Otherwise, local prices will rapidly increase as local purchases dislocate the market, at the same time causing resentment among nationals.

5. In a major emergency and when the capacity of the market is limited, care must in any case be taken to avoid prices being forced up by humanitarian organizations bidding against each other for the same supplies. Provided there is clear agreement on the needs, co-ordination of purchases and even combined orders among the organizations concerned should be possible. Where supplies are limited, which organization actually purchases the available stocks is obviously less important than ensuring that this is done at a price that is not inflated by needless rivalry.

6. Particularly for shelter, local materials and types of construction should be used where possible, combined with tarpaulins or polythene sheeting as necessary. While, except for nomadic tribes, tents are not a satisfactory type of long-term shelter,

they are a valuable last resort in emergencies. Groundsheets should be supplied with tents. Remember that tents may deteriorate rapidly if stored for any length of time, particularly if humidity is high.

7. Standard specifications have been developed on the basis of previous experience for a number of items that may be required at short notice. These are given in annex 1 to this chapter. The purpose is two-fold. Where such items are available locally, the standard specifications may help in drawing up tender requests or in negotiations with suppliers. Where items are not available locally, Representatives will be able to request supply through Headquarters with a clear idea of exactly what will be supplied, while the standardization itself enables more rapid supply. The purpose is not to impose supplies with these specifications but rather to simplify and expedite supply. More generally, care should be taken to avoid variations in quality (and of course quantity) of items supplied to different sites or groups. Other standardized items include the emergency health kit. (See ch.7.7.3)

8. A large number of other items with standard specifications are available through the UNICEF Packing and Assembly Centre in Copenhagen (UNIPAC). Some are already assembled in kits for specific purposes. Full details, including illustrations, are available in the UNIPAC catalogue held by the local UNICEF or UNDP office. The catalogue includes the emergency stockpile of items whose availability is guaranteed. Certain emergency supplies are held by UNICEF, WHO, the Red Cross and NGOs in regional or national stockpiles and may be available to UNHCR.

9. Used clothing is commonly offered in emergencies but is generally an unsatisfactory way of meeting a need for clothing and should be discouraged. Experience suggests that much will arrive in

poor shape, some will be dirty and badly sorted and little will be appropriate to the customs of the refugees. Furthermore, because of its volume it is expensive to air-freight, will arrive too late by sea, and can be expensive to store and transport internally. First priority should be given to meeting clothing needs by the provision of cloth (and sewing machines etc. as necessary) for the refugees to make up themselves, or buying locally made new clothes. In either case care must be taken that what is provided is culturally acceptable.

10. The Procurement Unit will provide field offices with an indication of international prices of the items listed in annex 1 and of other commonly required items. This may be of assistance when preparing an emergency budget in the field, but for items not available locally either make sure that the basis of the calculation is clear - for example: 20,000 blankets at unit cost 'X' plus transport 'Y', estimated total 'Z' - or leave costing to Headquarters. Where common relief items are available locally, cable an indication of prices to the Procurement Unit so that these may be compared with the international market, and consideration given to overseas procurement of further needs if major savings would result.

#### 5.4 Means of transport

- Advance arrangements will be necessary for expeditious handling of supplies from abroad.
- Expert local advice must be sought on internal transport arrangements.
- If vehicles are needed and not available locally their procurement, with spares, will be a very high priority.
- Standardize vehicle fleets.

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- Ensure sufficient drivers, fuel, lubricants, spares (especially tyres) and maintenance facilities.
- If a special fleet is necessary, consider "grafting" it on to an existing haulage operation.
- Improve access roads if necessary.

International

1. In the emergency phase, supplies from overseas may arrive by air. Standing arrangements should be made in advance with the authorities for clearance and landing rights for relief flights and for priority handling of freight. If a considerable volume of air traffic (whether international or internal) is expected, a démarche should be made to have relief flights exempted from the 'tax' element of their operations (landing fees, fuel tax) and charged for services at cost (handling fees). If this is done, proper account of any concessions must be taken in the contract with the carrier, otherwise the company and not UNHCR will benefit.

2. Many ports are congested. As soon as details of the arrival of relief supplies by sea are known, arrangements should be made for a priority allocation of an alongside berth (if possible, always the same one) or lighterage. In principle, relief supplies should be loaded only on vessels with the capacity for self-discharge, and whenever discharging alongside they should do so directly onto trucks. With the possible exception of food, vessels are unlikely to be carrying only relief supplies and will be subject to diversion and frequent delays. Nevertheless, the arrangements for onward movement of the supplies and any interim storage necessary must be made well in advance of the ETA.

3. If supplies are being transported from neighbouring countries by road or rail, careful consideration must be given to the destination. Trucks should of course unload as close to the refugees as practicable, while the best discharge point for a train may not be that commonly used for rail freight between the two countries.

Internal

4. Three modes of internal transport are likely to be needed: long haul to regional centres, intermediary from these to the local stores, and final distribution to the refugees.

5. In many countries, existing internal transport services do not have a large spare capacity even on normal networks, which in any case may not serve the location of the refugees. Expert local advice will be essential, to cover such points as rail capacity and delays, a short list of reputable haulage contractors, freight rates per mt/km, age and serviceability of the fleets, fuel supplies and maintenance facilities.

6. Where a suitable rail network exists, this can be an effective way of moving heavy supplies internally. However, many railway systems are either congested or short of rolling stock and long delays may be encountered. WFP often moves food for its own projects by rail but the requirement for speed may make road transport preferable even if it is more expensive. In most cases, onward movement by road to the final destination will be necessary. In some countries heavy loads can be moved by inland waterways.

7. Road transport is likely to be an essential component of the internal transport arrangements. Where there is a government transport agency or suitable commercial fleet, these should be used if possible. Local suppliers should be encouraged to quote prices that



include delivery. At least in the emergency phase, this will be preferable to having to make separate transport arrangements. However, in the worst case no suitable capacity will exist and UNHCR will have to arrange for the establishment of a complete transport system. Some suitable vehicles may be available locally or in the region; consider purchasing second-hand if suitable vehicles in good condition are available. If the overseas supply of vehicles is necessary, this procurement action will have a very high priority.

8. The fleet must be standardized to suitable type(s) already operating in the country and with adequate backup and servicing facilities. Depending on the road conditions, three basic types of vehicle may be needed: a truck with trailer with a combined capacity of 20-30 MT for long-haul on hard roads, a 5-6 MT truck with 4-wheel drive and if necessary a recovery winch for intermediary distribution on poor roads and tracks, and a 1 MT, 4-wheel drive vehicle or even animal or hand carts for final distribution. Observe how local movement of supplies normally takes place. If a mixture of types of the long-haul truck is unavoidable, it may still be possible to standardize to a single trailer type. Particular attention must be paid to the tow-bar strength. The vehicles exclusively involved in the operation should be individually numbered and distinctively painted (for example, white with blue markings).

9. Assured supplies of fuel and lubricants must be available where they are needed. This may require separate secure storage arrangements and an additional fleet of fuel tanker vehicles.

10. Other consumable items (filters, shock absorbers, brake linings etc.), spare parts and proper back-up services must be available. For a small number of vehicles, a carefully selected set of

spares per vehicle may suffice, but for a fleet of any size, separate arrangements will be necessary and base and regional workshops may have to be established solely for the operation. Alternatively, existing government or UN facilities may be strengthened. In some countries ILO, UNDP, or UNICEF have special workshops servicing project vehicles. Mobile workshops and heavy recovery vehicles may be necessary. Particular attention should be paid to adequate supplies of tyres: tyre life may be no more than 10,000 km in rough desert or mountain conditions.

11. Sufficient numbers of properly trained drivers must be available. Local UN offices may be able to advise on existing schemes and possibilities. Ensure that recommended working hours are not exceeded: accident rates increase markedly with over-tired drivers. In some situations careful briefing will be required on alternative routes in case usual roads are impassable. A system must be established to monitor and control vehicle use.

12. Control of a transport fleet requires strong administrative skills, good communications and very close co-ordination with the supply arrangements. Careful consideration should be given to the possibility of "grafting" the transport fleet onto an existing operation, for example a large national or regional haulage organization. A large bus company might serve equally well. That organization's infrastructure, including workshops, inspection pits, offices, etc. would then be immediately available, as would be its accumulated experience of operating in the country. A clear understanding on priorities for fuel and services is, however, essential. Nationals should in any case be employed, and trained to take over from expatriates, to the extent possible. Unless there is no practical alternative, setting up a separate establishment should

be avoided, but major emergencies may require a logistical organization that includes a self-sufficient transport unit.

13. In some situations urgent action may be necessary in order to improve access roads. Local advice will be of paramount importance in deciding how improvements should be made. These would normally be undertaken by the national road construction and maintenance authority, perhaps supported by refugee labour. Short-term outside assistance can be provided through Headquarters if necessary.

### 5.5 Transport capacities

- Food accounts for the greater part of the required capacity.
- A substantial margin of spare capacity must be provided.

1. The key commodity to be moved is usually food; in the worst case the refugees will need total outside food support: approximately 500g/person/day or 15 MT/1000 refugees/month. The bulk of this is likely to be a cereal, packed in 50kg bags (20 bags per MT). The chartering of vessels for overseas movement of food requires specialized knowledge (which, inter alia, WFP has) and is not covered here. It is essential that arrivals are scheduled in a way that takes account of port capacity (berths, unloading and storage) as well as overall needs.

2. The theoretical capacity necessary to move sufficient food inland to the refugees will depend on how long a round trip takes, including routine maintenance. A margin should be allowed to cover the unpredictable but inevitable, such as breakdowns, accidents, bad weather, road and bridge repairs. The size of this margin will depend on many factors including delivery delays of new vehicles, the likelihood of new arrivals and the need for extra capacity while building up reserve stocks near

the refugees. In difficult conditions, the theoretical capacity might need to be increased by 25% or more.

3. To give an example: if the rainy season journey time from the port of entry to a regional store serving 30,000 refugees is 3 days out and 2 days back, one day per trip is allowed for routine maintenance, and the road surface can take a truck and trailer with a combined payload of 20 MT, then the theoretical requirement is for 4.5 such trucks/trailers. (1 truck/trailer can move 20 MT every six days; for six days 30,000 refugees require 90 MT of food). In such circumstances, it is clear that six trucks/trailers would be the prudent minimum.

4. Table 5-2 gives an indication of the capacities of different means of transport.

### 5.6 Storage

- Adequate storage capacity and reserve stocks of essential items must be provided.

1. Supplies may require initial storage near the port of entry. Regional (axial) stores may be required at certain key locations and local (radial) stores will be required near the refugees. Stores must be accessible in all seasons and weather. Arrangements to meet this need must be made quickly. Existing government warehousing should be used if possible. Security of supplies in stores and transit must be ensured. Storage for local purchases should be the responsibility of the supplier whenever possible. Particular attention must be paid to those items requiring special storage. Organize the distribution and storage system so that supplies are loaded and unloaded a minimum number of times. Remember the maxim "first in, first out".

2. A warehouse should be of sound construction, dry and well-ventilated and provide protection from

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5-2 Transport capacities

Surface

<u>Carrier</u>	<u>Payload (1)</u>
Standard Railway truck	30MT (52m <sup>3</sup> )
Standard container 20ft/ 6.1m 40ft/12.2m	18MT (30m <sup>3</sup> ) 26MT (65m <sup>3</sup> )
Large lorry and trailer	22MT
Large articulated lorry	30MT
Medium lorry	6-8MT
Long wheel base Landrover/ Cruiser type pickup	1MT
Hand-drawn cart	300kg
Camel	250kg (more for short distances)
Donkey	100kg
Bicycle	100kg

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Air

<u>Type</u>	<u>Payload/volume (1)</u>	<u>Runway length (2)</u>
B747	100MT/460m <sup>3</sup>	3000m
DC10/30F	65MT/340m <sup>3</sup>	3000m
DC8/63F	44MT/240m <sup>3</sup>	2300m
B707/320C	40MT/165m <sup>3</sup>	2100m
CL44	26MT/180m <sup>3</sup> (3)	1900m
L-100-30 (Hercules)	21MT/120m <sup>3</sup> (ramp loading)	1500m
DC9/33F and B737/200	14MT/105m <sup>3</sup>	1700m
DC3	3MT/40m <sup>3</sup>	1200m

(1) Approximate indication only: always check exact specification. In particular, figures for aircraft will vary depending on configuration (e.g. if cargo is palletized usable volume may be reduced), operating range, airport characteristics etc. Also establish the size of aircraft doors and, if the airport lacks facilities, whether or not the aircraft has self-loading/discharge and self-start capability.

(2) Also very approximate, for full load, sea level, 15°C, no wind. Markedly influenced by aircraft weight, altitude and temperature. Always check with local aviation authorities which aircraft types can operate.

(3) Certain versions take considerably greater volume.

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rodents, insects and birds. The floor should be flat and firm and the building should be easy of access, with suitable arrangements (e.g. ramp or platform) for loading and unloading. The warehouse must be secure against theft, and should be lit if possible. As long as it has sufficient loading doors a single large building is better than several small ones.

3. 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, but there are also a number of specialized techniques or structures allowing swift construction of field stores. Expert advice should be sought locally or through Headquarters if required. It may even be necessary to use tents as stores as a temporary measure. The tents should be carefully sited, protected by ditches from surface water if necessary, and with raised platforms inside (e.g. pallets or a groundsheet on sand). The contents must not touch the tent. Within the tent, food should be further protected by plastic sheets.

4. The capacities required of the main, regional and local stores will depend on the numbers of refugees they serve and what outside support they need. Reserve stocks of essential items, particularly food, should be built up close to the refugees. Sufficient stocks should be on hand in secure storage to cover likely interruptions in the delivery schedule, for example during the rainy season. Conversely, care should be taken not to hold in store, against some unspecified future need, items that are immediately required by the refugees, such as blankets or hand tools.

5. The physical dimensions of a warehouse necessary to store a given tonnage may be roughly estimated as follows. First calculate the volume of the goods. As an indication:

<u>1 MT of</u>	<u>occupies approx.</u>
grain	2m <sup>3</sup>
medicaments	3m <sup>3</sup>
blankets (compressed) (approx. 700 heavy blankets)	4-5m <sup>3</sup>
tents (approx. 25 family ridge tents)	4-5m <sup>3</sup>
blankets (loose)	9m <sup>3</sup>

Assuming storage to a height of 2m, 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. 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 350g/day would be:

$$\begin{aligned}
 &350\text{g} \times 30,000 \times 60 \text{ days} \\
 &= 630 \text{ MT} = 1260\text{m}^3 \\
 &1260\text{m}^3 \text{ stored to a height of } 2\text{m} \\
 &\text{gives a surface area of } 630\text{m}^2, \\
 &\text{add } 20\% \text{ for access} = 756\text{m}^2 \\
 &\text{of floor space}
 \end{aligned}$$

i.e. a building some 50m long by 15m wide.

**5.7. Stock control, inspection and insurance**

□ Effective stock control and security are imperative and must cover the whole chain through to final distribution to families or individuals.

□ Ensure inspection and register insurance claims: supplies can arrive damaged or be lost.

1. A sound control of stock levels and distribution is essential if losses are to be avoided, potentially critical shortages identified in time and final delivery to the beneficiaries assured. The system should identify what has been ordered, where

the goods are and when they will arrive. This information must be available to all who need it and particularly those responsible for final distribution. Control mechanisms will range from those verifying the bulk consignments on arrival down to individual ration cards or distribution checks at the sites and carefully calibrated measures 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 a real and not just a paper control. The supplies actually distributed to the refugees must be reconcilable with those known to have arrived and those remaining in store.

2. In the emergency phase certain basic controls should be established at once, in addition to the controls over actual distribution discussed in chapter 12. They are described in annex 2.

3. In addition to safeguarding the security of relief supplies, they must be protected from damage. This may be physical, for example as a result of bad handling or improper stacking; climatic, the adverse effects of the sun, rain, cold or humidity; attacks by pests; and bacteriological, the decomposition of perishable commodities with time or when containers are damaged.

4. Some damage is inevitable and considerable sums may be involved. All overseas procurement by or on behalf of UNHCR, and the great majority of all supplies, will have been fully insured against loss or damage in transit. Overseas procurement by UNHCR will also be subject to inspection by a professional agency (superintendence). Where supplies are purchased locally, particular care must be taken not to accept supplies that do not meet contract specifications. Purchases, especially food, should be inspected on arrival at the site and rejected if necessary. If large quantities are involved, organize professional

quality control and inspection at the point of final delivery from the first orders. If local superintendence companies are unable to do this, seek outside assistance through Headquarters. Insurance claims must be registered at once and for overseas supplies Headquarters should be informed by cable of major damage or shortfalls. Special arrangements may be necessary for the disposal of spoilt food or goods.

#### 5.8 Consignment procedures and customs clearance

- Have a single consignee and address.
- Use the internationally accepted marking and consignment procedures.
- Plan customs clearance procedures in advance and develop and promulgate a clear policy for NGOs and other suppliers.

#### Consignment procedures

1. Much trouble can be avoided by using a single consignee and address for all items required from abroad for the UNHCR emergency programme. This would normally be the Representative, with an indication in brackets of any special instructions, for example "For (name of NGO)". 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 regional or site level.

2. Whether purchases are made locally or abroad, but particularly in the latter case, proper packing, labelling, marking, consignment and insurance procedures are essential. Long experience in different international relief operations has shown that all organizations and donors need to use a uniform system for marking

or labelling relief consignments. UNHCR emergency operations should adopt the procedures the League of Red Cross Societies has developed in co-ordination with United Nations organizations. The following is adapted from Annex 8, Red Cross Disaster Relief Handbook (Geneva, League of Red Cross Societies, 1976):

- (1) Colour code. The colours used for the relief supplies most often required after disasters are: red for foodstuffs, blue for clothing and household equipment, and green for medical supplies and equipment.
- (2) Labelling. Make sure the consignment also bears one of the international hazard warning signs (fragile, no hooks, keep dry, etc.) if necessary. Consignments of medicines, banded with green, should state on the outside of the package the content and the medicines' expiration date and whatever temperature controls are necessary. English should be used on all labels and stencilled markings, though a second language may be added. It is essential that the final destination (or arrival port) appears at the bottom of the label in very large letters.
- (3) Size and weight. Containers should be of a size and weight that one person can handle (ideally, 25kg; up to a maximum of 50kg) since mechanical loading and unloading devices are rarely available at the receiving end.
- (4) Contents. Relief supplies should always be packed by type in separate containers. Mixed consignments create many problems in warehousing and 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.

- (5) Advance notice to the consignee. To cover in one document all the details necessary for safe transport and ease of handling at the receiving end, the following information is essential: (1) name of sender; (2) name of consignee; (3) method of transport, including the name of the vessel, flight or truck number and its date and port or airport of departure; (4) a detailed list of contents, including weight, dimensions, and number and type of packages; (5) value in the currency of the sending country; (6) type of insurance, name of company, etc.; (7) the carrier's agent, including the name of the person to be contacted in the receiving country; (8) estimated time of arrival and (9) instructions or special requirements for handling and storing the supplies. It should be noted that in most instances a pro forma invoice is required by the authorities in the sending or receiving country or both.
- (6) Acknowledgement by the consignee. It is important that an acknowledgement be sent to Headquarters as quickly as possible after consignments are received.

#### Customs clearance

3. UNHCR's basic or project agreement with the government should, of course, allow for the duty-free import of all items from whatever source, provided that they are required for the programme. The supplies coming in for the operation may far exceed the scope of the routine arrangements between the authorities and the local UN community for the normal handling of office vehicles and equipment and domestic supplies. The customs officials at the airport or ports may be unused to clearing, for example, many tons of airfreight or a shipment of heavy trucks. Problems and delays

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may be avoided by discussing the procedures to be followed by UNHCR with senior officials in the foreign ministry, customs department and airport and port authorities before the first arrival. The aim is immediate release of incoming supplies, and special procedures adapted to the needs of the emergency may have to be developed.

4. UNHCR should be prepared to undertake the customs clearance of NGO relief supplies, provided these meet the purposes of the emergency operation. This will allow some control over the dispatch of clearly unsuitable goods, help in the co-ordination of response in kind and help to ensure equitable distribution. As NGOs may otherwise face considerable problems in duty-free customs clearance, it would be in their interest to co-operate in this way. Representatives should be flexible when deciding what falls within the purposes of the emergency operation. Some items unlikely to be covered by UNHCR funds could nevertheless be considered as appropriate. However, as a general rule, do not undertake to clear duty-free for NGOs supplies for their own programme support items such as office cars or equipment. The only vehicles that should be cleared in this way are those foreseen in the UNHCR programme and which will be placed fully at the disposal of the programme (for example, trucks for the movement of bulk food). National Red Cross and Red Crescent Societies have their own standing arrangements for the clearance of relief supplies consigned to them.

5. The expenses incurred in customs clearance, handling, storage and onward movement of supplies belonging to UNHCR - contributions in kind or UNHCR procurement - may be met by UNHCR if necessary, for example initially through an emergency letter of instruction. Subsequently, Representatives should propose a specific project to cover any such continuing expenses. Where NGO supplies are concerned, UNHCR will be the "consignee of convenience", not the "owner" or "donee". All expenses involved should normally be borne by the NGO. However, in certain circumstances and provided the supplies are items directly foreseen in the UNHCR programme (for example blankets, tents), UNHCR may also meet inland transportation costs, as would have been necessary had UNHCR had to purchase these items itself.

6. It is strongly recommended that local guidelines on this be drawn up as early as possible in the operation. They 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 all NGOs active in the operation and to new NGOs on arrival. This could be done through the NGO Co-ordinating Committee. A copy of these guidelines should be shared with Headquarters and reference to this general procedure made in any NGO briefings at Headquarters and in the first few general telex sitreps.

5

Further references

- Hall D.W. (1970) Handling and Storage of Food Grains in Tropical and Subtropical Areas FAO Agricultural Development Paper No. 90
- Licross/Volags Steering Committee for Disasters (1982) Emergency Supply Logistics Handbook Basic guidelines for the procurement of supplies for disaster relief operations. Includes a number of specimen forms and explanation of commonly used trade terms. (Also in French and Spanish) (c/o LRCS)
- UNITAR (1982) Model Rules for Disaster Relief Operations One of the proposed sets of rules is for a bilateral agreement between an assisting organization and a receiving state, covering such matters as waivers, traffic rights, priority handling of relief supplies and facilities for relief personnel. (UNDRO is seeking to develop these into a draft agreement or convention). Policy and Efficacy Studies No. 8
- Also relevant in this context, although on natural disasters, are:
- (1) Annex II of the Report of the Secretary-General on UNDRO of 12 May 1977 (A/32/64): Measures to expedite international relief. The recommendations were adopted by consensus by the General Assembly, and by participants at the 1977 International Conference of the Red Cross.
- (2) Rapport spécial sur un projet d'accord-type relatif aux actions de secours humanitaire adopted by the 59th Conference of the International Law Association, Belgrade 1980.
- WFP (1979) Food Storage: Handbook on Good Storage Practice Clear illustrated guidance for storekeepers.



Standard specifications for certain common relief items

These specifications have been developed with UNICEF to assist Representatives in drawing up tender requests where local purchase is possible and to give a clear indication of what could otherwise be supplied at short notice through Headquarters. The UNIPAC catalogue reference is given in brackets where applicable; the actual source of supply through Headquarters would depend on the circumstances and in particular on any regional availability.

1. Blanket, heavy (similar E50 035 05)

Woven, 30-40% wool and rest other fibres (cotton, polyester) blanket with stitched ends, size 150 x 200cm, weight 1.3kg, packed in pressed bales of 50 pcs. Each bale of 50 pcs would be about 0.35m<sup>3</sup> volume and weigh 65-70 kg. Large quantities are generally available.

2. Blanket, light

Cotton, size 140 x 190cm, weight approx. 850g, usually packed in pressed bales of 100 pcs. Each bale of 100 pcs would be about 0.4m<sup>3</sup> volume and weigh 85-90kg. Fairly large quantities generally available ex-stock in Asian region, more limited availability elsewhere.

3. Bucket, plastic (21 700 00)

Bucket/pail 10 litre capacity, polyethylene with plated steel-wire bail handle, conical seamless design, suitable for stacking, reinforced or turned lip. Plastic or galvanized buckets are likely to be available locally and are very useful.

4. Family cooking set, emergency (20 365 10)

12 pcs aluminium utensils as follows:

- Cooking pot, 6 litre, with bail handle and cover
- Cooking pot, 4 litre, with bail handle
- Dinner plate, aluminium (4 each)
- Plastic mug (4 each)
- Coffee pot, aluminium, 2 litre.

The set is packed in a cardboard carton 25 x 25 x 20cm, weight 2kg. The set does not contain cutlery: five stainless steel soup spoons and one stainless steel cook's knife, blade 15-17cm, could be supplied separately if not available locally. Utensils of a heavier gauge aluminium are normally supplied by UNHCR when some delay can be accepted. The advantages of the emergency set are lower weight, packed volume and price. It is therefore particularly suitable when supply by air is necessary.

5. Plastic sheeting

Black seamless polyethylene sheeting, 250 microns (1000 gauge), width 5-8m, supplied double-folded in lengths usually of 100-800m, approx. weight 1kg/4m<sup>2</sup>. For multipurpose use: roofing, walls, ground sheets, linings, etc. Widely available. (There is a guide to its use, see page 67.)

6. Tarpaulin material (E 50 860 10)

4m wide, 50m long (200sqm), in centre-folded roll of 2m wide, 250mm diameter. Reinforced polyethylene, ultraviolet ray resistant; 0.25mm thick (275g/sqm). Plastic eyelets both sides every metre, double row of eyelets across every 5m. Colour green. Approx. 50kg. Considerably stronger than item 5.

7. Tent, family, for use in emergencies, 12sqm (E50 880 02)

Round type (single bell). 300g/sqm cotton or cotton/polyester canvas, water and rot proofed, natural, with ground strip. Diameter 4m, centre height 2.5m, wall height 600mm. Heavy duty sectional steel tube centre pole, plasticlud or galvanized. Complete with ropes, pegs, mallet and patching kit, with loose, reinforced PVC groundsheet 250g/sqm. In packsack. Ceiling ventilation flaps. Approx weight 22kg. Apart from a better resistance to high winds, the only general advantage of this tent over item 8 is its lighter weight when supply by air is necessary. Not recommended for use with camp beds but can accommodate up to 8 persons.

8. Tent, house, ridge type, rectangular, 12sqm (approx 3 x 4m) (E50 880 04)

400g/sqm cotton or cotton/polyester canvas, water and rot proofed, natural, with ground strip and fly sheet. Centre height 2m, wall height 600mm with 150mm clearance between tent and fly sheet. Heavy duty sectional steel tube poles, plasticlud or galvanized. Complete with ropes, pegs, mallets, and patching kit, with loose, reinforced PVC groundsheet, minimum 250g/sqm. In packsack. Approx. weight 40kg. The standard family tent, available from a variety of suppliers worldwide. Can accommodate 6 camp beds. See notes for tent suppliers below.

Notes for tent suppliers

Tent specifications are to be understood as minimum in material weight and floor space. Only quality, heavy duty, finished tents must be offered. Canvas to be equally strong in warp and weft. Chemicals used for treatment of the canvas must not smell offensive; salamander flame retardant, rot and water proofing process, or equivalent. Sufficient iron or steel pegs and pins to be supplied to anchor tent and fly every 50cm (pegs 40cm, pins 15cm long). Stitching - machine stitched with extra strong, weatherproof thread. Ridges to be canvas or cotton tape reinforced. Cabs and taps strongly stitched at outer and inner ridge for upright poles. Eyelets must be non-ferrous. Hems to be wide enough to accept eyelets. Entrance fasteners, zippers, clips, ties to be of heavy duty, where applicable non-ferrous quality, flaps well overlapping, unless zippered. All openings for ventilation or windows to be protected with mosquito netting. Zippered door flaps to have spare ties sewn on, in case zipper breaks. Guy ropes to be equivalent in strength to 12mm sisal rope, ultra-violet stabilized. Wooden or bamboo poles are not acceptable. Lengths of pole sections not to exceed 1.5m. Mallet with 40cm handle (10cm diameter wooden or hard rubber head).

Tolerances: ground area plus 10% acceptable. Canvas weight plus 10% acceptable. Lightly dyed colours (olive, green, brown) might be acceptable but must be indicated on offers or stock reports.

Each tent to be packed and bundled with poles, accessories and hardware in single packsack.

Logistics control systems

1. The minimum level of controls necessary will vary with each operation. This annex gives an indication of the basic components of a system. Simple controls and accounting established from the start will be much more effective than a sophisticated system later. No system is likely to be effective unless it is understood by those required to work it. Specific training will generally be required for storekeepers.

Central controls

2. An overall control card should be kept for each order or consignment (including contributions in kind), on which is recorded all stages from the initial request for goods through, as applicable, requests for tenders, placing of order/notification of shipment, planned delivery time/place/ETA, actual delivery/arrival etc.

3. A simple state board where progress can be monitored visually is likely to be very useful and can be set up at once. An example is given on page 51.

The purchase order

4. This is the document that 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 (the conditions under which UNHCR is willing to do business, which should have been part of the request for tenders - see UNHCR Procurement Manual).

5

At each warehouse/store

5. 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.

- (1) Supply note/Waybill. Accompanies goods from supplier in duplicate to enable warehouse staff to check against goods actually received. Duplicate copy used by procurement staff to verify goods dispatched against those ordered (i.e. against purchase order form). Where the movement is between warehouses e.g. regional to local, use (4).
- (2) Store inwards ledger. Basic details of all inward consignments are recorded here: description of goods, quantity, supplier, name of person receiving and date of receipt, with cross reference to supply note.
- (3) Stock card. One for each different item. This gives the complete history, being used to record every in and out movement with cross reference to appropriate ledger entry. Gives running balance. Where possible this should be maintained independently of those actually receiving and issuing the goods. An example is given on page 52.
- (4) Requisition/Dispatch form. The authority for dispatch, with the requisition signed by authorized signatory and verified against list of authorized signatures held by storekeeper. An example is given on page 53.

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- (5) Store outwards ledger. Similar purpose to (2) for dispatches: at its simplest can be just the file of triplicates of (4).

Movement of goods

6. 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 receipted duplicate of the Supply Note/Waybill or the Requisition/Dispatch form. 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 requisition and receipt are carefully chosen, and signatures controlled (combining them with a UNHCR/stamp is recommended), this should be an effective initial safeguard.

Example of Logistics State Board (1)

Ref. No.	Carrier/ Supplier	Item	Quantity	Port of entry delivery point	ETA	Actual arrival/ delivery time	Final destina- (2) tion/remarks
(e.g.: telex no. purchase order no.)  Also include reference to file where full info. avail- able	(ship's name, flight no., manufacturer/ transporter etc.)						

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Notes:

- (1) The columns should be modified as required by each emergency.
- (2) Cross reference to Waybill or Dispatch form covering any onward movement. In some circumstances two state boards may be helpful, one as above, covering out-of-country supply; and one covering internal procurement and transport.

Example of  
STOCK CARD  
(maintained for each item)

INCOMING				OUTGOING				BALANCE		Remarks		
Date	Ref.no.	Quantity	Units*	From	To	Date	Ref.no.	Quantity	Units		Quantity	Units
	(of Supply note or Waybill)	e.g. 200 MT (grain) or 2000 pcs. (blankets)	*(record details of packing, e.g. sacks of 50kg. or bales of 50 pcs.)	not needed if always same			(of Dispatch form)					(short-falls, breakages, spoilage, unusual packing etc.)

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Example of Requisition/Dispatch Form

Ref. No. \_\_\_\_\_

Requisitioned by \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Destination \_\_\_\_\_

Goods	Quantity required	Quantity supplied	Quantity received	Remarks (discrepancies etc.)

5

Dispatched by \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Received by \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Raised in triplicate

Original and duplicate sent with goods. Original serves as supply note for records at destination. Duplicate returned receipted to place of dispatch and filed with triplicate, showing transaction complete. Triplicate retained and filed, forming 'stores outward ledger'.

Conversion factors

<u>To convert from</u>		<u>To</u>	<u>Multiply by</u>
<u>Length</u>			
Yards	(1 = 3ft = 36 inches)	Metres	0.9144
Metres	(1 = 100cm)	Yards	1.0936
Miles (1)	(1 = 1,760 yds)	Kilometres	1.609
Kilometres	(1 = 1,000m)	Miles	0.6214
<u>Area</u>			
Yards <sup>2</sup>	(1 = 9ft <sup>2</sup> )	Metres <sup>2</sup>	0.836
Metres <sup>2</sup>	(1 = 10,000cm <sup>2</sup> )	Yards <sup>2</sup>	1.196
Acres	(1 = 4840 yd <sup>2</sup> )	Hectares	0.405
Hectares	(ha, 1 = 100 ares = 10,000m <sup>2</sup> )	Acres	2.471
Miles <sup>2</sup>	(1 = 640 Acres)	Kilometres <sup>2</sup>	2.590
Kilometres <sup>2</sup>	(1 = 100 ha)	Miles <sup>2</sup>	0.386
<u>Volume</u>			
US gallons		UK gallons	0.8327
UK gallons		US gallons	1.2009
US (UK) pints		Litres	0.473 (0.568)
Litres		US (UK) pints	2.113 (1.76)
US (UK) gallons (1 = 8 pints)		Litres	3.785 (4.546)
Metres <sup>3</sup> (1 = 1 x 10 <sup>6</sup> cm <sup>3</sup> = 1000 litres)		Yards <sup>3</sup>	1.308
Yards <sup>3</sup> (1 = 27ft <sup>3</sup> )		Metres <sup>3</sup>	0.765
<u>Weight</u>			
Ounces (oz)		Grams (g)	28.35
Grams		Ounces	0.0353
Pounds (lb, 1 = 16oz)		Kilos	0.4536
Kilo (kg, 1 = 1,000g)		Pounds	2.205
US short tons (1 = 2,000lb)		Metric tons	0.907
US long tons (= UK tons, 1 = 20 hundredweight (CWT) = 2240lb)		Metric tons	1.016
Metric tons (MT, 1 = 1,000kg)		US short tons	1.102
		US long tons, UK tons	0.984
<u>Temperature</u>			
Centigrade		Fahrenheit	1.8 and add 32°
Fahrenheit		Centigrade	subtract 32° and multiply by 0.555

---

Weight of water (at 16.7°C, 62°F)

1 litre = 1kg; 1 US gal = 8.33lb; 1 UK gal = 10lb; 1ft<sup>3</sup> = 62.31b

(1) Statute (land) miles. The international nautical mile = 6,076ft = 1.825km



## CHAPTER 6: SITE SELECTION, PLANNING AND SHELTER

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## CHAPTER 6: SITE SELECTION, PLANNING AND SHELTER

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### Need

The lack of a suitable and well planned site and adequate shelter is common in the early stages of a refugee emergency. This can adversely affect the well-being of the refugees, and in some cases their protection, as well as the delivery of assistance.

### Aim

To meet the need for suitable shelter and related buildings and services on an appropriate and properly planned site.

### Principles of response

- Avoid high-density refugee camps.
- Involve the refugees, whose home it will be.
- Only select a site where the basic needs, especially for water, can be met.
- Site planning is essential, and should reflect a decentralized, small community approach, preserving past social arrangements as far as possible.
- Shelter must provide protection from the elements, space to live and a sense of home. Local materials and designs are best: take account of local standards.
- So-called temporary arrangements often come to last much longer than expected; thus a well planned response is necessary from the start.
- Site selection, planning and the provision of shelter require expertise and must be closely integrated with the planning of other services especially water and sanitation.

### Action

- Assess the suitability of the refugee site and ensure that it meets the basic criteria.
  - Simultaneously assess the need for emergency shelter and provide the necessary materials to meet immediate needs.
  - Take the most urgently required measures to improve site planning and layout, and upgrade these as soon as possible.
-

## 6.1 Introduction

1. This chapter covers considerations relating to the site where the refugees live, the physical layout and organization of their community, and the shelter they need. These factors will have a major influence on the well-being of the refugees.

2. The need for somewhere to live is a corollary to the granting of asylum, and the role and responsibility of the national authorities in site selection is obvious, and of fundamental importance. Equally, the refugees themselves must be involved; ideally, the needs of the refugee community would determine the location, size and organization of the site where they live. In practice there has to be a compromise between these needs and external factors, both practical and political.

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

4. The location of the refugees may range from spontaneous settlement over a wide area, through organized rural settlement, to concentration in a very limited area. Circumstances can make this last possibility unavoidable, but the establishment of refugee camps must be only a last resort. A solution that maintains and fosters the self-reliance of the refugees is always preferable.

5. The prospects for a durable solution must be taken into consideration. Protection or political considerations may also be important. If no durable solution is in sight, this must be recognised and the planning should assume a long

stay. Unsatisfactory temporary arrangements can be hard to change once established.

## 6.2 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 an essential part of an integrated approach to needs assessment and response.

□ Expertise is necessary as is swift action for the co-ordinated planning of a new site or the improvement of existing conditions.

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

2. Expertise may be required in the fields of geology, settlement, planning, engineering (for example, water supply, sanitation, construction), public health and perhaps social anthropology. Familiarity with local conditions in both the country of origin and asylum is important. Prior experience in similar emergency situations and a flexible approach are particularly valuable.

3. Expertise and advice should be sought from government, university or local industry sources, or from local offices of organizations such as UNDP, the World Bank, WHO, UNICEF and voluntary agencies. If necessary, Headquarters assistance should be requested.

4. Whenever possible, set up a task force at the site level of

all those concerned with planning the site (construction, water supply, sanitation etc.) and organizing its occupation. The task force should prepare a comprehensive plan of action.

5. The organization of the refugees' physical environment and level of services should be appropriate to the needs of the emergency and conditions in the country of asylum, while taking full account of both the traditions of the refugees and the special requirements as a result of the typically crowded and dependent circumstances of a refugee emergency. In the particular case of refugees who were normally nomadic, their own solutions are generally to be preferred, provided space and suitable materials are available and other considerations allow.

6. The following sections provide guidelines for advance site selection and planning, for example when refugees are to be transferred to a new location. In the first phase of an emergency, however, it is rare that this will be possible in practice. There may be little opportunity for advance planning, and the immediate priority will be action to improve existing sites.

