4. The Operating Environment: Needs Assessment, Co-ordination and Contingency Planning

4.1 Assessment of needs

During its assessment of a situation an agency will have to decide whether or not to become involved, in which sectors and in what way (e.g. as funder or implementer?). In any event, there are some overall guidelines which need to be borne in mind with respect to water and sanitation programmes.

When making an assessment of an emergency, staff should not only be aware of the situation as it relates to the interest/speciality of their own agency, but should also maintain a broader view of the affected population's principal needs. Considering water and sanitation needs in isolation can mean that related issues such as nutritional status and the provision of clinical services are overlooked. Providing water and sanitation facilities to a population that does not have access to adequate food cannot be expected to improve their health status significantly. Problems can be identified early on by non-specialists, who can then raise the issues with the co-ordinating body who, in turn, can find solutions.

Many factors will influence decisions about the type of water and/or sanitation programme that can be implemented. These will include the numbers of people that are affected, the type of population (internationally recognised refugee or internally displaced, resident or displaced population) and how long they are likely to be affected by the emergency. The local capacity to cope with the emergency should play a significant role in this decision-making process. Resources, expertise and skills amongst the local and the affected populations need to be explored. It is easier to obtain funding for international refugees than for a population that has been displaced within its own territory. The number of people affected by the emergency will impose a cost-benefit point of view on the agency implementing a water and sanitation programme; the more people there are, the easier it is to justify expensive water systems. Similarly, if people

are expected to return to their own country or homes sooner rather than later, donors are less likely to be willing to fund expensive programmes.

In addition to local government, UN bodies and the affected population, the plans of other agencies are very important at this stage. When discussing interventions with them, it is useful to have an understanding of their capacity to provide all they may want to offer. Unfortunately, emergency relief is very competitive, and it is not unknown for agencies to want to undertake large programmes in order to get access to large funding and hence publicity. Equally, the desire to help may outweigh sound reservations about the capacity to respond. With this in mind, it is worth trying to assess an agency's ability to provide the services it has said it can offer. For example, does it have the technical resources and knowledge? At the same time, in a world of limited resources for emergency interventions, duplication of effort should be avoided.

Box 5

Knowing One's Limitations

For all the right reasons, agencies want to do as much as possible to help in emergencies. If they are present in the country when the emergency happens, it is very difficult to stand by and watch. However, agencies very often have difficulty in recognising the limits of their capacity. When technical interventions such as the provision of water and sanitation services are required, it is crucial that informed advice is taken and that limited capacity does not jeopardise the level of service that can be offered to the beneficiary population. Recognising one's limitations early on and asking for assistance will have a more positive impact on the wellbeing of an emergency-affected population than simply soldiering on because one is there.

If the population is displaced, and is therefore likely to be put into a camp, access to water should be the prime criterion, after security, in determining the location of the camp. This cannot be stressed enough. Every commodity other than water has to be imported. It is very important that an agency that is going

to be involved in the provision of water should be engaged from the outset in the discussion about the siting of the camp. People have to collect water on a daily basis. Sites should therefore be selected as close to water sources as possible. If you are fortunate enough to be faced with a decision between a number of sites with abundant water, the site with the best quality water and hence the minimum requirement for treatment should be chosen.

It is important to recognise the potential for using water as a means of influencing site selection. You can easily rush into an emergency situation and start to provide water. However, once work on a particular water system has started, it is difficult to stand back and ask whether the site is appropriate. Providing a semi-permanent water system to a camp can sometimes validate a totally inappropriate site. If this is the case, there is always the option of providing the basic minimum service to meet immediate needs whilst telling the co-ordinating agency that further work on water is not appropriate and that the site ought to be moved. Such action may seem very disruptive but in fact it can be of vital future benefit to the camp population.

Experience has shown that in emergencies decisions are often taken on the basis of very little information. This can sometimes be justified on the grounds of the need to take measures to save lives. However, it can also mean that decisions which will have a major impact on the population being assisted are taken without their being party to the decision-making process. Consultation takes time – a commodity which is in short supply during the early stages of an emergency. But the principles of participation and ownership which are so strongly defended in the case of development programmes apply equally to emergency programmes and every effort should be made to involve the beneficiary community at every stage as early as possible.

