

Annexe 7

## **Minimum emergency standards**

### Priorities and standards in emergency situations

In this annexe we present the requirements for survival, and the minimum standards in service in WES required by a population living in an unstable situation (e.g. after a natural disaster, internally displaced persons, refugees).

#### Survival level

Table A7.1 presents the minimum requirements so that healthy people can survive in the short term. This is an absolute minimum, and a rapid improvement, possibly within days, will be necessary to prevent a rapid deterioration of the health situation in a population. The survival levels do not cover the special needs of the sick, the wounded, or the undernourished.

**Table A7.1. The minimum immediate requirements for survival of healthy people in an emergency**

<b>Water and personal hygiene</b>	<b>Sanitation</b>	<b>Environmental sanitation</b>	<b>Other possible needs</b>
<ul style="list-style-type: none"> <li>■ A water supply of 3 to 5 litres per person per day is needed, providing water of reasonable quality, accessible to all <sup>(21)</sup>.</li> <li>■ Every household should have water containers which provide a storage capacity of 3 litres per person or more. If the water supply is unreliable, or access to water poor, people will need a larger storage capacity.</li> </ul>		<p><b>Drainage</b></p> <ul style="list-style-type: none"> <li>■ People must be located so that stormwater or floodwater is not a direct threat to them.</li> </ul>	<ul style="list-style-type: none"> <li>■ Adequate protection from the elements (blankets, clothing, material to make shelters) <sup>(47),§</sup></li> <li>■ Adequate supply of food</li> <li>■ Cooking pots and fuel <sup>(66)</sup></li> <li>■ People must be located so that they are not under direct threat (e.g. hostile population, landmines)</li> </ul> <p><b>Parallel to survival</b></p> <ul style="list-style-type: none"> <li>■ Setting up of a co-ordination system to deal with the emergency.</li> <li>■ Assessment of the situation <sup>(47)</sup></li> </ul>

### The minimum standards of service in emergencies

Certain standards of service must be provided to limit the health risks of people in an emergency. Table A7.2 presents the standards that should be aimed for in WES in an emergency. These standards must be achieved as quickly as the situation allows.

Medical personnel will have to set up a surveillance system of disease to identify oncoming epidemics and important health problems in the population. Emergency supplies needed in the case of epidemics have to be present locally, and local medical personnel have to be trained in advance on how to cope with outbreaks.

**Table A7.2. The minimum standards in water and (environmental) sanitation in an emergency**

<b>Water and personal hygiene</b>	<b>Sanitation</b>	<b>Environmental sanitation</b>
<p><b>Water supply</b></p> <ul style="list-style-type: none"> <li>■ Existing water sources must be protected.</li> <li>■ A water supply of 15 litres per person per day should be accessible to all.</li> </ul> <p>The maximum distance to the water points should be &lt;150 metres.</p> <p>The maximum number of people per tap should be: 200-250.</p> <p>The maximum number of taps per distribution point: 6-8.</p> <p>The maximum number of people per handpump: 500-750.</p>	<ul style="list-style-type: none"> <li>■ People must be discouraged from defecating in, or close to, streams, ponds, any other source of water, or on agricultural land with crops <sup>(64)</sup>.</li> <li>■ Structures that deal with the excreta will have to be installed.</li> </ul> <p>Usually it is not possible to construct adequate structures in sufficient numbers immediately, and therefore the situation will have to be improved gradually.</p>	<p><b>Drainage</b></p> <ul style="list-style-type: none"> <li>■ The site must have adequate drainage which rapidly removes stormwater <sup>(66)</sup>.</li> <li>■ An adequate system of dealing with waste water from water points, leakage, domestic waste water and waste water from communal structures must be present. Waste water from water points can usually be led into vegetation.</li> </ul>

Table A7.2. The minimum standards in water and (environmental) sanitation in an emergency (continued)