7. There may be a need for reception or transit centres, through which the refugees pass en route to a longer-term settlement site. Many of the considerations set out in this chapter are also relevant to such temporary centres.

8. When a refugee influx is continuing, new sites must be identified and planned well in advance and the design capacity of existing settlements respected.

### 6.3 Criteria for site selection

□ In addition to considerations specific to the refugees and their background, criteria include water supply, topo-

graphy and drainage, adequate surface area, security and protection, accessibility, environmental and soil conditions, vegetation, and land rights.

1. General: The social and cultural background of the refugees will be an important determinant of the most appropriate type of site, and must be a primary consideration whenever possible. However, in many circumstances choice will be limited and any land that meets even minimum standards may be scarce. In this regard, it may be 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.

2. Water supply: 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 acquired merely by drilling, digging, or hauling. Drilling may not be feasible and may not provide adequate water. No site should be selected where the hauling of water will be required over a long period. Professional assessment of water availability should be a prerequisite in selecting a site. More information on water is provided in chapter 9.

3. Topography and drainage: Where water is readily available, drainage often becomes the key criterion. The whole site should be located above flood level, preferably on a gently sloping area. Flat sites can present serious problems for the drainage of waste and storm water. If possible, the site should be a minimum of 3m above the water table: avoid marshes or areas likely to become marshy or soggy during the rainy season. The watershed of the area itself may be a consideration.

4. Surface area: The site must allow sufficient usable space for the refugees. WHO recommends 30 sq. metres per person, plus the necessary land for communal and agricultural activities and live-stock, as a minimum overall calculating figure. Of this, 3.5m<sup>2</sup> is the absolute minimum floor space per person in emergency shelter. The allocation of the other space between housing, communal services, roads etc. is discussed in the sections that follow. More refugees may arrive and the site selected should allow for a major expansion beyond the area theoretically required for present numbers.

5. Security and protection: Sites should be removed from the frontier and potential military targets in order to provide security and protection for the refugees, and to prevent hostile activities by the refugees against the authorities of their country of origin which would undermine the principle that the granting of asylum is not an unfriendly act. This criterion is specifically mentioned in Article II, paragraph 6 of the OAU Refugee Convention: "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". Only 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, should exceptions be made to this rule. Experience has, however, shown that the arguments in favour of settling refugees away from the frontier often increase with time. Therefore, when in doubt always locate or move the site away from the frontier.

6. Accessibility: The site must be accessible and therefore close to assured communications links, and preferably also to sources of the necessary supplies such as food, cooking fuel and shelter

material. Proximity to national community services is desirable, particularly with regard to health care. There are generally advantages in choosing a site near a town, subject to consideration of possible friction between local inhabitants and refugees.

7. Environmental conditions: The area should be free of major environmental health hazards such as malaria, onchocerciasis (river blindness), schistosomiasis (bilharzia) or tsetse fly. Climatic conditions should be suitable the year round and careful account taken of seasonal variations: a suitable site in the dry season may be untenable in the rains. A daily breeze is an advantage, while emergency and temporary housing, especially tents, need shelter from high winds. 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.

8. Soil conditions: The soil should allow water absorption and the retention of human waste. Avoid excessively rocky or impermeable sites. If possible, select a site where the land is suitable at least for vegetable gardens and small-scale agriculture. Specific criteria for the selection of a suitable site for rural settlement are given in the UNHCR handbook "Planning rural settlements for refugees".

9. Vegetation: The site should have a good ground cover (grass, bushes, trees). Covering vegetation provides shade, and reduces erosion and dust. During construction care should be taken to do as little damage as possible to this vegetation and topsoil. If bulldozers are being used make sure the topsoil is not scraped off the whole site, as often occurs. If wood must be used, at least initially, as domestic cooking fuel,

this should not come from vegetation on the site. Alternative sources (and more efficient cookers) that will avoid irreplaceable loss of surrounding wood must be found as soon as possible.

10. Land rights: The land should be exempt from right of use by other people (ownership, grazing rights, etc.). This can be a major cause of local resentment, and there may be occasions when the authorities proposing the site are unaware of customary rights exercised by the local population. 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. UNHCR does not purchase land for refugees (see ch.12.8.1). If this is a problem, consult Headquarters at once.

#### 6.4 Site planning: general considerations

- At the start of a refugee emergency the immediate provision of essential goods and services is generally more important than efforts to change the way people have already arranged themselves on a site.
- As soon as time and needs permit, or when refugees are to be moved to another site, site planning is essential.
- Site planning should start from the characteristics and needs of the individual family, and reflect the wishes of the community as much as possible.
- However, a refugee settlement is not a natural community and particular care will be required to ensure that special needs are met.
- The overall physical layout of a site as well as other aspects of site planning should reflect a decentrali-

zed community-based approach focusing on family, village or ethnic groups.

1. Site planning is necessary because the physical organization of a settlement can markedly affect the health and well-being of a community. The smaller the area available for a given number of refugees the greater the importance of site planning, though any site must be planned to allow the equitable, efficient and economic distribution of goods and services.

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

2. Any refugees who are already present on the site will of course have arranged themselves in some way. Even if desirable, radical changes in their patterns of location may be a lesser priority than meeting the immediate need for services and relief goods. However, for new arrivals the layout must be carefully planned in advance. Once refugees are settled they will understandably resist movement of their houses. If the refugee leadership can be persuaded early on of the importance of planning, it should soon be possible for the refugees to take responsibility for the organization of new housing (demarcating plots etc.) within the designated areas, with the added advantage of releasing relief workers for more urgent tasks. Other site planning guidelines, for example on the layout of non-housing areas, can be more fully applied later. For a new site, comprehensive but swift planning is essential.

3. An important consideration in site planning is the layout preferred by the refugees and to which they are accustomed. For example, some communities may traditionally site their place of worship in the middle of their community, some may wish to have open space and common ground in the centre, others may

attach particular importance to communal meeting places and their siting, such as by water distribution points. Site planning should therefore be a locally-controlled exercise to the extent possible.

4. However, it must be recognized that the community's preferred layout will rarely be that which would allow the most expeditious delivery of outside emergency assistance, and that lack of space or of familiar materials will often necessitate some outside assistance. Furthermore, a refugee settlement is not a natural community. Circumstances force large groups of refugees to live together, often in limited space, with minimal resources and without their accustomed source of livelihood. For this reason, the regulating mechanisms of traditional communities may not work, at least initially. Refugee site planning requires special care to ensure that goods and services are equitably provided and communal responsibilities are met. Compromise solutions will be required to reconcile conflicting considerations. For example, there may be particular security problems or serious difficulties as a result of social disruption that can be lessened by organizing the housing, even when space is available, in more compact formations than is customary, thus allowing an important measure of self-policing by the refugees.

5. Outside assistance in site planning should start from the perspective of the needs, preferences, and traditions 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 groupings); and traditional housing and living arrangements. Developing the small 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 communities, finally considering how the individual family fits into the scheme.

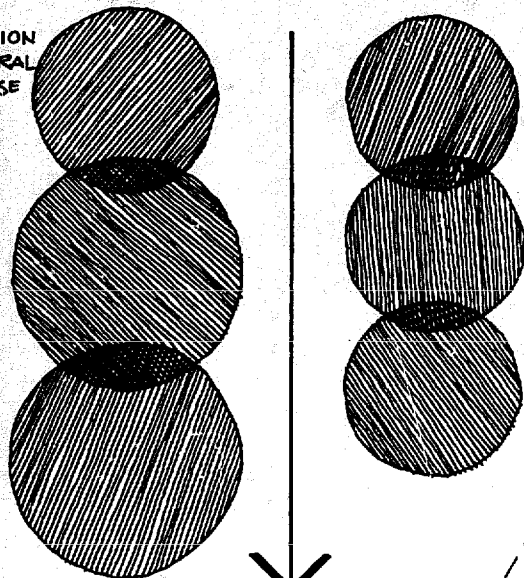
6. The social organization of the refugee population should be taken into consideration as much possible. Whether it is made up of extended families and/or clans, or nuclear families, whether the refugees come from urban or rural, village or nomadic backgrounds, are all factors that will influence the physical organization of a site. Initially, this information, which is part of the basic needs assessment described in chapter 3, 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-sufficiency and durable solutions.

#### Organization and control

7. The greater the density of occupation that has to be imposed on a given site, the more important will be firm, co-ordinated control of its planning. A task force should be established of all concerned with construction, sanitation, water supply etc. and a plan of action drawn up. The aim of the plan should be to (1) encourage the refugees to help themselves; (2) reduce the hazards of density as far as possible (public health measures, fire control etc.); (3) facilitate control of the emergency operation and the delivery of assistance. Figure 6-1 overleaf shows some of the considerations for an ideal layout of a high density site; in practice compromises will have to be made to reconcile them.

SITE LEVEL  
(CENTRALIZED SERVICES)  
NEAR ENTRANCE IF NOT POSSIBLE  
TO PLACE NEAR CENTRE OF SITE

SITE ADMINISTRATION  
OFFICES AND CENTRAL  
WAREHOUSES (CLOSE  
TOGETHER FOR  
SECURITY).



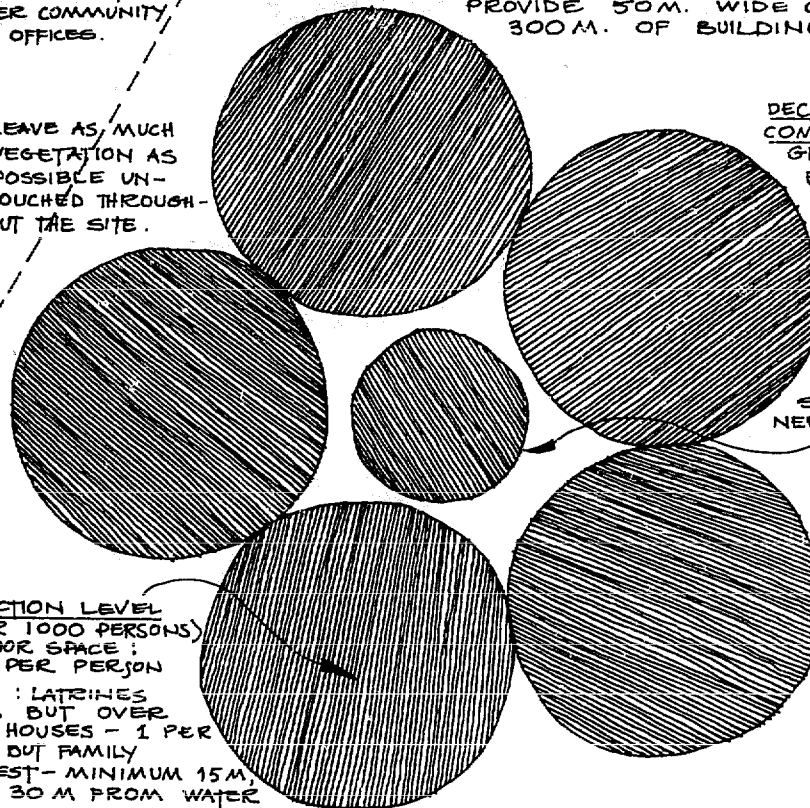
ALL-WEATHER ACCESS ROAD, AT  
LEAST TO WAREHOUSES.  
LARGE SITES NEED ROAD  
SYSTEM - ALL NEED DRY  
FOOTPATHS.

SITE HEALTH CENTRE,  
MAIN PUBLIC HEALTH  
AND OTHER COMMUNITY  
SERVICE OFFICES.

LEAVE AS MUCH  
VEGETATION AS  
POSSIBLE UN-  
TOUCHED THROUGH-  
OUT THE SITE.

SECTOR LEVEL  
(SAY 5 SECTIONS OF 1000 PERSONS EACH)

USE  $30 \text{ M}^2$  / PERSON AS ROUGH INDICATOR OF  
MINIMUM OVERALL NEEDS IN CROWDED SITES,  
EXCLUDING CENTRALIZED SERVICES AND FIREBREAKS:  
PROVIDE 50 M. WIDE GAP FOR  
300 M. OF BUILDINGS



DECENTRALIZED  
COMMUNITY SERVICES:  
GROUPED TO THE  
EXTENT POSSIBLE -  
HEALTH CLINIC  
PROBABLY IN  
CENTRE OF SECTOR  
- IF SUPPLEMENTARY  
FEEDING NECESSARY,  
ONE CENTRE MAY  
BE REQUIRED  
FOR EVERY TWO  
SECTIONS - ONE  
SCHOOL MAY BE  
NEEDED PER SECTION.

SECTION LEVEL  
(SAY FOR 1000 PERSONS)  
MINIMUM FLOOR SPACE:  
 $3.5 \text{ M}^2$  PER PERSON

SANITATION: LATRINES  
WITHIN 50 M. BUT OVER  
6 M FROM HOUSES - 1 PER  
20 USERS, BUT FAMILY  
LATRINES BEST - MINIMUM 15 M,  
PREFERABLY 30 M FROM WATER  
SOURCE.

WATER COLLECTION POINT WITHIN 100 M  
OR FEW MINUTES WALK OF USER'S HOUSE IF POSSIBLE

IMPORTANT: COMMUNITY SERVICES AT ALL LEVELS NEED WATER, LATRINES AND OFTEN COOKING FACILITIES

- Site selection, planning and shelter -



8. Where space is extremely limited, control of the percentage allocated to different uses (housing; communal and administrative services; roads, firebreaks and open space) will be more important than calculations based on desired minima.

9. Together with the layout plan, there must be a plan setting out the timescale for completion and progressive occupation of the settlement by the refugees, whenever this is possible. It is particularly important that, having allowed space for expansion, including family reunion, this is safeguarded until really needed. Otherwise the initial settlement will occupy all the space, and major upheavals of existing arrangements will be necessary as more refugees arrive. Sections prepared in advance should be filled in an orderly manner and early arrivals should, of course, play a major part in the completion of the site. In some circumstances it may be possible to have an advance party of refugees assisting at the site from the start of work.

10. Provided sufficient land is available, the total number of refugees at each site should be determined by practical considerations rather than arbitrary limits. The importance of respecting this number, and having other sites ready for further new arrivals once it is reached, has already been stressed. Previous groupings should be maintained to the extent possible. Any hostile groups or factions among the refugees should be kept apart. Much more important than absolute size is the planning of the site to foster communities and a sense of family and small group identity.

11. Thus, as many services as possible should be provided at the small community level, for distinct family, village, ethnic or other groups, and with the convenience of the refugees as the criterion. Centralized and impersonal

services should be avoided to the extent practicable.

#### 6.5 Site planning: specific infrastructure design considerations

▮ Under-estimation of space required for communal services is a common problem.

1. Sanitation: While water requirements often determine site selection, sanitation requirements often dictate site layout. If latrines are used, at least one should be provided for every 20 persons. They should be no further than 50 metres from any house, with the minimum distance from a house determined by the type of latrine and space available: as a guide, 6 metres. Sufficient space must be left for replacement latrines. If communal latrines are unavoidable, they should be accessible by road to facilitate maintenance. Latrines must not contaminate water sources. The site must also have an effective drainage system, which is easy to maintain and repair, both for rainwater and wastewater. (See chapter 10.)

2. Water supply: Where possible, the maximum distance between any house and a water distribution point should be 100 metres or no more than a few minutes' walk. Water will often be pumped from the source to an elevated point in order to allow gravity feed distribution. Planning of the site should take this into account. (See chapter 9.)

3. Roads: Some communities will not be accustomed to metalled roads but provision must be made to deliver the assistance. A site should have access and internal roads and pathways connecting the various areas and facilities. Roads should be 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.

4. Fire prevention: A firebreak (area with no buildings) 50 metres wide is recommended for approximately every 300 metres of built-up area. This will be an ideal vegetable growing or recreation area. If space allows, the distance between individual buildings should be great enough to prevent a collapsing burning building from touching adjacent buildings. The direction of any prevailing wind will be a consideration.

5. Administrative and community services: At the start of an emergency it may be difficult to foresee all the administrative and community services that are likely to be required. Where adequate space is available, free areas must be allocated for future expansion of these services. Underestimation of the space required for future communal needs is a common problem in sites of limited area. Buildings for administrative and community services should be traditional structures, if possible of a multipurpose design to facilitate alternative use, for example buildings for initial emergency services which could later be used as schools or other community facilities. The following list is of those administrative and community services which are often required; provision of the necessary space and buildings must be considered in site planning. The division is indicative only; the importance of maximum decentralization has already been stressed.

(1) Likely to be centralized

Site administrative office

Essential services co-ordination offices (health care, feeding programmes, water supply, education, etc.)

Warehousing and storage

Initial registration/health screening area

Tracing service

Therapeutic feeding centre (if required)

(2) Likely to be decentralized

Bathing and washing areas

Community services (health centres, social service centres, etc.)

Supplementary feeding centres (if required)

Education facilities

Institutional centres (for example, for the disabled and unaccompanied children, if required)

Recreation space

Physical layout

6. Even after taking due account of space availability, topography, preference, traditional living patterns and the specific design considerations, many different layouts are possible. The basic principle should be to organize the site into small community units or villages containing the decentralized community services mentioned above. These village units are in turn organized around the central core services. There are obvious advantages in a pattern that allows the addition of further units while preserving open space.

7. The location of the centralized services will depend on the specific situation and in particular on the space available. Again, the views of the refugees must be taken into account. Where sufficient space is available, there may be clear advantages in having the centralized services in the centre of the site. Where space is scarce, it may be better to have the centralized services located near the entrance to the site. In particular, this will avoid the trucks delivering supplies, etc. having to drive through a densely populated site,

with the attendant problems of dust, noise and danger to pedestrians, and even of drivers getting lost in a large site. If some form of closed camp is unavoidable, at least the centralized administrative services will probably have to be located near the entrance. Whatever the layout, the warehouses should be near the administrative office for reasons of security.

8. The linear or grid layout, with square or rectangular areas separated by parallel streets, has often been used but should be avoided if possible. It has the advantage of simplicity of design and speed of implementation, and allows a high population density. However, as has already been emphasized, environmental health problems and disease are directly proportional to population density. Furthermore a rigid grid design makes the creation of community identity difficult, as the refugees are not usually accustomed to living in such a pattern. Where space is very scarce, a broadly rectangular grid layout may be unavoidable, but should be adapted to the landscape, with variations in the shape of the basic community unit rectangle and flexibility in the layout of houses within the community unit.

#### 6.6 Shelter

- Shelter must provide protection from the elements, space to live, privacy and emotional security.
- Provide blankets and clothing if necessary.
- Assess the adequacy of whatever emergency shelter arrangements refugees have already made themselves and meet immediate needs through provision of simple local materials. The first step is to put a roof over people's heads.

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.

Refugee housing must be culturally and socially appropriate and familiar. Suitable local materials are best if available.

Individual family housing should be built whenever possible, unless multi-family units are traditional.

Shelter must be suitable for the different seasons.

Wherever possible, refugees should build their own housing, with the necessary organizational and material support.

#### General

1. 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.

2. Particularly in cold climates or where there are daily extremes in temperature, lack of adequate shelter and clothing can have a major adverse affect on health and nutritional status. Thus, in addition to shelter, provision when necessary of sufficient blankets, appropriate clothing and perhaps even heaters will be a high priority. (See chapter 5.)

3. To date neither pre-fabricated building systems nor specially developed emergency shelter units have proved effective in refugee emergencies. Reasons include inappropriateness, high unit cost, transport problems including cost, inflexibility and the fact that emergency shelter arrangements will have been made before these systems can arrive. For similar reasons, tents are often not an effective means of providing shelter. They are difficult to live in and provide little insulation from extremes of temperature. There are, however, circumstances in which 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 of an erected tent depends on the climate; it may be as much as two years. Where tents are appropriate, repair materials should be provided to the occupants. A limited number of tents may also serve as transit accommodation while more appropriate shelter is constructed. Standard specifications for two types of tent are given in annex 1 to chapter 5.

4. The best way to meet emergency shelter needs is to provide 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. Care should be taken to treat traditional materials with preservative where this is necessary (e.g. against termites). Seek local advice on effective methods.

5. The design of shelter and more permanent housing should if possible provide for modification by the occupants to suit their individual needs.

#### Immediate action

6. The provision of shelter is a high priority, even when not essential to survival. Shelter must be available before other services can be developed properly. Immediate action should be taken to assess the adequacy of any arrangements already made, and to meet obvious short-comings through the provision of local materials, such as bamboo poles, thatch, rope, matting, wooden boards and timbers and perhaps metal roofing. This may be supplemented if necessary by canvas or plastic sheeting. Details of suitable plastic sheeting are given in annex 1 to chapter 5. To the extent possible, emergency materials should allow re-use later in the construction of improved housing. Where local materials are in short supply or have a short life, consideration should be given to other, more permanent materials. If a continued high density of occupation is unavoidable, fire resistant materials may be indicated. (See ch.10.7.2)

7. 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.

8. Some shelter may initially be found in national public buildings such as schools. This is, however, usually a very temporary solution, unsuited to large numbers and resented by the local population, and to be avoided if possible.

9. While different cultures have different minimum individual needs, WHO recommends a minimum usable floor space of 3.5 sq. metres per person in an emergency. Overcrowding is a common problem and has serious implications for health.

Improved shelter

10. Housing must meet the cultural and social requirements of a home. Appropriate housing will help reduce the disorientation and emotional stress suffered by refugees. To the extent possible, longer term housing must be similar in design and construction to that with which the refugees are familiar, while reflecting local conditions and practice. This will generally mean single-family shelters, unless the refugees are used to multi-family units. Although more costly, the benefits to the refugees of individual homes cannot be over-estimated. The risk of communicable diseases increases enormously in communal shelters. If multi-family shelters must be used, no more than 35 persons, say some seven families, should normally be assigned to any one structure. Experience has shown that there are likely to be social and environmental problems above this number, while buildings made from local materials may be approaching their structural limits at this size.

11. Materials and design should meet minimum technical standards

for the different local seasons. Thus roof material may have to provide shelter from the sun, rain and snow and resist strong winds. Raised flooring may be required in areas of high rainfall.

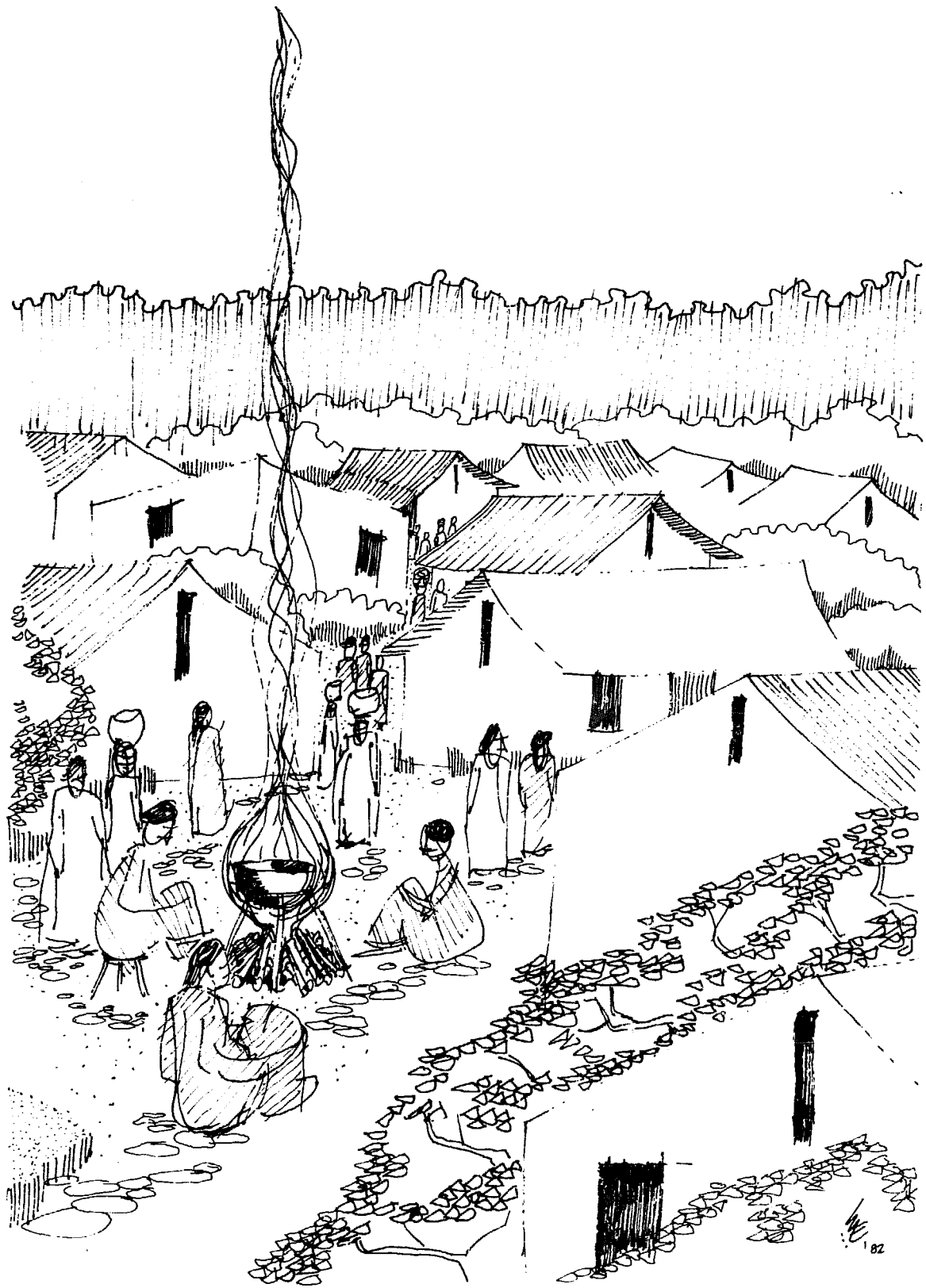
12. Wall material must afford privacy and protection from the elements. Where the site lies in a hazard-prone area, for example subject to earthquakes or cyclones, the design of buildings and their siting should conform to the hazard-resistant criteria: consult the national authorities and UNDRO. In buildings where cleanliness and hygiene are particularly important, for example the kitchens of feeding centres or in hospitals, the floor should be cement or at least washable.

13. Even in an emergency, shelter, including communal buildings, can - and should almost always - be constructed by refugees themselves, provided adequate organization and material support is given. This will help to ensure that the housing will meet their particular needs, will reduce their sense of dependence, and can cut costs considerably.

6

Further references

- |                              |   |          |
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## CHAPTER 7: HEALTH

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## CHAPTER 7: HEALTH

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### Need

Refugees, particularly in an emergency, are exposed to many factors which increase the risks of disease. Typically, these factors include overcrowding, inadequate water, poor sanitation and inadequate food supply. Urgent measures are therefore required to minimize the effects of these hazards, ensure an appropriate level of health care and reduce the number of new cases of disease.

### Aim

Through effective organization to promote good health and to prevent, control and treat disease.

### Principles of response

- Refugees must be given responsibility for their own health and therefore be directly involved in the development and provision of health services.
- Health services should reflect actual needs as determined by proper assessment and surveillance.
- Priority should be given to nutrition and public health measures, as the health of the majority of the refugees is more likely to be affected by these measures than by individual care. Therefore a proper health strategy will go well beyond the scope of this chapter to include all sectors of assistance.
- A health co-ordinator should be appointed with responsibility for these measures and for ensuring standard and appropriate treatment and services, in close co-ordination with the national health authorities and other organizations.

### Action

- Assess the health and nutritional status and environmental conditions in order to identify needs and establish priorities.
  - In accordance with these priorities, set up a community-based health service with the necessary referral facilities.
  - Monitor and evaluate the effectiveness of these actions and adjust them as necessary.
-



## 7.1 Introduction

1. Good health, depending as it does on so many non-medical factors, is too big a subject to be left only to doctors. This chapter is directed at the administrator. It does not pretend to give "medical answers" to health problems. It does however seek to show that good organization of public health and medical services, and an appropriate primary health strategy are more important to the overall health status of refugees than curative medicine alone. These crucial organizational factors are often the responsibility of the UNHCR field manager.

2. The conditions faced by many refugees do not favour good health. In an emergency, the dangers to the health of the refugees will often be increased because of poor shelter and overcrowding, lack of sufficient safe water, poor sanitation, inadequate or inappropriate food supplies and a possible lack of immunity to the diseases of the new environment. These factors heighten the risk of communicable diseases. Furthermore, on arrival the refugees may already be in a debilitated state from disease, malnutrition or fatigue.

3. The health services provided to the refugees should be based on the concept of primary health care. The general approach is summarized by WHO as follows. "Primary Health Care is essential health care made accessible to everyone in the country, care given in a way acceptable to individuals, families, and the community, since it requires 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, maternal 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." In other words, at the heart of such a strategy there is an emphasis on preventive, as against curative, care.

## 7.2 Organization of the health services

□ The health services must be developed with not just for the refugees.

□ Early emphasis should be on correcting environmental factors which adversely affect health.

□ Early appointment of a suitably experienced health coordinator to UNHCR's staff is important.

□ Outside assistance can be mobilized quickly, but the use and development of local expertise is preferable.

□ The national health authorities and services must be as closely involved as possible.

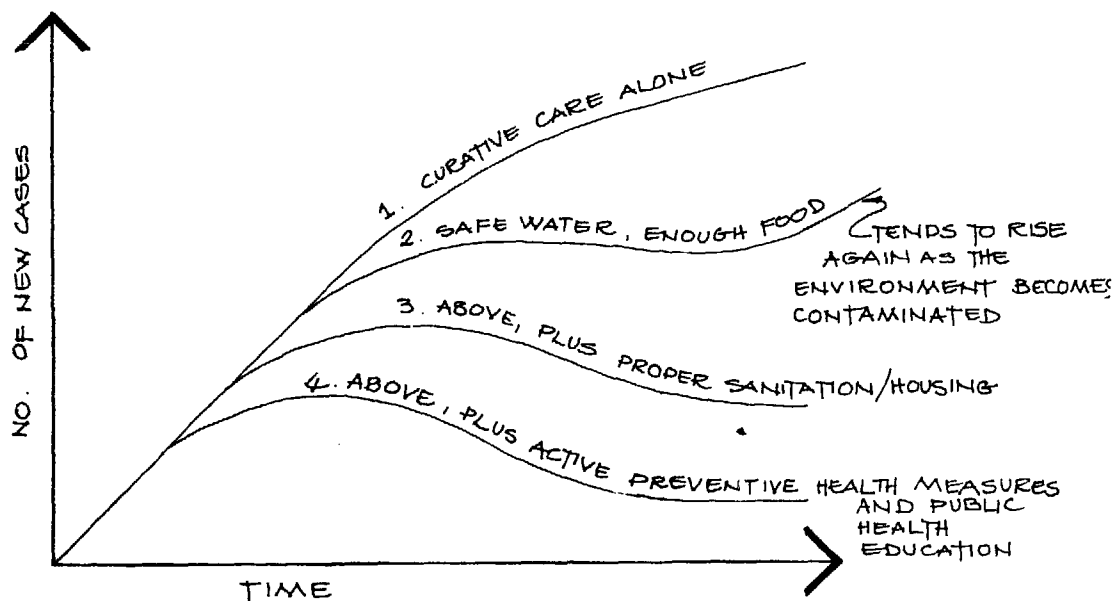
□ The world Health Organization must be closely involved.

1. At the start of an emergency, the first priority is to obtain information on the number of the refugees, their state of health and immediate needs, and an indication of their age/sex distribution. This information will help establish priorities for immediate action. These may well be the improvement of water and food supply rather than the provision of medical assistance.

2. The health services must aim, from the start, to prevent as well as cure illness; to make and keep the refugees healthy. The health of a community, and therefore of the majority of the refugees, is

generally more influenced by public health measures than by individual care. Only through preventive measures, combined with the control of communicable diseases, can good health be maintained and the number of new cases of disease be reduced. Safe water, environmental health measures, appropriate nutrition, communicable disease control, mother and child care, health education and training of the refugees are integral parts of refugee health care. Equally, the location of the site and the amount of individual living space will directly affect health. Figure 7-1 illustrates the likely relative impact of these measures.

3. The level of health care provided will be determined by the condition of the refugees and resources available. Extraordinary efforts may be necessary initially. Indeed in theory the peak of curative medical care should be at this early stage, when refugees are most vulnerable to their new environment with the health hazards it poses, and before it has been possible to complete any major public health improvements in the sectors of housing, water supply and sanitation. In practice the medical staff often arrive later and begin to build up curative services at just the time when there is the possibility of dramatic improvement in the over-



7-1 LIKELY RELATIVE IMPACT OF HEALTH MEASURES

all health status of the refugees if the emphasis is placed instead on preventive care. Once the immediate health problems are controlled the level of health care should broadly reflect what would be appropriate for the local population and must be one that can be maintained. Services and levels of care available to the refugees should be standardized.

4. Each refugee emergency will have its particular health needs and problems, and possibilities for response. The following broad headings cover considerations that are likely to be common: surveillance, reporting, control of communicable diseases and immunization, curative health care, the referral system, mother and child health, health education, medical supplies, and the personnel and organizational resources required to establish and operate the services, including the training of refugee health workers.

5. Community services such as curative health care, mother and child services, supplementary feeding programmes, social services, and health and nutrition education are clearly interrelated and must be co-ordinated. Circumstances will dictate how they should be arranged, for example whether around the health clinic or supplementary feeding centre. There are obvious advantages in grouping these services for the convenience of the refugees.

#### The refugees

6. 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, services should be developed and operated with rather than for the refugees. If not, the services will be less effective, may be distrusted by the refugees, and are likely to collapse when key outside personnel leave.

#### Personnel needs

7. Strong emphasis should be placed on the training and upgrading of medical skills of selected refugees, particularly in their former roles within the community: full account should be taken of the experience of the traditional healers and midwives. Provided there is proper supervision and referral where necessary, experience has demonstrated the advantages of encouraging traditional methods of health care in parallel with the other organized health services. Refugees may seek traditional treatments for a variety of problems which are beyond the capacity of outside services.

8. Even refugees with no prior experience can be very effective health workers following basic on-the-spot instruction in a few relevant tasks. It should be borne in mind however that the educated young refugee who is frequently drawn into medical work may often not enjoy the full confidence of other refugees; also time invested in his or her training should be weighed against the fact that if there is any third country resettlement, such people are typically among the first to go.

9. As a general principle, the order of preference for selecting health personnel, in co-operation with the national services, is:

refugees;  
experienced nationals or  
residents;  
outsiders.

Most emergencies will require some combination of these sources. An important consideration may be the government's attitude to foreign medical personnel, including such matters as the recognition of qualifications and authority to practice medicine.

10. In major emergencies, UNHCR will immediately seek the assistance of WHO in identifying a health co-ordinator, who will be a

key member of the UNHCR Representative's programme staff. The co-ordinator would be responsible for planning and developing appropriate health care programmes, establishing standards (see 7.2.18), monitoring the quality of the services and ensuring proper liaison and co-ordination with the health ministry and with other international organizations on health matters. Particular attention should be paid to the co-ordination of the activities of NGO and other non-national health teams. The creation of a health sub-committee within the overall NGO co-ordinating mechanism should be encouraged.

11. If outside medical assistance is required, Headquarters must be informed. Besides WHO, sources include the International Red Cross, (the ICRC can field medical teams at short notice and the local Red Cross/Crescent, which should anyway be involved from the start, can be strengthened through the LRCS, and, in case of war, through ICRC), governmental disaster organizations, and NGOs. Indications of suitable sources should be given by the Representative, for example an NGO already working in the country might be able to expand its health programme.

12. Any requests should be for specific types of health workers: not simply for so many doctors and nurses, but, for example, for staff with relevant experience as general practitioners, epidemiologists, or as specialists in public health, nutrition, tropical medicine, paediatrics, midwifery and health visiting, depending on priority problem areas. Experienced personnel with the right personality are more important than highly trained specialists, whose skills are often inappropriate. Familiarity with the local culture, patterns of disease, and the

public health services is as important as an advanced knowledge of medicine and medical techniques.

13. A particular requirement in a large emergency may be for a pharmacist, to co-ordinate all aspects of the provision of appropriate medical supplies (see 7.7). There may also be a need for an experienced health administrator, for example, to organize a vaccination campaign.

14. For international health workers three months is considered the absolute minimum period of stay for those with prior experience of refugee emergencies, and six months the minimum for others.

#### The national health authorities

15. Whatever the implementing arrangements, early involvement of the government's central, provincial and district health services is essential. To the extent possible, the services to the refugees should be integrated with national services. Direct co-ordination of certain treatment, immunization, communicable disease control and surveillance practices will be particularly important. Promoting the good health of the refugees is clearly in the interest of the local population.

#### Role of the World Health Organization (WHO)

16. There are WHO representatives <sup>1/</sup> in almost every country working directly with the health ministry. For normal operational matters in their country, they depend on the WHO Regional Director, while for emergencies they may deal directly with both their Regional Offices and WHO Headquarters. Because the major focus of its work is health programme development WHO has only limited financial resources available in a

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1/ Called either WPC (WHO Programme Co-ordinators) or NPC (WHO National Programme Co-ordinators).

refugee emergency, but is able to provide advice and guidance, mobilize specialists and, through its Supply Services in Geneva and certain emergency regional stocks, provide urgently needed medications and supplies with UNHCR funds. The response to the health needs of the refugees should be closely co-ordinated with WHO.

#### Organization of response

17. A possible hierarchy of health services is outlined in figure 7-2 overleaf. It assumes a large-scale emergency which engages a very large number of health personnel, both national and international. A smaller influx will require fewer levels of organization. In such cases one health administrator in the capital can service a team which is otherwise exclusively deployed in the settlements and in reinforcing existing local health facilities. The indication of numbers of staff needed as a ratio of the caseload is no more than that, an indication. Actual numbers will depend on the health needs, the degree of isolation of the settlements and so on. There is often a minimum staffing need as even in a small settlement it is sometimes difficult to get by with less than two senior health workers.

18. Once the pattern of disease and overall needs have been determined, guidelines on standard procedures for health workers should be prepared. These should cover all aspects of the services, including such subjects as the basic principles, how the services are to be organized, including any selective feeding programmes, standardized treatment schedules, drug lists and supply, vaccination and reporting. The guidelines should be prepared by the UNHCR health co-ordinator in consultation with all concerned, issued under the aegis of the health ministry if possible, and reviewed periodically, for example by a health co-ordination sub-committee. The guidelines should be

translated into the language of the community health workers. All organizations providing health care to the refugees should be required to observe the guidelines, which should also specify the minimum period of stay for international health workers. An example of such guidelines is listed in the further references at the end of this chapter.