In particular, the role of women should be recognised. Women are usually the collectors of water, the managers of the household and the teachers of the children. They are therefore most directly affected by a water and sanitation programme and are best placed to help derive the maximum benefit from it. Interventions should consider ways to improve their circumstances, such as

bringing the water as close as possible to shelters so as to reduce the amount of time required to collect it (see Annex 6 for a checklist on gender considerations).

Immediate needs. From experience, it is hard to reconcile immediate short-term needs with the time needed to assess the longer-term water and sanitation needs of a displaced population. It seems appropriate, therefore, to look at the assessment in two phases: immediate and long-term. The first phase is to look at immediate needs with a view to short-term interventions.

These will include assessing how much water is currently available. What are the defecation practices and are they hygienic? Are there water and sanitation-related diseases? (See Annex 4 for the expanded checklist on environmental health assessment). From this initial survey the first ideas for intervention will be formulated. Every effort should be made to obtain as much relevant information as possible. For example, are the local water sources sufficient to meet the extra demands that will be placed on them? Government departments or local administrations might have valuable data on the hydrogeology of the area; other agencies working on development programmes, in the water and sanitation sector, might have water maps, information on cultural habits, or the availability of construction materials or water equipment, and might be able to second a local technical staff member. All such information can save valuable time at this stage.

Every effort should be made to design initial responses to be compatible with future developments. For example, early systems should have the possibility of future expansion and development designed into them. Similarly, latrines should be carefully designed, particularly if space is limited and future options for resiting them are limited. Giving a little thought to such matters can save both time and money later on the programme.

Immediate responses must include the control of water sources and defecation practices. Natural sources, particularly surface sources, can rapidly become polluted directly by people contaminating rivers or lakes and indirectly by

rainfall spreading surface pollution into the water source. Pollution can be minimised by keeping people away from the area immediately adjacent to the collection area and upstream of it, by keeping animals downstream of the collection point and by employing guards to maintain hygiene standards.

Longer-term needs. It is desirable to start long-term planning as early as possible and there is no reason why this cannot be ongoing whilst first-phase needs are still being addressed. The longer-term needs of water and sanitation programmes are by no means so obvious. In terms of sanitation provisions, it is very likely that washing and bathing facilities will provide a long-term benefit. Similarly, the provision of solid waste disposal facilities must be considered to help control rats, flies and other disease-carrying pests. As regards the latrines, what will happen when they are full? Is there sufficient space to resite them or will it be necessary to empty the existing ones? If so, how will the sludge be collected and where will it be disposed? With respect to water, it may be necessary to develop new sources for more sustainable long-term needs. For example, developing hand-dug wells or protecting nearby springs may be far more appropriate than using diesel or electric pumps, or chemical treatment processes.

Planning is needed when it comes to the operation and maintenance of systems. Consideration must be given as early as possible to who will be responsible for their long-term management. Some countries have line ministries with direct responsibility for refugees, and it is likely that they will want to be involved in all aspects of service provision. It is more often the case, however, that government bodies, because of lack of resources, are prepared to let NGOs get on with the service provision whilst they take on a co-ordinating role. If the intention is to hand over responsibility for water and sanitation to such a ministry this will probably involve discussion about the funding of activities and resourcing the programme in terms of skilled people. The same thing applies if local NGOs are interested in taking over.

With regard to water and sanitation programmes, the most likely agency to take over long-term responsibility is the local water department. If this is the

arrangement, technical staff should be seconded to the NGO to work on the programme as early as possible. This will help avoid problems that may arise from lack of familiarity with equipment, processes or approach, and will help smooth the transition from one agency to another and go some way to ensuring continuity and maintaining standards of service.

Thought should be given to the effect the emergency is having on local populations. Displaced populations often settle in areas that are themselves poor, both in terms of natural sources and/or the wellbeing of the local population. If this is the case, the mistake of focusing solely on the needs of the displaced population is often made, and can have devastating consequences. The author has worked in a situation where growing resentment amongst the local population at being continually ignored by the relief agencies, resulted in attacks on their vehicles and the killing of a number of local and international agency staff.

