WASH in camps

28 March 2023

Key points

- Ensure coordination and collaboration between all WASH actors in a camp.
- Ensure safe access to water, sanitation and hygiene in camps.
- Monitor key WASH indicators regularly, and the WASH situation.

1. Overview

WASH interventions in refugee camps aim to meet basic needs and improve safe access to water of sufficient quality and quantity; sanitation; hygiene practices; and WASH in hospitals, health and nutrition centres, schools and other institutions.

This entry provides guidance on WASH responses in refugee camps. A WASH intervention helps to improve hygiene and health status and reduces morbidity and mortality in a refugee population. At the start, it focuses on identifying WASH infrastructural gaps and needs, the need for software components, and monitoring the WASH situation in camps. The WASH sector works closely with public health and nutrition to address potential causes of waterborne disease and malnutrition, and reduce the (public) health risks associated with poor water, and poor sanitation and hygiene services and practices. At the start of emergencies WASH should also link with physical and site planning when sites are selected and allocated.

2. Main guidance

Protection objectives

- To ensure refugee populations in camps have safe access to water of sufficient quantity and quality.
To ensure refugee populations in camps have safe access to quality sanitation and hygiene.
To respect the right to safe water and sanitation.

**Underlying principles and standards**

- UNHCR's Public Health Strategic Objectives 2014-2018:

  1. Refugees have safe access to water of sufficient quality and quantity.
  2. Refugees have access to quality sanitation.
  3. Refugees have improved hygiene.
  4. Improved WASH in institutions.

Note that UNHCR has developed a comprehensive Public Health strategy that applies to emergency and non-emergency operations in camp and out-of-camp settings. To tailor its interventions more efficiently to emergency situations, UNHCR recommends the use of SPHERE standards during emergency operations:

**Hygiene Promotion**

- SPHERE, Hygiene promotion standard 1.1: Hygiene Promotion.

  People are aware of key public health risks related to water, sanitation and hygiene, and can adopt individual, household and community measures to reduce them.

- SPHERE, Hygiene promotion standard 1.2: Identification, access and use of hygiene items.

  Appropriate items to support hygiene, health, dignity and well-being are available and used by the affected people.

- SPHERE, Hygiene promotion standard 1.3: Menstrual hygiene management and incontinence.

  Women and girls of menstruating age, and males and females with incontinence, have access to hygiene products and WASH facilities that support their dignity and well-being.

**Water Supply**

- SPHERE, Water supply standard 2.1: Access and water quantity.

  People have equitable and affordable access to a sufficient quantity of safe water to meet their drinking and domestic needs.

- SPHERE, Water supply standard 2.2: Water quality.

  Water is palatable and of sufficient quality for drinking and cooking, and for personal and domestic hygiene, without causing a risk to health.
Excreta Management

- SPHERE, Excreta management standard 3.1: Environment free from human excreta.

All excreta is safely contained on-site to avoid contamination of the natural, living, learning, working and communal environments.

- SPHERE, Excreta management standard 3.2: Access to and use of toilets

People have adequate, appropriate and acceptable toilets to allow rapid, safe and secure access at all times.


Excreta management facilities, infrastructure and systems are safely managed and maintained to ensure service provision and minimum impact on the surrounding environment.

Vector Control

- SPHERE, Vector control standard 4.1: Vector control at settlement level.

People live in an environment where vector breeding and feeding sites are targeted to reduce the risks of vector-related problems.

- SPHERE, Vector control standard 4.2: Household and personal actions to control vectors.

All affected people have the knowledge and means to protect themselves and their families from vectors that can cause a significant risk to health or well-being.

Solid Waste Management

- SPHERE, Solid waste management standard 5.1: Environment free from solid waste.

Solid waste is safely contained to avoid pollution of the natural, living, learning, working and communal environments.

- SPHERE, Solid waste management standard 5.2: Household and personal actions to safely manage solid waste. People can safely collect and potentially treat solid waste in their households.

- SPHERE, Solid waste management standard 5.3: Solid waste management systems at community level.

Designated public collection points do not overflow with waste, and final treatment or disposal of waste is safe and secure.

WASH in disease outbreaks and healthcare settings
SPHERE, WASH standard 6: WASH in healthcare settings. All healthcare settings maintain minimum WASH infection prevention and control standards, including in disease outbreaks.