#### 7.3 Health assessment 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

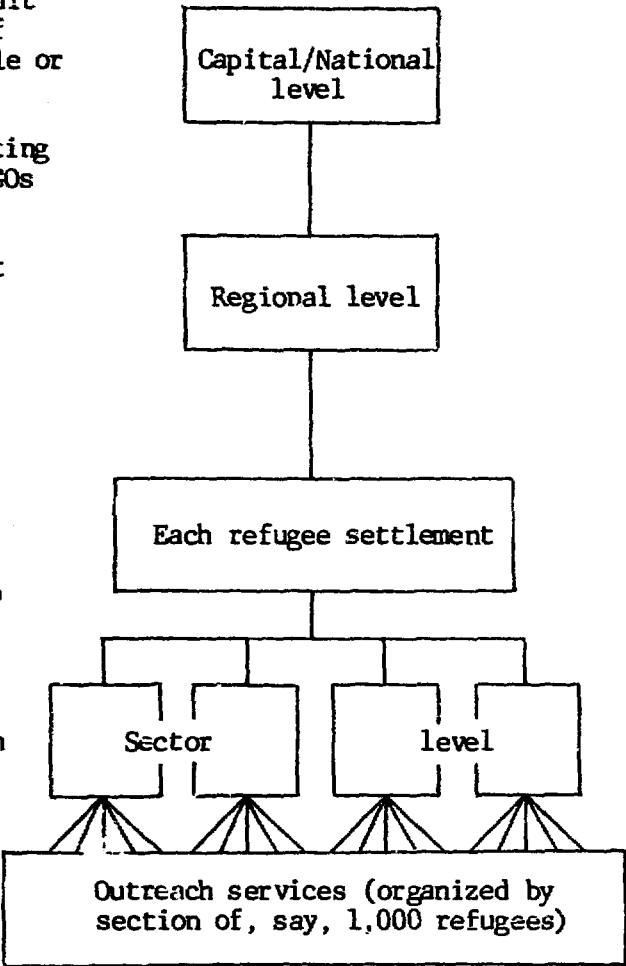
1. The aim of the initial health and nutritional assessment is to identify needs and establish priorities. The factors contributing to health or disease in the refugee community must be determined by establishing the pattern of disease, the effect of the cultural and social influences on the refugees' health, and the effectiveness of any existing health services. This assessment is called epidemiology.

2. Much information can be collected by observation, for example on the adequacy of the water supply and sanitation. Health workers are an obvious further source of information. Sample surveys will reveal symptoms and disease patterns and indicate distribution in the community. Where possible, mass screening on arrival is the most effective method of initial assessment. At least at first, many sick refugees will be unaware or shy of the health services.

7-2 - Possible organization of health services in a major emergency

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<u>Unit/Location</u>	<u>Health staff</u>	<u>Outline of major responsibilities</u>
Refugee Health Unit (with Ministry of Health if possible or as part of UNHCR programme team). Health Co-ordinating Committee with NGOs	UNHCR Health Co-ordinator Health professionals Nutritionist Pharmacist Health Administrator	<ul style="list-style-type: none"> <li>- Planning and implementing programmes</li> <li>- Preparation of guidelines on standard procedures</li> <li>- Overall co-ordination and supervision</li> <li>- Procurement and supply of drugs and equipment</li> </ul>
Regional/district Hospital	If necessary: say, 1 doctor, 2 nurses to help existing staff (plus material support if required, especially drugs)	<ul style="list-style-type: none"> <li>- Complicated maternity cases and surgical emergencies on referral from settlement</li> </ul>
Health Centre (with limited beds for overnight stay, say, 1/5,000 refugees)	Say, 2 doctors, 8-10 nurses/20,000 refugees (of whom 1 doctor in centre and 1 covering sector level, plus 1 nurse/sector)	<ul style="list-style-type: none"> <li>- Supervision of settlement health services including training health workers and any selective feeding programmes</li> <li>- Treatment/referral of cases not handled at sector level</li> <li>- Security, distribution and use of drugs</li> </ul>
1 clinic for each sector of, say, 5,000 refugees	Say, 1 nurse (from above) and 2-3 refugee or national health workers per sector	<ul style="list-style-type: none"> <li>- Sector level services, both preventive and curative</li> <li>- supervision of outreach services</li> </ul>
The community	Refugee community health workers	<ul style="list-style-type: none"> <li>- Identification of public and individual health and nutritional problems, treating simple, referring more difficult cases</li> <li>- Home visiting</li> <li>- Mother and child care</li> <li>- Basic surveillance and health education</li> </ul>



- Health -

Therefore an initial screening, in the rare cases when the relief workers arrive at a site before the refugees, may be the only early chance to reach some potential patients. This can be done at the same time as the registration on arrival. (See ch.12.6.7) Health workers should make a quick examination checking in particular for communicable diseases. They should refer any sick person for treatment; it is usually impractical to try to give treatment in the screening line itself.

3. A swift response is vital, but to be effective the initial assessment should be made by one or more experienced persons with an understanding of epidemiology. Relevant practical experience is important. 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 Headquarters if necessary.

4. Figure 7-3 overleaf illustrates some management considerations for action in light of the initial assessment.

#### Surveillance

5. A surveillance system must be established quickly. Careful and controlled monitoring of health and nutritional status is essential if problems are to be identified in time for preventive action. As an example, the incidence of diarrhoeal diseases may be an important pointer to environmental problems. Although the health status of the settlement should improve as public health services start to function adequately and the refugees adjust to their new environment, seasonal variations in the incidence of disease will remain because changes in temperature, and the rainy season in particular, will have an impact on health. So a vigilant surveillance system must be maintained. Continued monitoring of the health status and dis-

ease patterns will allow the health services to be adjusted and resources reallocated as necessary. The form of this surveillance, the data required, who will interpret it and how to ensure action on the results will be matters for early, and expert, decision. Only simple arrangements are effective in emergencies. The system should be centrally co-ordinated.

6. If the initial assessment or subsequent reports indicate specific deficiencies or communicable diseases, special measures must be taken to organize specific surveys by persons with appropriate experience.

#### Records and reporting

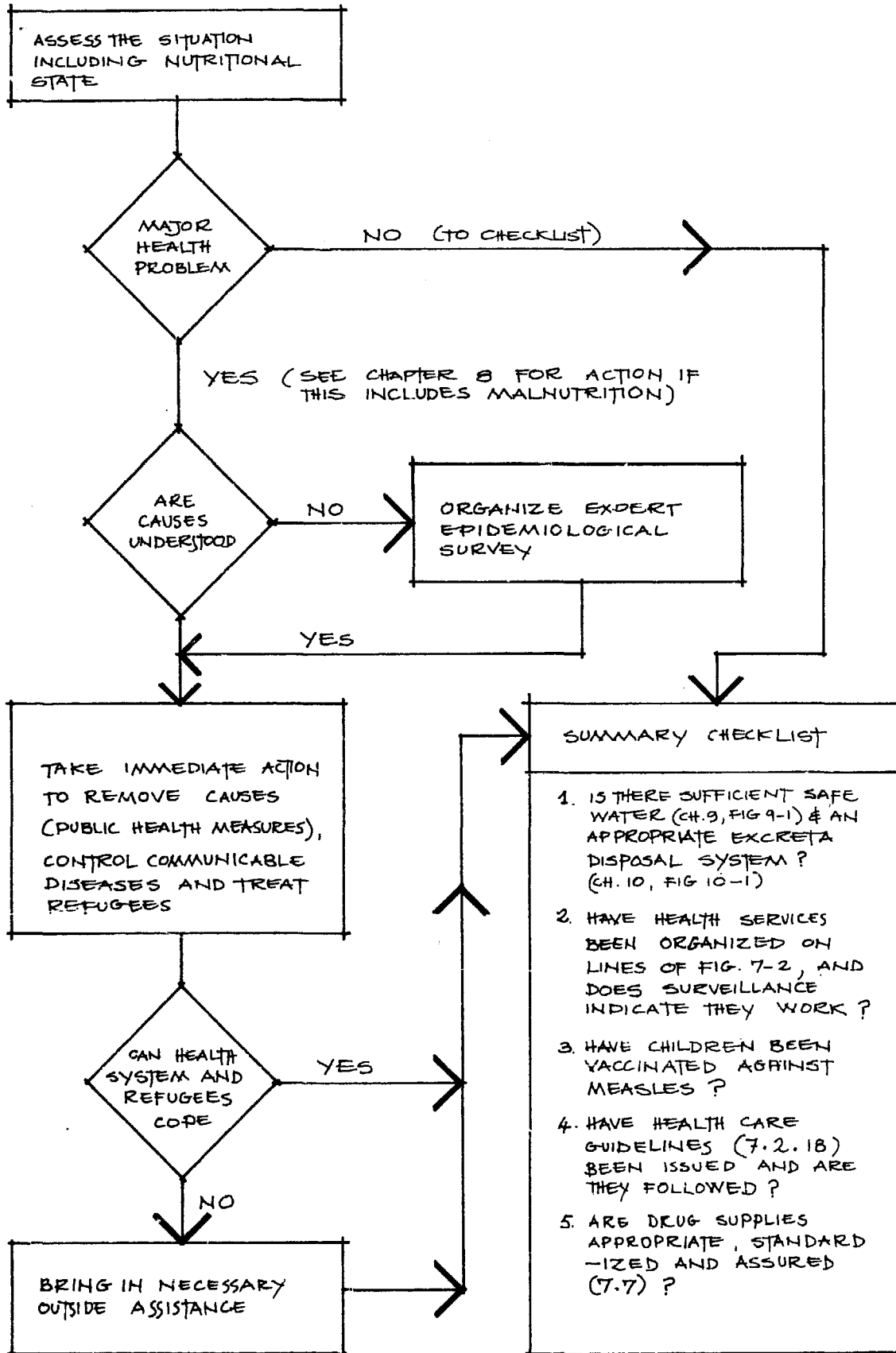
7. Records take two forms: on individuals and on the community as a whole. The purpose of each is different. Individual record cards will be needed for recording immunizations and the treatment of illnesses. These cards should usually be kept by the refugees and in the case of young children by the mother. Experience has shown that the cards will generally be well cared for. Community reporting has a different purpose. It is an essential tool for the planning of services and the monitoring of disease patterns. Statistical data on the numbers of cases identified and treated should be regularly collected and analysed. A simple standard reporting form is suggested in annex 1. This will ensure standardized reporting from different settlements. National health authorities require specified "notifiable" communicable diseases to be reported at once.

#### Laboratory services

8. To be fully effective, surveillance requires rapid access to laboratory services, but the refugees are often remote from such facilities. This is a problem that should be raised with the national health authorities at an early stage. Very simple laboratory ser-

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7-3 ASSESSMENT AND RESPONSE





vices at the site level are usually adequate.

#### 7.4 Disease control

□ The conditions likely to be encountered, particularly overcrowding, will encourage the spread of communicable diseases.

□ The aim is to prevent, detect, control and treat disease.

□ Improvement in environmental conditions will play a major role in prevention.

□ Avoid mass immunization in the emergency phase, except against measles.

□ After the emergency phase, children should be immunized within the framework of the national immunization programme.

□ Specifically medical emergencies such as epidemics require an immediate on-the-spot expert assessment and close co-ordination of the response with the national authorities and WHO.

1. The risks of communicable (infectious) diseases are increased in a refugee emergency by overcrowding and poor environmental conditions and often further exacerbated by the debilitated state of the refugees. There is, for example, a close association between malnutrition and the effects of communicable disease, particularly childhood diarrhoea. It is however, important to realize that the infectious organism has to be present to spread: for example, if no one is carrying typhoid, it will not suddenly appear.

2. Measures to improve environmental health conditions are therefore very important: enough safe water, soap, proper disposal of excreta and garbage, rodent and

vector control and general public health education and awareness.

3. Expert advice is essential for communicable disease control and the management of epidemics. Some communicable diseases have a seasonal pattern and timely preventive measures must be taken.

#### Immunization

4. There is often considerable pressure for an immediate mass immunization programme. There are strong reasons, both medical and practical, why this should be resisted. The most common causes of disease and death in the emergency phase are generally infections, often aggravated by malnutrition, that cannot be effectively prevented by immunization. Mass immunization programmes require large numbers of workers, the handling of vaccine in controlled refrigerated conditions and careful supervision, all of which are difficult, and not necessarily the best use of resources even when these are available.

5. The only immunization indicated in the early weeks of an emergency is of young children against measles. This is a high priority even when resources are scarce.

6. All other necessary immunizations (for example, DPT, Polio and BCG) should usually only be given later once facilities allow, and to the extent possible within the framework of the government's own expanded programme of immunization (EPI). Details of immunization schedules and vaccine storage are given in annex 2.

#### Common diseases

7. The most commonly occurring symptoms and diseases among refugees are generally not far removed from those normally to be expected in any community in a developing country. diarrhoea, nutritional deficiencies, respiratory infections, malaria, worms, anaemia and genito-urinary problems. However

the artificial crowded conditions are likely, at least initially, to cause a higher than normal incidence of these diseases. In particular diarrhoea, as a consequence of a new environment, unfamiliar density of population and poor environmental services, usually poses the major threat to refugee health in the first weeks of a settlement's life. It remains a

major risk should there be a sudden deterioration in some aspect of the communal services, such as contamination of the water supply. The more common of these diseases are outlined in table 7-4 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.

7-4 Common diseases

<u>Disease</u>	<u>Major contributing factors</u>	<u>Preventive measures (1)</u>
1. Diarrhoeal diseases	Overcrowding, contamination of water and food.	Adequate living space, public health education, good personal and food hygiene, safe water supply and sanitation as specified in chapters 6-10.
2. Measles	Overcrowding.	Minimum living space standards as defined in chapter 6. Immunization of children 9 mths to 5 yrs.
3. Respiratory diseases	Poor housing, lack of blankets and clothing.	Minimum living space standards and proper shelter (chapter 6), adequate clothing, sufficient blankets.
4. 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, larva and adult mosquitoes by spraying. However the success of vector control is dependent on particular mosquito habits and local experts must be consulted. (See ch.10) Provision of mosquito nets. Drug prophylaxis only for those (e.g. young children) who otherwise might die on first attack, rather than start to develop immunity.

(1) Malnutrition increases vulnerability to serious attacks of all these illnesses; proper feeding is thus effectively a preventive measure.

<u>Disease</u>	<u>Major contributing factors (1)</u>	<u>Preventive measures (1)</u>
5. Meningococcal meningitis	Overcrowding in areas where disease is endemic (often has local seasonal pattern).	Minimum living space standards (chapter 6). Immunization only after expert advice when surveys suggest necessity. Immunity is only achieved after a week.
6. Tuberculosis	Overcrowding.	Minimum living space standards (chapter 6) but where endemic will remain a problem.
7. Typhoid and cholera	Overcrowding. Poor personal hygiene, contaminated water supply, inadequate sanitation.	Minimum living space standards, safe water, proper sanitation (chapters 6, 9 and 10). WHO does <u>not</u> recommend vaccination; it offers only low, short-term individual protection and little or no protection against the spread of the disease. Good personal, food and public hygiene and public health education are the most effective measures.
8. Worms especially hookworms	Overcrowding. Poor sanitation.	Minimum living space standards, proper sanitation (chapters 6 and 10). Good personal hygiene. The wearing of shoes.
9. Scabies (skin disease caused by burrowing mites)	Overcrowding. Poor personal hygiene.	Minimum living space standards, enough water and soap for washing (chapters 6 and 9).
10. Xerophthalmia (child blindness)	Vitamin A deficiency. (Xerophthalmia is often precipitated by measles or other acute infections.)	Adequate dietary intake of vitamin A. If not available, provide vitamin A fortified food. If this is not possible, vitamin A capsules. Immunization against measles.
11. Anaemia	Malaria, hookworm, poor absorption or insufficient intake of iron and folate.	Prevention/treatment of contributory disease. Correction of diet including food fortification.
12. 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.

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## 7.5 Refugee health care

- Diagnostic techniques and the treatment of the major acute diseases should be simplified, standardized and appropriate.
- Most health problems do not need sophisticated care or treatment and should be provided through health centres and clinics within the community, and to the extent possible, by health workers from the community.
- Health workers must spend time among the community, not simply wait in clinics for sick persons to come to them.
- Pregnant and lactating women and young children are vulnerable and special attention must be given to their needs.

1. Refugee health care must embrace both preventive and curative measures. The need for and scope of the latter will vary with each emergency and will depend on the degree of prevention achieved.

2. Particularly where several organizations are involved, close attention must be paid to ensuring a common standard of appropriate health care and a fair distribution of available services both within and among sites. Opinion as to treatment can vary; thus centrally developed and clearly understood standardized treatment schedules are essential, and will also be of great importance to the training programme and in avoiding confusion among local and refugee health workers. Hence the importance of the guidelines described in 7.2.18. Where qualified personnel are scarce and confirmed diagnosis not possible, the standard treatment should be given for the presenting symptoms. Unless treatment is administered on the spot, clear oral and written guidance on dosage and schedule must be given

to each patient in his or her language.

3. All concerned should be aware that treatment inappropriate to the needs and circumstances may not only be useless and wasteful, but can have an important negative effect on the refugees' attitude to health care and preventive measures. Examples are the fostering of the belief that only injections, rather than tablets, are effective, that intravenous fluids are better than oral rehydration, or that imported milk rather than breast-feeding can save the malnourished baby.

### Triage

4. This is the selection and classification of the sick and wounded patients for attention in the face of overwhelming needs and insufficient resources. The aim is to provide priority assistance to those most likely to benefit. While it is a likely requirement after a severe natural disaster or in times of conflict, triage is rarely necessary in refugee emergencies. If there is a need for triage, classification is usually by three categories: those who cannot benefit from the treatment available under the emergency conditions and are therefore not treated, the seriously ill or injured, who should be attended to first; and those who, after initial first aid, can wait for medical attention until after the second category. The selections must be made by the most experienced health worker available but the administrator may well need to impress on the health staff the vital importance of a triage system.

5. In many emergencies some 75-90% of patients present with minor ailments, which in most cases will cure spontaneously. These patients should not be treated at all during emergencies if, as is likely, resources are scarce. Public health measures will probably reduce the incidence of such minor ailments.

### The provision of health care

6. 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 major health centres will be swamped by refugees demanding treatment for simple conditions. Thus what is required is a community-based health service that both identifies those in need of health care and ensures that this is provided at the appropriate level. Close co-ordination with other community services is essential.

7. The first level is therefore the community health worker, responsible for a section of the refugees and working among them, home visiting, case finding and following up, and responsible for the basic community-wide preventive measures, including public health education. The community health worker, who should be a refugee, with the appropriate training, would identify health and nutritional - and often social - problems and if simple on-the-spot treatment was not possible, refer patients to the clinic. Refugees will, of course, also present directly at the clinic but it is important to realize that some of those most in need will not go to the clinic, and that the diseases of those who do may not reflect the most common problems in the community.

8. As a general guide, one clinic might be appropriate for every 5,000 refugees in crowded conditions but otherwise in reasonably good health. This should be a simple building with facilities for consultation, clinical procedures such as dressings and injections, a small lock-up pharmacy, simple equipment and sterilization facilities (electricity may not be available). Water and sanitation are essential services at all health facilities.

9. In support of the clinics, there should be a health centre for each refugee settlement. Very large settlements may require more than one, while for small settlements, a single health centre/clinic may suffice. The health centre should be able to handle all but the most complicated maternity cases and surgical emergencies. More facilities should be available than at the clinics, including basic laboratory services and a few beds for overnight observation, perhaps in the order of one per 5,000 refugees.

10. An indication of the numbers of health staff required is given in figure 7-2 on page 76. Referral of the relatively few cases that cannot be treated at the health centre level is covered in the next section (7.6).

### Mother and child health

11. In a normal community, children, especially those under five, and pregnant and lactating women are recognized as being vulnerable to malnutrition, infection and other health problems. In a refugee emergency the risks are greatly increased and health services should provide particular care and supervision for these women and children. This should be integrated with any supplementary feeding programme. Details of this, and important information on correct infant feeding, are given in chapter 8.

12. As soon as schools are established, special health programmes should be arranged for the pupils.

13. The need for and nature of dental programmes should be considered once resources allow. The promotion of oral hygiene and preventive dental treatment is of greater benefit than individual dental work. The use of simple traditional methods such as chew sticks and tooth picks is more appropriate than the introduction of tooth paste and brushes.

14. Family planning information should be available. After proper education suitable temporary methods of contraception (child spacing) should be provided on a voluntary basis ensuring that the refugees understand their free choice in the matter.

#### Health education

15. The importance of health education is perhaps more widely recognized than are the difficulties in persuading those most at risk to change long-established habits, however compelling the case for such a change may appear to outsiders. At least in the emergency phase, the priority topics should be those directly related to the immediate public health problems, for example the disposal of human excreta and refuse. Many governments and organizations produce simple health education materials that may be useful. Trained teachers and respected elders from the refugee community are likely to be more effective than outsiders in communicating the basic principles and practices of health to their own people.

#### 7.6 Referral services

The health centre must be able to refer patients to hospitals for treatment.

This treatment should be made available in local hospitals if possible.

Arrangements must be made to provide suitable transport to and from the hospital.

1. In order to ensure that patients who cannot be cared for or treated at the site health centre receive the necessary attention, an effective referral system to a hospital or rehabilitation institute is required. Unless there are large numbers of injured, once settlement health services have been established the numbers of such patients should not be high.

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

2. At least in the emergency phase, such referrals should only be to save lives.

3. Referral to the nearest national hospital should be the aim; this has obvious advantages, not least that of immediate availability. Close and direct co-ordination with the district medical officer is essential. The possibility of expanding the existing hospital(s), for example with tents in the grounds and additional health personnel, should be considered. Care must be taken not to swamp the hospital. Facilities at the hospital must also provide for the needs of relatives and allow parents to be with young children. Financial and material support should be provided as necessary. For example, if Emergency Health Kits (see 7.7) are dispatched some of the drugs might be placed at the disposal of the hospital treating refugees.

4. Special refugee hospitals should be avoided if at all possible. They are skilled-labour intensive but provide only curative services, can rarely continue to be properly run once outside support is withdrawn, and are in any event unlikely to be appropriate to the longer-term needs. Once established they are extremely difficult to close. Thus such hospitals should only be provided if a clear and continuing need exists that cannot be met by existing or strengthened national hospitals. Where such a hospital is unavoidable priority consideration should be given to the local construction of a simple appropriate structure, to be staffed and equipped to a level determined by the local pattern of disease and likely demand rather than a theoretically possible need for highly specialized treatment. From the start, planning of such a hospital

must take account of environmental factors such as sanitation, the disposal of hospital waste, security of drugs and supplies, and the provision of latrines. Hospital floors should be solid, washable and well-drained.

5. The number of hospital beds required will depend on the state of health of the refugees. As an indication only, one bed might be required per 2,000 refugees in the early stages of an emergency. Again as an indication only, a refugee hospital with 50 beds might require two doctors and six nurses plus auxiliary support.

6. Field hospitals may be offered. While this is an alternative to be considered in certain circumstances, for example a major expansion of a local hospital through a field hospital in the grounds, field hospitals may have several limitations including delays in establishment and cost (especially transport), and can be technologically inappropriate. Often over-sensitive equipment or equipment dependant on outside sources of power cannot be made to work. A field hospital is rarely a satisfactory way of meeting a continuing need. It should also be recognized that because of their great public relations value, donors encourage such hospitals even when unsuitable.

7. Refugee emergencies are not usually characterized by large numbers of injured. However, when this is the case there may be an initial requirement for the rapid deployment of a surgical unit. Such a need will generally be self-evident, and such units are normally quickly available, for example through ICRC.

8. Whatever arrangements are made for hospital treatment and referral, suitable transport must be available.

## 7.7 Medical supplies

Drugs should be limited to a few basic standardized items.

Special emergency kits have been developed on this principle for immediate needs and should be requested if local sources are inadequate.

Vaccine requires careful handling. It should be obtained locally against subsequent replenishment if possible.

Unsolicited medical supplies are often unsuitable and should be subject to clearance prior to dispatch.

1. Emergency supply arrangements should draw on in-country resources and distribution channels to the extent possible. However, initially special arrangements may be necessary. Unplanned response can lead to long and inappropriate requests, often by brand rather than generic names. Experience has shown that what is needed are adequate quantities of a few basic drugs and a strict control of unsolicited donations. WHO and UNHCR have drawn up standard lists of drugs and equipment for use in emergencies to meet this requirement. The lists cover some 30 basic drugs/preparations for use by health workers, some 35 drugs/preparations for use by doctors and senior health workers, and basic medical equipment. Together they comprise the contents of the Emergency Health Kit. The lists should be amended as necessary in light of local conditions, using only drugs in the current report of the WHO Expert Committee on the Selection of Essential drugs (see page 88), and then adopted as the standard medical supplies for health care in the emergency.

2. When local sources cannot meet the initial demand for medical supplies, the Emergency Health Kit can be obtained in prepacked form at short notice. One kit

theoretically covers the needs of 10,000 refugees for three months. Details of the kit and a number of related practical considerations are given in Part 2 and are also available separately from UNHCR and WHO (see page 88). As soon as Representatives, in consultation with the local health authorities, WHO and the operational partner, consider that the kits may be required they should cable a request giving details, including the number of kits needed and destination. The fact that one kit can effectively cover the needs of 30,000 for one month as well as 10,000 persons for three months should be borne in mind when considering the number of kits needed. Attention is also drawn to the UNIPAC catalogue which contains certain specialized kits (e.g. midwifery).

3. Once immediate material needs are assured, arrangements should be made by the operational partner responsible for health services to the refugees for a regular supply of appropriate quantities of the standard medical supplies. These are generally available locally and this is the preferred source, but if necessary, consideration should be given to bulk ordering abroad, as substantial savings may be possible. It should be noted that the Emergency Health Kits are intended to meet initial needs only, pending these arrangements, and not for resupply. Re-ordering procedures should be standardized and centralized. In a major emergency this will be a full-time task for a pharmacist. Requests for overseas procurement should be made through, or co-ordinated with, Headquarters, who in turn will maintain close co-ordination with WHO, UNICEF, ICRC, LRCS and other potential suppliers or donors to avoid duplication.

4. When necessary vaccine should be borrowed from local stocks if available, against subsequent replenishment. The WHO Representative or medical co-ordinator will advise on this and also on any regional availability of WHO stocks (for example, in Africa there are stocks in the WHO stores at Brazzaville, Dakar, Kinshasa, Nairobi and Niamey). If it is apparent that immediate overseas supply is necessary, UNHCR Headquarters should be informed by cable. Whatever the source, most vaccines require refrigeration and careful handling if they are to remain effective. The transportation links from manufacturer to individual immunization are known as the "cold-chain". The national health authorities' network of cold-chains should be used to the extent possible, but these may not extend to the vicinity of the refugees, without a cold-chain the immunization programme will fail. Time/temperature indicator cards should be ordered and kept with the vaccines. Further information on vaccines is given in annex 2.

5. Medical supplies will require tight security control to prevent misuse and theft.

6. Donations of unsolicited drugs may be a problem in an emergency. Quantities and quality may vary greatly; typical donations are small quantities of mixed drugs, free samples, expired medicines, inappropriate vaccines, and drugs identified only by brand names or in a foreign language. One of the health administrator's most important functions may be to say "No". UNHCR's policy is that overseas medical supplies should be sent only in response to a specific request or with prior clearance; locally, the WHO Representative, diplomatic missions and all others concerned should be briefed accordingly.



Further references (1)

- |   |  |  |
|---|--|--|
| Benenson A.S. (ed)<br>(1980)            | <u>Control of Communicable Diseases in Man</u><br>Standard reference book for a wide variety of communicable diseases and their control. Discusses disaster implications of each.<br>(Also in French, Portuguese and Spanish).   | American Public Health Association<br>13th edition |
| Cairncross S.<br>Feachem R.<br>(1983)   | <u>Environmental Health Engineering in the Tropics: An Introductory Text</u><br>A copiously illustrated introduction to the principles and practices of tropical environmental health.   | Wiley, John  |
| Centers for Disease Control (1981)      | <u>Assessment and Surveillance of Health Problems: Refugee Populations</u><br>Written primarily for CDC epidemiologists but a useful guide for general health personnel, nutritionists and environmental health workers.<br>Provisional version, first edition expected in 1983. | US Public Health Service                           |
| International Disaster Institute        | <u>Disasters Volume 5 No. 3</u><br><u>Medical Care in Refugee Camps</u><br>Covers a wide variety of public health topics.  | IDI  |
| King M & F<br>Martodipoero S.<br>(1981) | <u>Primary Child Care</u><br><u>Book One: A Manual for health workers</u><br>Comprehensive child care in simple language with many illustrations.<br><u>Book Two: A Guide for the Community Leader, Manager and Teacher.</u>   | Oxford University Press/WHO                        |
| PAHO (WHO)<br>(1981)                    | <u>Emergency Health Management after Natural Disaster</u><br>A guide for decision makers and senior administrators that contains much that is relevant to refugee emergencies.<br>(Also in Spanish)  | PAHO Scientific Publication No.407                 |
| PAHO (WHO)<br>(1982)<br>(Western K.A.)  | <u>Epidemiologic Surveillance after Natural Disaster</u><br>Also relevant to refugee emergencies.<br>(Also in Spanish)   | PAHO Scientific Publication No.420                 |
| PAHO (WHO)<br>(1982)                    | <u>Environmental Health Management after Natural Disaster</u><br>Also relevant to refugee emergencies, particularly with regard to immediate action in temporary settlements where very high population density is unavoidable.<br>(Also in Spanish)                             | PAHO Scientific Publication No.430                 |

(1) See also the further references at the end of chapters 8, 9 and 10, only some of which are repeated here.

- Health -

- |   |  |   |
|---|--|---|
| Simmonds S.<br>Vaughan P.<br>Gunn S.W.<br>(1983)            | <u>Refugee Community Health Care</u><br>Comprehensive guidance on planning,<br>management and delivery of refugee<br>health services.  | Oxford University<br>Press                            |
| Simmonds S.<br>Gabaudan M.<br>(1982)                        | <u>Refugee Camp Health Care: Selected<br/>Annotated References</u><br>A companion to above   | Ross Institute<br>Publication No.14                   |
| Somali Ministry of<br>Health, Refugee<br>Health Unit (1982) | <u>Guidelines for Health Care</u><br>A good example of guidelines of the<br>sort referred to in 7.2.18.  | Third edition,<br>printed in booklet<br>form by Oxfam |
| Werner D.<br>(1980)   | <u>Where There is No Doctor</u><br>A very practical village health care<br>handbook with many illustrations.<br>(Also in Khmer, Portuguese and Spanish).   | Macmillan   |
| UN (1977)   | <u>A Guide to Food and Health Relief Operations<br/>for Disasters</u><br>(Also in French and Spanish)  | Protein-Calorie<br>Advisory Group of<br>the UN        |
| de Ville de Goyet C.<br>Seaman J.<br>Geijer U.<br>(1978)    | <u>The Management of Nutritional Emergencies<br/>in Large Populations</u><br>Essential reading<br>(Also in French and Spanish)   | WHO   |
| WHO (1982)  | <u>Control of Vitamin A Deficiency and<br/>Xerophthalmia</u><br>(Also in Arabic, French and Spanish)   | Technical Report<br>Series 672                        |
| WHO (1982)  | <u>The Emergency Health Kit</u><br>Lists of basic drugs and supplies with a<br>high probability of being required in any<br>refugee emergency. Includes quantities for<br>10,000 persons for 3 months and possible<br>standard treatments.<br>(Developed jointly with UNHCR) | WHO   |
| WHO (1980)  | <u>A manual for the Treatment of Acute Diarrhoea</u><br>(Also in French and Spanish)   | WHO/CCD/SER.80.2                                      |
| WHO (1979)  | <u>The Selection of Essential Drugs</u><br>Second report of the WHO Expert Committee<br>Third report expected in 1983.<br>(Also in French and Spanish)   | Technical Report<br>Series 641                        |
| WHO (1981)  | <u>The Treatment and Management of Severe<br/>Protein-Energy Malnutrition</u><br>(Also in French and Spanish)  | WHO   |

Example of a Standard Monthly Refugee Health Surveillance Report (1)

Serial no. of report .....

Location of refugees ..... Month ..... Year .....

Name of reporting officer .....

1. Refugee population

- (1) Total (end of last month) ..... +
- (2) New arrivals (this month) ..... +
- (3) Births                 "                 ..... +
- (4) Deaths                "                ..... -
- (5) Left                    "                ..... -
- (6) Total (end of this month) ..... =

2. Numbers of health personnel directly working with refugees (2)

- (1) Doctors .....
- (2) Nurses .....
- (3) Midwives .....
- (4) Sanitarians .....
- (5) Nutritionists .....
- (6) Medical technicians .....
- (7) Community Health Workers .....
- (8) .....
- (9) .....
- (10) .....

7

(1) A separate report should be made for each major location of refugees. A copy of any corresponding monthly report by the national health authorities should be attached.

(2) Add others as applicable, e.g. traditional health workers, dentists, ophthalmic personnel. Indicate those who are refugees.

3. Mortality

Possible cause/ category (3)	Age					Total
	under 1 month	1-11 months	1-4 years	5-14 years	15+ years	
Diarrhoea						
Measles						
Malaria						
Trauma/ accident						
Neonatal						
Maternal						
Total						

(3) Add others as necessary. The object is to list deaths which may reflect on effectiveness of health care programmes.

4. Morbidity

Number of individual cases seen at all health centre(s) with one of the following headings as the major presenting condition. Record the first visit for this condition only, i.e. number of new cases.

Symptom/Disease (4)	Number	%
1. Fever, no cough		
2. Fever + cough		
3. Fever + chill		
4. Diarrhoea, no blood		
5. Diarrhoea, + blood		
6. Measles		
7. Whooping cough		
8. Eye infection		
9. Skin disease		
10. Venereal disease		
11. Malaria		
12. Dental		
13. Trauma/accident		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
Total		100%

7

5. Data on communicable disease control programmes, for example:

Tuberculosis

Number of patients under treatment (end last month)	..... +
Number new patients (this month)	..... +
Number patients discharged after full treatment (this month)	..... -
Total number patients registered for treatment (end this month)	..... =
of whom percentage attending regularly	..... %

(4) Add other specific diseases e.g. schistosomiasis (bilharzia) as necessary. The object is to monitor effectiveness of public health measures.

6. Supplementary feeding

Category (5)	No. enrolled (end last month)	Admissions (this month)	Discharges (this month)	Total (end this month)	Attendance rate %
Malnourished (under 80% weight/height)					
Other young children (under 115cm tall)					
Pregnant					
Lactating					
Medical referrals					
Total					

(5) Add other categories within vulnerable groups as appropriate.

7. Therapeutic feeding

Category	No. enrolled (end last month)	This month			Total (end month)
		Admissions	Discharges to SFP/ hospital	Left although not discharged	
Marasmus (no oedema)					
Oedema					
Others (e.g. medical or siblings)					
Total					

8. Remarks: (summary assessment of overall situation, roles of agencies, surveys, particular problems, remedial action taken or envisaged, timescale, visiting health personnel during month, etc.)

7

Immunization and Vaccines

Suggested immunization timetable

<u>Vaccine (1)</u>	<u>Age</u>
BCG	At birth
DPT 1st dose Polio 1st dose	2-3 months
DPT 2nd dose Polio 2nd dose	At least 4 weeks after the first dose
DPT 3rd dose Polio 3rd dose	At least 4 weeks after the second dose.
Measles (2)	<u>As soon as possible after 9 months</u>
DT	When the child goes to school.

Temperature requirements for vaccine storage (3)

LEVEL: MAXIMUM STORAGE TIME:	CENTRAL STORE up to 8 months	REGIONAL up to 3 months	HEALTH CENTRE up to 1 month	TRANSPORT up to 1 week
MEASLES (4) ORAL POLIO (4)	Deep frozen -15°C to -25°C			
DPT (5) TETANUS TOXOID (5) BCG (4)	+4°C to +8°C maximum			

(1) BCG for protection against tuberculosis; DPT against diphtheria, pertussis (whooping cough) and tetanus; DT against diphtheria and tetanus.

(2) Immunization of young children against measles is a priority in a refugee emergency. The vaccine can be given simultaneously with DPT and polio vaccines.

(3) Storage times are maximum figures - remember to check expiry dates. Time/temperature indicator cards should be kept with the vaccines. The cards can be ordered separately if they are not supplied with the vaccine.

(4) The live virus vaccines are sensitive to sunlight - avoid direct exposure.

(5) Never freeze DPT or TETANUS (which both freeze at temperatures below -3°C).



## CHAPTER 8: FOOD AND NUTRITION

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## CHAPTER 8: FOOD AND NUTRITION

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### Need

In an emergency refugees will need partial or complete food support. Some may need nutritional rehabilitation.

### Aim

To provide the refugees with sufficient quantities of appropriate food to maintain their health 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.
- Specialist nutritional advice should be available.
- Whenever possible use familiar foods that meet nutritional needs and maintain sound traditional food habits.
- Organize food distribution to allow families to prepare their own meals if possible.
- Pay particular attention to infant feeding and the needs of children and others vulnerable to malnutrition.
- Maintain close co-ordination with the health and other community services.

### Action

- Assess the 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 additional selective feeding programmes to meet the extra needs of the vulnerable and/or malnourished if necessary.
  - Monitor the effectiveness of the feeding programme(s).
-

## 8.1 Introduction

1. In an emergency refugees may be completely dependent on external food sources. Their numbers and condition must be assessed as soon as possible. The types of programmes needed will be determined by this initial assessment. Continuous monitoring of nutritional status will ensure the emphasis between programmes is adjusted to reflect changing conditions.

2. Co-ordination of the feeding programme(s) with the health and other community services is essential.

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

4. Certain groups are more vulnerable to malnutrition than others. These include infants, children, pregnant and lactating women, the sick and the elderly. Special action is required to identify the malnourished and vulnerable and 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 of their condition and needs.