Relations with local populations are extremely important and it seems entirely appropriate to consider extending services to them wherever possible. Good quality water is usually a scarce resource; when designing systems, thought should be given to providing access for the local population. Tension can also be created if high technology systems cannot be sustained or have to be moved to another site. Parallel interventions which address both low technology development needs and high technology emergency needs can be appropriately considered.

4.2 The importance of co-ordination

There is a direct relationship between the size of a population and the scale of an environmental health programme in an emergency. As population numbers rise, so it becomes more difficult for a single agency to take sole responsibility for all aspects of a programme. In a large-scale emergency this is a considerable commitment, and the logistical, administrative and technical support required is usually beyond the scope of a single agency. It is not unusual

therefore for the sectoral responsibilities of an environmental health programme to be divided amongst a number of agencies. The role of inter-agency co-ordination then becomes extremely important, as does co-ordination with government departments, UN agencies and, not least, the beneficiary population themselves. Co-ordination is important throughout the emergency: from the assessment phase to the construction phase, and the operation and maintenance phase, right up to the time the installations are no longer required when people have either returned home or the emergency is over.

It is crucial that the flow of information between the relevant agencies should be free and open. This exchange of information can be interrupted: personnel may not relate well to each other; language can be a problem; disagreements become entrenched, or people may simply feel too busy to attend meetings. This must not be allowed to happen. How can an agency responsible for providing washing and bathing facilities, plan its work if it does not know where water is going to be distributed? Similarly, how can steps be taken to reduce the incidence of an outbreak of dysentery if the transmission route is not known?

Intra- and inter-agency co-ordination is fundamental to the success of a water and sanitation programme. Every effort should therefore be made to set up co-ordination meetings at local and country office level which agencies must be encouraged to attend. The host country's line ministry responsible for the emergency should also be encouraged to take the lead at such meetings. This will go some way to ensuring that people at different sites receive a similar standard of service and that, as a minimum, host government standards are maintained.

4.3 The need for contingency planning within an emergency programme

What happens if an emergency arises within the emergency? What happens if a large new influx of refugees arrives at the site, the water source suddenly dries up, or an epidemic of dysentery or, worst of all, cholera breaks out? There are

no magic answers. The best course of action is to plan for such a crisis from the outset. Anticipation and contingency planning are prerequisites of any emergency programme.

Cholera is often a very real threat to displaced populations. Prevention is better than cure. Good quality water and sanitation services can offer only limited assistance in avoiding the threat of an outbreak, but with good hygiene practices they will go a long way to minimising its impact. If included from the outset, hygiene promotion can make a useful contribution to the contingency planning process (see *Waterlines*, April 1994 on the subject of cholera). A fact worth noting here is that during cholera outbreaks, more children die from other types of diarrhoea[3]. In the event of an outbreak of cholera, it is essential that additional quantities of uncontaminated water are made available to the camp and the local population. Consideration should also be given to increasing the residual chlorine in the water to provide stronger post collection disinfection. In Lisungwi refugee camp, Malawi in 1992, Médecins Sans Frontières adopted a strategy of dosing individual water containers with chlorine[4]. Treatment centres will be isolated from the rest of the camp and separate water and latrine facilities will therefore be required as well as baths for disinfecting footwear.

It will be useful for all agencies involved in the provision of water to go through a joint contingency planning process. Inventories of spare or under-utilised equipment can be drawn up so that everyone knows what is available if the worst happens. Similarly, human and technical resources can be pooled. Alternative water sources, which may be distant but are able to provide large additional quantities of water rapidly if needed, can be identified. Tankers can be on short notice standby contracts, as happened in Nepal in the case of the Bhutanese refugees. Access routes for tankers to water points can be improved to help speed up turn-around time. Sites within the camp can be identified in case additional water storage and distribution points are required. Piped water

[3] Bartram and Howard, Waterlines (April 1994) in Annex 1.

[4] Mulemba and Nabeth, Waterlines (April 1994) in Annex 1.

systems can be designed with possible expansion in mind, over-capacity is better than under-capacity.