Chapter 3

Principles of assessment

This section is designed to describe the methods that can be used in the rapid assessment process. It does not cover the interactive consultation and community participation methods that are described in Chapter 12.

3.1 Assessment steps

The term 'assessment' is often used, but what does it really mean? In assessing the sanitation needs of an affected population it is first necessary to identify the key sanitation problems and then to identify the needs arising as a result of these problems. Once these needs have been identified they can then be evaluated in order to determine which needs are greatest, or which needs should be given priority concerning intervention. This can be expressed in the following flow chart (Figure 3.1):

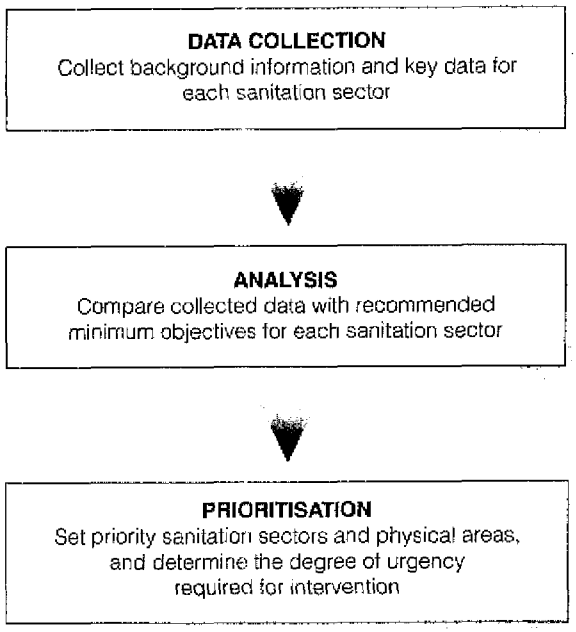

Figure 3.1. Assessment steps

In order to conduct an assessment it is first necessary to collect information or data. This data then needs to be analysed to determine needs and set priorities.

The assessment process becomes more detailed as the programme develops. In the early stages assessment is rapid and based on observation and consultation with key informants. This initial assessment will form the basis for setting immediate priorities but should be followed up with more detailed assessment during detailed programme design. The detailed assessment involves much more in-depth consultation with the affected population and other stakeholders (see Chapter 12).

3.2 Who should be involved in assessments?

Initial assessments are often conducted by experienced personnel from relief agencies, especially where external international agencies are involved, but this need not always be the case. Both rapid and more detailed assessments can be conducted by less experienced international staff, staff from local agencies and members of the affected community itself. The Guidelines for rapid assessment and priority setting (Chapter 16) aim to assist less experienced personnel in conducting initial assessments.

3.3 Data collection

Assessment involves the collection of a variety of information and data. The following quotes describe key points to remember when undertaking assessments:

- 'In an emergency you will not be able to collect as much substantive information as you could in a period of non-emergency. **Information should therefore be collected from as many different people and sources as possible** to corroborate findings. Be aware of bias and inaccuracies. Additional data may be collected after decisions have been made for confirmation' (House and Reed, 1997).

- 'It is essential to **understand local political and social structures** and to be aware of conflicting interests within communities when collecting information. It is best to cross-check information using different sources. It is also important to discuss the purpose of the assessment with communities to avoid raising expectations unrealistically' (Gosling & Edwards, 1995).

- 'In carrying out an assessment, the principle should be to collect *enough* data to implement an *effective* response. Time spent collecting unnecessary information is time wasted. On the other hand, not doing an adequate assessment may lead to much more effort, time and money wasted on an ineffective response. Focus on the most relevant factors (**the question 'so what?' is a useful test of relevance** - ask it frequently)' (Davis & Lambert, 1996). The checklists provided in Chapter 15 of the Guidelines identify the **likely** key information required.

- **'Keep good records** of any gathered information and store them in such a way that others can access them. Information gathering takes time and hence the assessor (or those following the assessor) should not have to repeat work due to inefficient record keeping' (House & Reed, 1997).

Remember that in most situations things are constantly changing, it is therefore important to look at both the present situation and what is likely to happen in the near future.

3.4 Equipment

For most sanitation assessment activities there is not a great deal of equipment required However, in conducting rapid assessments some of the following items of equipment may be useful (Table 3 1).

