

WASH in Emergencies

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Key points

- Joint rapid assessment of needs, current level of access, and gaps should be conducted by a team of relevant stakeholders including the users, to the extent possible
- Do not implement parallel services; to the extent possible, include and build on existing services, facilitate early inclusive delivery of assistance, collaboration and coordination mechanisms among local authorities, service providers, and users
- Prioritize age, gender and diversity (AGD) sensitive life-saving interventions, and regularly monitor and report on the WASH situation as well as key WASH indicators
- Integrate environmental considerations in the initial WASH assessment and consider climate and environmentally friendly options to the extent possible
- Seek the support of and complementarity with other agencies specialized in the area of WASH, including relevant authorities, local service providers and development actors, which can support emergency responses and beyond

1. Overview

This entry highlights key WASH underlying principles, interventions, indicators, and further references to achieve access for forcibly displaced and stateless persons to at least minimum humanitarian standard of water of sufficient quality and quantity; safe sanitation; and hygiene practices during the first six months of humanitarian emergency. This entry includes WASH at household level as well as for institutions such as hospitals, health and nutrition centres, schools, etc.

The underlying principles, key indicators, and minimum standards are relevant for different types of settlements (formal and informal settlements, collective and transit centres, in rural and urban areas). In contexts where UNHCR and partners are not directly responsible for WASH service provision, for example in urban areas or dispersed settings, focus should be on facilitating access

using alternative response mechanisms such as cash-based intervention and advocacy.

Environmental considerations should also be made as integral part of the wider WASH analysis, including the location and rate of use of water resources, treatment facilities and distribution networks of water for drinking and domestic use, the provision of sanitation facilities, management of solid waste, among others.

As the entry aims to act as a quick refresher rather than an exhaustive guide, other relevant resources, such as the [UNHCR WASH Manual](#) referenced in this entry, should be consulted for further guidance, as necessary.

The entry should be read together with [WASH needs assessment in refugee emergencies](#).

2. Relevance for emergency operations

WASH interventions in emergencies focus on:

- Saving lives, contributing to protection, safety, dignity and peaceful coexistence.
- Reducing mortality and morbidity by preventing the transmission of diseases and outbreaks.
- Providing immediate **access to WASH services** as a **human right**, which means that services shall be extended to forcibly displaced people in all settings, based on the criteria of availability, quality, acceptability, accessibility, and affordability.

Furthermore, climate change poses serious risks to the delivery of water and sanitation services for forcibly displaced and host communities: drought, heatwaves, storms, and flooding make the delivery of services more complex. Environmental and climate related considerations for WASH interventions should be mainstreamed and addressed from the onset of an emergency, and preferably beforehand during the emergency preparedness phase.

3. Main guidance

A) WASH Principles

Emergency WASH interventions should be guided by underlying principles aimed at promoting access to life-saving water, sanitation and hygiene services, in line with the overall protection, assistance and solution mandate of UNHCR for refugees, stateless people and their hosting communities. Emergency responses should adhere to the principles highlighted in the [WASH, Protection and Accountability Briefing Paper](#), with a focus on reducing tensions that may arise by the competition over limited WASH resources. They should also be in line with the [UNHCR Strategic Framework for Climate Action](#), with the aim of limiting environmental degradation and enhancing climate resilience.

1. Prioritize community-based [age-gender-diversity approaches](#) in needs assessment, response design and delivery of assistance.

2. Focus on life-saving needs through community-level interventions, with quick transition to family- shared and family-owned infrastructures. These will facilitate greater sense of ownership, privacy, acceptance and overall effectiveness.
3. For hosting communities where access levels do not meet UNHCR or national minimum standards, consider the allocation of WASH support to hosting communities.
4. Rather than setting up parallel systems, aim at strengthening existing services and facilities. If these are insufficient, aim at designing and implementing new inclusive (for forcibly displaced and their hosting community) WASH infrastructure and service delivery systems. Aim to leverage development and other actors in the development of these.
5. Quickly facilitate the establishment of user committees on water, sanitation, solid waste. These should include a mix of forcibly displaced and host communities and be [age, gender, and diversity](#) sensitive. Train and equip the committees and do regular check-in to facilitate peaceful co-existence, ownership, and sustainability.

In line with the [UNHCR Policy on Cash-Based Interventions](#), consider CBI to cover WASH needs to the extent possible. In close collaboration with CBI colleagues and stakeholders, run market assessment to confirm CBI is a viable option. Verify as well that CBI targeting and distribution timelines allow to meet WASH needs. Keep in mind that the use of CBI would allow for greater choices and more dignity for beneficiaries, especially for personal hygiene and menstrual hygiene management (MHM) items. A mixed approach of in-kind distribution could also be considered, for instance toilet construction materials would benefit from economies of scale and could be provided in-kind, while cash would facilitate access to labour.

