

# Emergency sanitation

## – planning



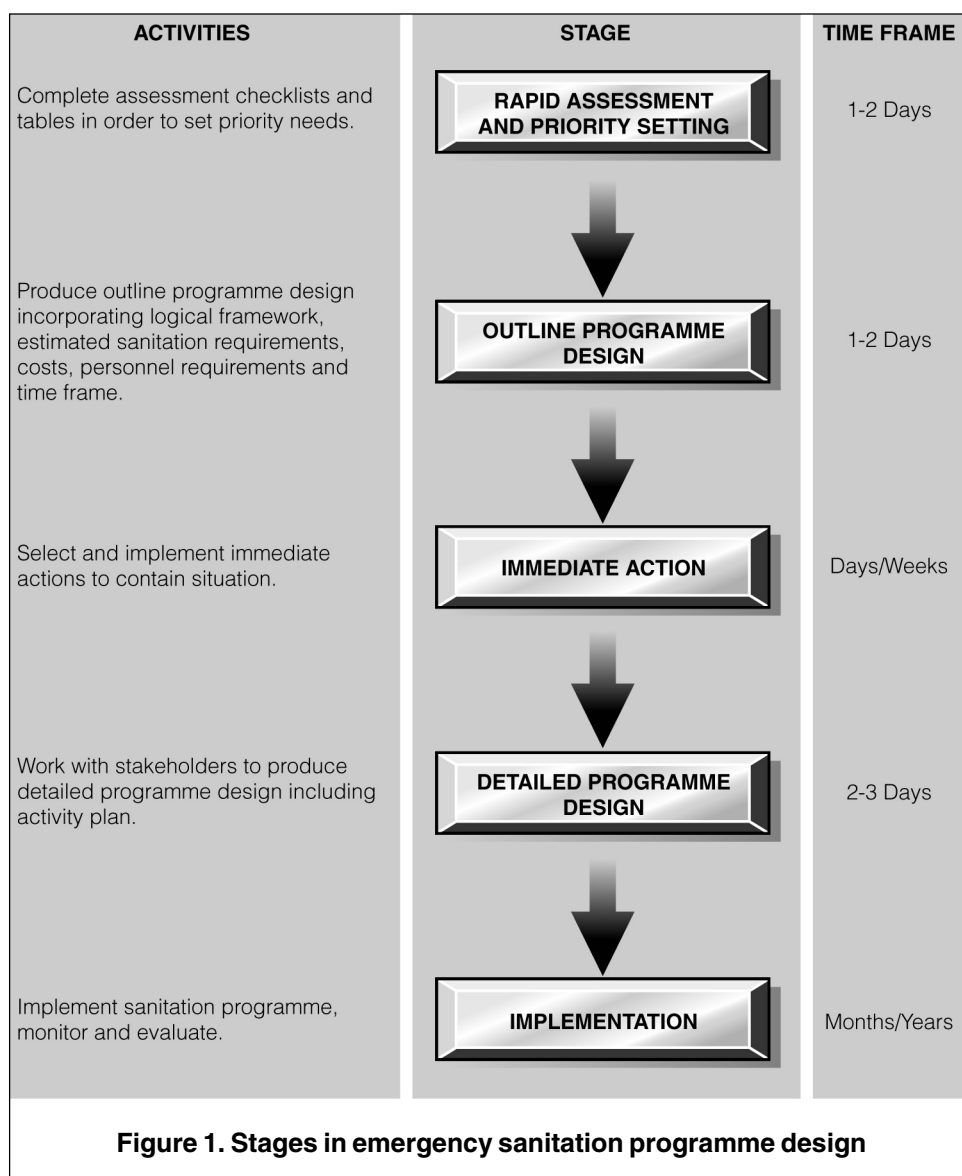
**World Health Organization**

### Why is it important to plan?

The pressure to help people immediately after a disaster often leads to actions being started before they have been properly planned. Wide experience has shown that this leads to a waste of resources, poor service delivery and low long term benefits for the affected community. It is always important to plan sanitation interventions before starting work and there is no reason why this should not apply in emergencies or after disasters.

### What is meant by sanitation?

The term *sanitation* means different things to different people. In this note it is taken to mean the collection and disposal of human excreta (urine and faeces). Other wastes from human activities such as solid waste and medical waste are not covered but the principles involved are the same.