5. If the refugees are already suffering the effects of severe food shortage, immediate action must be taken to provide whatever food is available locally and acceptable to the refugees. The first priority is to meet energy, rather than protein requirements. The supply of a bulk cereal is the first objective of the general feeding programme. 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.

6. A summary of basic facts about food and nutrition is given at the end of this chapter together with a brief description of protein-energy malnutrition. Particularly where there is malnutrition, this chapter should be read in conjunction with "The Management of Nutritional Emergencies in Large Populations" (WHO).

## 8.2 Organization of food support

WFP should be closely involved in meeting food needs.

Co-ordination and a clear definition of responsibilities are essential.

A single organization must have overall responsibility for all aspects of food support.

Most refugee emergencies warrant the early appointment of an experienced nutrition specialist as the feeding programme co-ordinator.

The refugees must be involved in the organization and management of their feeding programmes.

Simple nutrition education is a part of effective food support.

Special arrangements may be needed to provide cooking fuel and utensils.

## Role of the World Food Programme (WFP)

1. WFP has special responsibility for food within the UN system and WFP's procedures specifically recognize refugee emergencies as qualifying for assistance. It is important to note, however, that WFP food aid does not provide all components of a complete general ration. The UNDP Resident Representative acts as WFP Representa-

tive, but WFP has its own professional field staff in many countries. If necessary, WFP will consider sending a field officer on mission. The advice of the local WFP field staff should be sought from the start of an emergency.

2. WFP has certain resources in food and cash to meet emergency food needs, and is also prepared to undertake procurement and shipping with funds made available by UNHCR. Swift action must be taken to ensure that the additional food items which will be required but are not available through WFP are also procured and delivered. Use of WFP resources in a refugee emergency requires a government request to the Director-General of FAO, and the latter's approval of an emergency project on the advice of the Executive Director of WFP. Pending or in the absence of a government request, the practical role of WFP will be little changed, but different procedures and funding arrangements will be necessary. Details of UNHCR/WFP emergency procedures are given in Part 2.

#### Responsibilities and personnel

3. UNHCR and WFP staff, together with the national authorities, the operational partner(s) and other organizations, must be clear on responsibilities for assessing and meeting the food needs. Close co-ordination with bilateral donors is essential. Offers of inappropriate food should be refused.

4. Subject to the role of the government and any special arrangements, UNHCR will have overall responsibility for the emergency operation. Thus UNHCR's initial planning must cover all food needs, including those items of the general ration which will not be provided by WFP. Depending on sources of supply and implementing arrangements, UNHCR may entrust specific practical arrangements to WFP. However, every effort should be made to avoid dividing the overall responsibility: a single

person must be responsible for co-ordinating the provision of all food supplies.

5. In most emergencies the appointment of a feeding programme co-ordinator will be warranted. This is likely to be a separate responsibility to that for food logistics outlined in the previous paragraph. The co-ordinator would be responsible for the establishment of appropriate standard procedures, the co-ordination of feeding programmes, the monitoring and evaluation of their effectiveness and ensuring close co-ordination with the health and other community services. The co-ordinator should be a nutrition specialist with current experience in nutritional emergencies and local knowledge if possible. A co-ordinator will be particularly necessary in situations where non-specialist organizations and individuals have no alternative but to involve themselves in feeding operations. If initially there is not a nutrition specialist to assign to this position, the acting co-ordinator should seek immediate professional guidance from government nutritionists, or from within the local UN (WHO, WFP or UNICEF) and NGO community.

#### Role of the refugees and nutrition education

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

7. The provision of simple nutrition education for the refugees is important when unfamiliar foods or new methods of cooking and preparation cannot be avoided and have to be introduced to the refugees. This should be organized in conjunction with other health education activities to provide guidance on proper infant feeding, feeding sick children, treatment of diarrhoea, basic food hygiene and the preparation of available foods for maximum nutritional benefit.

### Organization of response

8. Sound organization and planning are the key to success. The logistical arrangements must ensure the delivery of sufficient food in time. Adequate secure storage must be provided and the food must be protected against insects, rodents and rain damage both in the store and in the home. The necessary cooking pots and utensils must be available.<sup>1/</sup> The distribution system must be fair and effective. (See ch.12.6).

9. Particular attention must be paid to the provision of cooking fuel. This is often a major problem and failure to provide fuel can quickly lead to destruction of the vegetation in and around the site causing lasting damage to the environment and friction with the local population. Special arrangements may thus be necessary to supply cooking fuel. As a rough indication, a family cooking on a simple wood stove requires some 5kg of wood per day. It may be possible to utilize local technology to modify existing types of wood or charcoal burning stoves in order to make them more fuel efficient. In some areas solar cooking equipment may be an appropriate solution at least for communal needs; a number of simple devices are now being developed. Advice should be sought on this from local experts, and through Headquarters if necessary.

### 8.3 Assessment and surveillance

The first requirement is a knowledge of the numbers, nutritional status and former diet of the refugees.

This assessment should, if possible, be the responsibility of an experienced nutrition specialist.

Arrangements will be necessary both to monitor the nutritional status of the community and identify individuals who need special food relief.

1. An initial assessment of the health and nutritional status of the refugees should be made as soon as possible. Preferably this should be done by a nutrition specialist; however if one is not immediately available, field staff should carry out a preliminary survey of their own. Guidance on how to do this is given in annex 1. The amount of malnutrition must be established as this has important implications for what form the emergency response will take. Other basic information which will be required to formulate a food aid plan includes the number of refugees, their age/sex breakdown, their present access to food supplies, cooking fuel and utensils. In addition information must be gathered on traditional food and cooking habits, and the local availability of suitable food.

2. This information will enable the field and Headquarters to take early decisions on the components of the rations, total amounts needed, the logistical support necessary and on the requirement for any additional selective feeding programmes. Figure 8-1 on page 101 gives an indication of the considerations.

3. The initial assessment should be followed by regular nutritional

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<sup>1/</sup> Special kits have been developed by Oxfam to help set up selective feeding programmes. The kits may be useful at the start, pending local supply arrangements, and can be provided through Headquarters at short notice. Kit 1 contains equipment for nutritional surveillance and assessment. Kit 2 provides equipment to cover supplementary feeding of 250 children. Unless otherwise requested, Kit 2 is also supplied with equipment identical to Kit 1. Kit 3 provides equipment to cover therapeutic feeding of up to 100 severely malnourished children. The kits do not contain cookers.

surveillance under specialist supervision to monitor the condition of the population as a whole and the individual progress of the vulnerable and the malnourished. In an emergency a high child mortality rate is very often associated with high levels of malnutrition and this is therefore an important statistic to record in health/nutrition surveillance programmes.

4. Nutritional surveillance of the population as a whole should be done by weighing and measuring a random sample of the child population at regular intervals. In times of food shortage young children are the first to show signs of malnutrition and are the most severely affected. For this reason it is usually a random sample of children less than 5 years of age (or less than 115cm tall) who are measured regularly in a surveillance programme. Their condition is used as an indicator of the amount and degree of malnutrition in the population as a whole. For a refugee population of under 10,000 a random sample of 200 children will provide a reasonably accurate estimate of overall child malnutrition. For a population of 10,000-20,000, a sample size of at least 400 is required. Initially such surveys should be made every two months. When conditions have stabilized once every 3-6 months is sufficient. Any change or trend in nutritional status can thus be detected and adjustments made in the relevant feeding programmes.

5. Where conditions and/or results of the initial assessment indicate a need for supplementary or therapeutic feeding, individuals will need to be identified

and registered for these programmes. Their individual progress should then be monitored through more frequent weighing at the feeding centres.

6. Thus nutritional surveillance takes two forms: first, monitoring the effectiveness of the food provided to the whole community (the general feeding programme) by measuring a random sample of children; second, monitoring the progress of vulnerable individuals and thereby the need for or effectiveness of selective feeding programmes.

7. Malnutrition can be recognized by clinical signs (see the descriptions on page 111 of marasmus, kwashiorkor and marasmic-kwashiorkor) and by body measurements. Measurements are required for objective assessment of nutritional status and for purposes of comparison with regular surveillance data. The weight-for-height method expressed as a percentage of a reference standard is the most sensitive indicator of acute malnutrition and is preferred for nutritional surveillance and for measuring individual progress in emergencies. Children of less than 80% weight-for-height<sup>2/</sup> are classified as malnourished and those of less than 70% weight-for-height as severely malnourished. For rapid screening of the young child population the less sensitive arm circumference measurement described in annex 1 can be used.

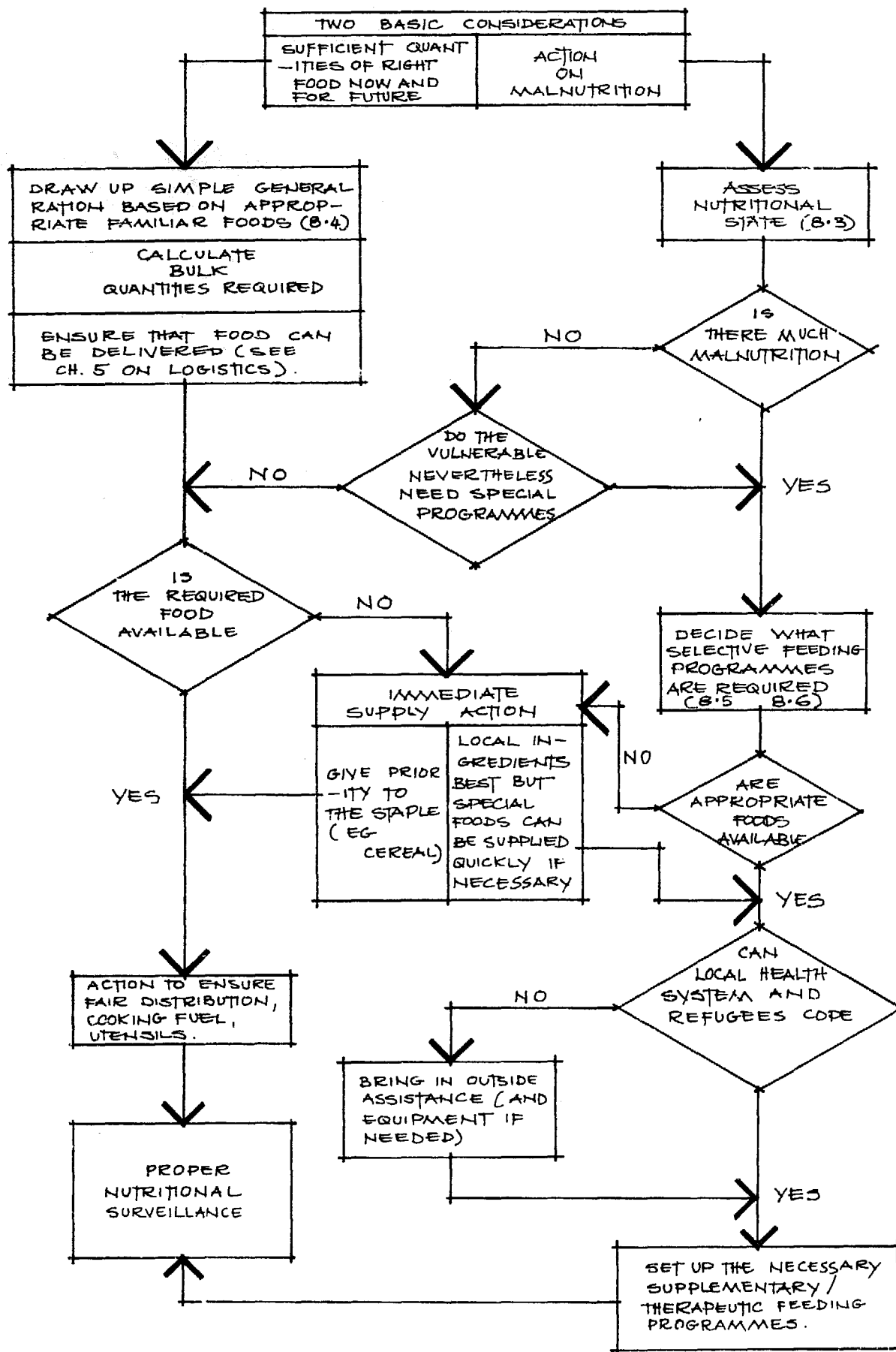
#### 8.4 General feeding programme

□ Every effort should be made to provide familiar foodstuffs and maintain traditional food habits.

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<sup>2/</sup> Percentages are those of the WHO International Standard

- Food and nutrition -



8

- Food and nutrition -

□ Average rations must provide the following amounts of energy: at least 1500 Kcal (6.3 MJ)<sup>3/</sup> for initial survival and over 2000 Kcal (8.4 MJ) for longer term maintenance.

□ The diet must satisfy protein and basic vitamin requirements.

□ Pay particular attention to locally prevalent nutrient deficiencies.

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

2. The amount and quality of food provided must satisfy energy and protein requirements. A survival ration should provide at least 1500 Kcal, while over 2000 Kcal (and 50g of protein) are required for longer-term maintenance. Active adults may require considerably higher energy intakes. Although there is a marked difference between the needs of a young child and an active adult it is strongly recommended that a standard ration is provided for each refugee without distinction. A typical daily ration to provide sufficient calories and protein would be built around:

- a staple food which provides the bulk of the energy and protein requirement, e.g. cereal 350-400g

- an energy-rich food, e.g. oil 20-40g

- a protein-rich food, e.g. beans 50g

Other items such as vegetables, sugar, spices, condiments, fruits, and tea, should be provided according to cultural and nutritional needs. However absolute priority must be given to the staple food. A few items and assured delivery are better than a complex ration, some of which fails to arrive. Advice on the logistical aspects of food supply, in terms of amounts to be moved, is contained in chapter 5.

3. Essential vitamin and mineral requirements must also be met: a varied diet is the best means of doing so. Where adequate quantities of certain nutrients cannot be provided in the diet, the inclusion of seasonally available vegetables will usually prevent vitamin and mineral deficiencies arising. Whenever possible the refugees should be encouraged to grow appropriate varieties of vegetables themselves. Local food markets within the settlement should be encouraged. Particular attention must be paid to any locally prevalent deficiencies and efforts made to include food items which are rich in 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.

4. Two deficiencies are commonly seen among refugees: vitamin A deficiency and anaemia. Vitamin A deficiency in malnourished populations, especially in children, leads to blindness. Anaemia, which

<sup>3/</sup> Energy values are expressed in the thermochemical kilocalorie. However, as a scientific unit this has been superseded by the megajoule (MJ). 1000 Kcal = 4.184 MJ; 1 MJ = 239 Kcal.



is commonly associated with parasitic diseases or an insufficient intake of iron and folate, can lead to cardiac failure and death in the most severe cases. Both conditions can be prevented by a proper diet.

5. The need for a fair, efficient and regular ration distribution cannot be over-emphasized. An accurate census is needed and a monitoring system must be established to ensure that the food is actually reaching every refugee as intended. Disruption, diversion and corruption will inevitably lead to widespread discontent and suffering.

6. There are two main types of distribution: dry ration and cooked meals. Whichever is used, it is important to ensure that those doing the distribution have exact instructions on the size of the rations and are seen to follow them. If scales are not available or not a convenient way of measuring out food then cans or containers should be provided whose weight/volume comparison is known for each commodity.

7. The distribution of food as pre-packed rations is an unsatisfactory solution and is to be avoided.

#### Dry ration distribution (take home)

8. This method has major advantages over cooked food distribution. It allows families to prepare their food as they wish, permits them to continue to eat together as a unit and is generally more culturally and socially acceptable.

9. Distribution is usually made at weekly intervals. Where an accurate census is available and families have food distribution cards, some form of delegated family or group distribution is possible, but in the initial stages the best way to guarantee a fair distribution may be to have every individual present. For a

discussion of ration cards see ch.12.6.

10. 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.

#### Cooked food distribution

11. This requires centralized kitchens with adequate utensils, water and fuel (although obviously less than the amounts required for family cooking), and trained, healthy personnel. The refugees usually sit together in a feeding compound, although in some circumstances families can carry the cooked food to their accommodation. At least two meals must be served each day and the efficient organization of cooked food distribution for large numbers is difficult. Every effort should be made to avoid having to resort to mass cooked food distribution for the general ration. Such distribution may, however, occasionally be necessary in the initial stages, for example, pending the availability of sufficient cooking utensils and fuel. It may also, although rarely, be preferred by the refugees.

#### Monitoring the general feeding programme

12. A general feeding programme matching the standards elaborated in 8.4 is the minimum necessary to maintain a good nutritional status in a healthy population. Its effectiveness must be closely monitored through the surveillance programme. The quality and the quantity of the rations should be regularly discussed with the refugees. Where there are complaints, these should be investigated. Proper arrangements must be made for the inspection of food supplied by contractors.

### 8.5 Supplementary feeding programmes

- In addition to the general feeding programme, extra food may be required for the malnourished or to prevent malnutrition.
- The programme must actively identify those who need supplementary food and ensure they receive it.
- The aim is to provide at least one high energy, high protein, low bulk extra meal daily.

#### The need

1. Where malnutrition exists or the needs of the vulnerable groups cannot be met from the general ration, special arrangements are required to provide extra food. This is organized through a supplementary feeding programme (SFP). Infants, children, pregnant and lactating women and the sick are the most seriously affected by food shortage. Their vulnerability stems from the greater nutrient requirements associated with growth, the production of breast milk, repair of tissues and production of antibodies. Because children are unable to eat a large volume of food, it is necessary both to prepare food in a concentrated form, giving more nutrients in less volume, and also to provide more frequent meals. 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 have no appetite, are vomiting or have diarrhoea. They must receive additional food whenever possible.

2. Certain other groups or individuals may be vulnerable to malnutrition for social or economic reasons. These include unaccompanied children, the disabled,

single-parent families, and perhaps 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 and lactating women or even sick children.

3. Where the refugees are predominantly women and children, it may be impossible (or unnecessary) to provide this whole group with supplementary food. Under such circumstances it is better to adjust the general ration to the needs of the majority, for example by increasing the overall protein content. Supplementary feeding programmes are an increasingly common feature in refugee emergencies; however, they may not always be the most effective response. Table 8-2 outlines general considerations when deciding on the need for such a programme.

#### Aim and content

4. The aim is to provide extra high energy, high protein, low bulk meals, once or twice a day to those who need it. The number of meals depends on the nutritional status of the population, the nutritional value of the general ration and the age of the beneficiaries. The size of the supplement also depends on the nutritional status of the beneficiaries: but at least 350 Kcal and 15g protein per day should be provided.

5. Supplementary meals should be prepared as porridge or soup which are easily digestible and can be eaten by people of all ages. The food is generally based on cereal and legume blends with edible oil added to increase the energy content. Other ingredients can be added to give additional nutrients and variety of flavour (e.g. sugar, vegetables, fish, milk). There are some prepacked cereal/legume blended supplementary foods available through UN agencies (e.g. CSM, corn-soya-milk; WSB,

8-2 Indicators of likely need for a supplementary feeding programme

Major indicator (1)	Other factors	Type of SFP
General ration averaging less than 1500 Kcal/person/day	None	
over 20% children malnourished		
10-20% children malnourished	General ration averaging less than 2,000 Kcal/person/day	For all vulnerable groups (see 8.5.1 and 2) if resources allow, as soon as possible
	Severe public health hazards	
	Significant diseases (esp. measles) prevalent or imminent	
	None	Selective within vulnerable groups: at least for all malnourished. See 8.5.8.
5-10% children malnourished	Any of above	
	None	No SFP: individual attention to malnourished. (Whatever the other factors, available resources are probably better used correcting/minimizing them)
under 5% children malnourished	Any of above	

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(1) Percentages are of children under 5 years old under 80% weight-for-height.

wheat-soya-blend). These may be useful at the start of an emergency feeding programme if the ingredients are familiar to the refugees. However, local foods should be substituted as quickly as possible and prepared in a more traditional and appropriate way.

Admission and discharge

6. The supplementary feeding programme must be based on the

active identification and follow up of those considered vulnerable. This requires a regular house-by-house or family-by-family assessment, usually made by public health workers operating a referral system. As well as encouraging those in need to participate in the supplementary feeding programme and ascertaining the reasons for non-participation, continued home-visiting is required to monitor the progress of infants

and children. Those identified for the programme should be registered and issued with a numbered identity bracelet or card to facilitate follow-up.

7. In practice, a supplementary feeding programme that does not actively identify those in need but simply operates on an open "come-if-you-wish" basis is most unlikely to benefit those in greatest need and is a very questionable use of food and organizational resources.

8. The criteria for admission to a supplementary feeding programme will depend on the condition of the refugees and the resources available. The order of priority within the vulnerable groups is, generally, any malnourished person (less than 80% weight-for-height - WHO International Standard), young children (less than five years old or 115cm in height), women during the last 3 months of pregnancy and the first 12 months of lactation, medical referrals and the socially vulnerable. Should restrictive selection be necessary because of lack of resources this will in part change the nature of the programme from preventive to curative.

9. The amount of food required for supplementary feeding is likely to be about 3MT per 1,000 beneficiaries per month. Table 8-3 below shows how this estimate was arrived at.

10. Children should not be discharged from supplementary feeding until they have been more than 85% weight-for-height for at least one month.

11. Once begun, supplementary feeding must be considered necessary until such time as an appropriate general ration is provided that meets the needs of the vulnerable, and as long as living conditions remain hazardous. It is a mistake to discontinue supplementary feeding as soon as the nutritional status of vulnerable individuals or groups starts to improve. The programme should not be discontinued until the surveillance results reflect sustained improvement and not more than 5% of the children remain malnourished.

Organization

12. An effective programme requires the regular attendance of all those registered. The identification of those in need is a prerequisite, to be followed by careful control of attendance and progress. Trained staff should weigh and measure children on admission to the SFP and reweigh regularly, preferably monthly, thereafter to monitor individual progress.

13. As for general rations, the supplementary feeding programme may be organized either using the 'take home' or 'on-the-spot'

8-3 Supplementary food quantities

Typical daily ration				Monthly amount for 1000 in MT (Daily amount x 30 x 1000)
Item	Amount (g)	Energy (Kcal)	Protein (g)	
cereal	60	210	6	1.8
oil	10	90	-	0.3
DSM	25	90	9	0.75
Sugar	5	20	-	0.15
	100	410	15	3.0

method. Both require careful registration and control. The take home system is relatively simple to administer but the supplement is likely to be shared within the family. On-the-spot supplementary feeding is the preferred method. Supervision is improved, the intended beneficiary is seen to eat the correct amount of food and follow-up is easier as those in need are seen more often and under more controlled conditions.

14. Any supplementary feeding programme must be closely integrated with the community health care programme. The supplementary feeding programme will give the opportunity for health problems to be identified. Certain daily medications may best be given in the course of the supplementary feeding programme, for example iron and folate preparations for anaemia.

15. Feeding centres and kitchens must be well organized and kept clean. Long waiting periods must be avoided and the schedule must not clash with family meal times or other essential community activities. Parents must be made to understand that the supplementary feeding programme is given in addition to normal meals. Utensils, bowls, scales and other equipment will be required and can generally be obtained locally. (See 8.2.8)

16. One supplementary feeding centre can usually handle up to 500 beneficiaries. The centres should be run by trained refugees: an experienced nurse should be able to supervise 4 or 5 centres. Where different organizations establish their own supplementary (or therapeutic, see 8.6) feeding programmes it is most important that these are appropriate to the needs, centrally co-ordinated, and procedures standardized. The health guidelines described in ch.7.2.18 should cover selective feeding programmes. See pages 92 and 93 for examples of standard reports. The programmes must avoid

such a dependence on outside assistance that they collapse when individuals or organizations leave.

#### 8.6 Therapeutic feeding programme

□ A therapeutic programme may be needed to save the lives of severely malnourished children.

□ Treatment of the severely malnourished requires medical supervision.

□ The treatment consists of food of high energy and protein content given according to the individual's nutritional requirements.

1. Therapeutic feeding (TFP) is required to reduce deaths among infants and young children with severe protein-energy malnutrition (PEM). The forms of PEM are described in section 9. If severe PEM exists, therapeutic feeding will initially be a priority to save lives. However, if introduction of supplementary feeding is delayed because resources, particularly trained personnel, are concentrated on therapeutic feeding, there may quite quickly be such a deterioration in other less malnourished children that the life-saving achievements of a therapeutic programme will be overtaken by the life-threatening consequences of not having an adequately functioning supplementary programme, benefiting many more people.

2. Food is the treatment for PEM. Unlike supplementary feeding, therapeutic feeding is solely a curative measure and thus in theory a short-term programme. The need for its continuation will depend on the effectiveness of the general and supplementary feeding programmes and the nutritional condition of any new arrivals.

3. The usual criteria for admission to a therapeutic feeding programme are oedema (kwashiorkor), or severe marasmus (weight-for-height less than 70%). Patients

should remain on therapeutic feeding until they are free from illness; at least 80% of weight-for-height and without oedema. On recovery patients would be discharged to the supplementary feeding programme.

4. Therapeutic feeding should take place on an in-patient basis whenever possible, as food must be given every 3-4 hours. Infection and dehydration are the major causes of death and patients must be closely watched for medical complications. If weight does not increase quickly on a properly run TFP, the explanation is likely to be that the individual also has an illness which must be treated. The immunization of young children against measles is a priority because of the high mortality associated with this disease in a malnourished population.

5. A therapeutic feeding programme must be run by experienced and suitably qualified personnel. One centre can usually handle about 50 children and will require two experienced supervisors full-time. It should be noted that most doctors and nurses have little training in nutrition or experience in treating severe PEM. They must therefore be given the necessary guidance. The refugees and particularly the mothers of patients must be involved in running the therapeutic feeding centre.

6. In addition to a suitable building and services, the centre will require a kitchen and the necessary utensils and equipment, which can usually be obtained locally (see 8.2.8). Treatment is a diet which provides at least 150 Kcal and 3-4g of protein per kilo body weight per day for each patient, via 5-7 meals at 3-4 hourly intervals throughout the 24 hours. Boiled water mixed with a dried skimmed milk/oil/sugar mixture, or with a UNICEF K Mix II/oil mixture, can be used to initiate treatment. A mixed diet is introduced once the patient's condition starts to improve (usually after 4-5 days).

### 8.7 Infant feeding and 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 never used except under strictly controlled conditions, with a cup and spoon.

Milk products and especially powdered milk can cause problems and are often inappropriate.

1. The vital importance of correct infant feeding in an emergency must be understood.

2. Human milk is the best and safest food for infants and children under 2 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 restimulate 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 SFP.

3. The problems associated with infant formulae 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 such conditions and are therefore dangerous. Babies should be fed by clean cup and spoon if necessary.

4. While continuing breast-feeding, appropriate weaning foods should be introduced at between four and six months of age. 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.

#### Other milk products

5. Some populations have long considered milk as an ideal food, while others rarely consume it in either its natural or powdered form, and may even have a lactose (milk sugar) intolerance. Milk should not be distributed if it is not a traditional part of the refugees' diet.

6. Major practical problems are often associated with milk powder. Both proper hygiene and proper dilution will be difficult to ensure, and contaminated milk, for example because of unsafe water or exposure to dust and flies, provides an ideal environment for bacterial growth. For these reasons, milk should not form part of the general ration, except as a possible source of protein for refugees with a nomadic background whose main food was previously milk and meat; meat is likely to be difficult to supply in an emergency.

7. In addition to infant formula, the products commonly offered in emergencies include dried whole milk (DWM), dried skimmed milk (DSM), sweetened

and unsweetened condensed milk and evaporated milk. Their appropriateness must be ascertained before acceptance. It should be noted that if used, DSM must be vitamin A fortified (when it will have a shelf-life of six months).

8. Milk products are useful in supplementary and therapeutic feeding programmes, administered under supervision. For example, milk can be added to SFP cereal mixtures to boost the protein content. Milk powder is the usual basis for early stages of treatment in therapeutic feeding. Whenever used it is imperative that the milk be correctly prepared and served under controlled and hygienic conditions. Instruction and guidance must be given.

#### 8.8 Provision of the necessary food

Logistical aspects must be considered from the start.

All possible local sources of the appropriate food must be explored before resorting to overseas supply.

1. This section assumes that the refugees have no food supplies of their own. Considerations relating to the choice of the ration and the importance of familiar foodstuffs that meet the nutritional needs and maintain sound traditional food habits have been covered in earlier sections. Details of UNHCR/WFP procedures for emergency food supply are given in Part 2.

#### Logistics and storage

2. Adequate logistics will be the key to a successful emergency operation, and food will be the major item to be transported. Logistical considerations are thus very important and sometimes determining. Particular attention must be paid to proper storage, protection against both the elements and pests, and losses through theft. Effective stock

control will be essential. Considerable reserve stocks may be necessary. Guidance on logistics, including a guide to calculating probable total amounts to be moved, is given in chapter 5.

#### Sources of supply

3. Sources of food will be determined by local circumstances, which the ration selected will naturally reflect. The timely provision of a complete ration may require a combination of the following sources:

- (1) Borrowing from national stocks, WFP stocks on hand in the country (direct WFP stocks or those available to WFP under reciprocal drawing rights) or stocks of other donor organizations on hand in the country;
- (2) Purchase on the local market or from neighbouring countries;
- (3) Overseas supply, either as a result of diversion of WFP or other stocks already at sea, or overseas procurement, or through contributions in kind;
- (4) Bilateral donors, including NGOs.

4. In cases of extreme urgency, it may be necessary for Headquarters to make interim arrangements for the supply of appropriate essential food by air, but every effort must be made to find acceptable local supplies first. Air transport is unsuitable for large quantities of the appropriate staple foods, while the processed foods usually airlifted are often inappropriate to the traditional food habits of the refugees.

### 8.9 Basic facts about food and nutrition<sup>4/</sup>

#### Nutrients

1. All foods are made up of five basic types of nutrient: carbohydrates, fats, proteins, vitamins, and minerals, in addition to variable amounts of water. Carbohydrates are mostly starches and sugars of vegetable origin, being, for example, a major component of cereals and tubers. They are a source of energy. Fats and oils provide the most concentrated source of energy, having more than twice the energy content per weight of carbohydrates and proteins. In most poor countries, most of the energy is derived from the staple foods, especially cereals, fats accounting for a much smaller proportion. Proteins are body-building substances required for growth and tissue repair. Protein is found in foods of animal origin and in cereals and legumes. Vitamins and minerals are needed in small quantities for the adequate functioning of the body. Individual vitamins and minerals or combinations are found in all foods in very variable amounts.

#### Energy and protein intakes

2. If the energy intake is inadequate, some protein will be burnt to provide energy and not used for body growth or repair, that is, it will be used in the same ways as carbohydrate or fat, which are usually less expensive. Not less 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 intakes are

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<sup>4/</sup> Adapted from "The Management of Nutritional Emergencies in Large Populations".



required for the treatment of malnutrition, when the aim is rehabilitation rather than maintenance.

#### Food and diets

3. Most diets in most countries <sup>5/</sup> 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 the calories to be supplied from protein sources. The commonly used foods are listed in table 8-4 overleaf.

#### Protein-energy malnutrition (PEM)

4. PEM is a problem in many developing countries, even in normal times. Most commonly it affects children between the ages of six months and five years (especially at the time of weaning). Severe PEM is usually precipitated by low food intake associated with infection. Refugees are particularly vulnerable and UNHCR staff should be able to recognize severe PEM, which has three forms, described below. See also annex 1.

5. Nutritional marasmus results from prolonged starvation. The main sign is a severe wasting away of fat and muscle, which have been expended to provide energy. The child is very thin and may have an "old man" face and loose folds of skin. The children affected may, however, appear relatively active

and alert. This is the most frequent form of PEM in cases of prolonged food shortage.

6. Kwashiorkor is seen most commonly in areas where the staple food is mainly carbohydrate, for example tubers and roots like cassava, but it is precipitated by many factors other than protein deficiency. The main sign of kwashiorkor is oedema, that is a swelling usually starting at the lower extremities and extending in more advanced cases to the arms and face. Oedema must be present for the diagnosis of kwashiorkor but can also occur in other diseases. Where there is gross oedema, the child may look "fat" and be regarded by the parents as well-fed. Associated signs of kwashiorkor, which do not always occur, include hair changes (colour becomes lighter, curly hair becomes straight, comes out easily with a gentle pull) and skin changes (dark skin may become lighter in places, the skin may peel off, especially on the legs, and ulceration may occur). Children with kwashiorkor are usually apathetic, miserable and withdrawn and often refuse to eat. Profound anaemia is a common complication of kwashiorkor.

7. Marasmic kwashiorkor is a mixed form, with oedema occurring in children who are otherwise marasmic and who may or may not have the other associated signs of kwashiorkor. In practice, mixed forms will often be seen.

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<sup>5/</sup> Appendix 7 of "A Guide to Food and Health Relief Operations for Disasters" gives information on the major foods and acceptable alternatives in adult diets in over 100 countries.

8-4 Characteristics of common foods

Food type	Approx. energy per 100g	Approx. protein per 100g	Vitamins and minerals	Comments
1. Cereal grains (rice, corn, sorghum, oats etc.)	350 Kcal	8-12g	Contain vitamin B and iron. However these 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, groundnuts etc.)	350/500-700 Kcals Provides energy in a compact form but relatively expensive and requires careful storage.	20-25g some beans can be up to 40% protein e.g. soya	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.)	75-110 Kcals. In flour form contain 300-350 Kcals.	Very low in protein	Variable but generally low.	Bulk and low protein content makes them unsuitable as staple foods in emergencies.
4. Vegetables and fruits	Low in energy	Low in protein	Important source of vitamins. 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.	150-550 Kcals depending on fat content	Generally in range 10-20g except for liquid milks 3-6g	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 utilized by the body than proteins of vegetable origin. Therefore small quantities useful to improve the quality and palatability of diet.
6. Fish, dried	300 Kcals	63g	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	900 Kcals i.e. the most concentrated energy source	nil	Rich source of Vitamin A, except for lard, other animal fats and vegetable oils.	Useful way to increase energy intake without increasing bulk of diet. Improves palatability and helps in food preparation.

- Food and nutrition -

Further references (1)

Cameron M. Hofvander Y. (1976)	<u>Manual on Feeding Infants and Young Children</u> Third edition expected in 1983 (Also in French and Spanish)	Protein-Calorie Advisory Group of the UN FAO 2nd edition
Centers for Disease Control (1981) (Graitcer P.L.)	<u>A Manual for the Basic Assessment of Nutri- tional Status in Potential Crisis Situations</u> Provisional edition, revision expected in 1983.	US Public Health Service
Peel S. (1979)	<u>Selective Feeding Procedures</u> A simple guide for those running feeding programmes. Revised edition expected in 1983.	Oxfam
Rajagopalan S. Shiffman M. (1974)	<u>Guide to Simple Sanitary Measures for the Control of Enteric Diseases</u> Contains a section on food sanitation. (Also in Arabic, French and Spanish)	WHO
Simmonds S. Vaughan P. Gunn S. W. (1983)	<u>Refugee Community Health Care</u> Comprehensive guidance on planning, management and delivery of refugee health services	Oxford University Press
Simmonds S. Gabaudan M. (1982)	<u>Refugee Camp Health Care: Selected Annotated References</u> A companion to above	Ross Institute Publication No.14
UN (1977)	<u>A Guide to Food and Health Relief Operations for Disasters.</u> (Also in French and Spanish)	Protein-Calorie Advisory Group of the UN
de Ville de Goyet C. Seaman J., Geijer U. (1978)	<u>The Management of Nutritional Emergencies in Large Populations</u> Essential reading. (Also in French and Spanish)	WHO
WHO (1981)	<u>Guidelines for Training Community Health Workers in Nutrition</u> (Also in French)	WHO offset publi- cation No.59
WHO (1981)	<u>The Treatment and Management of Severe Protein-Energy Malnutrition</u> (Also in French and Spanish)	WHO

(1) See also the further references at the end of chapter 7, only some of which are repeated here.

Rapid assessment of the nutritional status of young children  
using the arm circumference method

Explanation of the principle

1. The arm circumference technique is suitable for a rapid assessment of the nutritional status of young children. It measures a part of the arm whose circumference does not normally change significantly between the ages of one and five, but which wastes rapidly with malnutrition. The technique is not suitable for monitoring the progress of individual children.
2. If professional help is available it should of course be used but this assessment can be done by those with no previous nutritional experience provided the guidelines below are followed. The technique thus allows any UNHCR field officer to provide an objective assessment and hard facts rather than be limited to subjective reporting. This in turn allows a much more effective response.

Selection of the children

3. If the refugee population is 10,000 or less a random sample of not less than 200 children aged between one and five years should be chosen. This can be done on a house to house basis or by assembling all the children at one site and measuring, for example, every fifth child. If a "cluster" sample method is used (e.g. sampling in different sections of a large settlement) not less than 30 children per cluster should be measured to allow a comparison between sections. Take care that the adults do not just produce sick children in the belief that the test is to be followed by medical attention; this will distort the result. A quick but crude way of ascertaining that children are approximately within the age range of one to five years is to check they have more than six teeth but are less than 115cm in height. For most people this would mean the children come up to about waist height.
4. The assessment must be put in context: information about where the children come from and when they arrived should be obtained and reported, as the condition of this particular group may not reflect that of the whole caseload.

The measurement

5. If custom-made measuring tapes (possible sources ICRC and Headquarters) are not available, take a thin strip of plastic of about 30cm in length and mark off clearly a zero point, then 12.0cm and 13.5cm.
6. Before measuring any child check for the presence of oedema (the swelling seen in kwashiorkor) by pressing a finger against the front of the child's foot for about 3 seconds. If a dent ('pitting') is seen the child has oedema and should not be measured but marked down as having oedema and being severely malnourished. (See the suggested report form on the next page.)
7. If there is no oedema, the circumference of the child's left upper arm should then be measured at the midway point. The tape should be wrapped closely (but not tightly) around the left arm midway between the elbow and the point of the shoulder. The arm should be hanging loosely.

The results

8. Classification of nutritional status can be made as seen on the attached form. The amount and degree of malnutrition can be calculated as percentages of the sample.

NUTRITIONAL SURVEY REPORT FORM

Arm circumference method

District ..... Site ..... Date .....

Total refugee population at site .....

Total number of children from ..... Method of sampling .....  
whom random sample taken .....

Surveyor's name/Organization .....