<b>Water and personal hygiene</b>	<b>Sanitation</b>	<b>Environmental sanitation</b>
<ul style="list-style-type: none"> <li>■ The water quality must be reasonable to start with, and be improved as soon as possible.</li> </ul> <p>It is often better to have enough water of intermediate quality than to have little water of high quality. At the beginning of the distribution system, a free residual chlorine content of 0.6-1.0 mg/litre is usually adequate to obtain water with a free residual chlorine content of 0.3-0.5 mg/litre at the distribution point <sup>(47)</sup>.</p> <p><b>Water storage</b></p> <ul style="list-style-type: none"> <li>■ Every household must have a minimum of 2 water collection vessels of 10-20 litres and an additional storage capacity of 20 litres. The vessels should have a narrow neck and be covered.</li> </ul>	<ul style="list-style-type: none"> <li>■ The sanitary structures that can be used (in order of low preference (but ease to install) to high preference (but more demanding to install)):               <ul style="list-style-type: none"> <li>– open defecation fields</li> <li>– trench defecation fields</li> <li>– communal trench latrines</li> <li>– communal pit or borehole latrines</li> <li>– household pit latrines <sup>(21)</sup></li> </ul> </li> </ul> <p>Gradually the structures will have to be improved, depending on the feasibility (e.g. start with trench defecation field, than communal pit latrines, than household pit latrines).</p> <p>In communal structures personnel for cleaning and maintenance will have to be employed.</p> <p>The sexes should be separated in communal structures, and the issues of safety to women must be addressed.</p> <p>Public latrines must be installed in public places.</p> <p>All structures need some kind of water source for handwashing, anal cleansing, cleaning of the structure and flushing.</p>	<ul style="list-style-type: none"> <li>■ If waste water containing solids is led into a soakaway, it must be strained or led through a silt trap. If the waste water led into a soakaway contains grease or soap, it should be led through a grease-trap.</li> <li>■ No unwanted open water should be present close to, or in, the camp.</li> <li>■ Tools needed to maintain the drainage system should be provided <sup>(47)</sup>.</li> </ul> <p><b>Solid waste management</b></p> <ul style="list-style-type: none"> <li>■ Where domestic refuse is not buried or burnt 'on-plot', waste will have to be collected every day, or every other day, to avoid attracting flies or rats. Every 10 households will need one container of 100 litres to collect and store the waste.</li> </ul> <p>The container should be within 15 metres of the dwelling. If a communal waste pit is used, it should not be more than 100 metres from the dwelling.</p> <ul style="list-style-type: none"> <li>■ There have to be adequate waste collection points on markets and slaughtering areas. These wastes should be collected daily <sup>(66)</sup>.</li> <li>■ Wastes should be disposed of in a pit. Every day it should be covered by at least 0.15 metres of soil, and the ultimate layer of soil should be at least 0.5 metres thick.</li> </ul>

Table A7.2. The minimum standards in water and (environmental) sanitation in an emergency (continued)

Water and personal hygiene	Sanitation	Environmental sanitation
<p><b>Personal hygiene</b></p> <ul style="list-style-type: none"> <li>■ A minimum of 250 grams of soap must be available per person per month.</li> <li>■ If household bathing facilities are not available, communal facilities will be needed. These should be culturally acceptable, and the sexes must be separated.</li> </ul> <p>Communal laundry facilities may be required. Women must be able to wash undergarments and sanitary cloths in privacy.</p> <p>A minimum of 1 washing basin per 100 people is needed <sup>(66)</sup>.</p> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>■ If diarrhoeal diseases are a risk, Oral Rehydration Therapy (ORT) units must be set up. The minimum is one ORT unit per health structure. In case of a diarrhoeal outbreak, decentralised ORT units are needed <sup>(47)</sup>.</li> </ul>	<p>The latrines should be technically sound and acceptable to all users.</p> <p>Initially 1 latrine, or metre of trench, per 50 to 100 users must be installed <sup>(47)</sup>, as soon as possible this must be improved to 1 latrine per 20 users.</p> <p>Latrines should be further away than 50 metres from dwellings <sup>(66)</sup>.</p> <p>Water sources used for drinking should not be at risk from sanitary structures.</p> <ul style="list-style-type: none"> <li>■ Often anal cleansing material will have to be provided. In defecation fields, soil to cover faeces may have to be given to users.</li> </ul>	<ul style="list-style-type: none"> <li>■ Medical wastes must be properly disposed of by incineration and/or disposal in a deep protected pit.</li> </ul> <p><b>Disposal of the dead</b></p> <ul style="list-style-type: none"> <li>■ Usually the health hazard associated with dead bodies is negligible <sup>(66)</sup>, but during epidemics of cholera, plague, or louse-borne typhus fever, dead bodies must be dealt with adequately <sup>(21)</sup>.</li> <li>■ Graveyards or mass graves should be located at least 30 metres from a groundwater source used for drinking.</li> <li>■ Cemeteries should be planned early. Possibly cloth or other material needed for burial or cremation have to be provided to the family <sup>(66)</sup>.</li> </ul> <p><b>Vector control</b></p> <ul style="list-style-type: none"> <li>■ Where the population is infested with body louse, they must be deloused.</li> <li>■ Where possible the environment should be made unfavourable to vectors or intermediate hosts (e.g. through drainage and solid waste management).</li> <li>■ If adequate and feasible, people have to be supplied with material that allows them to protect themselves against vectors (e.g. impregnated mosquito nets) <sup>(47)</sup>.</li> </ul>