### Stages in planning

Figure 1 shows the main stages in planning emergency sanitation. The main complaint about the planning process is that it takes too long in an emergency. This is not true: Figure 1 also shows the approximate time required for each stage for an affected population of about 10,000.

### Rapid assessment and priority setting

It is only necessary to intervene in a situation if there is a need to do so. This stage aims to rapidly collect and analyse key information to identify if an intervention is necessary and whether it is of high, medium or low priority.

**Table 2. Key data to be collected**

**General description**

- Write a general description of the emergency, affected area and population. Include socio-political, institutional, demographic, health and geographical information.

**General information**

- Organisation carrying out the assessment
- Name of assessor(s)
- Position of assessor(s)
- Dates of assessment
- Maximum level of intervention (short-term or long-term)
- General location or site affected
- Logistics and resources available
- Human resources available
- Nature and history of emergency
- Government involvement
- Conflicts and likely resolutions
- Origin of affected population
- Seasonal/climatic implications
- Existing/potential donors
- Other organisations working in the area including current and planned activities

**Demographic data**

- Approximate number of affected people
- Breakdown of the population by sex
- Breakdown of the population by age
- Proportion of vulnerable groups (e.g. female-headed households, children, sick, disabled, etc.)
- Average family size
- Likely increase in population over next month

**Geographical information**

A sketch map should be produced and the following features identified and located:

- Location and types of existing sanitary facilities with estimates of key distances from dwelling areas
- Location of indiscriminate dumping of solid or medical waste
- Areas of indiscriminate excreta disposal
- Location of key public services/institutions
- Water sources
- Water storage and distribution points
- Pooling of wastewater
- Burial / cremation sites
- Groundwater levels
- Ground conditions
- Geological features
- Slope directions and drainage

**General description**

- Write a full description of the current facilities and practices (including anal cleansing). Include how facilities were constructed, operated and maintained with general comments on quantities, qualities and cultural factors.

**Quality**

- Are existing facilities technically appropriate?
- Are existing facilities socio-culturally acceptable to all users?
- What are the potential hazards for disease transmission?
- Is there any potential contamination of food and water sources?

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- Are any excreta disposal facilities breeding sites for vectors or pests?
- Are appropriate anal cleansing and handwashing materials available?
- Is there evidence of any indiscriminate defecation or potential for direct human contact with excreta?
- For how long are current facilities and practices sustainable?

**Quantity**

- What is the ratio of domestic facilities (cubicle or space) to population?
- If required, what is the ratio of population to facilities for children, disabled or elderly?
- If there is a need for facilities in public places or institutions, what is the ratio of facilities to unit of measure?
- What is the maximum one-way walking distance for users?

**Usage**

- What proportion of the affected population has access to appropriate facilities? What groups do not have access and why?
- What proportion of the affected population is using the appropriate facilities correctly on a regular basis? Are facilities maintained hygienically?

**Box 1. Data collection principles**

The main things to remember when collecting information are:

- Collect it from as many sources as possible to reduce bias and inaccuracies
- Be aware of local political and social structures so as not to raise unrealistic expectations
- Consider the effects of the data you collect on your decisions
- Keep good records of what you have learned and from whom
- Remember that situations change rapidly in an emergency and things may not be the same tomorrow as they are today
- Get a good interpreter if you are working with people who speak a different language from you