Satisfactory (A)	Malnutrition (B)	Severe Malnutrition (C)	
More than 13.5cm (approximately equivalent to over 80% weight-for-height)	12.0-13.5cm (approximately equivalent to 70%-79% weight-for-height)	Less than 12cm (approx. equivalent to under 70% weight-for-height)	Oedema
(Record numbers only. As this is for statistical purposes there is no need to keep any other details on those measured)			

Total sample = A + B + C =

% Malnutrition =  $\frac{(B + C) \times 100}{A + B + C}$  =

% Severe Malnutrition =  $\frac{C \times 100}{A + B + C}$  =

of which % Kwashiorkor =  $\frac{\text{Oedema} \times 100}{C}$  =

Observations .....  
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## CHAPTER 9: WATER

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## CHAPTER 9: WATER

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### Need

Water is essential to life and health. In emergencies it is often not available in adequate quantity or quality, thus creating a major health hazard.

### Aim

To provide enough safe water for the refugees and to meet communal needs.

### Principles of response

- Seek expert advice, co-ordinate closely with the appropriate national services and involve the refugees.
- Ensure consideration of the water supply at the site selection and planning stage and co-ordinate response closely with public health and environmental sanitation measures.
- Provide a reserve supply and spare capacity, to meet temporary difficulties and the needs of new arrivals.
- Take account of seasonal variations.
- If at all possible, avoid the need to treat water.

### Action

- Organize an immediate, competent assessment of water supply possibilities in relation to needs.
  - Protect existing sources of water from pollution.
  - Develop sources and a storage and distribution system that supplies a sufficient amount of safe water, including a reserve.
  - Ensure regular testing of water quality.
-



## 9.1 Introduction

1. Safe water is essential to life and health. People can survive longer without food than without water. Thus 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 unrestricted distribution, and to ensure that it is safe to drink. Adequate storage capacity and back-up systems for all aspects of water supply must be assured, since interruptions in the supply may be disastrous. To avoid contamination, all sources of water used by refugees must be separated from sanitation facilities and other sources of contamination. As a rule, in this as in other sectors, the simplest possible technologies are the most appropriate in refugee emergencies.

2. Availability will generally be the determining factor in organizing the supply of sufficient quantities of safe water. It may be necessary to make special arrangements for extraction of the water, storage and distribution. Measures will be required to protect the water from contamination and in some circumstances treatment will be needed to make the water safe to drink. The safety of the water must be assured right through to consumption in the home. The dangers of drinking contaminated water are discussed in 9.7.1.

3. Improvements in the existing water supply may take time, particularly where it is necessary to drill or dig wells. In many refugee emergencies only contaminated surface water (standing water, streams or rivers) is initially available and immediate action must be taken to stop further pollution and reduce contamination. If it is evident that available sources are inadequate, arrangements must be made to bring in water by truck. Where even the most basic need for water cannot safely be met from existing sources in the area, and when time is

needed for further exploration and development of new sources, the refugees should be moved to a more suitable location. Figure 9-1 overleaf shows some of the considerations in diagrammatic form.

4. Water and sanitation are the subjects of separate chapters. The considerations are, however, largely interdependent and this chapter should be read in conjunction with chapter 10 on sanitation.

## 9.2 Assessment and organization

□ An immediate, competent assessment of local water supply possibilities, involving the government authorities, is essential.

□ Expertise is required, and local knowledge is most important.

□ Involve the refugees, use their special skills and train them to operate and maintain the system.

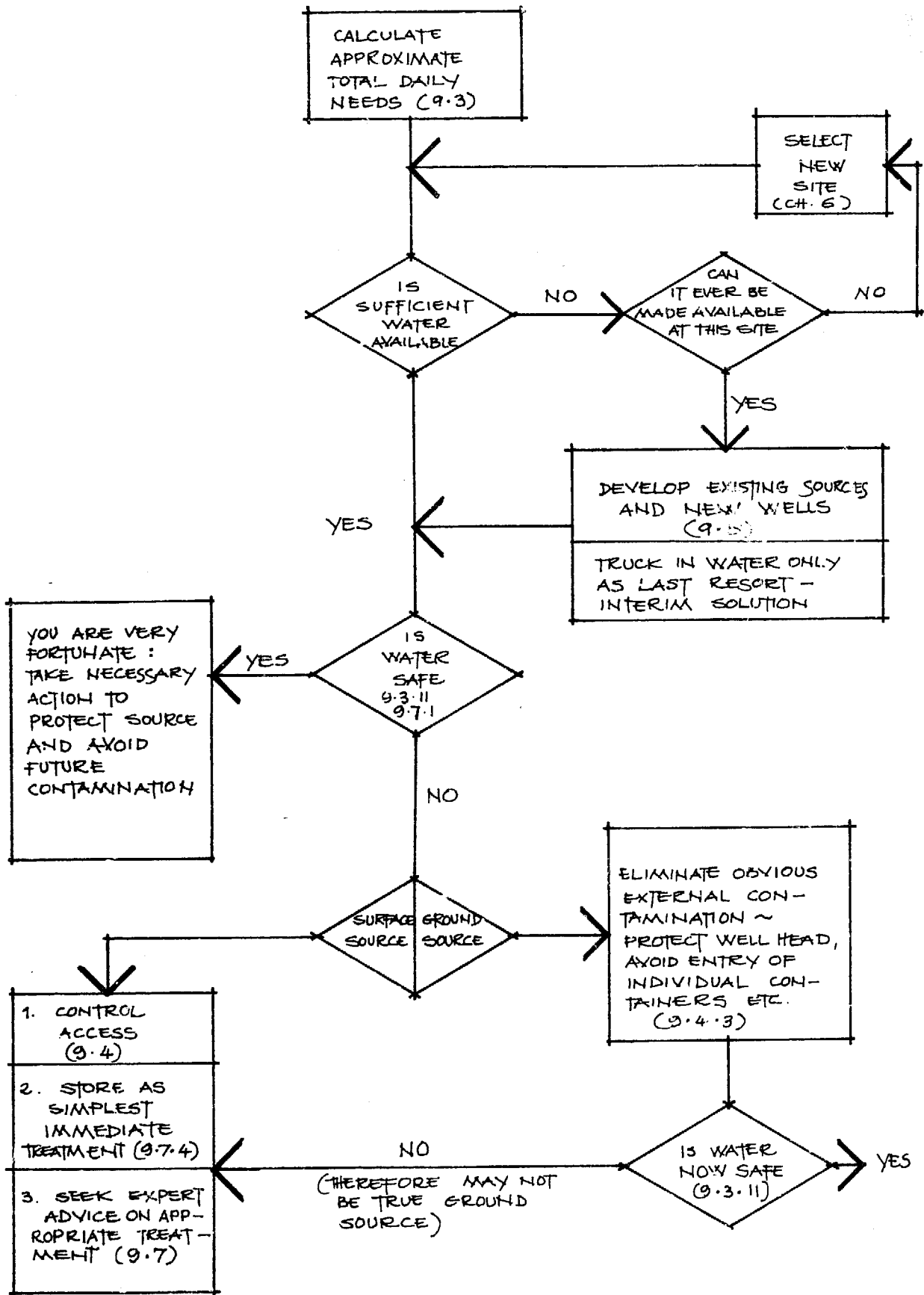
□ Technology and equipment should be simple, reliable, appropriate and familiar to the country.

### General

1. An immediate on-the-spot assessment of local sources of water in relation to needs is essential. The government's central and local water authorities and experts should be involved in this assessment. Knowledge of the local terrain and conditions is indispensable and expertise from outside the country should be brought in only when clearly necessary. An influx of refugees may over-strain water resources used by the local population.

2. 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

9-1 GENERAL CONSIDERATIONS IN EMERGENCY WATER



design, establishment and functioning of a water supply and distribution system must be closely co-ordinated with the site planning and layout and with health and environmental measures, and in particular sanitation.

#### Assessment

3. While estimating the need for water does not require special expertise, assessment of supply possibilities does. A distinction may be useful between the identification of sources on the one hand, and their development and exploitation on the other. Depending on the situation, sources of water and their characteristics may be identified by: the local population; the refugees themselves; the lie of the land (ground water is often near the surface in the vicinity of rivers and in low places generally, or is indicated by richer vegetation); maps and surveys of water resources; and national and expatriate experts (hydrologists); water diviners may be useful. The assessment of water sources, which must be the basis for decisions on a water supply and distribution system generally, requires expertise in water engineering, sanitation (testing, purification) and in some cases logistics.

4. Seasonal factors must be carefully considered. Supplies that are adequate in the rainy season may dry up at other times. Local knowledge will be essential.

#### Personnel and material

5. Local sources of information and expertise are best and may include: central and local government departments (e.g. interior, public works, agriculture, water resources), the UN system, especially UNICEF, bilateral aid programmes, NGOs and engineering consultants and contractors. If it is clear that locally available expertise will not suffice, Headquarters' assistance should be requested without delay. If out-

side assistance is necessary, this should be provided whenever possible in support of local experts. Where a water supply and distribution system has to be established with the help of expatriates and mechanized technology, running and maintenance by refugees and other local personnel must be assured before the departure of the expatriates. If this is not done, even the best system will break down.

6. As the provision of safe water is essential to the health of the community, and impossible without its understanding and co-operation, the system must be developed with the refugees and operated by them from the start to the extent possible. The refugees, particularly if of rural background, may themselves have relevant skills. For example, some rural communities contain individuals who are expert at digging and maintaining wells. Others may be familiar with simple pumps or common pump motors. Such skills must be fully utilized in planning, developing and operating the water system. Refugees without prior experience should be trained as necessary. Basic public health education, for example on the importance of avoiding pollution of the water by excreta and the use of clean containers in the home, will be essential.

7. While special equipment may be required in the exploration for new ground water sources or for purification of surface water, material and equipment to establish a water supply and distribution system should be found locally to the maximum possible extent. As a general rule, technology should be kept simple. It should be appropriate to the country and draw on local experience. Where pumps and other mechanical equipment are unavoidable, supplies should be standardized as far as possible, with local familiarity, availability of spares and fuel and ease of maintenance the priority considerations.

8. Both organizational and technical aspects of the complete water supply system need to be carefully monitored. Use of the system must be controlled and water wastage or contamination prevented, maintenance must be assured, and technical breakdowns quickly repaired.

### 9.3 The need

☐ Calculate on at least 15 litres per person per day plus communal needs and a spare capacity for new arrivals.

☐ To preserve public health, a large amount of reasonably pure water is preferable to a smaller amount of very pure water.

☐ The water must nevertheless be safe: test new sources before use and periodically thereafter, and immediately following any outbreak of a disease which might be caused by unsafe water.

### Quantity

1. Minimum water needs will vary with each situation and will increase markedly with air temperature and physical exercise. As a general indication, the following amounts of water are desirable:

Individuals:  
15-20 litres per person/day;

Health centres:  
40-60 litres per patient/day;

Feeding centres:  
20-30 litres per patient/day.

Further needs may include livestock, sanitation facilities, other community services, and irrigation. The more convenient the supply, the higher will be consumption.

2. Reduction in the quantity of water available to individuals directly affects their health. As supplies are reduced, clothes can-

not be washed, personal hygiene suffers, cooking utensils cannot be properly cleaned, food cannot be adequately prepared and finally the direct intake becomes insufficient to replace moisture lost from the body. The reduction is reflected in increased incidence of parasitic, fungal and other skin diseases, eye infections, diarrhoeal diseases and the often fatal dehydration associated with them. Even those individuals who may have traditionally lived on less than the normally recommended amount of water, for example nomads, will require more in a refugee community because of crowding and other environmental factors.

3. The needs of community services vary widely, for example from sufficient water to swallow a pill and wash hands in a health centre to the large quantities required in a health centre. Proper supplementary and therapeutic feeding programmes will be impossible unless sufficient water is available for preparation of food and for basic hygiene.

4. The availability of water will be a factor in deciding on a sanitation system. For example, one aquaprivy has a water tank volume of 1,000 litres, to which some five litres per user must be added daily to maintain the water seal; the Oxfam Sanitation Unit requires up to 3,000 litres per day to serve 1,000 persons.

5. Water will be needed for any livestock but care should be taken to avoid pollution or depletion of scarce water sources by livestock. As a rule of thumb, cattle need about 30 litres of water daily and small stock about five.

6. Water for irrigation will be necessary for the cultivation of food by the refugees. In the initial stages of an emergency, only waste water after domestic use may be available, and may suffice for small vegetable patches. Large-scale irrigation is a matter for

expert advice and not considered here, though sources should be identified and reserved at an early stage if possible.

7. Water will probably be of little use in controlling major fires on refugee sites owing to a lack of sufficient quantity and pressure.

8. If more refugees are likely to arrive, plans must allow for a substantial spare capacity over present needs. As has been explained in chapter 6, water is often the determining factor in both site selection and site capacity.

#### Quality

9. The water must be both acceptable to the refugees and safe to drink. If it tastes and looks acceptable, it will be drunk, with the main dangers being from microbiological organisms. However these "water-borne" diseases are not usually as serious or widespread a problem as the "water-washed" diseases, such as skin and eye infections and diarrhoea, which result from insufficient water for personal hygiene. Thus a large quantity of reasonably safe water is preferable to a smaller amount of very pure water. The most serious threat to the safety of a water supply is contamination by faeces: once the water has been contaminated it is hard to purify quickly under emergency conditions. Possible treatment measures are considered in section 9.7.

10. Where drinking water is scarce, brackish or even salt water, if available, may have to be used for domestic hygiene.

11. New water supplies should be tested before use, and existing ones periodically, and immediately after an outbreak of a typically water-borne disease. The most useful tests are those that detect and enumerate common faecal bacteria, such as faecal coliforms, Escherichia coli or faecal strep-

tococci. The presence of any of these indicates that the water has been contaminated by faeces of humans or other warm-blooded animals. The actual test done will depend on the normal practice of local water laboratories and the experience of the local sanitarians. The most widely used tests are those that detect and enumerate faecal coliforms. Concentrations of faecal coliforms are usually expressed per 100 ml of water. As a rough guide:

0-10 faecal coliforms/100ml  
= reasonable quality

10-100 faecal coliforms/100ml  
= polluted

100- 1,000 faecal coliforms/100 ml  
= very polluted

over 1,000 faecal coliforms/100 ml  
= grossly polluted

In cases where the water is disinfected by chlorination (9.7.9.) it is easier and more appropriate to test for the presence of free chlorine than for bacteria. The presence of free chlorine at around 0.2 mg/l at the distribution point indicates that the bacteria have almost certainly been killed and that the water cannot be heavily polluted with faecal or other organic matter.

12. The water in storage tanks and any tanker trucks should also be tested periodically. The water must, of course, be safe at the time of consumption or use in the home, not just at the distribution point. Domestic hygiene and environmental health measures to protect the water between collection and use are important.

#### 9.4 Immediate response

□ If even the minimum amount of water cannot be made available in time from local sources, the refugees should be moved.

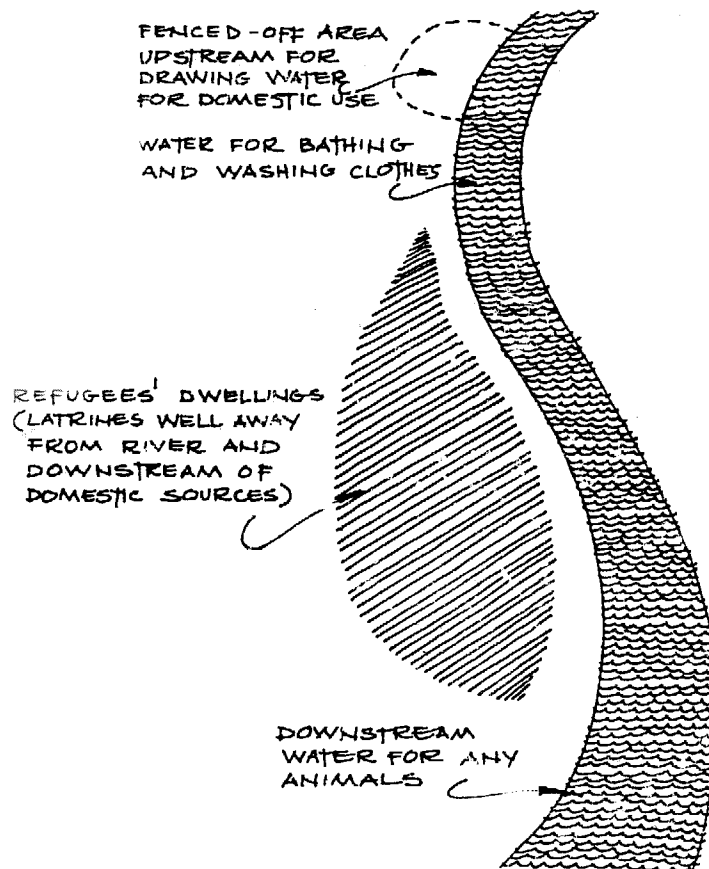
☐ Whatever the water source, take immediate action to prevent pollution by excreta.

☐ Organize a distribution system that prevents pollution of the source and ensures equity if there is insufficient water.

1. 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. If this is possible, the refugees must be moved without delay. Often, however, the quantity of water available will meet initial minimum needs and the immediate problem is

its quality: it is likely to be dangerously contaminated.

2. The refugees will be using either surface water or, less often, ground water (well or spring). This is usually whatever water is closest, regardless of quality. The best immediate response is likely to be organizational and should be arranged with the refugee community leaders. Whatever the water source, take immediate steps to prevent pollution 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 water. See figure 9-2. Fence off parts of the river bank as necessary, and beware of any dangers in the water, such as crocodiles.



9-2 DRAWING WATER FROM A RIVER

3. Where the source is a well or spring, fence off, cover and control the source. Prevent refugees drawing water with individual containers which may contaminate the source. If possible make immediate arrangements 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.

4. At the same time, action must be taken to improve the quantity from existing sources and the effectiveness of any distribution system.

5. From the start, families will need to be able to carry and store water at the household level. Suitable containers (10-20 litres) are essential. Sometimes empty cooking oil containers or the like are available but if not, buckets or other containers must be supplied. These must be kept clean.

6. If the immediately available supplies of water are insufficient, action to ration supplies and ensure equitable distribution will be a priority. Rationing is difficult to organize. The first step is to control access to the sources, using full-time watchmen 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.

7. In parallel to these steps, action must be set in hand to plan how the need for water may best be met in the longer term and implementation of this plan set in hand as soon as possible. The following sections outline the main considerations.

### 9.5 Water sources and their protection

Rain water, ground water from springs and wells, and water from municipal and private systems is usually of better quality than surface water from sources such as rivers, lakes or dams, and should be used if available.

Physical protection of the source from pollution will be essential.

Avoid sources that require treatment if at all possible.

Expert advice and local knowledge are necessary before sinking wells.

New or repaired sources and equipment should be disinfected.

#### General

1. There are three main natural types of fresh water: surface water (streams, rivers, lakes), ground water (underground or emerging at springs) and rain water. Considerations in choosing between alternative sources of water in an emergency include:

(1) speed with which source can be made operational;

(2) volume of supply;

(3) reliability of supply (taking into account seasonal variations and, if necessary, logistics);

(4) water purity, risk of contamination and ease of treatment if necessary;

(5) rights and welfare of local population;

(6) simplicity of technology and ease of maintenance;

(7) cost.

2. 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.

3. In addition to organizational measures to protect the water supply, some form of treatment may be necessary. However, sources which would require treatment should be avoided if at all possible. The purification of unsafe water, particularly in remote areas, can be difficult and requires trained supervision to be reliable. The following paragraphs provide general information on different sources of water and indicate the likely need for treatment. Table 9-3 shows some of the considerations.

#### Surface water

4. Water from streams, rivers, ponds, lakes, dams and reservoirs is rarely pure, and its direct use is likely to require treatment measures; direct access may also cause difficulties with the local population. However, where such a source holds water year-round, the water table in the vicinity can be expected to be near the surface. It is generally preferable to use such ground water, as it will have passed through the natural filter of the soil, rather than the surface water directly. One or more suitable types of well may be used. If the ground is not sufficiently porous to allow extraction of enough water from wells, surface water may be the only option. In such circumstances, emergency treatment measures such as storage, sand filtration or even chlorination will probably be necessary. If surface water must be used, the physical control of access described in 9.4.2 is essential.

#### Springs

5. Springs are the ideal source of ground water. Water from a

spring is usually pure at the source and can be piped to storage and distribution points. It should be taken off above the site if possible. Care should nevertheless 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. It is essential that spring water be protected against pollution at the source by means of 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 point. The supply of water from a spring may vary widely with the seasons and will be at its minimum at the end of the dry season: seek local advice.

#### Other ground water

6. If the need for water cannot be met by springs, the next best option is to raise ground water by means of tube wells, dug wells or boreholes. Ground water, being naturally filtered as it flows underground, is usually microbiologically pure. The choice of method will depend on circumstances in each case, including the depth of the water-table, yield, soil conditions and availability of expertise and equipment. Table 9-4 on page 128 gives some basic characteristics of the different types of wells.

7. Without good water resource surveys, preliminary test drilling or clear local evidence from nearby existing wells, there is no assurance that new wells 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. It is often better to try and improve an existing well that has an inadequate yield rather than dig a new one.



9-3 Some general considerations related to water sources

Source	Treatment (1) (see 9.7)	Extraction (see 9.6)	Distribution (see 9.6)	Remarks
A. Rain	Unnecessary	Simple: off suitable roofs	Individual collection	Seasonal, unlikely to meet total demand. See 9.5.11
<u>Ground water</u>				
B. Spring	Unnecessary	Simple: controlled access	Individual collection or via storage tanks, optionally through piped system	Yield may vary seasonally
C. Deep well (low water table, outside assistance may be required. Each well likely to serve more people than D)	Unnecessary	Hand pump if possible motorized if necessary	As for B	See table 9-4
D. Shallow well (high water table, likely to be many, often self-dug)	Unnecessary if properly located, constructed and maintained	Hand pump or hand drawn container	Individual collection	As for B
<u>Surface water</u>				
E. Flowing (e.g. stream, river)	Often necessary: sedimentation/ filtration/ chlorination	Controlled access (see figure 9-2) Motorized pump to treatment and storage	As for B	Yield often varies seasonally
F. Standing (e.g. pond, lake)	Nearly always necessary: as for E	As for E	As for B	As for E

(1) An approximate ranking of sources by likely quality would be: rain (unlikely to be polluted), spring, borehole, deep well, shallow well, stream or river, lake, pond (very likely to be polluted).

9-4 Characteristics of wells

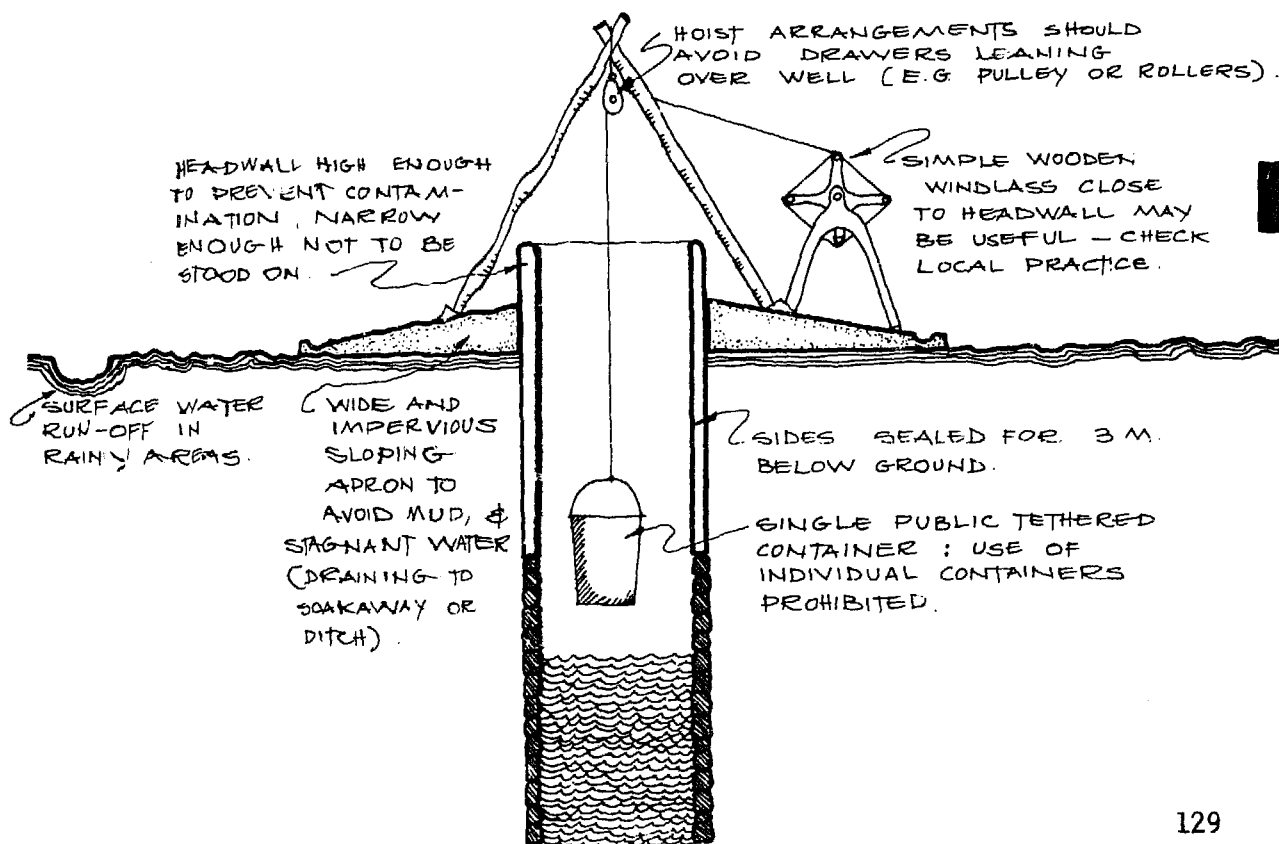
Type of well	Approximate maximum depth	Technique	Comments
Driven Tube well	10-15 metres	Simple: special pipe hammered into ground; can be sunk in 1 or 2 days	Small; cannot be sunk in heavy clay, soil or rock; needs special filter "well point" at tip of pipe
Bored Tube well	25 metres	Simple: handbored hole using an auger; can be sunk in 2-3 days	Larger than driven tube well; augers may need to be imported, but locally available boring tools can often be used
Hand Dug well	30-40 metres	Requires skilled workers otherwise dangerous. Speed depends on soil conditions. For team of 4 men perhaps up to week per 10 metres depth	Often the most appropriate solution, especially if the refugees traditionally dug such wells
Jetted Tube well	80 metres	More difficult: water pumped down a hole and over-flowing to carry out and loosen soil, enabling pipe to be pushed down	Requires considerable amount of water to sink, and special drilling equipment
Borehole	Over 100 metres	Large drilling rig	If more than some 50 metres deep, hand pumps cannot be used

8. The yield of a well depends on the geological formation in which it is sunk, the contours and gradients of the land, the well construction, and the pump. Any new well or borehole must first be "developed" to full yield by an initial period of pumping at a fast rate. This has the effect of pumping out finer soil particles and thus allowing water to pass more easily into the well. Yield 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 ground water flow. If wells are sited too close together yields will be reduced.

9. Wells, boreholes 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 0.2% chlorine solution in water would be a suitable disinfectant and the techniques are described in the technical guides.

10. Like springs, wells must be protected from pollution. 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 15, preferably 30 metres away from any sanitation facilities and their discharge. A well-head, consisting of a headwall and drainage apron, running off to a soakway, is essential to avoid direct contamination down the well. The headwall should not be so wide that people can stand on it. Rollers, pulleys or a windlass should be provided to avoid people leaning over the well. Individual buckets must never be allowed down the well, and close supervision and control will be essential. See figure 9-5. As numbers using an open well increase so does the risk of pollution and difficulty in raising sufficient water by bucket. It is then better to cover the well and use a pump.

9-5 PROTECTING AN OPEN WELL



### Rain water

11. Reasonably pure rain water can be collected from the roofs of buildings or tents 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, and it requires suitable shelter as well as individual household storage facilities. It is, therefore, not generally the solution in refugee emergencies. However, every effort should be made to collect rainwater and small 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 which it is possible to collect by this method is estimated as follows:

One millimetre 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 can be collected in a year equals:  $5 \times 8 \times 750 \times 0.8 = 24,000$  litres per year or an average of 66 litres per day (on many days there will be none).

12. Rain water may be a useful supplement to general needs, for example through special collection for the community services such as health and feeding centres, where the safety of the 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.

### Sea water

13. Sea water can be used for almost everything but drinking, thus reducing fresh water require-

ments. In locations where no adequate sources of fresh water exist but where sea water is near, desalination is one possible but costly option. Neither of the two basic methods - distillation using the sun's heat or the use of modern desalination plants - is likely to meet immediate fresh water needs in a major emergency, so relocation of the refugees must be considered as a matter of urgency.

### Municipal and private systems

14. Existing municipal and private water 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 obviously be utilized where possible before unnecessary measures to create other sources are taken. A substantial increase in the yield and quality of such systems may be possible if expert advice is taken.

### 9.6 Pumps, storage and distribution

- Mechanical pumps will often be needed. Seek expert local advice on what is suitable and remember the operators, fuel and spares.
- Water storage facilities will be essential.
- Distribution points should be within a few minutes' walk of the users' dwellings.
- Site the distribution points carefully and protect the ground around them.
- Standpipes and taps are usually best but vulnerable: one tap per 200-250 refugees.

1. Once an adequate source of water has been established, arrangements are necessary to store and distribute the water in a way that guarantees minimum

needs are met on a continuing and equitable basis.

2. In areas subject to seasonal flooding, or where the level of a river source varies markedly, great care must be taken in the siting of any pumps, distribution, storage and treatment systems. It may even be necessary to mount a pump on a raft.

3. Water can be raised in two basic ways: by hand using some kind of bucket or by using pumps. A captive rope and bucket carries a low pollution risk and is more reliable and much cheaper than any pump. Where this system can meet the demand it is to be preferred. The importance of preventing refugees putting their own containers directly into the source has already been stressed.

#### Pumps

4. However, in a major refugee emergency, pumps will generally be required, either to raise water for direct distribution at the well or to move it to storage tanks or other distribution points. All pumps have moving parts and require regular maintenance. Professional advice, particularly from locals, should be sought on the selection and siting of pumps. The basic hand pump can lift water some 50 metres (the piston is in a cylinder at the bottom of the well). Such positive displacement pumps use simple low technology and are relatively easy to install and maintain, and generally more reliable than motorized pumps. As an appropriate solution, which will minimise dependence on an outside supply of spare parts and fuel, the handpump is strongly to be preferred. Surrounding villages are likely to have handpumps. However, in a refugee emergency a sudden and large concentration of people requires that the output of available water sources be maximized. Motorized pumps have a far greater output and may therefore be indispensable. If motors are required, local advice should be

sought. Local familiarity, fuel supplies, spares, ease of maintenance and above all reliability will be major considerations in pump selection. Self-priming centrifugal pumps are usually recommended when water has to be lifted a considerable height (up to 100 metres) or pumped over a long distance.

5. In some circumstances pumps powered by solar panels may be suitable. The present generation are expensive for their output but very reliable and involve no direct running costs. The next generation of solar pumps should be much cheaper. The pumps naturally work best in direct sunlight but will still work with light cloud cover. As a rough indication, a solar pump powered by panels rated at 250W would lift 1-2 litres/sec. through 6 metres on a sunny day. Thus a solar pump might be a solution when the output of a hand pump would be insufficient but large mechanized pumps are not necessary.

6. The theoretical capacity required of the pump depends on available storage as well as likely demand, as the demand will not be constant throughout a 24 or even 12 hour period. 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 standby pump on a major supply system to cover repairs and maintenance.

#### Storage

7. In nearly all systems it will be necessary to store water in covered tanks between the source and distribution points. This will provide an essential reserve, can greatly facilitate distribution, particularly when water is pumped up to elevated tanks, and helps purify water (see 9.7.4). Where sedimentation tanks are in use,

their capacity alone should equal a day's consumption, thus allowing sedimentation to take place overnight. All refugee sites must be provided as soon as possible with facilities to store an adequate reserve of water. The size of the reserve will depend, beyond the number of people, on the nature of the water supply system in each case and particularly on its logistical aspects. Tank capacities are calculated as follows (use internal dimensions and overflow pipe heights):

- (a) Rectangular tanks: length x breadth x height (in metres) x 1,000 = capacity in litres;
- (b) Cylindrical tanks: height x radius<sup>2</sup> (in metres) x 3140 = capacity in litres.

8. In certain circumstances, notably in areas with pronounced dry and rainy seasons and where alternative sources of water are limited, the construction of a reservoir to collect water to be used during the dry season may be an option, despite the dangers of pollution and of mosquitoes breeding. An erosion-protected overflow spillway should always be provided. Catchment tanks for collection of surface water can also be considered in the drier parts of the world. Pits are dug in the ground to catch and hold the water which runs off hard ground during heavy storms. They need special lining in order to hold the water, and should be covered if possible.

9. Above-ground tanks may be needed where the water-table is very high and contamination cannot otherwise be avoided. A number of types of simple, air-portable, butyl rubber storage tanks are available and some can be supplied together with a complete distribution system. Headquarters' advice should be sought if local resources cannot meet this need.

### Distribution

10. The refugees must have easy but controlled access to water. Ideally, no dwelling should be further than 100 metres or a few minutes' walk from a distribution point. Experience has shown that where persons 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. Hence the importance of availability. Water distribution will be an important consideration in the layout of the site. The distribution points should not be in hollows. The area round the point should be paved with stones or gravel, or protected by boards, with a run-off to allow proper drainage.

11. Water can be distributed to individual users in a number of ways, depending on local conditions. Uncontrolled access by individual consumers to primary water sources must be avoided. A distribution system should have a sufficient number of sources and/or outlets in relation to the size of the population to ensure that people do not need to wait for long periods to have access. Equity in the distribution of scarce water is an extremely important consideration. 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, and arrangements carefully monitored in order to detect and prevent abuses. In some situations, water meters have proved a cheap and effective way of identifying excessive users and reducing their consumption.

12. The most appropriate method of distributing water to large populations will depend on a number of variables in each specific

situation, such as the kind, number and location of primary sources and the availability of materials, equipment and expertise. Between source/storage and distribution point, water for domestic use should flow only in pipes in order to protect its quality. These must be watertight: leaking pipes will suck in pollution when the pressure drops or the system is turned off. Pipes may be made of plastic, metal, cement or bamboo. Bamboo is unlikely to be suitable in the majority of emergencies and polythene pipes are often the cheapest and easiest to lay. Polythene piping is available in lengths of coiled, flexible pipe as well as in the form of rigid lengths, commonly of 3m. Pipes should be buried for protection and sections of the system should have isolating valves.

13. As outlets, standpipes and push taps are recommended where possible. Taps are, however, 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 one tap per 200-250 refugees. 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 supervised; watchmen are often needed.

14. A certain amount of waste water will be generated in the community, both at the individual and communal service level. This must not be allowed to become a danger to public health, but it may be usefully recycled, for example to water livestock, irrigate vegetable gardens or in flush latrines.

### 9.7 Treatment

□ All methods of water treatment require some expertise, regular attention, and maintenance.

- The most serious threat to the safety of a water supply is contamination by faeces.
- Covered storage is the simplest method of improving water quality.
- Sand filtration is an effective method of water treatment.
- Chemical disinfection for large-scale water treatment is generally only recommended if storage and/or sand filtration cannot meet the need.
- Water purification tablets and boiling are not generally appropriate for large-scale water treatment.

### The dangers

1. The water may contain pathogens, particularly certain viruses, bacteria, protozoal 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 diarrhoeas, dysenteries and infectious hepatitis (hepatitis A). The diarrhoeas and dysenteries 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 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.

## Treatment

2. The importance of trying to find a source that does not require treatment has been stressed. If treatment is necessary, it should be the minimum required to ensure acceptably safe water, using appropriate technology and a method that is reliable. Determining how to treat water on a large scale is best done by experts, and if possible professional engineering advice should be sought. However, simple and practical measures can be taken before such help is available. Full explanations of types of treatment are given in the technical guides; the main systems are summarized below. All methods require regular attention and maintenance.

3. In addition to the physical measures to protect water at its source and initial disinfection of wells and boreholes (usually by chlorine), there are four basic methods of treatment: storage, filtration, chemical disinfection, and boiling. These can be used singly or in combination.

4. Leaving water undisturbed in containers, tanks or reservoirs improves its quality. Storage causes some pathogens to die off and any heavy matter in suspension to settle (sedimentation). In an emergency where water supplies cannot be assumed to be safe, immediate action to provide maximum water storage capacity is a logical first step. Storage of untreated surface water for 12 to 24 hours will already bring about a considerable improvement in its quality; the longer the period of storage and the higher the temperature, the greater the improvement. The clarification of cloudy water can be greatly speeded up by the addition of aluminium sulphate. A two tank system is often used, the first tank being a settling tank with the second storing the clarified water. If treatment is required this can be done in the second tank, and a third used for storage if necessary. While

clear water may only require chlorination, turbid surface water will usually require sedimentation and/or filtration before chemical disinfection; even so greater doses of chlorine may be required.

5. 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.

6. Longer storage 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 a human or animal host within 48 hours of leaving infected snails. Thus two days' storage would provide an effective barrier to transmission of the disease, provided snails do not enter the tank.

7. Sand filtration can be an effective method of treatment. A proper slow sand filter works in two ways. Passage of the water through the sand physically filters out solids and, more important, 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. The rate of filtration depends on the surface area, depth and type of sand through which the water is passed, and the head of water. The usual size range of the sand is 0.3 - 1mm. Provided the rate of filtration is slow enough, the quality of the treated water is very good.

8. The types of sand filters are described in the technical guides. A packed drum filter can be improvised if drums and sand are available and 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 5cm. 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 horizontal sand filter and the river bed filter (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.

9. Chemical disinfection as a method of water treatment on a large scale is, as a rule, recommended only in situations where storage and/or filtration cannot meet the need. It will, however, be required initially to purify wells, sand filters, pumps and piped water systems. Both iodine and various forms of chlorine can be used; 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. Methods of chlorination are described in the technical guides. Expert advice is essential for large-scale chlorination. All systems require regular attention and will be of little value if not fully reliable. Chlorination should take place after any sedimentation or filtration process. It requires at least thirty minutes to act.