Table 3.1. Assessment equipment

Equipment	*Use*
■ Altimeter	Measuring elevation above mean sea level
■ Global positioning system	Measuring latitude, longitude and elevation
■ Compass / clinometer	Taking geographical bearings
■ Tape measure	Measuring distances / dimensions
■ Line-level	Checking elevations and levels
■ Mirror	Reflecting sunlight to illuminate pits, wells, etc.
■ Strong penknife	Multiple use
■ Torch / flashlight	Inspecting pits, etc
■ Calculator	Calculating ratios, percentages, etc.
■ Clipboard	Carrying pen and papers for assessments
■ Spade	Checking ground conditions

3.5 Background information

Relevant background information can often be collected before departure and en-route (if the assessor is travelling from outside the affected area), as well as in the affected area itself. It is often surprising how much information can be gathered in this way. The information gathered may include maps (topographic, geological, road, hydrogeological, demographic and rainfall), aerial photographs and satellite images Attempts should be made to find previous surveys, studies, reports and policy papers. Information concerning the structure of national and local government, national policy and capacity to cope with an emergency is also useful. As is information concerning the capacities and intentions of other agencies working in the area

The sources of this background information are varied and include.

- government departments of donor country;
- government department of host country;
- mapping / aerial photograph agencies or specialist shops;
- satellite image providers;
- university departments;
- government embassies;
- hospitals;
- local and international NGOs;
- travel guides, books and journals; and
- the Internet.

Up-to-date information concerning emergency refugee situations can be found on the Internet at sites such http://www.reliefweb.int and http://www.unhcr.ch. Some sources, such as satellite image providers, which usually charge for relevant information may provide this free-of-charge to non-governmental relief agencies.

3.6 Observation (visual assessment)

Perhaps the simplest way of gathering information is through observation. This method allows the assessor to record non-verbal behaviour among the affected population, the physical condition of various sanitation sectors and the characteristics of the surrounding landscape. It can also explore interactions among the affected population and local residents or other stakeholders. Images can be recorded by taking photographs or video footage, but discretion is required, particularly where there are cultural sensitivities concerning photography.

3.6.1 Reconnaissance

On arrival in the field the first step in assessment is to conduct a rapid reconnaissance of the affected area. This can be done on foot or with the use of a vehicle depending on the area concerned, and may be a useful starting point in producing a simple sketch map. Transect walks can be made through the site to take notes on sanitation facilities and practices and associated indicators. A huge amount of information can be gathered in this way but care should be taken not to make sweeping assumptions based on limited observation.

3.6.2 Observing behaviour

It should be noted that observation methods based on people's behaviour are subjective and time consuming. They cannot detect what members of the affected population are thinking, and the presence of an outsider can change the behaviour of those being observed. Care must also be taken in ensuring that the observer is not seen to notice the wrong thing, and therefore observations need to be conducted in a comprehensive and systematic manner using appropriate checklists.

3.7 Mapping

Mapping is a very useful tool in obtaining an overall view of the physical situation. This can be combined with the observation process by sketching site plans or schematic maps during the initial reconnaissance. This may be used to record locations of:

- existing sanitation facilities and practices;
- key public services and institutions;
- indiscriminate disposal of excreta, solid and medical waste;
- standing water;
- water sources, storage and distribution points; and
- slopes, drainage and geological features.

Mapping can also be done quickly by community members and/or local staff. This is another way of stimulating discussion and obtaining information on a wide range of issues from those present. Maps (no matter how rough) can be very useful in co-ordination and planning meetings with other individuals, organisations and agencies.

In addition, existing maps or aerial photographs may be used to produce an environmental map of the wider area or region. Examples have been reproduced in Chapter 4.

3.8 Surveys

The term 'survey' can be used to refer to an examination of opinions or behaviour made by asking people set questions. It can also be used to refer to measuring and recording details of land, or simply to examine something carefully and systematically. Surveys can be used to collect both quantitative and qualitative information. This may be quantitative data concerning demography, health and geography, or qualitative social data such as community opinions and behaviour. There is a broad range of survey techniques which can be used for emergency sanitation programmes, including random and selective methods. There are a number of publications which examine these methods in detail, for details of social survey methods refer to Nichols (1991).

The use of surveys should be balanced against available time, human resources, logistical support, and the need for statistical analysis and interpretation of results. Some surveys, such as land surveys, may require specialists and may not be possible to undertake at the initial stage of assessment.