The following table of indicators shall be used for monitoring achievement of the standards.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Emergency (1)Target</th>
<th>Post Emergency Target</th>
<th>Means of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Quantity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average # liters of potable water available per person per day</td>
<td>≥ 15</td>
<td>≥ 20</td>
<td>Monthly Report Card</td>
</tr>
<tr>
<td>Average # l/p/d of potable water collected at household level</td>
<td>≥ 15</td>
<td>≥ 20</td>
<td>Annual KAP</td>
</tr>
<tr>
<td>% Households with at least 10 liters/person potable water storage capacity</td>
<td>≥ 70%</td>
<td>≥ 80%</td>
<td>Annual KAP</td>
</tr>
<tr>
<td><strong>Water Access</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum distance [m] from household to potable water collection point</td>
<td>≤ 500m</td>
<td>≤ 200m</td>
<td>Mapping</td>
</tr>
<tr>
<td>Number of persons per usable hand pump / well / spring (3)</td>
<td>≤ 500</td>
<td>≤ 250</td>
<td>Monthly Report Card</td>
</tr>
<tr>
<td>Number of persons per usable water tap (4)</td>
<td>≤ 250</td>
<td>≤ 100</td>
<td>Monthly Report Card</td>
</tr>
<tr>
<td>Water Quality</td>
<td>% Households collecting drinking water from protected/treated sources</td>
<td>≥ 70%</td>
<td>≥ 95%</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------------------------</td>
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<td>-------</td>
</tr>
<tr>
<td></td>
<td>% water quality tests at non chlorinated water collection locations with 0 CFU/100ml</td>
<td>≥ 95%</td>
<td>≥ 95%</td>
</tr>
<tr>
<td></td>
<td>% of water quality tests at chlorinated collection locations with FRC in the range 0.2-2mg/L and turbidity &lt;5NTU (5)</td>
<td>≥ 95%</td>
<td>≥ 95%</td>
</tr>
<tr>
<td>Sanitation</td>
<td>Number of persons per toilet/latrine</td>
<td>≤ 50</td>
<td>≤ 206</td>
</tr>
<tr>
<td></td>
<td>% Households with household toilet/latrine (7)</td>
<td>-</td>
<td>≥ 85%</td>
</tr>
<tr>
<td></td>
<td>% Households reporting defecating in a toilet</td>
<td>≥ 60%</td>
<td>≥ 85%</td>
</tr>
<tr>
<td><strong>Hygiene</strong></td>
<td>Number of persons per bath shelter/shower</td>
<td>≤ 50</td>
<td>≤ 206</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Number of persons per hygiene promoter</td>
<td>≤ 500</td>
<td>≤ 10008</td>
</tr>
<tr>
<td></td>
<td>% Households with access to soap (9 &amp; 10)</td>
<td>≥ 70%</td>
<td>≥ 90%</td>
</tr>
<tr>
<td></td>
<td>% of recipient women of reproductive age who are satisfied with menstrual hygiene management materials and facilities</td>
<td>≥ 70%</td>
<td>≥ 90%</td>
</tr>
<tr>
<td><strong>Solid Waste</strong></td>
<td>% Households with access to solid waste disposal facility</td>
<td>≥ 70%</td>
<td>≥ 90%</td>
</tr>
</tbody>
</table>

**UNHCR WASH Standards for Communal Buildings**

**Schools**
- Average 3 liters of potable water available per pupil per day
- 400 of pupils per usable handpump/well
- 200 pupils per usable water tap
- 50 pupils per toilet/latrine (30 girls per toilet, 60 boys per toilet – add urinals for boys)

**Health Clinics / Nutrition Feeding Centre**
- Average 10 liters of potable water available per outpatient per day
- Average 50 liters of potable water available per inpatient/bed per day
- 1 separated water point per health facility
- 20 outpatients per toilet/latrine
- 10 inpatients/beds per toilet/latrine
An emergency is arbitrarily defined as the first six months after the population movement has stabilized. However, this definition is context specific and should only serve as general guidance.

Potable water = safe for drinking

For decentralized systems

Minimum target at water collection point should be 0.5mg/L FRC in general, and 1mg/L FRC during an outbreak.

For centralized systems

Post-emergency standard is 20 persons per toilet/shower, aiming for 1 toilet/shower per household or ≈5 persons.

Latrines/toilets should be facilities that are cleanable, guarantee privacy and are structurally safe.

In protracted situations, Hygiene Promoters should be combined with community health workers as much as possible.

To maintain health, dignity and well-being, at least 450 grams of soap should be distributed per person per month. 250g is for personal hygiene; 200g is for laundry and other washing purposes.

To support safe Menstrual Hygiene Management MHM, UNHCR has made a commitment to providing 250g/month of soap in addition to the general soap distribution.