10. 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 there should still be at least 0.2 parts of "free active chlorine" per million in the water, 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 active 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. Chlorine and iodine water purification tablets are also available, but are rarely suitable as a method of water treatment for large populations. They may be used in health or supplementary feeding centres.

11. Boiling is the surest method of water sterilization, and at low altitudes simply bringing water to the boil will destroy all pathogens that may be transmitted by drinking water. 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 is wasteful of fuel and will increase the concentration of nitrates in the water. Water with a high concentration of nitrates is dangerous for very young babies. Domestic fuel supplies may in the longer term be the determining factor; boiling requires about 1kg 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, may make the need for other types of treatment less urgent.

Further references (1)

- |   |   |   |
|---|---|---|
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| Howard J.<br>(1979)                     | <u>Safe Drinking Water</u><br>Information on treatment methods  | Oxfam Technical<br>Guide                                |
| Rajagopalan S.<br>Shiffman M.<br>(1974) | <u>Guide to Simple Sanitary Measures for<br/>the Control of Enteric Diseases</u><br>Covers water supply and all aspects of<br>sanitation including food sanitation<br>(Also in Arabic, French and Spanish)  | WHO   |
| Pacey A. (1980)                         | <u>Hand-pump Maintenance in the context of<br/>community well projects</u>  | Oxfam/Intermediate<br>Technology Publi-<br>cations Ltd. |
| World Bank                              | <u>Appropriate Technology for Water Supply and<br/>Sanitation.</u><br>A 12 volume series. Volume 12: <u>Low-cost<br/>Water Distribution - A Field Manual</u> (1982)<br>is particularly relevant.  | World Bank  |
| WHO (1971)                              | <u>International Standards for Drinking Water</u><br>Third edition (also in French and Spanish)<br>Being superceded by <u>Guidelines for Drinking<br/>Water Quality in three volumes</u> of which<br><u>Volume 3, Surveillance of Rural Community<br/>Water Supplies</u> , expected end 1983, should<br>be particularly relevant. | WHO   |

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(1) See also the further references at the end of chapters 7 and 10, only some of which are repeated here.

## CHAPTER 10: SANITATION AND ENVIRONMENTAL SERVICES

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## CHAPTER 10: SANITATION AND ENVIRONMENTAL SERVICES

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### Need

The social disruption, overcrowding and lack of sanitation facilities that characterize refugee emergencies can quickly lead to conditions that are hazardous to health and offensive unless action is taken.

### Aim

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, and programmes must be developed with and to the extent possible run by them. The measures taken must be culturally acceptable to the refugees.
- The advice of an experienced public health engineer with local knowledge is required.
- Swift provision of a basic system for human waste disposal is better than delayed provision of improved systems.
- The simplest technologies possible should be applied.
- Individual family allocation of appropriate latrines is the best guarantee of maintenance and use.
- Co-ordinate with other public health programmes.

### Action

- Localize defaecation and prevent contamination of the water supply.
  - Develop an appropriate excreta disposal system.
  - Establish effective services for disposal of garbage and waste water, insect and rodent control, disposal of the dead, dust control where necessary, and fire prevention and control.
  - Establish an inspection and reporting system for all sanitation and environmental services, linked to health surveillance.
  - Provide education on sanitation and environmental services as a part of general public health education.
-

### 10.1 Introduction

1. Disruption and the crowding together of people who are accustomed to living in different and less crowded conditions makes adequate sanitation of critical importance. The facilities to which the refugees were accustomed are no longer available, basic services are often lacking and habits may have to be changed. In these conditions, indiscriminate disposal of human and other waste will pose serious threats to the health of individuals, family groups and finally the whole community.

2. Environmental sanitation is often considered to include: the provision of safe water; disposal of human excreta, 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 chapter 9 on water.

3. The key to reducing health hazards is an acceptable and practical system for the disposal of human excreta. This 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; the system must be one which the refugees will use.

4. The refugees must also run the services to the extent possible. Control will be essential: the effectiveness of the services will depend to a significant degree on regular and thorough maintenance and inspection.

### 10.2 Organization

Take full account of sanitation needs in site selection and particularly layout.

Seek professional advice from those with local knowledge and above all consult and involve the refugees.

Ensure maintenance and cleanliness of the system and the supervision of its operation.

Educate the refugees as part of the public health education programme.

1. As has been stressed in chapter 6, 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.

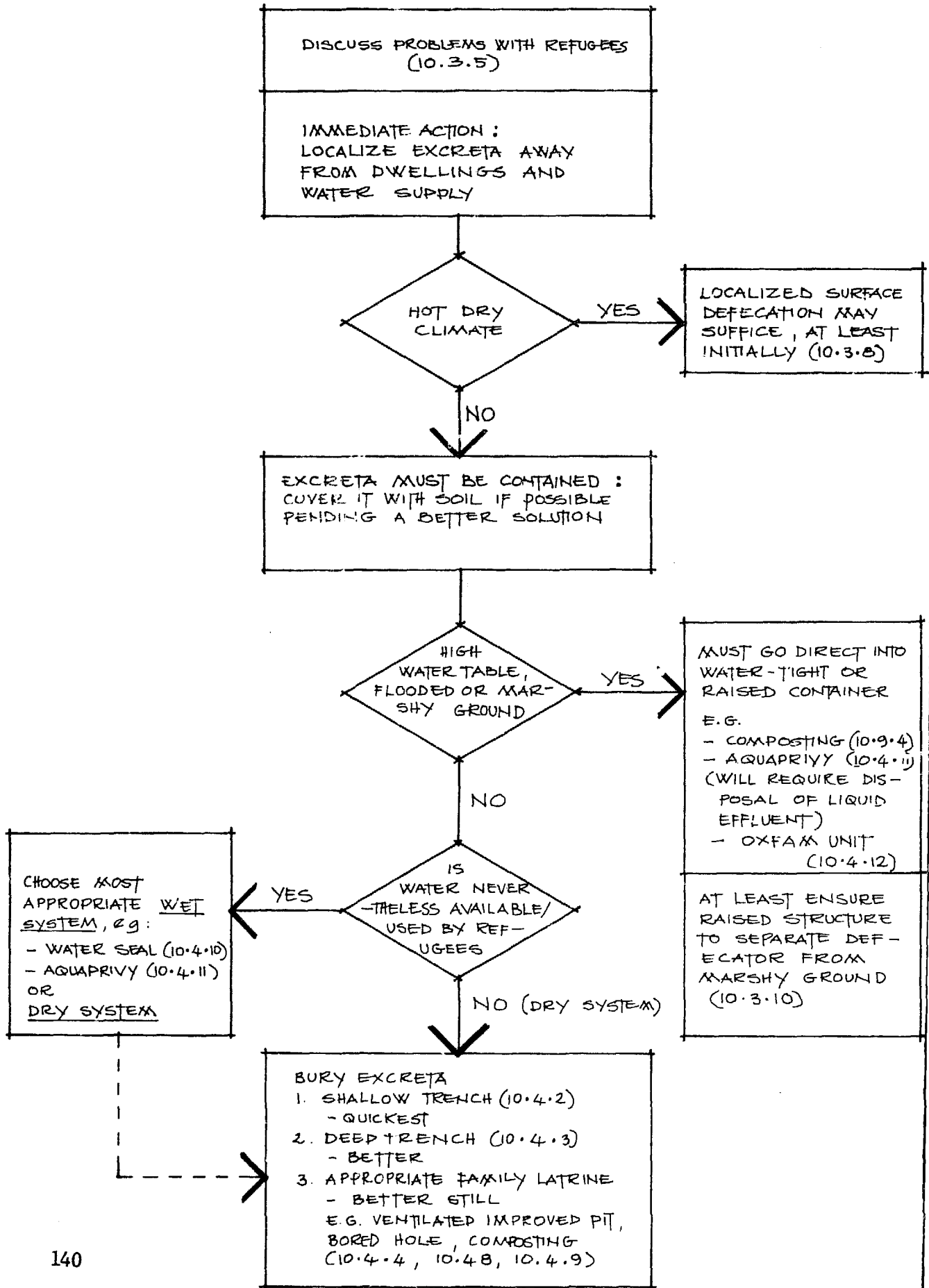
2. Developing adequate sanitation in a refugee emergency is difficult and correcting mistakes is more difficult. Expert advice should be sought from a public health engineer who is familiar with the habits of the refugees and nationals of the country of asylum, and if possible has experience of refugee emergencies. Assistance should first be sought from local sources such as government departments, the UN system, NGOs, universities, consultants or contractors. If these cannot meet the need, Headquarters' assistance should be requested. There are, however, effective measures that can and should be taken at once. Figure 10-1 overleaf illustrates some of them in diagrammatic form.

3. 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. Selected refugees must be trained to run the sanitation and environmental programmes.

4. The most common cause of complete failure of a sanitation system is selection of the wrong system as a result of inadequate discussion with the refugees and a

- Sanitation and environmental services -

10-1 CONSIDERATIONS IN EXCRETA DISPOSAL



failure to take all relevant factors into consideration.

5. The most common cause of breakdown is inadequate maintenance, even for properly designed and installed systems. 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.

6. Even when in working order, latrines will not be used unless they are clean. 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 and proper supervision will be required, and it may be necessary to pay or otherwise compensate those who are responsible for keeping communal latrines clean and operational. Latrines must be cleaned daily. It should be noted that disinfectants should not be poured into the pits or tanks of latrines which dispose of excreta by biological degradation. The regular addition of soil, ashes or oil, if available, to trench or pit latrines may help control insect breeding and reduce odour.

7. The public health education programme must place proper emphasis on the importance of sound environmental sanitation practices. The link between excreta 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 excreta-related diseases and also the main excretors of many of the pathogens that cause diarrhoea. Children are often fright-

ened by unfamiliar latrines and particular care will be needed to ensure that the latrines are safe and physically suitable for children.

### 10.3 Disposal of excreta

- Take immediate action to localize excreta disposal and prevent contamination of the water supply.
- Carefully consider cultural and physical factors.
- Trench latrines may be needed initially, but in most circumstances individual family latrines are much better.
- Ensure that latrines can be used at night and that appropriate anal cleaning materials are available.

#### General

1. Safe disposal of excreta is necessary because the agents of most important infectious diseases are passed from the body in excreta and may reach other people. These are called the excreted infections and fall into four main groups: viruses, bacteria, protozoa, and worms (helminths). Furthermore, unless properly isolated, excreta can provide a breeding ground for insects, which then act as direct or indirect transmitters of disease.

2. The specific link between the incidence of diseases and the sanitation system may not always be obvious, as often the most important human link in transmission of an infection is a carrier who shows little or no sign of disease. Conversely, persons in an advanced state of disease may have little or no importance in transmission. The links between diseases, infections, the means of transmission, and the sanitation system must be kept under constant surveillance.

3. The safe disposal of human excreta is more important than disposal of animal waste, because more diseases affecting humans are transmitted by human waste than animal. Human faeces are much more dangerous than urine. For urine, it is probably sufficient in an emergency just to prevent contamination of the water, but in the areas of Africa and the Middle East where the Schistosoma haematobium species of bilharzia occurs, and in all areas where typhoid is common and endemic, disposal of urine also requires special attention.

4. Two main factors will affect the choice of an excreta 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 either of them can easily result in the system itself rapidly becoming a health hazard.

5. Consideration with the refugees of their traditional sanitation practices and how these can be modified or adjusted to reduce health hazards in the circumstances of a refugee emergency is the essential starting point. Over half the world's population does not use latrines. Of those who do, some cultures require privacy, some separate the sexes physically or by time, others do not. Such factors, and the method of anal cleaning, must be considered at the planning stage and will directly affect the type of system. Once they have been taken into account, the cleanliness of latrines and their ease of access will determine whether or not they are used. The following may help as a check list:

- (1) Previous sanitation system and practices;
- (2) Method of anal cleaning;
- (3) Preferred position (sitting or squatting);

- (4) Need for privacy;
- (5) Segregation of sexes and other groups or individuals with whom it is culturally unacceptable to share a latrine;
- (6) Cultural practices for children;
- (7) Cultural taboos (for example, against contact with anything that may have touched excreta of others);
- (8) Social factors, including likelihood of community action to ensure proper use of proposed system;
- (9) Need for special orientation (direction) of latrine in some cultures;
- (10) Systems used locally in neighbourhood of site.

6. Arrangements must be made to assure the availability of appropriate anal cleaning materials at or near all latrines. This is essential to the maintenance of hygiene.

7. The latrines must be safe for children, and must be able to be used at night. For individual units, families may be able to arrange their own lamps, but for communal units some form of lighting should be provided.

#### Immediate action

8. The refugees are likely to be defaecating indiscriminately, contaminating their environment and often the water supply. In consultation with the community leaders, the best first step is to try and localize excreta: controlled surface defaecation. If space allows, designate an area or areas away from the dwellings and down wind, but sufficiently close to be used. Fence the area(s) and provide privacy and a shallow trench and spades, if necessary and possible. Covering excreta lessens risks.



Site such areas where the surface run-off during rain will not cause contamination and protect the area with cut-off ditches.

9. A publicity campaign will be required to encourage refugees to use these areas and not defaecate indiscriminately near dwellings. At the same time measures must be taken to prevent defaecation or urination in or near the water supply. This immediate action can already significantly reduce public health hazards.

10. If the ground is flooded or marshy or there is a high water table, arrangements must be made as soon as possible to try and physically contain the excreta: in such circumstances the risks to public health are greatest and location of the area away from the dwellings and water source is even more important. Pending a proper containment system, simple raised structures, for example a wooden stage some 50cm high, may be essential to avoid the refugees immediately being contaminated by their own excreta. Alternatively empty 200 litre (45 gallon) oil drums can be used. One end of the drum is cut out and the drum inserted that end down into the ground, after digging a hole as deep as the water allows. The last half metre of the drum is left out of the ground and a small hole cut into the end of the drum to transform it into a squatting plate.

11. Where the site is not yet occupied, immediate action will be determined by the type of system adopted (see below). The first refugees moved to the site should construct the system if this has not been done earlier.

#### Longer-term options

12. Expert advice will be required on the most appropriate system. The nature of the soil will be important; if it is highly impervious some systems will be precluded. The availability of water will be another factor, and

the importance of cultural considerations has already been stressed. There are many simple options that, if properly constructed and maintained, will meet all public health requirements.

13. In hot, dry climates, where sufficient space is available, localized defaecation areas away from the dwellings may also be the best continuing arrangement, particularly for those whose normal practice it would be. In time, the heat and sunlight render the faeces harmless. Black rock is the best surface. If this solution is adopted keep the potential health hazards under review and watch out for increased numbers of rats in the area. In most emergencies, however, some sort of latrine will be required, even for refugees unaccustomed to them. The broad division is into dry latrines - trenches, pits or holes in the ground - and water-dependent latrines, which are flushed. In addition there are also systems based on composting or the cartage of excreta.

14. If the site is on the coast, local practice may be to defaecate in the sea. While this is less harmful for the refugees than indiscriminate defaecation on land, it should be discouraged unless there is no other option. The dangers increase greatly with numbers. Faeces will contaminate the high-water line, and the practice will increase the health hazards of washing in the sea. Where defaecation in the sea is unavoidable, it should be localized by fencing off an area. Structures should be built that permit defaecation away from the immediate shore line and both the location of these and organization of the system should make use of tides, currents and prevailing winds to avoid direct contamination of the foreshore. Pumping untreated excreta far enough out to sea so that it is carried away from the coastline is one possibility. Defaecation in bays, estuaries or lagoons where fish or shellfish

are caught should be discouraged since this may be a source of infection.

#### Selection of a system - basic considerations

15. The selection of an excreta 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 excreta, 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; weeks or months cannot be lost in waiting for expert advice, construction to be completed or material to arrive. 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.

16. Emergency conditions may therefore dictate at least the initial use of trench latrines. These can be dug quickly and need less space than individual family units. While shallow trenches may be a quick-action solution for a very short initial period, deep trench latrines are incomparably more effective. Where space and soil conditions allow, the simplest and commonest individual family unit is the pit latrine. Details of various types of latrine are given in section 10.4. Once a system has been selected, a pilot project may yield valuable lessons.

#### Specific considerations

17. There are three basic options for the allocation of latrines: individual family units, centralized units with each latrine allocated to an individual family and communal systems. People will always make more effort to keep their own latrine clean and in

good order than to do the same for a communal facility, and dirty and smelly latrines will not be used. Consequently, individual family units are, under normal conditions, the preferred solution.

18. Cost, installation and maintenance. The most appropriate system is likely to be the one that is cheap, simple to install and easy to maintain. Maintenance problems often prevent satisfactory operation of otherwise well designed and installed systems. Particularly important, the latrine must be easy to clean and the surfaces round the hole washable. Avoid uncovered wood if possible.

19. Number and siting of latrines. As a rule, at least one latrine should be provided for every 20 people. Latrines should be at least 6 metres from dwellings if possible, further away from feeding and health centres, say a minimum of 10 metres, and over 15 and preferably over 30 metres from wells or other drinking water sources though all these distances depend on latrine and soil type. Latrines should be located no more than 50 metres from user accommodation and be easy of access. Figure 6-1 on page 62 shows these considerations in the context of site planning. If people have to walk a considerable distance to a latrine they will defaecate in a more convenient location regardless of the health hazard.

20. Population density will affect the space available for the excreta disposal system and thus the type of system. One of the major health hazards as a result of overcrowding is that latrines are too close to dwellings and there may be insufficient space for individual units. This must be considered in site planning. The site layout should be determined, among other things, by the needs of the most suitable sanitation system, not vice versa. Space must be available for replacement latrines where necessary.

21. The nature of the soil may exclude certain options. For example, rocky soil may prevent the digging of pit-type systems; sandy soil will demand special measures for preventing side wall collapse of pits; impervious clay soils may exclude any system dependent upon seepage. Account should be taken of the difference between dry season and wet season soil conditions. If the ground freezes in winter this may limit the choice of systems. Soil conditions can vary over a short distance and a thorough survey is necessary. Where there is a high water-table, perhaps only seasonally, care must be taken to ensure it is not contaminated by seepage from the latrines. In flood or swampy conditions the excreta must be contained.

22. The amount of water available will determine whether disposal systems which require water are a possibility. These systems are generally more expensive than those which do not need water. Refugee situations are often characterized by a lack of reliable water sources, which usually means that the excreta disposal system should not be dependent on water availability. However, whatever the system, many communities require water for anal cleaning.

23. All sites have rain at some time and seasonal rains may be very heavy; it is necessary to anticipate where surface run-off will flow and it may need to be diverted by cut-off ditches. The possibility of flooding should be considered and drainage provided if necessary. If flood water enters the latrines large areas may be contaminated.

24. Construction material will be needed. The structure should be made of local materials and these should be used for reinforcing the pit where necessary. Refugees not used to latrines will generally prefer a large enclosure with no roof but there are often strong arguments for covering latrines in

order to prevent rain water filling the latrine, causing contamination around it, or weakening the surrounds. Make sure proper drainage off the roof is provided, away from any soakaway. Special measures will be necessary for the manufacture of squatting or sitting slabs, and U-pipes and other material for wet systems, if these are not available locally. Where refugees or locals have an established method of covering latrines, for example with a wooden lattice, this is generally to be preferred, even if it is less easy to clean than a special plate. There are, however, a number of simple techniques which exist for making the latter on site, for example with reinforced cement or fibreglass from moulds. Guidance is given in the technical references. Seek advice on local methods.

25. Biogas can be produced from excreta, with fertilizer as a by-product. While rarely likely to be a priority in an emergency, this possibility should be considered where fuel is short and effective local biogas systems already exist. The applications are generally in communal services: there is a minimum effective plant size and conversion of a family's excreta to biogas only yields up to a quarter of their needs in cooking fuel.

#### 10.4 Types of latrine

□ There are many potentially satisfactory types of latrine: low cost, simplicity of construction and ease of maintenance are the priorities once cultural and physical factors have been considered. The basic division is into wet and dry systems.

##### Dry systems

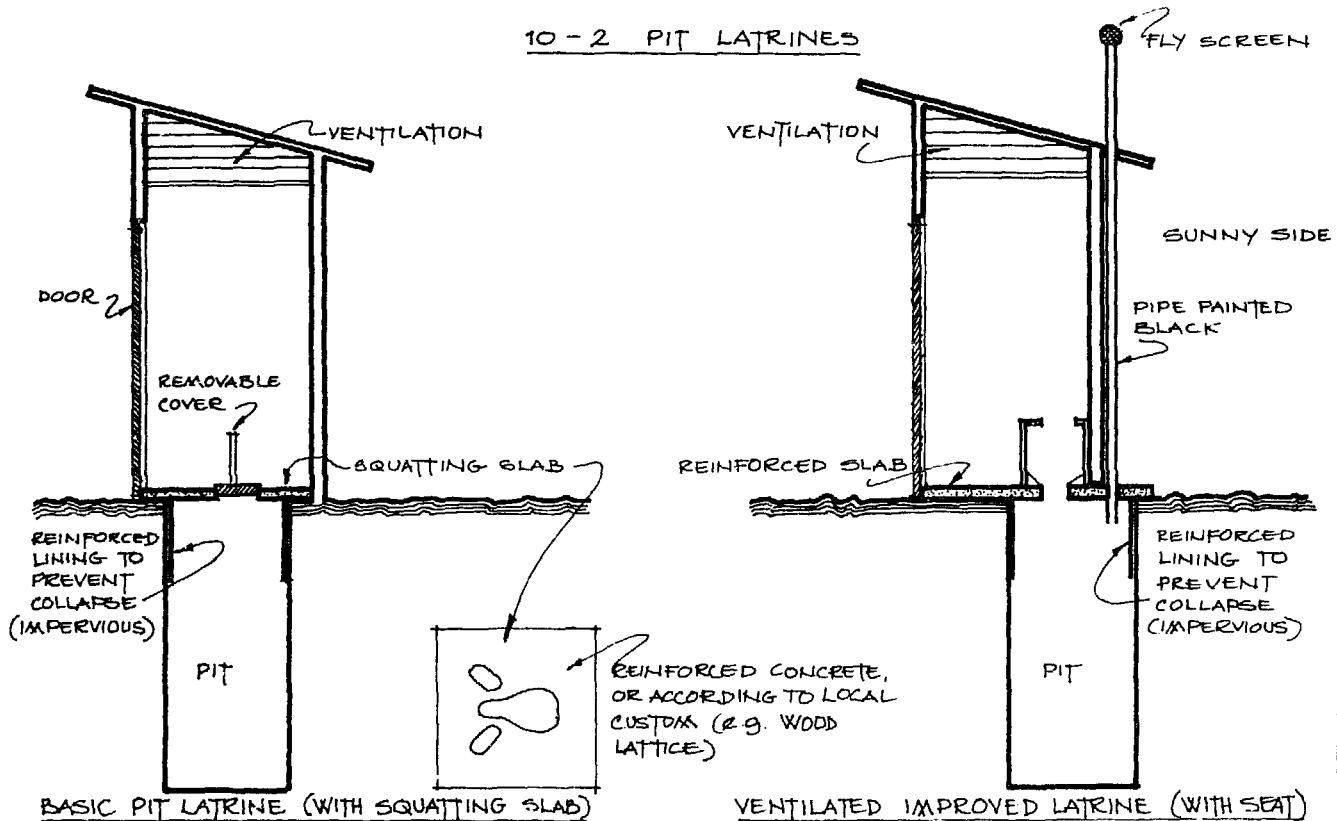
1. In dry systems, keep the squatting hole as small as possible and ensure a close fitting cover is provided and used, except with VIP latrines (see 10.4.4).

2. Shallow trench latrines (very cheap). Shallow trenches can be dug with picks and shovels and last for only a few days. The shallow trench is usually 30 cm wide and 90-150 cm deep. For every 100 people 3.5 metres of length is recommended. After every use the excreta should be covered with soil from the digging of the trench, which is left on one side. When the trench is filled to within 30cm of the top, it must be covered with soil and compacted. Simple platforms which can be cleaned without much difficulty and moved on may be placed over the trenches.

3. Deep trench latrines (cheap). Deep 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. They should be dug 1.8 to 2.5m deep and 75-90cm wide. Recommended length per 100 persons is again 3.5 metres. A platform and structure will be needed, providing a seat or squatting hole, as appropriate,

with lid, and the trench should be fly-proofed to the extent possible. Adding earth, ashes or oil will reduce flies. Trench sides must be shored up if there is a danger of collapse.

4. Pit latrines (cheap). The most common excreta disposal system around the world is the individual family pit latrine (figure 10-2), which has major advantages over a trench latrine. It consists of a superstructure for privacy, and a squatting place (or seat) above a hole in the ground. Individual families can dig the pit and build the superstructure and if used by only one family these latrines are usually well maintained. Pit latrines can also be used in clusters as communal facilities. While the basic variety has both odour and insect problems, the simple improvements shown in the diagram can reduce these considerably, as will the addition of oil and use of lids. Where pit latrines are used, the ventilated improved version (VIP) should be built whenever possible.



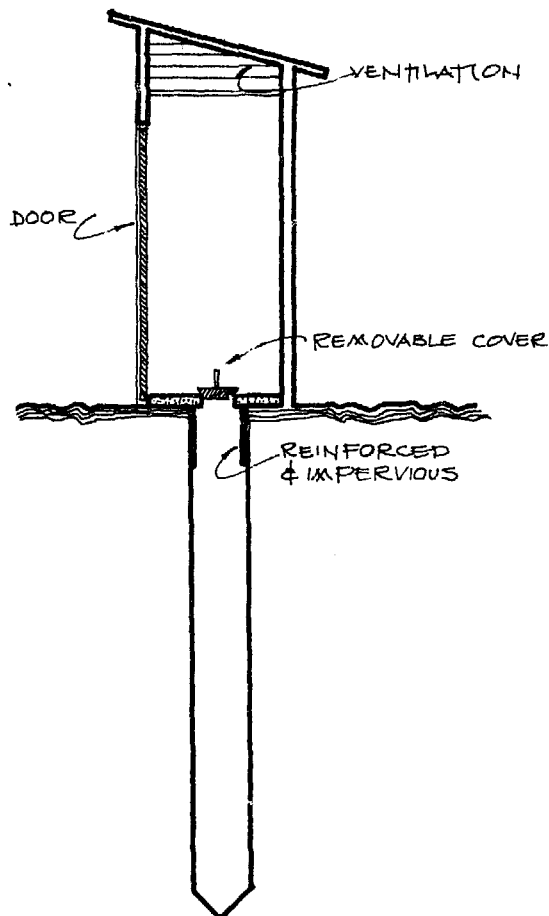
5. Pit latrines are most suitable in conditions of low to medium population density - up to about 300 persons/hectare - but have been used satisfactorily in areas with twice this density. Space should be available not only for the construction of one pit latrine per family, but also for the digging of new pits when the old ones are full. This is an important consideration when pit latrines are used as communal facilities. When the pits are three-quarters full, they must be filled with soil and the superstructure and squatting plate moved to a new pit. If layers of ashes are applied as the pit fills the excreta will decompose and in time the site can be used again.

6. The pit should be about one metre across and over two metres deep. The rim of the pit should be raised about 15cm and cut-off ditches dug to divert surface run off. The pit should always be reinforced and the sides may need to be reinforced for one metre below ground level to prevent collapse. A light wooden squatting plate or wooden lattice, although harder to clean, may be more practical than a heavy concrete one. The danger of collapse may be further reduced by digging the pit as a trench only 50-60cm wide or by having a circular pit, when the use of oil drums as described in 10.3.10 could be considered.

7. The vent pipe in a VIP latrine should be at least 15cm in diameter, about 2 metres high, painted black and placed on the sunny side of the latrine for maximum odour and insect control. It must be fitted with an insect-proof gauze screen, when it will work as an excellent fly trap. The hole should not be covered by a lid as this impedes the air flow.

#### 8. Bored-hole latrines (cheap)

Bored-hole latrines (figure 10-3) are dug with a hand auger or mechanical drill and require a smaller slab than a pit. The bore-hole is 35-45cm in diameter and any depth up to 7 metres. The advantage of the bored-hole latrine is that it can quickly be constructed 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.



10-3 BORED HOLE LATRINE

9. Composting latrines (cheap). Such latrines render excreta harmless with time and produce fertilizer. Figure 10-4 shows one of proven effectiveness, the Vietnamese double septic bin, suitable for a family of 5-10. Urine does not enter the bin, being diverted into a container. After each defecation ashes are sprinkled over the faeces. Once filled, the bin is sealed (e.g. with lime cement or clay) and the adjoining bin used. A full bin is left to compost for at least two months and the contents then removed through the rear access door, which has also been hermetically sealed during composting.

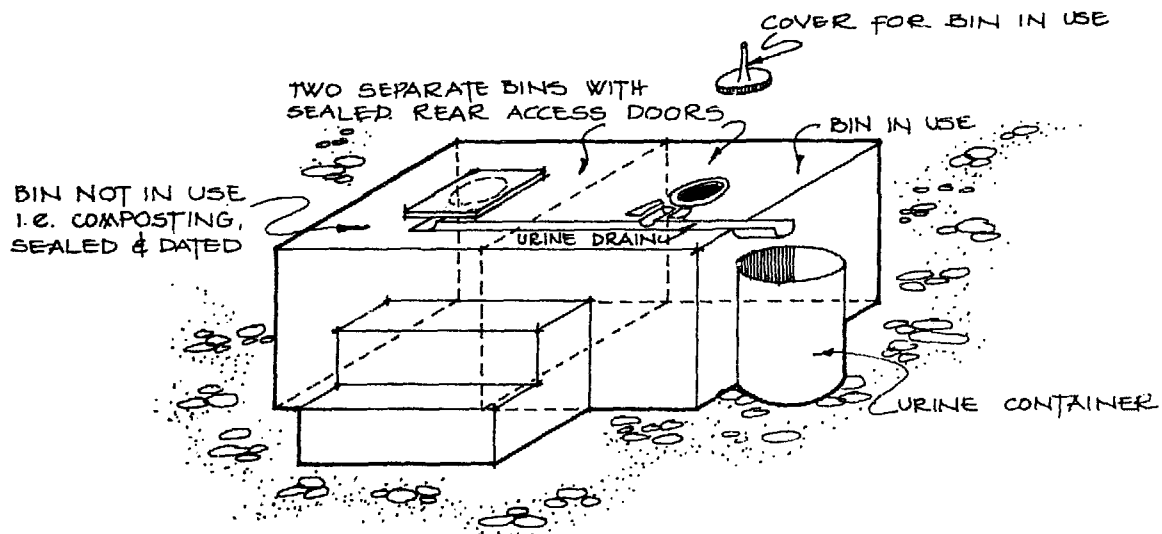
Wet systems

10. Water seal (pour-flush) latrines (cheap). Water seal latrines (figure 10-5) are simple in technical design but require a permeable soil for their soakaway. 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 soakaway. 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

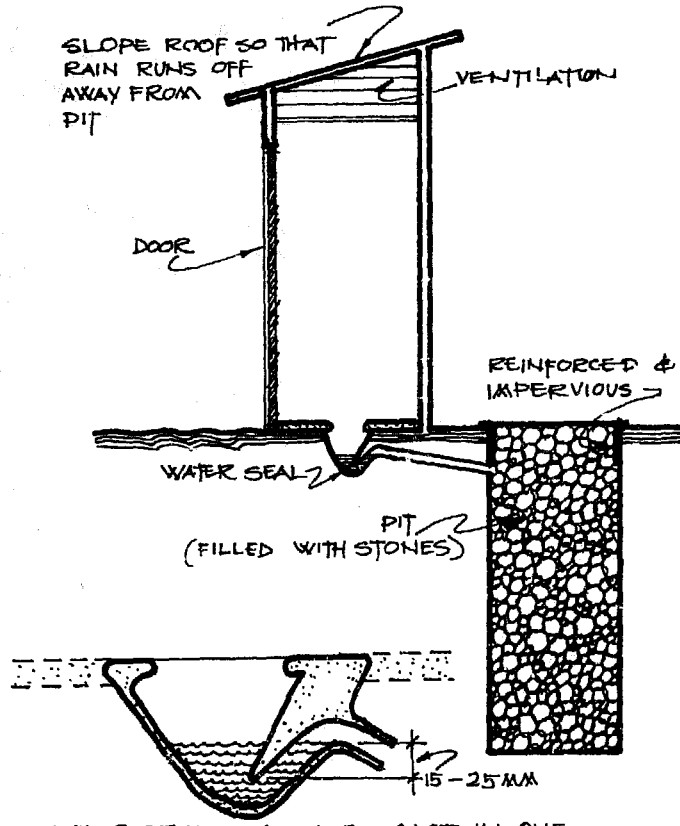
materials are used for anal cleaning. Water seal latrines will be used properly only if water is readily available. A large container with a 3 litre dipper should be close by the latrine. Pit latrines can be modified to become water seal latrines where soil conditions allow.

11. Aquaprivies (more expensive). Aquaprivies (figure 10-6) consist of a squatting plate or seat above a small septic tank from which effluent drains to an adjacent soakaway. The aquaprivy requires a minimum water tank volume of one cubic metre (1,000 litres), to which some five litres per user must be added daily. In areas with impermeable soil such as clay it is not possible to use a soakaway. The liquid run off can be carried in pipes and passed to an area suitable for disposal. The most common difficulty with aquaprivies is failure to maintain the water seal, causing serious odour and insect problems. Experience has shown they do not work satisfactorily where water has to be carried to the latrine, but as long as the aquaprivy is kept topped up with water there are few things that can go wrong. Aquaprivies are not recommended where solid materials are used for anal cleaning. Seek

10-4 DOUBLE BIN COMPOSTING LATRINE  
(ENCLOSURE NOT SHOWN)

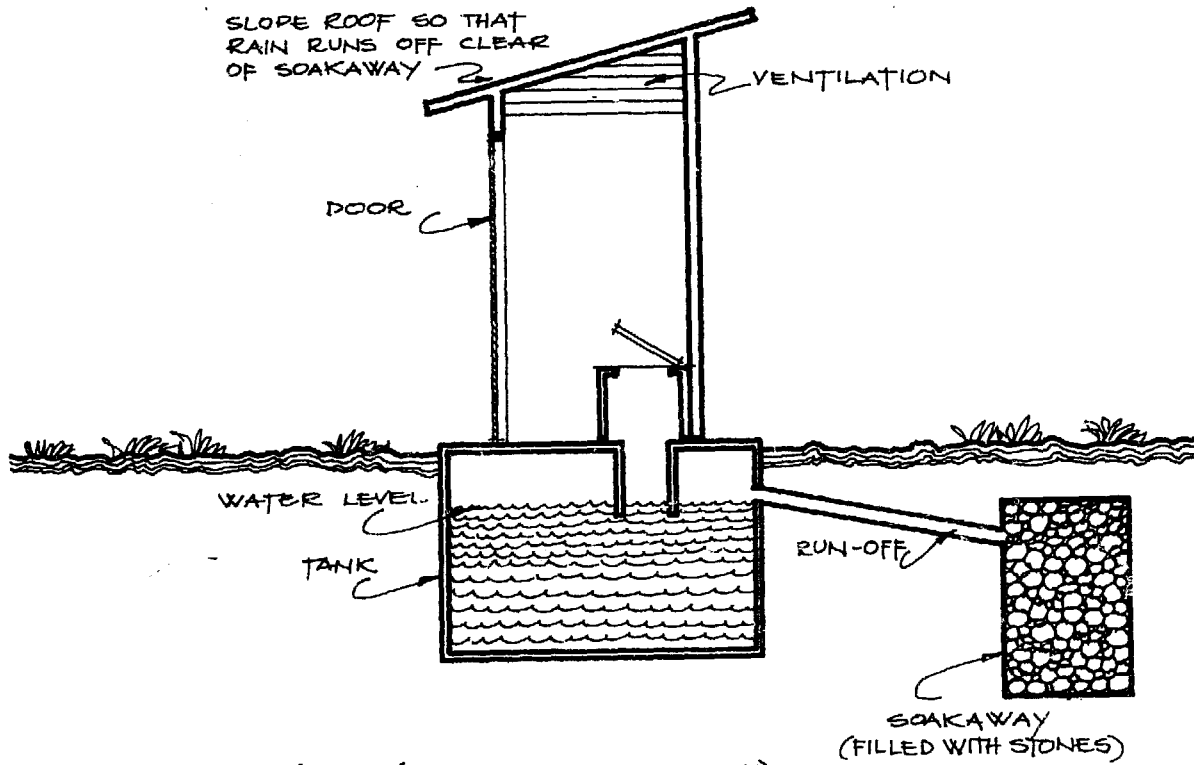


- Sanitation and environmental services -



WATER SEAL - MAY BE CAST IN ONE UNIT WITH SQUATTING SLAB

10-5 POUR-FLUSH (PF) LATRINE



10-6 AQUAPRIVY (EXAMPLE WITH SEAT)

local advice before deciding between aquaprivies and water seal latrines. The former are less easily blocked but have no other major advantage over the latter, which are cheaper.

12. Oxfam Sanitation Unit (more expensive still). The unit is a pre-packaged, communal treatment system in which 20 squatting plates, two flexible tanks made of nylon-reinforced butyl rubber for sewage treatment, and all necessary pipes and fittings are provided. As a unit designed specifically for emergencies, it has the advantage of being a proven system which can be assembled quickly and is not affected by soil conditions. One unit can serve up to 1,000 persons per day. Apart from cost and problems of unfamiliarity, the main disadvantage is that it requires about 3,000 litres of water a day at full design capacity. The unit is not suitable for communities using solids (stones, corn-cobs etc.) for anal cleaning. The water must not be saline. The unit requires a good soakaway or alternate effluent disposal. It also requires a reliable operator. Before deciding on this system, the advice of someone familiar with it should be taken.

#### Waste stabilization (oxidization) ponds

13. Where a liquid effluent has to be disposed of, for example from a 'wet' system in impermeable soil, waste ponds can provide a simple and cheap solution. Treatment is by natural biological and physical processes. As the rate of treatment increases with temperature, ponds are particularly effective in hot climates. Various systems are described in the technical references. If ponds are used they must be securely fenced off.

#### 10.5 Waste water, garbage and dust

☐ Sources of waste water must be localized as much as possible and drainage provided.

☐ 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 preventive measure against dust; spraying of roads and traffic control are additional measures.