WASH interventions should always be:

- **Evidence-driven.** Activities should be planned and implemented based on the findings of the initial assessment. The operational context should be carefully considered. Undertake a baseline survey as soon as possible, to collect household-level indicators and adjust WASH interventions and strategy.
- **Needs-driven and priority (lifesaving)-based.** Emergency WASH interventions and services should be prioritized to achieve maximum impact across the population. Interventions to address immediate WASH, health, nutrition and protection risks, such as disease outbreaks and malnutrition, should be priorities. Interventions should be scaled, and resources should be allocated to meet the needs of the most vulnerable population.
- **Technically sound.** Services should be based on scientific evidence and operational guidance and implemented by skilled staff and partners, with full participation of users in the design and provision of WASH services to reduce protection risks. The [UNHCR WASH Manual](#) can provide further technical guidance.
- **Integrated/inclusive.** Avoid setting up costly parallel services. Assist the national water authorities to extend/strengthen their services to forcibly displaced and affected hosting communities.
- **Coordinated:** Strong coordination of WASH programmes is vital to ensure that all needs are covered, and optimal coverage is ensured through complementarity of actors while avoiding duplications.

B) Protection considerations in WASH responses

The following UNHCR WASH protection principles elaborated in the [UNHCR WASH Manual](#) should be taken into consideration:

1. Consultation, Engagement and [Accountability to Affected Population \(AAP\)](#), including feedback and complaint mechanism. Ensure that feedback is invited and considered. A complaints and follow-up system should be established, even if the duration of stay (such as in transit centres) is short.
2. Equitable access to WASH service for enhanced peaceful coexistence and prevention of community tensions over scarce WASH services, prioritizing those most in need.
3. Enhanced protection, safety, and privacy.
4. Menstrual Hygiene Management.

Emergency WASH interventions have positive effects in addressing important protection risks including but not limited to:

1. Girls, children, and women are at risk of [gender-based violence \(GBV\)](#) when walking long distances to water points, or when accessing toilets and washing areas that are unlighted at night
2. When forcibly displaced people and their hosting communities 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; unsafe burning waste, etc.).
3. Forcibly displaced people and their hosting communities who do not have safe access to sufficient water of good quality, and sanitation, may adopt risky coping mechanisms, for instance, procuring water from unreliable sources and vendors may have health and hygiene implications; resorting in open defecation which exposes people to GBV risks).
4. Security risks may drastically increase, including riots, demonstrations, and violent behaviour over scarce water resources.

C) WASH considerations in the selection of sites for formal settlements

When the establishment of formal settlements cannot be avoided (for instance, upon the request of the hosting government), WASH actors should work proactively and closely with a multi-sectorial team led by settlement planning officers, to help identifying the most suitable site.

1. Sites should be jointly assessed with settlement planning officers, protection staff, and local authorities to ensure that new 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 [Formal Settlements](#)).
2. Ensure that the selection of sites where to establish formal settlements is also based on a thorough WASH investigation. It is vital to analyse secondary data to understand water availability and related risks (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, as well as proximity to natural reserves and water bodies that may be contaminated by pollution caused by human presence as a consequence of the establishment of the formal settlement.

3. 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) which can in turn cause recurrent pollution of water sources.
4. Refer to the [multi-sectoral site assessment form](#) for key considerations for the selection of new sites and the extension of existing sites, and for mainstreaming environmental assessment components.
5. At the start of an emergency response, consider running a rapid environmental assessment as early as possible so that the response can take risk-informed decisions (e.g via [NEAT+](#)).

Please read the entries on [Shelter, Camp and Settlement](#).

D) WASH in transit centres

WASH interventions in transit centres do not differ from the approach in other types of locations (e.g. formal settlements): they aim to meet the basic needs of newly arrived forcibly displaced people for safe access to sufficient water of good quality, safe access to emergency sanitation, and hygiene promotion. As these facilities are transitory, investment in WASH infrastructure can be limited to emergency standards, unless other considerations have to be made (e.g. long influx period, cost efficiency analysis, etc.). Close collaboration with national water authorities (and, where relevant, owners of the transit site) is required for this implementation.