Protection Risks

In emergency operations, WASH interventions have positive effects in numerous areas. They address important protection risks.

- Girls, children and women who walk long distances to water points are at risk of sexual violence.
- When refugees do not have safe access to sufficient water of good quality, and sanitation, they are exposed to public health and nutrition risks (such as water related diseases and risks of malnutrition).
- Refugees who do not have safe access to sufficient water of good quality, and sanitation, may adopt risky coping mechanisms. (They may purchase water from unreliable vendors; women and girls are at risk of sexual abuse if they defecate in the open, etc.).

Other risks

If adequate WASH facilities are not available in refugee camps:

- Security risks increase (riots, demonstrations, violent behaviour).
- Refugees may adopt risky or unsafe coping strategies to obtain water, sanitation or soap and buckets.
- Harmful short and long-term effects on health are likely, including severe diarrhoea, dehydration, malnutrition, and even death.
Key decision points

WASH infrastructure, including structures to promote hygiene, must always be available to refugees who live in camps. New water and sanitation facilities must be built, and activities started to mobilize the community, or existing facilities must be strengthened, including those of the host communities.

WASH services and infrastructure in camps should also be accessible to the host community to ensure peaceful co-existence.

WASH interventions must always be:

- Evidence-based. Activities should be planned and implemented, based on the findings of the initial assessment.
- Needs-based. Interventions should be scaled and resources should be allocated to meet the needs of the population.
- Technically sound. Services should be based on current scientific evidence and operational guidance, and implemented by skilled staff.
- Impact oriented. UNHCR promotes the comprehensive WASH approach, which ensures that essential safe water, sanitation and hygiene needs of the entire population.
- Priority-based. Emergency WASH interventions and services should be prioritised to achieve maximum impact across the population. Interventions to address immediate health and WASH risks, such as disease outbreaks and malnutrition, must be priorities.
- Integrated. Avoid setting up costly parallel services. Assist the national waters authorities to extend its services to refugees.
- Rights-based. Water and sanitation are recognized human rights, which means they also extend to refugees as well as to people living in camp or rural environments. The rights are specified by the five criteria, availability, quality, acceptability, accessibility and affordability.

Key steps

Throughout

- Strong co-ordination of WASH programmes is vital to ensure that all needs are covered and follow-up assured across the wide range of actors in camps.
- Refugees living in camps must at all times have adequate access to WASH services.
- Refugees with specific needs, who require assistance to access or use WASH services should be supported and prioritized.

Site selection and WASH

1. Site selection. Assess sites jointly with physical planning and local authorities to ensure that new camp sites can provide sufficient water throughout the year, keeping in mind seasonal
differences and needs of the local population (also refer to the Entry on site planning).

2. **Assessment criteria.** Ensure that the selection of hosting sites is based on a thorough investigation. It is vital to analyse secondary data (previous studies, local knowledge, mapping, geological assessments, water quality results, rainfall patterns), and conduct new hydrogeological surveys, pumping tests, water quality analysis, and analysis of seasonal variations in water yield and quality.

3. **Water.** Alternative locations should be sought if there is any risk that the water supply is insufficient or of poor quality, if the soil is poor (rocky or with a poor infiltration rate), or if the site is prone to flooding (poor drainage, no slope).

**Water**

4. **Water Supply.** In the early phases of an emergency, UNHCR aims to meet Sphere minimum standards for water supply. A staged approach to developing water supply systems should increase water availability per capita from 15 l/p/d to 20L/p/d as the operation progresses towards the post-emergency phase. In protracted crises, a minimum per capita volume of 20 l/p/d will need to be achieved.

5. **Water supply systems.** Water supply systems must be designed to deliver 20 l/p/day per person to ensure that they are sustainable in the longer term. Calculations of water needs should also take into account the needs of health centres, feeding centres, schools, and religious centres. Review in addition the needs of animals or potential agriculture projects.

6. **Water safety.** The most acute threats to human health associated with consumption of water are due to contamination by human or animal faecal matter. Assess water safety using a risk assessment approach, such as water safety planning, including sanitary inspections. Test for residual chlorine and microbiological indicators of faecal contamination. To be considered as safe, water must be: free from faecal contamination; acceptable to users in terms of its taste and aesthetic qualities; free from colour or odours; free from visible suspended solids. When safe water is not acceptable to users it may be rejected in favour of more acceptable but less safe sources of water. For a water source to be considered safe, it must be capable of reliably supplying sufficient quantities of water to satisfy users' needs; be physically protected from contamination; and equipped with lifting technology that prevents contamination of the source during water collection.