1. Waste water is created by washing, bathing and food preparation. The problem of waste water should be dealt with by localizing sources of waste water as far as possible, and by providing local drainage. If this water is not drained away, it will stand in malodorous, stagnant pools providing breeding places for insects, especially mosquitoes, and becomes an additional source of contamination of the environment. Washing, for example, is often done near water sources, causing many problems. In other circumstances, refugees may wish to use the latrine, with its privacy, impervious floor and drainage, for washing. To avoid these problems, special separate washing areas with duckboards or stones and proper drainage should be constructed.

2. All communities generate garbage, and the uncontrolled accumulation of garbage is both unpleasant and unhealthy. Rodent and insect-borne diseases increase with improper garbage disposal. An effective disposal of garbage must therefore be provided and the needs reflected in the initial site planning. Free range chickens, goats and pigs, when available, will help control garbage; dogs will spread it. The suggestions that follow particularly concern high-density sites, where the problem and dangers will be



greatest. Established routines for the storage, collection and disposal of garbage and control measures will be required. Disposal should be accomplished by burying at designated locations on the site, or removal off the site. The open burning of garbage on site should be avoided, and incinerators used if garbage is to be burnt.

3. For solids storage, garbage containers made of metal or plastic and with a minimum capacity of 50 litres should be provided. A 200 litre oil drum cut in half is often used. They should have lids if possible and drainage holes in the bottom. A ratio of one container per 10 families has proved to be effective. The containers should be placed throughout the site in such a manner that no dwelling is more than about 15 metres away from one.

4. The collection of garbage from the containers should take place regularly, daily if possible. Daily collection arrangements will also need to be made for the waste from feeding centres. The safe disposal of all medical waste requires particular attention.

5. Needles and scalpels are especially dangerous. Medical waste should be treated separately, burning as much of it as possible without delay. The designated areas where garbage is to be buried should be well away from dwellings, and be fenced to restrict access. If garbage has to be burnt, after each burning it should be covered with a layer of soil.

6. 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. Dust can also harm some types of equipment which may be needed on refugee sites. The best preventive measure is action to stop the destruction of vegetation round the site. Dust control can be achieved by spray-

ing roads with water or oil, especially around health facilities and feeding centres, limiting traffic and banning it from certain areas if necessary.

#### 10.6 Insect and rodent 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 resistances is necessary.

1. 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. Flies tend to breed in areas where food or human excreta are present, mosquitoes where there is stagnant water, and rats where there is food, garbage and cover. For both flies and mosquitoes, the life-cycle from egg to adult can take less than two weeks. As a result of overcrowding and inadequate personal hygiene, lice, fleas, mites, ticks and other arthropods may also cause health problems. Table 10-7 overleaf gives an indication of common vectors and related diseases.

2. Reducing the numbers of flies, mosquitoes and rodents quickly in an emergency is difficult and physical screens may be the best immediate measure. The most effective method of controlling insects and rodents over the longer term is preventive: to improve personal hygiene, sanitation, drainage, garbage disposal and food storage and handling practices and thus make the envi-

ronment 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 programme should provide for regular inspection and be integrated with other public health measures.

3. 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.

4. Detailed descriptions of vector control methods using insecticides and poisons are given in the technical references. Specialist advice and supervision of all chemical measures is essential. These must be closely co-ordinated with national programmes and practices, especially with the national malaria control programme. Whole areas or specific insect breeding grounds, and perhaps the refugees' dwellings, can be sprayed. Insects may already have and can quickly develop a resistance

to chemicals; a rotation system, using different sprays, may be necessary. Local knowledge of existing resistances is required. Poison and traps may be used against rats in food storage and handling areas but particular care must be taken in disposing of dead rats, which may carry plague-bearing fleas. Chemical spraying and rodent poisons can be dangerous to humans.

5. The body louse is the only proven vector of louse-borne (epidemic) typhus and epidemic relapsing fever. The lice are found on inner clothing, particularly at the seams. If there is a serious increase in body louse infestation quick action is required by properly trained personnel. This generally takes the form of dusting individuals' inner clothing and bedding with an insecticide or the use of clothing fumigants. There is widespread resistance of lice to some insecticides, especially DDT, and expert local advice must be sought. Mass washing of clothing is unlikely to be a solution as a water temperature of at least 52°C must be maintained to kill the lice.

10-7 Vectors which may pose significant health risks

<u>Vector</u>	<u>Risks</u>
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

## 10.7 Fires

☐ Refugee sites are often very vulnerable to fires. An alarm system is essential at high-risk sites.

☐ The most effective preventive measure is the proper spacing and arrangement of all buildings. Other measures include controlling the use of fire, protecting cooking areas and safe storage of fuel.

☐ Water is unlikely to be available for major fire control on refugee sites. Forcible creation of additional firebreaks, manually or by bulldozer, may be a better control measure.

1. Refugee sites are often overcrowded, use light and highly combustible shelter materials, and have many individual cooking fires. Thus they are very vulnerable to major fires. Measures to prevent and control fires must be considered from the start of emergency assistance at refugee sites.

2. The most basic and effective preventive measure is the proper spacing and arrangement of all buildings to provide fire breaks (see ch.6.5.4). Other measures include allowing individual fires for cooking only, outdoors if possible. Where cooking takes place indoors, and especially in wooden or wattle-and-daub buildings, the cooking area should be protected with asbestos sheeting if possible. Where large scale cooking is taking place indoors, for instance in a supplementary feeding centre, an asbestos ceiling and walls or their equivalent, should be mandatory. Fire retardants can be applied to thatch roofing in dwellings. Proper precautions must be taken with regard to the storage and uses of fuels, and highly inflammable synthetic materials avoided.

3. All fires can be controlled in the first few minutes with

modest resources providing quick action is taken. Therefore an alarm system, fire fighting teams and beaters must be organized in advance and plans prepared. Sand buckets are effective if sand is available. Water will generally not be available in sufficient quantity and at adequate pressure for the control of major fires. The creation of a new firebreak by taking down one or more rows of dwellings may be necessary. This can be done manually or with a bulldozer if available. Take great care to ensure that dwellings are empty: children may be left at home by parents fighting the fire. When fighting a large fire with scarce resources, the first priority is to contain it, rather than put it out.

## 10.8 Disposal of the dead

☐ Suitable arrangements for disposal of the dead are required from the start of an emergency, although dead bodies are generally not a health risk.

☐ 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.

1. Suitable arrangements for the disposal of the dead are required from the start of a refugee emergency. The mortality rate after a new refugee influx 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.

2. 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. Bodies must be protected from rodents, animals and birds. Burial is the simplest and best method of disposal if it is acceptable to the community and physically possible. 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.

3. Before burial or cremation, bodies must be identified and the identification and, if possible, cause of death recorded. This is of particular importance to disease control, registration and tracing. If the whereabouts of relatives are known, the most immediate relation should be notified; 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. (See ch.11.5)

#### Further References (1)

- |                      |   |  |
|----------------------|---|--|
| Feacham R.           | <u>Small Excreta Disposal Systems</u>   | Ross Bulletin                                      |
| Cairncross S. (1978) | A clear presentation with simple diagrams and practical advice.   | No.8   |
| Rajagopalan S.       | <u>Guide to Simple Sanitary Measures for the Control of Enteric Diseases</u>  | WHO  |
| Shiffman M. (1974)   | Covers water supply and all aspects of sanitation including food sanitation. (Also in Arabic, French and Spanish)           |  |
| PAHO (WHO)           | <u>Emergency Vector Control after Natural Disaster (1982)</u>   | PAHO Scientific Publication No.419                 |
|                      | General principles also relevant to refugee emergencies. (Also in Spanish).   |  |
| Oxfam                | <u>The Oxfam Sanitation Unit</u>  | Oxfam  |
|                      | A guide to the unit. (A July 1975 Oxfam Technical Paper describes the design and testing of the unit.)                      |  |
| UNDRO (1982)         | <u>Disaster Prevention and Mitigation: Sanitation aspects</u>   | Volume 8 in Compendium of Current Knowledge series |
|                      | Covers natural disasters but parts also relevant to refugee emergencies. (Also in French and Spanish)                       |  |
| World Bank           | <u>Appropriate Technology for Water Supply Sanitation</u>   | World Bank   |
|                      | A 12 volume series. Volume 11: <u>A Sanitation Field Manual</u> (1980) is particularly relevant.                            |  |
| WHO (1982)           | <u>Manual on Environmental Management for Mosquito Control (with special Emphasis on Malaria Vectors).</u> (Also in French) | WHO offset publication No.66                       |

(1) See also the further references at the end of chapters 7 and 9, only some of which are repeated here.

CHAPTER 11: SOCIAL SERVICES AND EDUCATION

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## CHAPTER 11: SOCIAL SERVICES AND EDUCATION

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### Need

The trauma of becoming a refugee can be very great. Social and psychological problems are created or exacerbated and appropriate measures for resolving these problems are essential.

### Aim

To help meet the special social and psychological needs of refugees.

### Principles of response

- Recognize the need for the refugees to be able to talk over their own problems among themselves and in their own language, and to fashion their own responses where possible.
- Build on the community's own resources to the extent possible and encourage individual, family and group self-reliance.
- Provide decentralized services within a co-ordinated community plan, and ensure they reach those in need.
- Where special institutions for the socially, physically or mentally disabled are necessary, they should be small and a part of the community, drawing on communal rather than outside services.
- Ensure that social services are developed as essential components of the overall assistance programme, and in a co-ordinated approach to agreed standards.

### Action

- Assess the needs, paying particular attention to identifying those who may have particular difficulty meeting basic subsistence needs, such as unaccompanied children or the disabled.
  - Develop services to meet their needs.
  - Take immediate action to reunite families.
  - Organize an appropriate education programme.
-

### 11.1 Introduction

1. Previous chapters have considered the material needs of refugees in an emergency. 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. The trauma of the flight and its aftermath may leave the refugees confused, frightened, lonely and insecure, facing an unknown future in a strange or even hostile environment. Separation from or loss of other family members is common in refugee emergencies, and a major cause of emotional stress. Family reunion is a priority.

2. The most important action that can be taken to help reduce the shock and stress for the community as a whole is to provide security and a sense of stability as quickly as possible. In part this can be done materially, and in part by ensuring protection and involving the refugees from the beginning in the organization of all aspects of their new lives, and in particular in the search for durable solutions. Social work is in the broadest sense the 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. In every emergency there will be refugees with family or individual social and psychological needs of a nature that require particular attention. Examples are: the disabled (the mentally handicapped, blind, paraplegic, limbless, deaf, lepers etc.); unaccompanied children; single parent families; single young women; the sick and elderly and the victims of such special problems as rape, drug abuse, physical abuse or family conflicts. For convenience, "social" is used in this chapter to embrace all such needs.

4. In stable non-emergency situations, the community itself usually develops methods for meeting at least some of these needs. However, the social disruption of refugee emergencies not only aggravates many problems but can also result in these special needs being overlooked unless appropriate measures are taken. The vulnerable are even less able to "cope" in a new and strange environment. The services to meet these needs will require personal attention to individual or family problems. This is best given through a community-based social welfare programme. The provision of the social welfare services that may be required by special groups, such as unaccompanied children and the severely disabled, usually requires the establishment of specific units within the settlement.

5. The immediate objective of a social welfare service in an emergency situation should be the identification of and assistance to those persons whose basic needs for food, water, shelter and health care are not being adequately met. Particular attention should be given to persons who may be vulnerable if they lack family support: children, disabled and elderly persons, and women. Other groups within the general refugee population may also experience problems in meeting their basic needs due to their status as a religious or ethnic minority, inequities in distribution systems or other factors.

6. A social welfare service should mobilize appropriate community resources, with outside help as necessary, to screen the refugee population for those facing urgent problems; see these needs are met and ensure the general welfare of all refugees. Having established such a foundation, a social welfare service can proceed to deal with such special needs as rehabilitation of the disabled, establishing self-reliance and training programmes, and developing community activities.

11.2 Organization of the general services

- Plan the social welfare services with the refugees.
- Individual problems will need individual attention.
- Special measures may be required for persons with similar needs.
- Assess the needs by screening the whole community; the most vulnerable rarely come forward themselves.
- Take account of national policies and resources.
- Develop a community-based service.
- Co-ordinate closely with other community services, particularly health care.

1. The organization of the necessary social welfare services must be considered as early as possible in a refugee emergency and the refugees themselves must be involved in developing the services. A co-ordinated approach by all organizations concerned is essential, with clear policy guidelines and agreed standards.

2. Experience suggests that even in an emergency many social welfare needs can best be met by resources that exist within the community. A social welfare programme should thus be designed to mobilize these resources through the establishment of community-based services. Every community has its own beliefs, social values, customs, traditions and preferences for how problems should be resolved. A social welfare programme should seek to enhance and improve existing "coping mechanisms". These may be based on the community's secular or religious leaders or elders or on other arrangements, for example through traditional medicine practitioners or midwives.

3. The first priority will be a careful initial assessment to determine the most pressing social problems; to be effective, this should cover the whole community. In many cases the refugees themselves can identify those in need, but special surveys may be required to identify persons with serious social welfare needs, because typically they are least likely to seek assistance and may otherwise be overlooked. There is a need for a social welfare programme to deal with individual/family problems in most emergencies. The need for additional special programmes, such as for family reunification or unaccompanied children, will depend on the circumstances. Tracing and family reunion will be important programmes in many refugee emergencies. The programme developed to meet the assessed needs should take account of policies and resources in the country of asylum.

4. The basic case work - identification of individual or family problems, assessment of needs, development of solutions or referral - will necessarily take place at the individual, family or small group level. Social welfare programmes therefore generally require a decentralized structure, allowing community workers to work regularly among the same refugees, getting to know and be known by them.

5. The general community activities, for example cultural events and recreation, will be important to the creation of a greater sense of normality and security, and the reduction of stress, as well as in fostering the refugees' sense of community.

6. Regular home visiting is necessary both for identifying the persons or groups with special needs and for monitoring the effectiveness of the response to these needs. Those with social and psychological problems will be even more reluctant to come forward and volunteer for assistance



when they find themselves confused by their new environment

7. 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. Unnecessary repetition of basic interviewing is not only a waste of time but it can also be psychologically damaging.

8. Co-ordination is required between the social welfare services and other community-based services, particularly health care. Home visiting services should be closely co-ordinated: health workers can often identify social problems and vice-versa. Regular social welfare clinics at health or community centres may be a useful complement to home visiting. In general, an active social welfare service is likely to be the major referral unit, helping to direct people with needs to available resources and identifying areas of need to which other services may be directed.

### 11.3 Personnel

The refugees themselves should play the central role.

Appropriate outside assistance will be required to co-ordinate the services, for training and for problems beyond the resources of the refugees.

Continuity of personnel is very important.

1. The refugees must be able to talk over their problems in their own language among themselves. Thus the refugees themselves should play the central role. In some cultures the traditional healers are especially skilled at resolving psychological problems.

Outside assistance will be required for the problems that are beyond the resources of the refugees. This outside assistance is likely to compromise both local nationals whose cultural knowledge and understanding of the refugees will be important and international personnel whose role may be limited principally to overall co-ordination, support, training and liaison with the authorities and other organizations concerned.

2. Community workers who have the necessary training should be the backbone of the services. They would be responsible for assisting groups and individuals through outreach work within a given section of the community. The number of such workers required will depend greatly on the community's own response mechanisms. As an indication, in some situations one per 2,000 to 3,000 refugees has been found appropriate. In addition, social workers are also likely to be needed 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.

3. Training of refugee community workers is a priority task and should draw both on the knowledge of the community and outside expertise, from within the host country if possible, in social work, community development and public health.

4. Familiarity with social values and customs is essential, and language barriers can also severely limit what outsiders can achieve in individual case work. Sympathy with and understanding of the kinds of problems faced, and a knowledge of local preferences for their resolution, are essential. Guidelines should be provided on the role of outside personnel. The importance of professional impartial conduct cannot be overstressed. Favours to individual refugees in obtaining resettlement places, for example, can be very disruptive.

5. The personnel that may be required for tracing, care of unaccompanied children and education are considered separately.

6. Continuity of personnel, whether from among the refugees or outside, is especially important for effective social welfare services because of the fundamental part played in these services by human contact and trust.

#### 11.4 Tracing and family reunion

Tracing and reunion of separated family members must be organized as quickly as possible.

The International Committee of the Red Cross (ICRC) has a special expertise.

Refugees must be able to send and receive mail.

1. The overriding concern of refugees separated from their families and friends will be for exchange of news and for reunion as quickly as possible. In exercising the mandate given to it by the international community in times of armed conflicts, the ICRC has acquired a special experience in the field of tracing. Hence its expertise and advice should be sought at once, either from their field delegation or via UNHCR Headquarters from their Central Tracing Agency in Geneva.

2. The possibilities for ensuring communication between those separated, and for tracing and reunion, will vary greatly with each emergency. Individual tracing may take a long time and will only really be possible once the emergency is stabilized and the refugees are registered; it may involve the country of origin. However, immediate action is often possible, for example to reunite members of an extended family or village who fled at different times or by different means, and are thus in different locations in the country of asylum.

3. Procedures for the reunion of refugees separated within the country of asylum should be agreed with the authorities and implemented as soon as practicable. For example, lists of names with photographs, posted on the community notice boards in the different locations, may provide a simple and effective tracing mechanism. 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. It of course requires the involvement of the refugees themselves, who will play a key role in any tracing service.

4. Refugees have the right to send and receive mail. A properly organized exchange of news may considerably diminish the workload of a tracing service and also accelerate the reunion of families. Refugee mail services may be organized with the assistance of NGOs. Close liaison is required with the national postal authorities. UNHCR should provide stamps where necessary and appropriate: a franking machine in each location may be a practical solution. If normal postal services do not exist, the ICRC may organize the exchange of special Red Cross messages.

#### 11.5 Unaccompanied children

Identify unaccompanied children and initiate tracing as soon as possible.

Ensure that the children are cared for in ways that meet both their physical and emotional needs; individual care is all important.

Take no action that may prevent family reunion.

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

□ Ensure respect of the principles herein by all involved.

### Introduction

1. Children may be separated from their immediate next-of-kin during a refugee emergency. Those who are, are often cared for by the refugee community, frequently within an extended family. Where this cannot happen, special measures will be required to care for such children. In some circumstances there may be considerable outside pressures for immediate adoption and for third country resettlement. There are very strong reasons for resisting this until the possibilities for family reunion or local solutions have been exhausted.

2. International humanitarian law has as a fundamental objective the unity of the family, and therefore places particular emphasis on the maintenance of family ties and on family reunion. The welfare of children overrides all other considerations. Great importance is attached to keeping children who have been separated from their families within their own cultural environment.

3. Every child's emotional development and future well-being is dependent on the bond between the child and the individual who cares for the child (who is usually a parent, but may be someone else acting as a parent). This emotional bond, the source of the tender, loving care that is as important as physical care and the meeting of material needs, is particularly critical for younger children. The bond has been broken for unaccompanied refugee children as defined below, and a great responsibility rests on those who organize the care for such children: to ensure that each is placed

in the care of a substitute parent to whom the child can become affectionately attached. Every effort must be made to keep the child with the same substitute parent until the blood parents are found. The child will then need time to re-attach to his or her blood parent(s). How long this will take depends on the child's age and the strength of attachment to the substitute parent(s) which now has to be broken. Where years have elapsed, it has been found that the child's interests may even be better served by remaining with the substitute family.

### Definition

4. An unaccompanied child is defined as a child under fifteen 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. This section addresses the needs of children so defined. Special measures may also be necessary for those of fifteen and over; assistance should be given in a flexible way. For instance if there are unaccompanied young women of over 15 they may well require special measures in order to ensure their welfare. It is the usual UNHCR practice to allow unaccompanied children over 15 to take decisions concerning durable solutions for themselves; however, the legal age of majority is determined by the laws of the country of asylum.

5. The description "unaccompanied children" should always be used in place of "orphans". The parents cannot be considered dead merely because the child is not in their immediate care. Even an assertion by the child that the parents are dead must be treated with caution, as experience has shown such assertions to be unreliable, for a variety of psychological and social reasons. Furthermore, the determining factor is not the death of the parents but rather the separation from them and the absence of any person who

by law or custom could take primary responsibility for the child.

#### Causes of separation

6. A comprehensive assessment of the causes of separation is important because the varied ways in which children can be separated from their families may significantly affect tracing programmes and planning for long-term solutions. Common causes of separation, other than the death of parents, include:

- (1) Accidental separation, particularly during large population movements, fighting or organized refugee movements when families become split up;
- (2) Older children leaving parents/family out of choice;
- (3) When the facilities and services provided for unaccompanied children are significantly better than those otherwise available, parents/family may actually place children in such special care;
- (4) Similarly, before or during the flight families may place their children in the care of others if they believe this will increase the chances of the children's survival;
- (5) Outsiders, for example ambulance drivers, relief workers or volunteers, may remove a child from an apparently dangerous situation without informing parents, family or the community. This is particularly common if the child clearly needs medical care;
- (6) Inadequate or inaccurate hospital records and tagging in an emergency.

7. Thus it can never be assumed that an apparently unaccompanied child has been abandoned or is without parents, guardian or family until a sustained and concentrated effort to locate them has been made.

8. Nor should a narrow limiting definition of the family be adopted in a cultural context where, despite the absence of the blood parents, a child remains an integrated part of an extended family. Otherwise an unaccompanied minors programme may even contribute to creating rather than solving the problem of unaccompanied minors.

#### General rules

9. Care must be provided for unaccompanied children through measures that meet their physical and emotional needs in a way that is culturally appropriate. A clearly identified responsible authority appointed by the government or UNHCR must take responsibility for the children. But although UNHCR may not have operational responsibility, its international protection responsibilities for these children remain clear: hence the obligation to ensure that these rules are enforced.

10. As long as there is any chance that enquiries may lead to the reunion of a family, no change in the situation of unaccompanied children which might prevent this should be contemplated. In particular there must be no adoption or change of name. There must be no transfer to a third country or any other removal unless such movement is vital for the health and safety of children generally, and therefore not organized specifically for unaccompanied children.

11. Every effort must be made to find an appropriate durable solution as soon as possible. In most cases this has proved to be family reunion as a result of successful tracing.

12. Where children do have to be moved, full records allowing tracing of the child's location at all times are essential. Any agreement to move children must include assurances from all the parties involved (governments of asylum and resettlement agencies) that

family reunion will be expedited immediately the missing members are located. Where this reunion should take place will depend on the circumstances.

#### Identification and registration

13. Unaccompanied children must be identified as soon as possible. The first source of information is the refugees themselves and the community leaders. A general registration or census of the refugees may provide a suitable occasion for initial identification. A general registration or census will also identify those children not alone but not with their immediate family, who thus require tracing, an important consideration which should not be overlooked. A selective initial registration may give the impression that children so identified will have special status and advantages, which may lead parents or relatives temporarily to abandon their children.

14. Nevertheless time lost before interviewing the children is also information lost; particularly about the circumstances of a family separation which has taken place recently. As soon as identified, unaccompanied children should be specially registered. The information required will depend on the circumstances: the annex gives a model registration form, developed by ICRC, as an indication. The children should be photographed, and the photograph should include, for example on a small blackboard, the child's name, reference number and location. Use a film that allows subsequent copies to be made.

15. Individual dossiers must be developed and maintained for each child, recording all relevant information including arrangements for care and tracing.

16. A sympathetic and imaginative approach to interviewing the children is very important. Interviews are 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.

17. Children may react very differently when asked to give information on themselves and their families, depending, for example, on the degree of their trauma, fear and shyness. Often a child will confide in other children. In some cases the presence of the child's friend(s) at the interview can not only reassure the child but also yield important information. Any accompanying adults or persons who brought the child forward should also be interviewed. Consideration should be given to tape recording interviews in order that answers may be transcribed or checked later.

#### Tracing

18. As soon as unaccompanied children are identified, efforts must start to trace their parents or families, and ensure family reunion. Tracing for unaccompanied children requires special skills and techniques. As in general tracing, the expertise of ICRC will be very useful. Photographs of the children are generally the key to a successful tracing programme. One of the simplest and most effective methods has proved to be posting the photographs, which contain the reference number and name, on special bulletin boards, for example in community centres, for public view. Other methods may include putting names and/or photographs in newspapers. Also, the data sheets, including photographs, can be reproduced, bound into volumes and circulated among the refugees. Certain NGOs have acquired considerable experience in implementing such programmes.

19. When the parents or family of a child appear to have been traced and a child is claimed, an adequate verification will be required, perhaps involving a follow-up. Careful record of the verification, as of the movements of all unaccompanied children, is essential.

#### Assessment of needs

20. The needs of the children will vary greatly with their age and individual circumstances and must be assessed individually. All unaccompanied children should be medically screened periodically and those with special needs and problems identified. Regular assessment of the needs of unaccompanied children and evaluation of how they are being met is required to ensure that adequate care is provided.

#### Guidelines for care

21. One of the most important principles in the care of any child is that relationships must be stable. Unaccompanied children will develop very close bonds with other children and adults. Development and maintenance of a strong bond with the guardian of the child, whether in foster homes or in child care centres, is of crucial importance. Thus, continuity of the arrangements and personnel involved in the care is fundamental. Even for outside organizational involvement, six months should be considered the minimum. For those in intimate contact with the children a longer minimum stay is necessary. As national staff are usually available for longer periods, this is another reason for using national rather than international staff at the casework level.

22. The care of unaccompanied children should be undertaken, as far as possible, by persons of the same cultural heritage and social background as the children. Every effort should be made to place children under five in an approp-

riate and caring foster family within the community; this is essential for children under three. Arrangements for older children should be made on a case-by-case basis, seeking the solution that provides most stability. In general, foster care is preferable to residential care. Proper material support must be given to the foster family. However foster care must be closely monitored and relationships must be documented by a signed undertaking to release the child should family reunion become possible. Careful account should be taken of cultural attitudes towards fostering. For instance, in some situations the family may find it hard to conceive of taking in a child except as a servant.

23. The advantage of small residential centres is over the short term: 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. However, as tracing usually takes some time, residential centres are, in most cultural contexts, a less happy intermediate solution from the children's point of view than fostering.

24. Where special residential centres are required, small units of five to eight children are preferable, with the numbers of houseparents determined in light of the ages and particular needs of the children. The centres should be decentralized and integrated in the local community but must be carefully supervised. Large centres should be avoided. Apart from the likelihood that individual attention will suffer in large centres, experience has shown that there is a tendency to provide special services in such centres. As these services are not available to other children, this can actually attract children who are not unaccompanied.

25. Siblings should live together. In certain circumstances unaccompanied children may have been living together as a group and have close emotional bonds within the group. It may be in the interests of the children to preserve such groupings, or relationships within them, where possible, while at the same time establishing a substitute parent relationship.

26. Material needs should be met to the level and, to the extent possible, in the manner available to other refugee children. Thus, every effort should be made to integrate the children into the life of the community. They should go to community, not special, schools, be treated at community health centres, and play with other children on common recreational areas. It is better to avoid special clothes or distinguishing tags which set them apart.

#### Organization of care

27. Where there are considerable numbers of unaccompanied children, the establishment by the UNHCR office of a special unit for the care of unaccompanied children is recommended. The assistance of the appropriate national authority, UNICEF, and qualified NGOs should be sought. The advice of a person with proven experience in the care of such children in similar emergencies is likely to be valuable in assessment and programme formulation. If suitable expertise is not available locally it should be requested from Headquarters.

28. The best child care workers are likely to be respected adults within the refugee community, for example older parents with child rearing experience. Child care workers must be properly supervised, and supported with training programmes. Unaccompanied young women who may themselves be particularly vulnerable can be recruited as assistant child care workers, thus giving them useful work as well as some measure of security.

29. Where outside assistance is required, the criterion must be competence to manage the specialized services needed. Any organization involved by UNHCR in the care of unaccompanied children must be in agreement with the principles set out herein, and not have conflicting objectives, such as adoption, resettlement or religious conversion.

30. Programmes for the care of unaccompanied children must be carefully co-ordinated with all involved to ensure common aims and standards.

#### 11.6 Education

Every child has a 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 account must be taken of the fact that the children are probably already educationally deprived.

The educational system should be organized and run by the refugees to the extent possible, with proper outside support.

1. Every child has a right to education. Schools for the refugees are thus essential. Setting up an education programme will make a significant contribution to the well-being of the whole community, and this should only be delayed if the characteristics of the emergency are such that it is clearly going to be short-lived. Although priorities in the emergency phase may mean that the full elaboration and implementation of an education programme is not possible, a start must be made. Even with inadequate educational supplies, establishing the discipline of schooling through regular classes and organized activities for

the children is important. Simply gathering the children together for a set period each day and keeping them occupied is a valuable first step.

2. The time before a durable solution is possible and the likely nature of such a solution are the key factors influencing the type and content of an education programme. Adult and vocational education facilities and community development programmes will be important matters for consideration once priorities allow and the longer-term prospects for the refugees are clearer.

#### Aim and guidelines

3. The first aim of the education programme should be to provide basic education, free but compulsory, to all refugee children. The level of the programme will depend on the educational background of the refugees and on the national education services. As a general indication, it should reflect the level of education available in the host country, with the minimum objective being literacy in the first language of the refugees and simple numeracy.

4. It is probable that refugee children will have had both their formal education and the informal family-based learning process disrupted. The design of the programme must take account of this, and, in particular, must cater in a consistent way for the needs of children already educationally deprived, regardless of age.

5. A single, unified primary school system should be developed, equally serving the needs of all the refugee children without discrimination between children or schools. Priority should be given to this over the establishment of second-level programmes. The language of instruction and text books should be the first language of the refugees.

6. Rapid regeneration of the informal learning processes of the home will be equally important. This should start to take place automatically as the emergency situation becomes stabilized and general family life returns to normal. Because of the disruptions, the involvement of parents in their children's education, for example through parent-teacher contacts, will be particularly helpful.

7. Smaller, decentralized schools are generally preferable to large schools. The school buildings themselves should be of equal standard and in keeping with others in the community and with local practice. Local materials and construction styles are usually the most appropriate.

#### Organization

8. The organization should take account of the education systems in both the country of origin and asylum. Specialized advice on the establishment of appropriate educational programmes should be available locally and may also be sought from UNESCO, the World Bank, bilateral aid programme organizers and qualified NGOs. An education director may be useful to develop and supervise the overall programme.

9. The provision of education may give the refugees a privilege not enjoyed by the local population. In such situations it is, if the government is in agreement and there is a common language of instruction, usually appropriate to open the schools to the local population. The education programme should from the start aim at a realistic level of service which it will be possible to sustain when international support is withdrawn.

10. To the extent possible, the educational service at the community level should be organized and administered by the refugees themselves, through such structures as



education committees. The most appropriate teachers are likely to be refugees with teaching experience. Refugee teachers may need to receive some remuneration if the programme is to be sustained in the longer term. However, the remuneration must be structured in such a way that it can later be continued without international funding.

11. Outside support will be required for the development of common curricula, to ensure equality of standards between schools

within a community, and between different sites if applicable. Help will also be needed from outside in the provision of education materials. As it is likely that more teachers will be needed than are available and suitably qualified within the community, special teacher training programmes should be developed. National education institutions, such as teacher training colleges, may be a valuable source of expertise and may be able to provide both teacher training and teachers for the refugee programme.

Further reference

UNHCR  
(expected 1983)

UNHCR Handbook for Social Services  
Guidelines for the provision of social services to refugees in both rural and urban situations, with a strong emphasis on ensuring that the basic needs of the vulnerable are met. Contains list of key references.  
(French and Spanish editions will follow)

Model Form for Registration of Unaccompanied Children

1. Each form shall bear, whenever possible and whenever it involves no risk of harm to the child, the information listed below.
2. Information may be added as required by the situation.
3. As with any registration, standard code indicators should be used to record replies whenever possible.

Reference no.

.....

Date and place of Registration: .....

photo

Present Location of the Child: .....

1. Family name .....
2. First name and/or other given names .....
3. Alias or informal name used by family or others .....
4. Sex .....
5. Date of birth .....
6. Place of birth (village/city, province, country) .....
7. Nationality .....
8. Ethnic origin .....
9. Native language .....
10. Religion .....
11. Other language spoken .....
12. Home address .....
13. Any distinguishing physical characteristics .....
14. State of health .....
15. Blood group .....
16. Mother living? yes .... no .... don't know ....  
 Name/maiden name                      last known address                      date of last contact

17. Father living? yes .... no .... don't know ....  
 Name    last known address                      date of last contact

- Social services and education -

18. Other relatives

<u>name</u>	<u>date of birth</u>	<u>last known address</u>	<u>date of last contact</u>
Grand father			
Grandmother			
Sister			
Brother			
Aunt			
Uncle			
Cousin			
Guardian/ Godmother			
Guardian/ God father			
Other (specify)			

19. Date and place of arrival in country of asylum

20. Date of arrival in present location

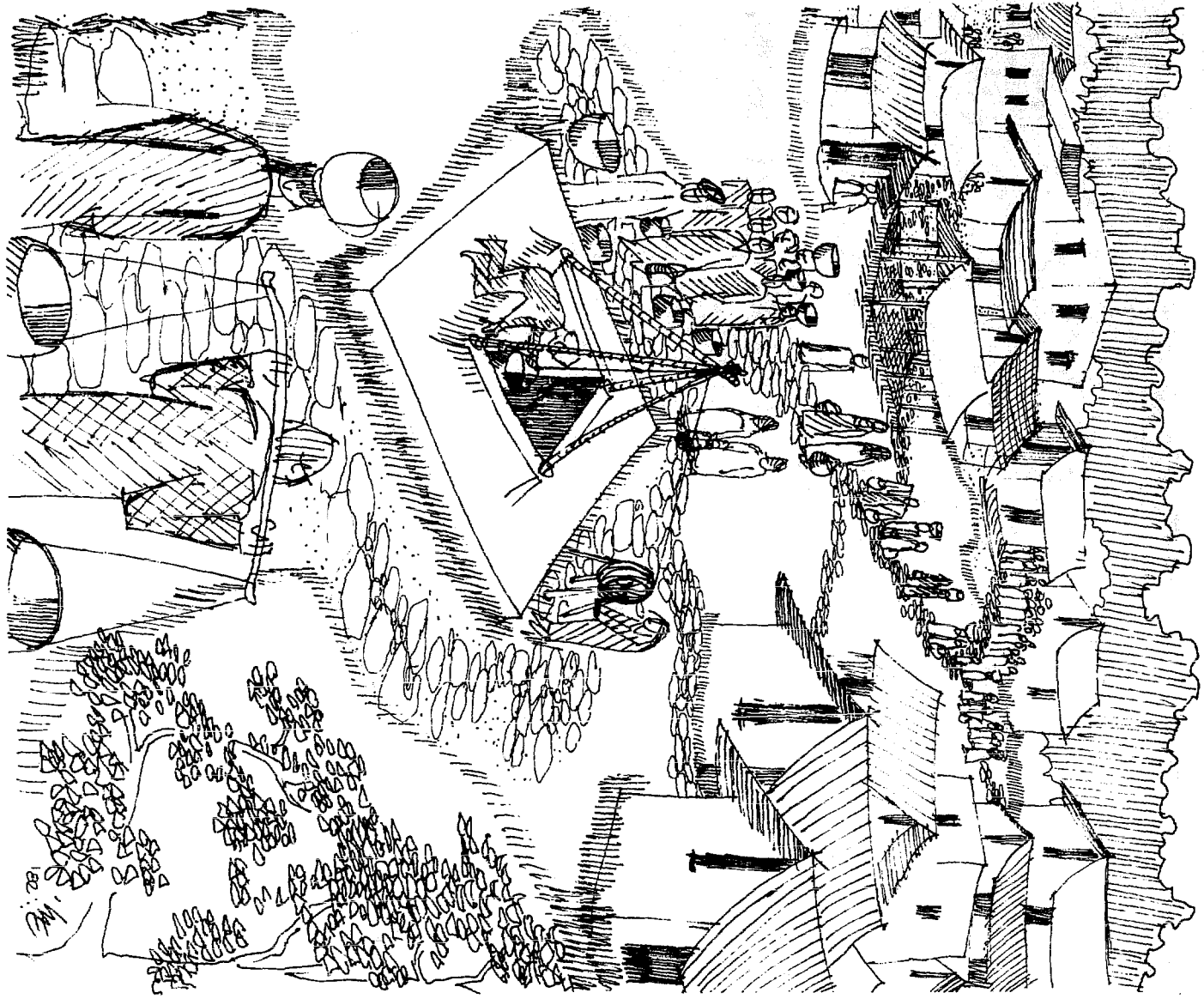
21. Date and location of last contact with parents/family

Description of how they became separated.

22. Remarks (including names of adults at present location who know child/family).

Date completed  
Name of interviewer

11



## CHAPTER 12: FIELD-LEVEL MANAGEMENT

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## FIELD LEVEL MANAGEMENT

### 12.1 Introduction

1. This chapter discusses the management of assistance in a refugee emergency within the country of asylum: that is, the mechanisms and organization required to combine the many different actions, persons and priorities into a coherent overall approach that meets the refugees' needs. Successful management requires leadership; subject to the role of the government, leadership may be the most important single contribution of UNHCR. Leadership requires that once decisions are reached, they are properly implemented. This discipline is essential in emergencies, when there is often not time to explain the considerations involved. As far as possible, those directly concerned should contribute to decisions that affect them, but final responsibility rests with the Representative.

2. The nature of a refugee emergency makes its management a complex and frequently difficult exercise in which practical and political problems must be resolved quickly and effectively. Much will depend on the role of the government and the implementing arrangements. Management of a refugee emergency is likely to have two levels: that of the capital and that of the location of the refugees, the site level, which will involve the provincial or district authorities of the government's administration. While the principles suggested here are likely to be generally valid, action must be adapted to the imperatives of the situation.

3. The initial stages in the management process comprise: the needs assessment, which determines what must be done; the planning, which determines priorities within a framework for action; the allocation of responsibilities for action; ensuring the means for action, including co-ordinating mechanisms, personnel and material.

4. From the start, the management of a refugee emergency must include continuous monitoring, reporting and evaluation in order to ensure that plans are adjusted and that the action remains appropriate as circumstances change.

### 12.2 Needs assessment and planning

□ A comprehensive plan of action is essential, drawn up with the people who will implement it and taking account of the views of the refugees.