E) WASH in urban and dispersed settings

1. Provision of WASH services for forcibly displaced in urban and dispersed settings can be significantly more complicated than in formal settlements as it is harder to assess WASH needs and based on the findings, provide timely WASH assistance. Moreover, monitoring is harder and evaluating the impact of the WASH response can be more complicated in view of the physical spread and mobility of the population.
2. Many problems with poor WASH service delivery in urban and dispersed settings may be chronic, existing prior to the refugee situation, or in the case of informal settlements, refugees may have self-settled in areas without service coverage. In some cases, WASH services for the resident urban poor may be worse than for the newly arrived refugee population.
3. UNHCR and other WASH actors should ensure that efforts are made to differentiate the different WASH needs of refugees that may have settled in a variety of arrangements – e.g. in rental or hosted accommodation, in informal settlements, or in collective centres. Blanket WASH interventions for both the refugee and host populations in areas that are generally heavily impacted by the newly arrived population is a fast way to reach people in need at the beginning of an emergency, while a more targeted approach needs to be carefully planned with local authorities, municipal services, CBI actors, among others. Targeting and prioritization should be based on vulnerability criteria of concerned families (both refugees and hosting).
4. Activities at community level should be carried out as much as possible in line with existing national WASH plans. Local service providers and authorities shall be closely consulted and if their capacity allows, involved in the implementation as well.

The table below provides a summary of types of WASH Interventions in urban settings, as described in the [Urban WASH Planning Guidance Note](#).

WASH assistance for refugee families settled in collective centres (public or private buildings), or in informal settlements	WASH assistance for families in rented accommodation or in hosting arrangements	WASH assistance to both the refugee and host population where influx overwhelms the local population
<ul style="list-style-type: none"> ◦ Supplementary water points/extension of water networks to the concerned locations. ◦ Water dispensers (or bottled water, if unavoidable). ◦ Refilling taps connected to municipal water supply. ◦ Clean up campaigns (against open defecation, waste, and for ditches) ◦ Reinforcing sanitation and solid waste collection services. ◦ Provision of hygiene kits, water filters/household level treatment, also via CBI. ◦ Construction of temporary toilet and bathing facilities. 	<ul style="list-style-type: none"> ◦ Provision of hygiene kits, water filters/household level treatment, also via CBI. ◦ Provision of a sanitation improvement package (e.g. for construction of extra toilet and bathing facilities), also via CBI. 	<ul style="list-style-type: none"> ◦ Supplementary public water points and/or extension/reinforcement of water networks to the concerned locations. ◦ Rehabilitation of existing public WASH infrastructure. ◦ Clean up campaigns (against open defecation, waste, and for ditches). ◦ Reinforcing sanitation and solid waste collection and treatment services. ◦ Provision of hygiene kits, water filters/household level treatment, also via CBI. ◦ WASH related community driven Quick Impact Projects (QIPs).

F) WASH responses in public health outbreaks

It is critical to coordinate with the Health Sector before and during water-borne disease outbreaks. Key interventions during outbreaks include:

- Increased chlorination at water storage and distribution points, targeting 0.5 mg/litre if pH ≤ 8 or, 1 mg/litre if pH > 8 of FRC at the water collection point;
- Increase the sanitation coverage for safe excreta disposal;
- Increase hygiene promotion activities and their reach in close coordination with health sector to avoid duplications and ensure maximum coverage.

Refer to Section 4 for key hygiene considerations during public health outbreaks. Refer also to the [MSF Cholera Guidelines](#) and the [UNICEF Cholera Toolkit](#) for more information.

G) Exit strategy

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

H) The UNHCR WASH Response Programme Framework

The WASH response should be guided by the **UNHCR WASH Response Programme Framework**, as in the table below. The emergency phase is during the initial population influx, during which WASH systems are being established to rapidly provide life-saving services. Once the population has stabilized, or life-saving needs have been met, the response should transition to longer-term WASH systems as below. Basic services are aligned to the [Joint Monitoring Programme for Water Supply, Sanitation and Hygiene](#) (JMP).

Below indications are only indicative and should be tailored based on the context (cultural preferences, existing infrastructures, urban settings, etc).