7. **Key elements of water safety.** To ensure a supply of safe water, the key elements are: sound design and construction practices; sanitary inspections; disinfection with chlorine; clean water storage containers; and hygiene promotion of the safe water chain.

8. **Water quality.** Ensure that all water supplies in transit centres, regardless of their intended use, are fit for human consumption. All water supplies must be free of faecal coliforms at the point of storage, delivery and consumption. All settings receiving displaced populations must possess on-site water quality testing equipment, such as: turbidity tubes or electronic turbidity meter to measure turbidity; simple or electronic pool-testers to measure free residual chlorine; and kits for microbial tests (e.g. compartment bag tests, portable microbiology kits or more elaborate field-testing kits for water quality which are available from different suppliers.) The emergency operation must also ensure sufficient availability of test consumables to ensure test can be conducted as frequent as necessary in line with a risk-based approach.

9. **Water storage.** Ensure that refugees and host families have access to at least 10 litres of safe water storage capacity per person, on their arrival in camps and throughout the emergency phase. Safe water containers should have narrow openings and lids to prevent secondary
contamination. The condition of containers should be closely monitored; they should be cleaned or replaced when necessary.

Sanitation
10. **Protection of water sources.** No excreta containment systems (pits, tanks, seepage, sewerage or spillage) should contaminate surface water or shallow groundwater sources. Toilets must be located at least 30 metres from groundwater sources. Additional measures should be taken in locations that have a high water table or are prone to flooding. The bottom of pits and soak-aways must be at least 1.5 metres above the groundwater table.
11. **Toilet access.** Toilets should be evenly dispersed throughout the camp; no dwelling should be more than 50 meters from the nearest toilet.
12. **Universal access.** Make sure that all toilets can be used safely by all refugees, including children, older persons, and pregnant women. Collect data on users who have disabilities and construct dedicated toilet facilities as near to them as possible, considering the results from community consultations and relevant guidelines.
13. **Hand-washing.** Ensure that all public toilets, communal toilets, shared toilets and household toilets have hand-washing facilities, with soap (or a clean rubbing agent), and that arrangements are in place to ensure they remain functional.
14. **Toilet cleaning and maintenance.** Ensure that toilets are kept clean and maintained, in a manner that does not deter use. Put in place a budget adequate to cover operational and maintenance activities. Particularly in the first phase of an emergency, you may need to offer incentives for toilet cleaning; if so, provide hygiene non-food items rather than cash.
15. **Disaggregated distribution.** Provide three female toilets to every male toilet, based on disaggregated population numbers. Toilet blocks must be segregated by sex and marked with culturally appropriate signage.
16. **Participation and gender-balanced representation.** Ensure that programmes are developed and run in cooperation with the refugee population. Women must be consulted on the design and siting of toilet facilities. All programmes should have active gender-balanced and representative sanitation or hygiene committees.
17. **Protection considerations.** Ensure that the location and design of all toilet facilities eliminate threats to the security of users, especially women and girls, day and night.
18. **Transition out of emergency.** Ensure that emergency excreta management programmes switch into transition programmes as quickly as possible. Construct shared and household toilets aiming for a ratio of 1 latrine per 5 persons if it becomes clear that the humanitarian situation will last for longer than six months.
19. **Household latrines.** Ensure as soon as possible that refugees have the means, tools, materials and appropriate technical guidance to construct, maintain and clean household toilets.
20. **Bathing and laundry facilities.** Ensure that refugees have access to facilities for bathing, and laundering clothes and bedding. These facilities should provide privacy and dignity. If this cannot be achieved at household level, design and locate communal facilities in consultation with users, notably women, adolescent girls, and persons with disabilities. Bathing/showering facilities should be available at household level as soon as possible. For laundry facilities, aim to meet the needs of small private communal groups of up to 16 households; avoid large public wash blocks.
21. **Drainage.** Ensure that wastewater (from tapstands, bathing, laundering) is disposed of in properly designed drainage systems. In arid zones, runoff water may be reused in sub-surface irrigation systems, e.g. for gardening purposes.
22. **Solid Waste disposal.** Ensure solid waste disposal is properly managed, to avoid health hazards (injuries to children, mosquito breeding sites, etc.). While in the emergency phase centralised solid waste management solutions may be appropriate, as the situation moves towards post-emergency then decentralised household level solid waste management solutions should be implemented where possible. Medical waste generated by health centres is a hazard. Access to medical sanitary services should be well controlled, and waste (used syringes and needles, contaminated bandages, laboratory specimens, etc.) should be treated separately without delay.