**Table 3. Recommended minimum objectives for safe excreta disposal**

Criteria	Immediate	Short-term	Long-term
<b>Quality</b>	<ul style="list-style-type: none"> <li>Technically basic</li> <li>Barely socially and culturally acceptable</li> <li>Basic health protection measures in place</li> <li>Technology sustainable for one month</li> </ul>	<ul style="list-style-type: none"> <li>Technically appropriate</li> <li>Socially and culturally acceptable</li> <li>Minimal health hazard</li> <li>Technology sustainable for six months</li> </ul>	<ul style="list-style-type: none"> <li>Technically very appropriate</li> <li>Very socially and culturally acceptable</li> <li>No health hazard</li> <li>Technology sustainable for three years</li> </ul>
<b>Quantity</b>	<ul style="list-style-type: none"> <li>Ratio of one space/cubicle to 100 persons accessible to all population or immediate responses only</li> <li>Maximum walking distance 70m (one way)</li> <li>Availability of sufficient numbers of facilities at:               <ol style="list-style-type: none"> <li>Medical centres (one latrine space to 50 beds or 100 outpatients)</li> <li>Schools (one to 50 girls and one to 100 boys)</li> <li>Market areas (one to 100 adults and one to 50 children)</li> <li>Feeding centres (one to 100 adults and one to 50 children)</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Ratio of one space/cubicle to 50 persons accessible to all population</li> <li>Maximum walking distance 50m (one way)</li> <li>Availability of sufficient numbers of facilities at:               <ol style="list-style-type: none"> <li>Medical centres (one latrine space to 20 beds or 50 outpatients)</li> <li>Schools (one to 30 girls and one to 60 boys)</li> <li>Market areas (one to 50 stalls)</li> <li>Feeding centres (one to 50 adults and one to 20 children)</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Ratio of one space/cubicle to 20 persons accessible to all population</li> <li>Maximum walking distance 25m (one way)</li> <li>Availability of facilities at:               <ol style="list-style-type: none"> <li>Medical centres (one latrine space to 10 beds or 20 outpatients)</li> <li>Schools (one to 15 girls and one to 30 boys)</li> <li>Feeding centres (one to 20 adults and one to 10 children)</li> <li>Market areas (one to 20 stalls)</li> <li>Offices (one to 20 staff)</li> </ol> </li> </ul>
<b>Usage</b>	<ul style="list-style-type: none"> <li>50% of affected population has access to domestic facilities (100% in medical and feeding centres)</li> <li>50% using facilities correctly on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>75% of affected population has access to domestic facilities (100% in medical and feeding centres)</li> <li>75% using facilities correctly on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>95% of affected population has access to domestic facilities (100% in medical and feeding centres)</li> <li>95% using facilities correctly on a regular basis</li> </ul>

## Should you get involved?

External organisations should only get involved if the affected institutions and population are unable to deal with the situation and if the health of the population is getting (or is likely to get) worse. Table 1 suggests health data that will assist in deciding whether to intervene.

## Data collection

Data must be collected to assess the problems and needs of the affected population. This must be done

quickly but in sufficient detail that the information collected is of use for analysis (Box 1). Table 2 suggests the key information you should collect.

## Minimum objectives

In emergencies the normal routes for making decisions on what technologies to use do not work. Instead, a set of internationally recognised standards are used to ensure that the services provided to people in distress are broadly the same all round the world. Table 3 sets

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out accepted standards for emergency excreta disposal. These standards are used to decide what should be provided and whether they are a success.

## What to do?

A comparison of existing facilities with those suggested to meet minimum objectives will tell you if any further work needs to be done and if it is urgent.

## Outline design

Assuming the assessment has shown a need to intervene, this stage develops an outline plan for what should be done and how. The plan contains sufficient information for senior officials to decide whether action should be taken and to allocate resources.

The outline design should include brief information on the current situation and problems, an analysis of the causes of the problem, an outline of possible solutions and general estimates of labour, materials and costs.

## Immediate action

Sometimes the threat to health is so high that something must be done immediately to prevent widespread disease and death. Immediate actions are targeted at providing a quick response to an urgent situation while a more sustainable solution can be developed and implemented.

## Detailed design

Once approval for a proper response to the problem has been granted, a detailed plan and design must be drawn up prior to beginning implementation. The design process is the same as for any other sanitation project except that it must remain flexible in case the situation changes rapidly.

## Community participation

Affected people have views and opinions, just like any others. There is no reason to treat them any differently than other communities except to make allowances for the trauma they have experienced. Involving

communities in the planning and design process is beneficial to their recovery as it gives them self respect and promotes continued independence.

The affected community should be involved as soon as a decision has been made to intervene, this usually means at the detailed design stage.

### Box 2. Stages in an emergency

Emergencies last from a few days to many years. The type of intervention required will not be the same for all. In general emergencies can be divided as follows:

**Immediate** After the impact of the disaster. Typified by great instability and high mortality. Typically lasts one to two months.

**Short term** The period of stabilisation where the aim is to reduce morbidity and mortality. Typically up to six months

**Long term** Recovery and resettlement of the affected community. Lasts several years.

## Further information

Harvey, P., Baghri, S. and Reed (2002) *Emergency Sanitation – Assessment and programme design*, WEDC, Loughborough University, UK.

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