3.9 Interviewing

In the immediate rapid assessment stages much information can be gathered through observation, however it will probably be necessary to interview some groups and individuals. There are various interview techniques ranging from open-ended discussion with randomly selected members of the affected population to more directed interviews with key informants or personnel from NGOs.

In some cases it may help to prepare a standard questionnaire for the use of the assessor. This method should be used with all sections of society and may give the interviewer a chance to get more complete information. Furthermore, it may provide an opportunity to clarify any misunderstandings between interviewer and interviewee. However, there are disadvantages in using this method in that questions may be biased and respondents may give the answers that they believe the interviewers want. Care should be taken in conducting interviews; the assessor should avoid asking leading questions (where the desired answer is obvious) or restrictive questions (with yes or no answers only).

Interviewees can include:

- key informants (engineers, health staff etc.);
- formal leaders; and
- households and individuals.

Refugee women and children, as well as men, should be questioned. Female translators should be used where possible in interviewing women, especially in cultures where women's contact with men is restricted.

It is important to remember that in some situations, interviewers and observers may pose a threat to the people, interpreters and authorities concerned. Rapid assessment teams can compromise these groups by asking the wrong questions or quoting their answers to the wrong person (Gosling & Edwards, 1995).

3.10 Group discussion (focus groups)

In group discussion the assessor guides conversation among a small group of the community with common interests. These groups may be of mixed sex and age, although single sex focus groups may promote greater freedom of expression by participants who may not want to express their opinion in a mixed group.

Discussions are semi-structured and the assessor will introduce a list of topics to encourage wider discussion among the group's members. This will enable the facilitator to learn about their concerns, opinions, problems, and what they consider to be priorities in the various sanitation sectors.

Care must be taken during the initial rapid assessment that the expectations of the affected community are not raised unduly prior to programme approval.

3.11 Measuring

Measurements can be used to determine quantities such as:

- available area;
- latrine superstructure dimensions;
- quantity of water available for handwashing / anal cleansing;
- volume of pits;
- soil infiltration rates; and
- geographical position.

Measurements are likely to require the data collector to have some skill and experience in using appropriate instruments. Assessment teams can be trained reasonably quickly for most measurements, but should be carefully supervised throughout data collection.

3.12 Counting and calculating

Many assessment methods involve counting; this could be counting numbers of people, families, facilities or resources. Time should not be wasted obtaining exact figures in the early stages of assessment. For example, if refugees are staying in family groups it may be appropriate to count the number of families. The average family size can then be estimated using a small sample group and therefore the total population may be estimated. Alternatively, other agencies (e.g. UNHCR) working in the area may have more reliable demographic figures which can be used.

Many figures obtained in assessments may be more useful expressed as percentages. In order to calculate percentages the following formula should be used:

$$\text{Percentage} = \frac{\text{number in specific group} \times 100\%}{\text{total number}}$$

e g. If only 2000 people have access to excreta disposal facilities yet the total population is 8000 people, the percentage of people with access to these facilities is:

$$\text{Percentage} = \frac{2000}{8000} \times 100\% = 25\%$$

3.13 Assessment reports

A brief assessment report should be produced following any rapid or detailed assessment. This can adopt the following structure:

- Author, date and location
- Purpose of assessment
- Background to situation: social, political, technical, health and environmental
- Executive summary: synopsis of assessment findings
- Summary assessment table: sector appraisal scores (see Chapter 16)
- Brief situation summary for each sanitation sector
- Brief list of recommendations

At this point the report will not include an outline plan of action but the recommendations made will form the basis of any future plan. An example of an assessment report is provided in the Case Study.

References and further reading

Adams, John (1999) *Managing Water Supply and Sanitation in Emergencies*. Oxfam: Oxford.

Davis, Jan and Lambert, Robert (1996) *Engineering in Emergencies: A practical guide for relief workers*. RedR / IT Publications: London

Gosling, Louisa and Edwards, Mike (1995) *Toolkits: A practical guide to assessment, monitoring, review and evaluation*. Save the Children: London.

House, Sarah and Reed, Bob (1997) *Emergency Water Sources. Guidelines for selection and treatment*. WEDC, Loughborough University: UK

Nichols, Paul (1991) *Social Survey Methods: A fieldguide for development workers* (Development Guidelines No. 6). Oxfam: Oxford.