1. Assessment has been discussed in chapter 3; it is the prerequisite to any response. To the extent possible, the assessment must involve those who are to be responsible for the response, including the refugees. Needs can only be assessed against a knowledge of what is required. The determination of the standards to which assistance should be delivered is, therefore, of fundamental importance. This must take full account of social and cultural factors, including the background of the refugees and the conditions of nationals in the country of asylum; the response must be appropriate. Experience suggests that failure to set appropriate standards from the start is a common cause of management problems in emergencies.

#### Plans of action

2. Response to the needs must be planned. The best management tool for this is a simple plan of action for each administrative level. At the start of an emergency there is a tendency to postpone planning, both because information is not available and because there are obvious urgent needs which can be met piecemeal without a plan. This tendency should be resisted: the more critical the situation, the more important it is for the Representative to find the time to take stock, determine priorities and develop a plan for what needs to be done, when, by whom and how.

3. A further indication of points that might be considered in drawing up the overall field plan of action is given in Part 2. The overall plan should include a plan for each refugee site, drawn up by the organization with overall operational responsibility at the site level. The plans at the two levels are interdependent.

4. The most effective plans of action are those developed by or with the people who will implement them. Drawing up the plans should be a team effort to the extent possible; clear direction must, however, come from the government and/or UNHCR. The plans must be comprehensive, covering all needs whether these are being or will be met through UNHCR or by other organizations and sources of funds. Not only will such a plan clarify issues of management and responsibility; it will also provide a head-start for the programming exercise.

5. In drawing up the plan, take account of the views of the refugees. They are the single most important resource in meeting their own needs, and will have definite ideas on how this may best be done. The plan must strengthen the refugees' own resources and self-sufficiency and avoid creating dependency through the well-intentioned provision of outside assistance that is either inappropriate or unnecessary. The plan should also reflect the aim of a durable solution.

6. The plans of action must be available to all who need them.

### 12.3 Allocation of responsibilities and personnel management

Responsibilities must be clearly defined and understood.

The personnel necessary to implement the plan of action must be made available; local staff will be particularly useful.

The quality of personnel management and leadership will directly affect the success of the emergency operation.

1. The roles and tasks of all involved must be clearly stated. Delay in the definition of responsibility usually leads to each party defining goals independently and setting their own limits of responsibility. This in turn can lead quickly to confusion, gaps and duplication. Responsibilities should be defined for each administrative level, and for both organizations and individuals. With responsibility, which should be delegated to the lowest possible level, must go the necessary authority. Responsibility without authority is useless.

2. Implementing arrangements and personnel needs have been discussed in chapter 4. Organizational responsibilities for UNHCR's operational partners will be defined, in time, in the contractual arrangements governing the co-operation. If, however, formal sub-agreements etc. have not yet been drawn up, and the basis of co-operation remains a letter of intent, the definition of responsibilities contained in the plan of action is more essential than ever. The responsibilities of organizations delivering assistance but who are not operational partners of UNHCR must also be defined. This may create problems, particularly where individual NGOs wish to have responsibility for a specific sector. Final authority rests with the government, and the Representative should consult closely with the authorities. To the extent possible, however, any conflicts of interest should be resolved within the framework of an NGO co-ordinating mechanism, such as that described in the next section.

3. Defined responsibilities of organizations must reflect fully those allocated in the plans of action.

4. Job descriptions, even if the imperatives of an emergency mean their frequent revision, are the most common management tool for defining individual responsibilities. Job descriptions are important for regular UNHCR staff, and even more so for temporary staff and people working as volunteers.

5. A document setting out the assumptions, concepts and principles behind the emergency operation has proved a valuable complement to the plans and detailed definitions of responsibility, especially in large programmes. Such a document should include an explanation of the role and responsibilities of the government, UNHCR, other UN organizations, operational partners, and any bilateral donors, together with the standards in the various sectors and any specific guidelines necessary. Details of the co-ordinating mechanisms should be given.

#### Personnel

6. There should be no delay in committing the necessary personnel to emergency situations. The organizational needs of an emergency cannot, however, be met by the simple addition of personnel; the plan of action and definition of responsibilities must determine personnel needs, not vice versa. Staffing must be flexible and numbers are likely to vary over time. Locally-hired staff usually prove particularly valuable.

7. It is important that the different advantages of local and international staff are understood, and that these different strengths are properly incorporated into a staffing plan. Very obviously, local staff members understand the local situation. They are sensitive to issues that often escape the notice of the international staff member. In addition, the local staff members will often enjoy a wide range of contacts that enable them to "get things done". Finally, and very

significantly, they may speak the refugees' language. Correspondingly, it must be recognized that in the eyes of many of those involved the international staff members bring to the programme an impartiality, an embodiment of its international character, which is essential. They will also have experience from elsewhere to contribute to the management of the emergency.

8. Local volunteers - both nationals and members of the diplomatic and expatriate communities - may come forward to help in the face of evident needs. The value of outside volunteers will vary considerably with the situation, the skills of the volunteers, the time they can devote and the availability of the management personnel needed to co-ordinate and support them. Lack of proper supervisory support often leads to the volunteer taxing already over-extended staff, with the result that the services rendered become ineffective while the volunteer becomes disillusioned.

#### Personnel management

9. Sound personnel management, supervision and leadership are very important to the success of an emergency operation, but can easily be over-looked. Administrative aspects of UNHCR personnel management are discussed in Part 2. The initial motivation of those involved is a major asset but, for persons at levels that do not allow an overview of the operation, this can be replaced by disappointment and frustration if supervisors are too busy to plan, organize, direct, control and continue to motivate their staff.

10. Staff meetings should be convened regularly from the start, and everyone made to feel part of the team. The welfare of that team will have an important bearing on the success of the emergency operation. Very long hours will often be necessary, but supervisors must ensure that staff have



time off, away from the refugee site, and do not get so overtired that their efficiency and the professionalism of their approach suffer.

11. All field staff have a particular responsibility to safeguard their own health, for example, through the regular taking of the correct anti-malaria drug, ensuring vaccinations are up to date and avoiding obvious health hazards like unsafe water.<sup>1/</sup> The need to hospitalize or evacuate key staff can cause a major disruption in an emergency operation.

12. In an emergency there may be many occasions when staff see clearly that by devoting time to helping individual refugees or families in distress they could alleviate suffering directly. To seek to do so would be very understandable, but it can lead to a personal emotional involvement at the expense of the staff member's wider responsibilities towards the refugees as a whole, and to resentment among other refugees. Some staff may have direct responsibility for individual care, though this is often best assumed by the refugee community, but for all staff, compassion must be tempered by a professional approach. Guidance by supervisors is often needed on this point.

#### 12.4 Organization and co-ordination

- A single co-ordinating authority is required.
- UNHCR should take the lead to ensure effective NGO co-ordination if this is not already ensured.
- The actions of UNHCR staff must be properly co-ordinated.

#### General

1. Effective co-ordination is the result of sound management. Co-ordination mechanisms set up without the establishment of clear objectives and assignment of responsibility and authority will be ineffective and substitute words for action. If co-ordination is not based on a good information exchange, particularly with the site level, it may even be counter-productive.

2. A framework within which the implementation of the programme can be co-ordinated and management decisions taken is essential, both for the overall response and within UNHCR. Co-ordination at central and site levels will involve frequent informal contacts between UNHCR, the government, other UN organizations directly involved, the operational partner(s) and other parties concerned. These contacts should be complemented by more formal regular meetings where the overall progress is reviewed and plans adjusted. Arrangements for the general briefing of the diplomatic corps and the UN system are discussed in Part 2.

3. Whatever the implementing arrangements, experience suggests that there are major advantages in the establishment by the government of a single co-ordinating authority (task force, commission, operations centre etc.) on which all the ministries and departments involved are represented. This authority should also be represented at the site level. In countries already granting asylum to other refugees, such a focal point is likely to exist, and may simply need strengthening.

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<sup>1/</sup> The Ross Institute booklet "Preservation of personal health in warm climates" (1980) gives comprehensive guidance.

#### NGO co-ordination

4. Effective co-ordination with and among the NGOs will be essential to the success of the emergency operation. Much will depend on the position of the government, which may wish to control and co-ordinate NGO activity itself. Where a NGO is an operational partner of UNHCR, co-ordination should already be assured, but many NGOs may be operating their own programme for the refugees with their own funds. Some will have been active before the UNHCR programme started and many more may arrive in a major refugee emergency. Where there has previously not been a habit of inter-agency co-ordination, the exchange of information may well not go beyond those who have participated in the co-ordinating meeting. To get the information passed "down" to the site level can initially be as hard as it was to get information passed "between" the agencies.

5. Subject to the policy of the government, where a NGO co-ordinating structure does not already exist it is strongly recommended that UNHCR takes the lead in encouraging the NGOs to set up their own co-ordinating committee and mechanisms. The role of the government on such a committee will depend on the situation; at the least, a representative of the government's own co-ordinating authority should attend as an observer. UNHCR's status might be that of an observer, but an active one, as the meeting of the committee will provide an important opportunity to brief all NGOs on progress, future plans and problem areas, to request specific assistance and to answer the questions on UNHCR's aims and policies that the NGOs may have little other chance of asking. In the absence of other arrangements, there is a strong case for UNHCR itself organizing and chairing such meetings, at least in the first weeks. This may be a crucial component of UNHCR's leadership role.

6. In a large-scale refugee emergency, the NGO co-ordinating committee should also be encouraged to create sectoral sub-committees, for example for health and nutrition. The committee, and particularly such sub-committees, could play an important part in the development of the specific standards for the delivery of assistance. See for example, ch.7.2.18 on guidelines for health care.

7. Some experience has been gained in the working of NGO co-ordinating committees in refugee emergencies. Annex 1, "Elements of a co-ordinating body", might be helpful to those considering the establishment of a committee.

8. A NGO co-ordinating committee can also be of considerable value when new agencies arrive, both in integrating their assistance in the overall programme and with the practical administrative and general briefing arrangements. If there is no such committee, agencies new to the country are likely to turn to UNHCR for initial administrative support, hotel reservations, transport etc. This can quickly become a major preoccupation for UNHCR field staff at the expense of their own work.

#### Within UNHCR

9. Within UNHCR itself, in addition to the staff meetings already recommended, regular and frequent meetings of key personnel will be essential, both centrally and at site level. In a critical situation, a daily early morning planning meeting and another in the evening for reporting will often be useful. Summary minutes and/or decision sheets are an important management tool in emergencies, otherwise under the pressure of events what was decided, and who was to take what action when, may be forgotten.

### 12.5 Management at the site level

Common standards are essential.

Proper involvement of the refugees is fundamental to success at this level.

1. The framework for the organization and co-ordinating mechanisms at the site level is likely to reflect broadly that established centrally, but it will be more affected by the implementing arrangements.

2. Clear understanding of the aims and objectives of the emergency programme and proper co-ordination are even more important at the site level than centrally, for it is here that failures and misunderstandings will directly affect the refugees. Of particular importance will be the adoption of common standards when a number of organizations are providing similar assistance. Regular meetings of those concerned are essential: an overall co-ordinating mechanism chaired by the operational partner may be complemented by sectoral committees.

3. A rapid changeover of outside personnel can create major problems for site-level management. Six months is a suggested minimum length of service for staff involved in running services in the settlement. Some specialists may obviously be required for shorter periods. The importance of continuity is directly proportional to the closeness of contact with the refugees. Only some of the problems can be overcome by the overall operational partner at the site having a standard orientation and briefing procedure to ensure continuity of action and policy despite personnel changes.

4. Certain programme activities are interdependent or have a common component and will need particularly close co-ordination. Examples are environmental sanitation measures and the health services,

and the home visiting component of health care, feeding programmes and social services.

5. There is one fundamental difference between management at the two levels: at the site level the refugees themselves should play a major role. The social organization of the refugee community must support and enhance the refugees' own abilities to provide for themselves. The importance of working with the refugees and using and developing their own skills and organizational structures has been a common theme in the preceding chapters.

6. Refugee settlements are not, typically, simple replicas of former community life, as large numbers of refugees may be living temporarily outside their traditional community leadership structures. In nearly every emergency, refugee leaders, spokesmen, or respected elders will, however, be present. It will be necessary to define with the community the method of choosing leaders to ensure fair representation and proper participation in both the planning and implementation of the emergency programme. The more the settlement differs from former community life, the more important this action is likely to be to the success of the programme.

7. To ensure adequate representation and access for the individual refugee, various levels of representatives and leaders are likely to be required. Bear in mind that there is no reason why a refugee should be representative of the community simply because he or she has a common language with those providing outside assistance. Arrangements should be based on traditional leadership systems to the extent possible. It is natural that other, perhaps less traditional, power bases may emerge within the community. Particular attention should be paid to the sources of such power. A specific consideration is the need, if possible, to separate

physically any previously hostile groups among the refugees.

8. Subject to traditional social patterns, the basic planning unit is likely to be the family, and the basic organizational unit is likely to be groupings of refugees according to living arrangements. A good-sized basic organizational unit might be 80-100 people: this is sometimes referred to as a community unit. Above this comes the section which usually consists of some 1,000. Many settlement services are decentralized to this level. Five or so sections might be grouped together to form a sector for certain organizational and representational purposes. For instance in chapter 7 it is suggested that there should be a health clinic for every 5,000 refugees. Similarly, the participation of elected sector representatives on a settlement management committee, would be appropriate. As to how many sectors might make a settlement, there is no hard and fast advice. It depends on the circumstances. But generally the smaller a settlement the better. Physical layout of the site will have a major influence on social organization, and the importance of preserving and promoting a sense of community has been stressed in chapter 6. The system of refugee representation, which may be a several-tiered one with community-elected representatives selecting from among their number section representatives who in turn choose sector representatives, should be consistent with these physical divisions.

9. The social organization of the refugees must also make use of their specific skills and provide the personnel to run the community services. Details of what might be required have already been given in the relevant chapters, but as a check list:

- (1) health services (traditional practitioners, including midwives, home visiting, health centres, public health education, etc.);

- (2) feeding programmes;
- (3) water supply system (construction, maintenance, protection/treatment and distribution);
- (4) sanitation (maintenance and cleaning of latrines, drainage, garbage disposal, vector control, etc.);
- (5) shelter construction including communal buildings;
- (6) social services (caring for unaccompanied children and the disabled);
- (7) tracing;
- (8) education programmes;
- (9) general administration.

#### 12.6 Registration and distribution

- No programme can work properly unless the number of beneficiaries is known: there are several ways of determining this with sufficient accuracy.
- A fair distribution system must be established.

#### Registration

1. All planning, as well as fair distribution, will require an accurate census of the population. This will be an essential component of the needs assessment. It should be noted that under the Statute (8(f)) UNHCR obtains "from Governments information concerning the number and condition of refugees in their territories". Although it is UNHCR's statutory responsibility to seek refugee numbers from the government, it must be made clear from the start that it is not possible for UNHCR to mount a programme of assistance without a precise measure of the number of beneficiaries.

2. While an accurate census is essential, a formal mass registration should not necessarily be an

automatic response at the start of an emergency. The arguments for and against initially going further than establishing numbers and an indication of the age/sex breakdown must be weighed carefully, and the objective and benefits determined.

3. The main advantage is that registration provides a unique opportunity to secure basic information, including on health and nutritional status, on which subsequent programming can be based. In addition registration allows a much tighter system of ration distribution. A drawback is that a detailed registration may have an effect on a refugee's attitude to possible durable solutions. For example, in certain circumstances a refugee who was aware his identity was officially recorded might be reluctant to repatriate spontaneously. Equally, registration can, in certain circumstances, give a refugee the impression of a possibility of resettlement that does not exist.

4. In some emergencies registration may be an important factor in protecting refugees. Registration will be an essential component of any individual tracing programme and in this respect there are arguments for registering as early as possible.

5. If a registration is undertaken, the form used and arrangements made must be carefully planned. Whatever the purpose of the registration, certain questions are likely to be common. An indication of these is given in Part 2. Try to avoid the need for a re-registration because key questions were omitted, a common error. After the immediate emergency is over, there may be a need for specific registrations, for example a socio-economic survey, and a phased approach to gathering the further information required should be adopted.

6. Registration requires sufficient numbers of properly briefed

and trained registration clerks or social workers who speak the language of the refugees, understand the purpose of the questions and can assess answers and eliminate obvious distortions. They must have a common code for transliteration between alphabets if necessary, particularly for proper names. If time allows, much will be learned from a small pilot registration.

7. The most practical time to register refugees is on arrival at the site, for example in conjunction with the health screening. Much will depend on the type and rate of any continuing influx. In any large influx there are advantages in passing arriving refugees through a reception/transit centre. This allows their registration and the issue of ration cards. It can ease later programme management problems and help avoid disputes about refugee numbers. Transfer of the refugees to a new site always provides a good opportunity for a mass registration.

8. Where a card is issued on the basis of a registration, a photograph identity card sealed inside unbreakable plastic is probably the least likely to be forged, altered, sold, or exchanged.

#### Numbers

9. With time, a discrepancy in numbers may arise between official figures and the best estimate of those working closest to the refugees. Unless this is swiftly resolved major problems will follow. Representatives and particularly field officers must discuss any such discrepancies with the authorities as soon as they occur, informing Headquarters of significant differences that cannot be resolved. Small discrepancies are likely, given the difficulties already discussed. Large ones can be avoided by timely action.

10. Where registration is deemed inappropriate and where it has not been possible to count refugees as

they enter through a transit centre, every effort should still be made to arrive at an accurate verifiable estimate of the number of refugees. If refugees cannot be counted on arrival, there are certain well-established demographic techniques which can be used: the number of refugee dwellings can be counted, if necessary through the use of aerial photography. Assuming there is some conformity of house size, a random sample of dwellings will provide an average number of inhabitants per house. The population of the settlement can then be estimated as a multiplication of the number of houses by the average house size. As settlement services develop it will be possible to cross-check the estimate of settlement population. Random sampling can establish the demographic make-up of the camp in terms of age breakdown. Then, for example, a vaccination campaign for under fives is carried out. If its out-reach is successful and parents' support for it strong, it should reach nearly all of the target group. If the proportion of under fives in the camp is known, it is then possible to double check the estimate for the total site population. Whenever possible, within each separate community, dwellings should in any case be individually numbered.

11. However, without a system of ration cards (which, if they have been issued at the start, should make this counting exercise redundant) it will be difficult to keep abreast of subsequent changes in the settlement population. If new arrivals do not have to report themselves as there are no ration cards to be issued, the best method is likely to be to make the reporting of new arrivals a responsibility of the refugee leadership. Alternatives to be considered are, either good enough control over house lay-out to ensure that new arrivals build on designated spaces; or if many of the new arrivals are actually joining family members and not building houses of their own, sample censu-

ses should be considered to try and establish how much the settlement as a whole is growing i.e. the same community units would have to be surveyed each time. The rate of growth in these units would then be taken to reflect that of the settlement as a whole. Sample surveying is a scientific procedure and must be done properly if authoritative figures are required: seek expert advice from local demographers if possible.

#### Distribution

12. An effective and fair system for the distribution of goods and supplies will be an essential part of site-level organization, and of critical importance when supplies are short. Monitoring the distribution to ensure that it is fair, including to vulnerable groups, will be an important management responsibility of UNHCR. Monitoring must also ensure that the refugees actually receive the supplies paid for by UNHCR in the contracted specifications.

13. The type of distribution system will depend on the circumstances. Daily distributions are generally to be avoided. At least a weekly interval might be appropriate for dry rations. A decentralized system, initially in bulk to community units or groups and then to families or individuals, is the preferred method. In certain situations, for example where supplies are short or abuses likely, centralized mass distribution direct to heads of family or individuals may be the only way to ensure reasonable equity. Guidance on other aspects of distribution is given in chapters 5 (logistics) and 8 (food).

14. There are two principal means of ensuring fair distribution: a ration card system and an honest refugee leadership. In perfect circumstances a ration card system might be regulated and enforced by such a leadership. However ingenious the distribution system devised, it is most unlikely to work

fairly without the basic support of the leadership. Ration cards are most easily issued when the refugees arrive at the time of initial registration. Done subsequently it is more likely there will be a margin of abuse or, at least, inaccuracy. A simple, effective system is to have colour cards with the number of family members the ration is to serve marked on the card. The refugee is initially, for example, issued a blue card. When the first week's ration is distributed that card is collected and a yellow card indicating the same number of family members issued. This card will be valid for the distribution in a week's time. Obviously the card must not be forgeable. Distribution has nevertheless in many cases been done successfully through an honest refugee community leadership without a ration card system. Whatever system is employed, spot-checks and the nutritional surveys should be used to ensure that the system is working fairly.

15. Responsibility for distribution is thus often delegated to refugee leaders. This can confer considerable power and should be closely supervised. Unless numbers are accurately known, there will be wide scope for abuses at several levels: censuses will need to be repeated as numbers change.

#### 12.7 Reporting, monitoring, and evaluation

- Sufficient information must be available to the decision-makers so that the operation can be adjusted to meet changing needs or correct short-comings.
- Situation reports should be sent as a matter of routine.
- Do not waste energy on exchanging information that is not acted upon.

1. In order that the emergency operation can be implemented and

monitored, a reliable and effective communications system which allows daily contact between UNHCR at the site, any regional base, for example for supplies and storage, and the capital will be essential. The requirement will be for a voice and/or cable link and a mail or courier service. Options are discussed in Part 2.

2. Reporting systems provide the information necessary for monitoring and evaluation, as well as the wider information needed for donors and public information. Regular routines should be set up, and the specific information required defined in standard formats which ensure that important information is there but avoid unnecessary detail. Annex 2 gives an example of a suggested format to be used, adapted as necessary, for reports from both the site level to the capital and the capital to Headquarters.

3. Specific reports will be required for various sectors. Annex 1 to chapter 7, Health, gives an example of a health surveillance report, also covering feeding programmes. Other specific reports might include those on social services, particularly unaccompanied children, tracing and family reunion. Responsibility for preparing reports must be defined, as must those who need to see them. A report that is not read and acted upon, at least by evaluating its information, is a waste of paper and time.

#### 12.8 Special considerations

- A number of difficult or sensitive issues may arise. A clear policy on these, promulgated in advance to those who need to know, can help defuse many problems.

1. In a refugee emergency the Representative may be faced with a number of other common management or policy questions on which guidance may be helpful. The question of what is acceptable administra-

tive expenditure by an operational partner has been discussed briefly in chapter 4.2.15. The question of UNHCR paying for the purchase or rent of land occupied by the refugees may also arise. UNHCR's policy is that the provision of land is a matching contribution by the government, though construction on it may be financed by UNHCR. In certain extreme circumstances, a possible solution is to find a voluntary agency which is able to buy land on UNHCR's behalf. Headquarters' approval is required for such arrangements. Obviously, donors are reluctant to fund land purchases and when necessary it should be made clear from the start that the international community, however extensive its other forms of support, does expect the government of asylum to provide land.

2. The question of the payment of refugees in cash or kind for community services will inevitably arise. The issue of paying refugees can have a crucial effect on a settlement's character. On the one hand, payment can break any sense of responsibility the refugees should continue to feel for their welfare despite their dependence on outside assistance. On the other, the absence of payment may mean tasks essential to the settlement's well-being are either not done or have to be done by paid outside labour. In the first days of a settlement's existence it is most unlikely that the payment of refugees would be appropriate. In this start-up phase refugees should understand that they have a responsibility to themselves and their fellows to participate in the establishment of their settlement. Even a food-for-work scheme is probably wrong at this stage. In addition to the unfortunate impression of condoning a right to payment, it may also involve commitments which cannot continue to be met, or have to be met at the expense of the whole settlement's general ration. Problems with the supply system are almost inevitable at the

beginning of a settlement's life and no group should in such circumstances get extra food to the direct detriment of others.

3. In the longer-term, certain types of community-wide work frequently start to emerge as areas where standards will drop if some form of payment is not given. This is often the case with key public health services whose importance is not always correctly understood by the refugees. Before any payment scheme is entered into its full potential costs should be calculated and the funds or extra food assured. The amounts involved for a large caseload may be very considerable once the precedent has been set. It should be borne in mind that after payment is introduced every group of workers will clamour to be included in the scheme. It will be necessary to have some very clear but restricted criteria on inclusion. Further, UNHCR should look to those agencies responsible for different sectoral services to meet the wage costs of refugees working in that sector. Also no wage system should be introduced which will inhibit progress towards a settlement achieving self-sufficiency.

4. As important as the level of remuneration - which, as the refugees are already supported, should be well below the national rates - is its fair application to all refugees doing broadly the same work. A major cause of discord at many refugee sites has been the payment by different NGOs of markedly different rates to refugees for the same work. A standard scale is essential. Whether or not there are differentials recognizing different levels of skill will be a matter to decide in consultation with the refugees.

5. Another common question concerns the provision of services to the local population. UNHCR does not have a mandate to provide direct assistance to local populations affected by the presence of refugees. It should be noted that



other organizations, both within and outside the UN system, and bilateral aid programmes may be able to help affected nationals. Recalling the principle that the assistance available to the refugees should take account of the conditions of nationals in the area, there may be circumstances in which a flexible approach will be in everyone's interest. For example, if a large number of refugees are located in a previously sparsely populated area, and have health services that are not available locally, these could be offered to nationals on the assumption they would represent a small proportion of the patients. Conversely, financing the construction of a hospital in the local town, where it was clear that a substantial proportion of the beds would be reserved for nationals, would not be within UNHCR's mandate. Headquarters' advice should be sought when in doubt.

6. The problem of corruption may arise in an emergency, when large sums of money and quantities of attractive relief supplies are being spent or distributed. Every effort must be made to prevent the diversion or misappropriation of funds or goods intended for the refugees. UNHCR has an obligation to ensure that what is paid for actually reaches the refugees; careful monitoring and control, including of quality, is essential. As different attitudes to the problem exist, this task will be made easier if all concerned with the provision of assistance know clearly UNHCR's policy and principles with regard to UNHCR-funded assistance. In other words, no one should be in doubt as to

what practices UNHCR regards as proper and of UNHCR's intention to have them respected.

7. The question of political activities may also arise. Responsibility for security and public order at the refugee site always rests with the government. The refugees have obligations to conform to the laws and regulations of the country as well as to the measures taken for the maintenance of public order. UNHCR's responsibility is clear: "the work of the High Commissioner shall be of an entirely non-political character; it shall be humanitarian and social ..." (paragraph 2 of the Statute). No general guidelines can be given on political activities within the refugee community. The matter may be extremely delicate and Headquarters' advice must be sought immediately on any specific problems.

8. Finally, mention should be made of religious activities among the refugees by outsiders. Organizations active in the delivery of emergency relief may also have a religious aspect in their normal work. Some are traditional partners of UNHCR, with the separation between these two roles long established and well understood, but for others it may be useful to recall the basic principle. Religious activities by those outside the refugee community, where permitted by the authorities, must be clearly dissociated from the delivery of assistance and services to refugees. In particular, no proselytizing should take place in association with the provision of such general community services as education, health and social welfare.

- Field level management -

Further references

International Disaster Institute (1981)	<u>Disasters Volume 5 No.3</u> <u>Medical Care in Refugee Camps</u>	IDI
Oxfam (1980)	<u>Field Directors' Handbook</u>	Oxfam
UN (1977)	<u>A Guide to Food and Health Relief</u> <u>Operations for Disasters.</u> (Also in French and Spanish)	Protein-Calorie Advisory Group of the UN.
de Ville de Goyet C. Seaman J., Geijer U. (1978)	<u>The Management of Nutritional</u> <u>Emergencies in Large Populations</u>  (Also in French and Spanish)	WHO

All the above cover considerations relevant to the management of refugee emergencies.

### 10.0. Elements of a Co-ordinating Body (1)

No two relief efforts are identical. Nevertheless, it is possible to list many of the issues that will require consideration in the course of initiating co-ordination mechanisms. Each of the factors listed below would need to be evaluated against the particular context and the policy of the host government.

#### I. Membership

The nature of the co-ordinating body and its services will be determined by decisions on the composition of the membership. These decisions will be based on the degree of agency participation in the provision of services. Furthermore, these decisions must identify an appropriate role for organizations excluded from full membership.

##### a. Eligibility criteria for full membership

- (1) full-time representation in country
- (2) provision of direct services
- (3) minimum size of programme
- (4) attendance at co-ordination meetings
- (5) compliance with service guidelines
- (6) approval of host government
- (7) regular financial contributions to co-ordination mechanism
- (8) inclusion and considerations of indigenous agencies

##### b. Associate status for organizations without full membership

- (1) external organizations (UNHCR, unless a full member, etc.)
- (2) voluntary agencies which may choose not to become members
- (3) funding organizations
- (4) public interest groups

#### II. Services provided by co-ordination mechanism

The following services should be selected according to their ability to facilitate the increased effectiveness of the collective services provided by voluntary agencies. Meetings provide the forum for both the formal and informal exchange of information that results in complementary programming, elimination of waste, prevention of duplication and the sharing of technical information. This co-ordination will occur to various degrees depending upon the needs and on the willingness of the participating agencies.

##### a. Meetings

- (1) committee of the whole
- (2) working sub-committees

##### b. Administrative services vis-a-vis host government offices

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(1) Abridged from "Associations and Committees Serving Voluntary Agencies at the Country Level: A Study of Eight Organizations in Five Countries", by Clifford Olson, March 1981 (prepared for the International Council of Voluntary Agencies).

c. Information collection and dissemination

- (1) description of agencies
- (2) periodic reporting of services
- (3) personnel lists
- (4) newsletters
- (5) collection and dispersal of technical information

d. Conferences

e. Representations to external organizations

f. Identification of needed services and soliciting of voluntary agencies to assume responsibilities for the provision of these services

- g. Co-ordination of emergency responses
- h. Allocation of donated commodities and financial contributions
- i. Guidelines for the provision of services
- j. Orientation of newly-arrived agencies
- k. Orientation of incoming voluntary agency employees
- l. Research and documentation
- m. Support for settlement co-ordination committees
- n. Co-ordination with agencies outside the country
- o. Fund raising.

III: Relations with host government

Voluntary agencies are guests of the host government. It is important to build into the co-ordinating body, mechanisms which encourage co-operation and communication with appropriate levels of that government.

Consideration should be given to relations with officials:

- at the central level;
- at the provincial levels;
- at the local level;
- who are technical specialists (education, public health, etc.) in the civil service and academia;
- who are camp administrators, and
- who are in the military forces.

IV. Governing procedures

Governing procedures will describe the mechanisms through which representatives of member agencies choose to come to decisions. In some cases representatives meet frequently and are actively involved in all types of decision-making. In other instances, representatives delegate certain responsibilities to a smaller executive committee, sub-committee or staff.

- a. Voting procedures
- b. Election of Officers
- c. Selection of Executive Committee
- d. Frequency of meetings

V. Source of funding

The source of funding will predict better than any other single parameter, the beneficiaries of the services provided by the co-ordinating body.

Agencies will make best use of opportunities provided by the co-ordinating mechanism if they are assured of control over the decision-making process within that mechanism. The degree to which that mechanism depends financially upon member agencies is a measure of that control. Secretariats with independent sources of funding are at times subject to temptations to develop in directions independent of the desires of member agencies.

- a. Willingness to accept external support
- b. Portion of expenditures covered by member contributions
- c. Assessment by size of agency involvement in relief effort versus equal contributions
- d. Provision of exemptions or partial exemptions from required contributions.

VI. Staffing

The number of staff must be both large enough to provide the required services and small enough to be paid by available funding. The authority and supervision of the staff should be clearly delineated. Three sets of alternatives should be considered:

- a. Personnel seconded from member agencies versus professionals employed by the co-ordinating body
- b. Expatriates versus host country nationals
- c. Generalists (co-ordinators) versus technical specialists.

Again, the specific site context is a determining factor in designing the co-ordinating mechanism. Individuals working at the site and representing participating agencies are best able to determine which organizational structure will achieve a co-ordination that will result in increased effectiveness and efficient use of resources.

Example of a Standard Situation Report

1. In emergencies, it is essential that regular situation reports reach Headquarters. The frequency of such reports will be determined by the characteristics of the situation; more frequent reports will be necessary in the initial stage of an emergency. Situation reports should give an overall view of the situation with sufficient factual content and explanation of changes since the last report to answer rather than raise substantive questions. By indicating progress achieved, problems encountered and steps being taken or planned to overcome these, the reports should give a cumulative picture of how the needs of the refugees are being met.

2. A suggested format is given opposite. Major headings should as a rule be the same in each report, indicating "no change" if appropriate. Depending on the situation, headings E through K may either be presented as shown, with locations covered under each sector of assistance, or alternatively by locations, with sectors of assistance covered under each location. In either case, the information under each sector of assistance and for each location should cover as applicable:

- (1) Current situation;
- (2) Particular problem areas, remedial action planned or necessary, (1) with time frame;
- (3) Any variation from overall implementing arrangements in DDD;
- (4) Personnel and facilities available.

3. The reports should be sequentially numbered, copied to RO New York and to other UNHCR field offices as appropriate. The report may be used as the basis for any wider situation report issued from Headquarters.

4. A similar format may be useful for situation reports to the Representative by field officers at the site level.

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(1) Specific action requested of Headquarters should be the subject of a separate cable, which could of course make reference to an earlier sitrep. Where relevant, reference should be made to such requests in the sitrep.

HICOMREF GENEVA INFO HICOMREF NEW YORK (and other offices concerned)  
SITREP (number) COVERING PERIOD (date) TO (date)

A GENERAL SITUATION

PRIMO (Summary of major developments including protection, assessment  
SECUNDO of situation generally and by refugee location, and field deploy-  
etc. ment of UNHCR staff.)

B REFUGEE STATISTICS AND REGISTRATION

(By location, country of origin or distinct groups if not self-evident, with explanation of changes since last report, and indicating source, e.g. government, UNHCR, etc.)

C CO-ORDINATION

(Government departments, UN system, NGOs, both at capital and field levels. Arrangements for briefing diplomatic corps.)

D OVERALL IMPLEMENTING ARRANGEMENTS

(Role of authorities  
Operational role of UNHCR (if any)  
Role of UNHCR's operational partners  
Other sources of significant assistance)

E SUPPLIES AND LOGISTICS

(Including information on internal transport arrangements, arrival of major consignments of multilateral or bilateral relief supplies, outstanding needs, etc.)

F SHELTER

(Site layout, housing, etc.)

G HEALTH

H FOOD AND NUTRITION

I WATER

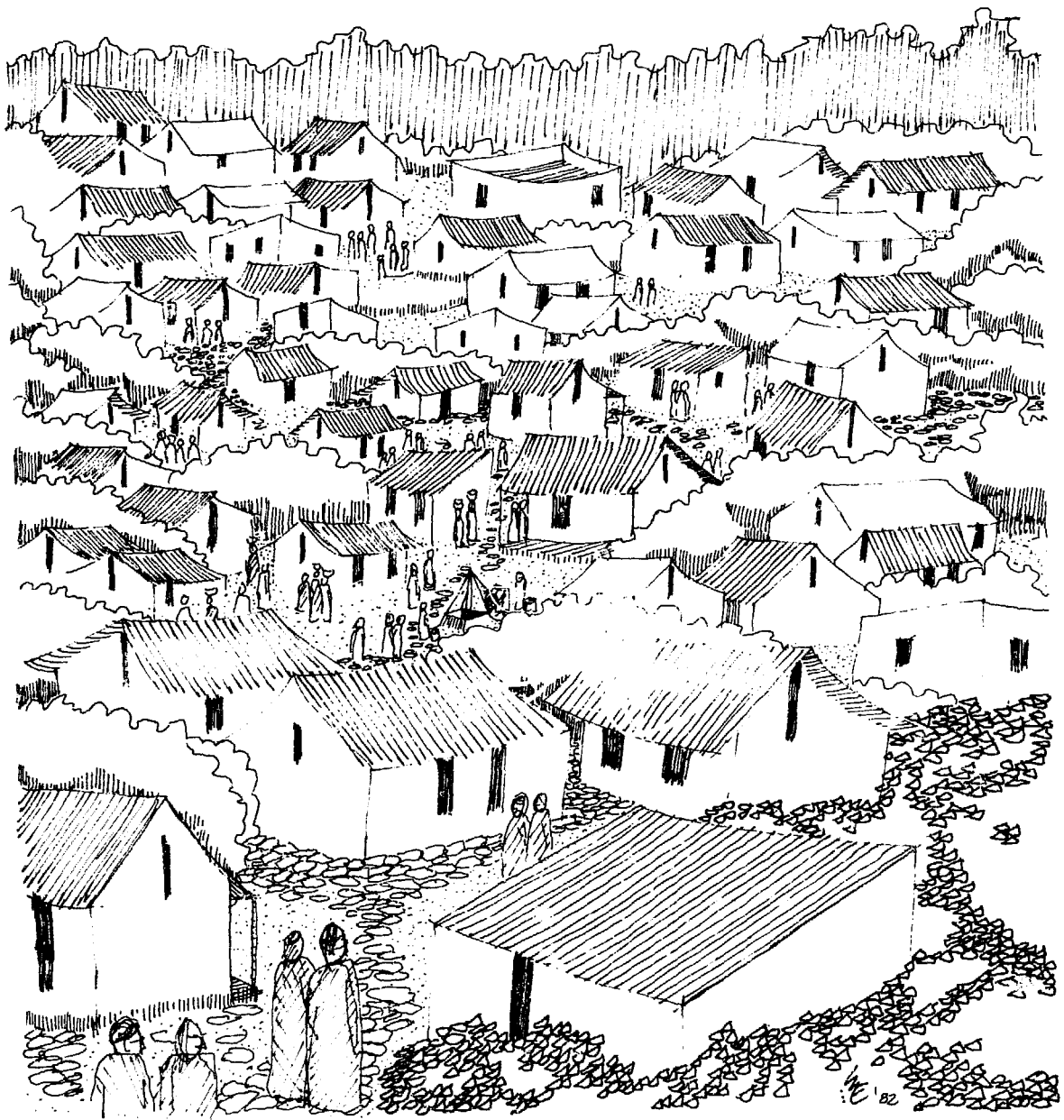
J SANITATION AND ENVIRONMENTAL SERVICES

K SOCIAL SERVICES AND EDUCATION

(Including disabled refugees, unaccompanied children, and tracing etc. as applicable.)

L PUBLIC INFORMATION

(Significant events/media coverage.)





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