23. **Monitoring.** Ensure that sanitation facilities are monitored regularly (toilet distribution, use, access, cleanliness, conditions, etc.). Progress reports should be communicated transparently at regular intervals to beneficiaries, local authorities and donors. A complaints and follow-up system must be established.

24. **Accountability.** Ensure that feedback on the WASH facilities from refugees is invited and considered, even if the duration of stay in the transit centre is short. Such feedback can also be sought through the WASH refugee feedback app.

25. **Exit strategy.** Ensure that a clear exit strategy exists from the start. It should consider the operation, maintenance, transition and eventual decommissioning of water and toilet infrastructures. Where appropriate, WASH facilities should be handed over to the national Authorities or national actors.

**Hygiene promotion**

26. **Enable a hygiene-promoting environment.** Hygiene promotion does not only address knowledge and skills but also ALL other determinants of health and hygiene such as environmental and socio-economic barriers and enablers. Ensuring access to water, sanitation and hygiene facilities is as much part of hygiene promotion as fluencing attitudes and mind-sets.

27. **Key hygiene messages.** Too much focus on disseminating one-way messages and too much focus on designing promotional materials without listening properly to the views of the population is considered a common pitfall in hygiene promotion. Once the most important messages have been identified, they should be in local languages (or pictorials if literacy rates are low) and should target practices that are responsible for the most critical hygiene risks. Do not attempt to communicate too many messages. Concentrate on practices that are most responsible for transmitting diseases and on interventions to prevent them.

28. **Household surveys.** During an emergency and as soon as population figures and plot allocation stabilize, conduct a baseline survey to evaluate access to WASH services. In post-emergency phases, a knowledge, attitude, practice survey (KAP) survey should be carried out at least once a year (also see the entry on **WASH needs assessment**)

29. **Empowerment.** Develop and run hygiene promotion programmes in full cooperation with refugees and the host population.

30. **Concentrate on key risk practices.** Do not attempt to communicate too many messages. Concentrate on practices that are most responsible for transmitting diseases and on interventions to prevent them.

31. **A hygiene promotion strategy.** With UNHCR field staff and partners, define and develop a WASH strategy for hygiene promotion (Who, What, Where, When, How and Why). Focus on priority groups at risk, risky practices, key interventions, and key indicators. The plan should be prepared in the first three months of displacement, and should be revised every six months based on monitoring feedback. It should be developed jointly by the WASH and health sectors.
The strategy development should be reviewed and adjusted from the results of annual KAP surveys.

32. **Water-borne diseases.** If outbreaks of water-borne diseases (such as cholera) occur, establish a specific task force composed of the WASH and health sectors. It should meet weekly to make sure messages are consistent and harmonized.

33. **High risk vectors.** UNHCR field staff and partners must ensure that the environment is free of high-risk disease vectors. Take steps to drain bodies of stagnant water, and clean up any dumps of organic solid waste, faeces, or other potential breeding sites for disease vectors. Elimination of high-risk disease vectors must be given the same priority as water supply, excreta management and hygiene promotion

### Key management considerations

UNHCR must ensure that adequate WASH services are available in the camps. To this end, collaborate closely from the start with local, district, and national authorities, and with the water ministry.

Where national services are not in a position to extend their services to camps, NGO partners should run WASH services.

UNHCR should ensure that the WASH situation in camps is monitored and that relevant stakeholders receive regular reports of progress, so that they can respond rapidly if the situation changes. To report, use the WASH monthly report card. Instructions on how to fill the forms are available on the UNHCR WASH website, wash.unhcr.org. Access can be granted by the HQ team. Contact: HQWASH@unhcr.org.

WASH services and activities must respect the provisions of the UNHCR WASH Manual and the UNHCR Well Construction Documentation. (See Tools, documents and references)

### Resources and partnerships

**Staff**

- Experienced UNHCR WASH officers.

**Partners**

- UNHCR promotes integration of services into national systems. The water authorities (country, regional or district level) remain the key partner for WASH interventions. When possible national public services should be expanded and supported.
- Relevant NGOs and UN agencies such as UNICEF to implement WASH activities
- Experienced WASH partners and technical staff from partner organisations. Community outreach workers from the community and from WASH partner organisations.
Establish partnership agreements at field level at an early date, so that interventions can be implemented rapidly.

Annexes


Sphere Handbook (2018)

3. Links


4. Main contacts

Contact DRS, WASH unit. At: HQWASH@unhcr.org