Time Period	Emergency Response - Short Term	Transition toward longer term solutions	Basic - Longer Term
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Water supply

- Bottled water at border crossing points
- **if unavoidable**
- Water trucking
- **only if unavoidable**
- Hydrogeological campaign to drill new boreholes (if needed)
- Surface source and treatment
- Tubewells
- Emergency bladders and/or elevated tank
- Emergency tapstand
- Temporary piped water networks with flexible lay flat hose
- Aquatabs/PUR/HTH chlorine
- Distribution of jerrycan 20L rigid
- Distribution of bucket with lid/tap
- Water dispensers (urban)
- CBI
- Extension/upgrades of emergency water network, including upgrades in materials, such as PE pipes
- Accommodation plumbing upgrades
- Handpumps
- Elevated water storage tower
- Creation of main water pipe system for future more reticulated systems
- CBI to cover water items (jerrycans, water filters, etc.), water bills
- Pipe network (reinforcements or extensions)
- Community level water treatment
- Elevated water storage tower
- Public water points
- Rainwater harvesting
- Renewable energy for motorized water systems
- Refilling taps connected to municipal water supply (urban)
- CBI to cover water items (jerrycans etc.), water treatment systems at household level, water bills

<p>Sanitation, excreta and wastewater management</p>	<ul style="list-style-type: none"> ◦ Trench toilets with privacy screens (if culturally acceptable and if no other solutions can be provided rapidly) <ul style="list-style-type: none"> ◦ Portable/desludgable toilets (elevated if needed, eg in rocky/impermeable soils) <ul style="list-style-type: none"> ◦ Daily cleaning/maintenance ◦ Plastic toilet slab ◦ Toilet digging kits ◦ Drainage/soakpits for wastewater management 	<ul style="list-style-type: none"> ◦ Increase toilet coverage by commencing household toilet programme, initially with one toilet shared between four families (1:20) and improving to one per household <ul style="list-style-type: none"> ◦ Drainage upgrades ◦ On or off-site desludging/wastewater disposal systems ◦ Accommodation plumbing upgrades 	<ul style="list-style-type: none"> ◦ Basic pit toilet dome slab <ul style="list-style-type: none"> ◦ Pour flush toilet if requested by the context <ul style="list-style-type: none"> ◦ Flush toilets installed in prefabricated buildings/containers, or other suitable structures (urban) <ul style="list-style-type: none"> ◦ CBI ◦ Sewerage systems ◦ Wastewater treatment and disposal systems upgrades
<p>Handwashing</p>	<ul style="list-style-type: none"> ◦ Handwash container 50L with tap and stand <ul style="list-style-type: none"> ◦ Daily refilling/maintenance ◦ CBI 	<ul style="list-style-type: none"> ◦ Increase handwashing promotion at household level and ensure each shared family toilet is equipped with appropriate handwashing device. <ul style="list-style-type: none"> ◦ CBI 	<ul style="list-style-type: none"> ◦ Washbasin/sink ◦ CBI
<p>Bathing spaces/showers</p>	<ul style="list-style-type: none"> ◦ Bath / shower blocks -(community shared, gender segregated) <ul style="list-style-type: none"> ◦ Portable gender-segregated shower facilities (urban) 	<ul style="list-style-type: none"> ◦ Increase bath / shower coverage <ul style="list-style-type: none"> ◦ Encourage families to build their own facilities ◦ CBI 	<ul style="list-style-type: none"> ◦ Household bath/shower cubicle <ul style="list-style-type: none"> ◦ Showers installed in prefabricated buildings/containers, or other suitable structures (urban) <ul style="list-style-type: none"> ◦ CBI

Hygiene Promotion/ Users' Committees	<ul style="list-style-type: none"> ◦ IEC materials ◦ Hygiene kit ◦ Baby kit ◦ CBI for hygiene items 	<ul style="list-style-type: none"> ◦ Establishment of users' committees ◦ CBI for hygiene items 	<ul style="list-style-type: none"> ◦ Management of WASH services through users' committees ◦ CBI for hygiene items
Solid Waste Management	<ul style="list-style-type: none"> ◦ Rubbish bins ◦ Collection services/incentive workers ◦ Rubbish pits 	<ul style="list-style-type: none"> ◦ Waste transfer and disposal 	<ul style="list-style-type: none"> ◦ Reduce, recycling and reuse ◦ Waste transfer and disposal
Vector Control	<ul style="list-style-type: none"> ◦ Indoor residual spraying ◦ Rodent control 	<ul style="list-style-type: none"> ◦ Indoor residual spraying ◦ Rodent control 	<ul style="list-style-type: none"> ◦ Indoor residual spraying ◦ Rodent control
Laundry Facilities	<ul style="list-style-type: none"> ◦ Laundry basin ◦ Drying lines 8mm 	<ul style="list-style-type: none"> ◦ Transition to longer-term cost-effective solutions. 	<ul style="list-style-type: none"> ◦ Laundry slabs ◦ Drying lines
Schools/ Health Clinics	<ul style="list-style-type: none"> ◦ Trench toilets with privacy screens ◦ Portable toilets ◦ Bath/shower blocks 	<ul style="list-style-type: none"> ◦ Transition to longer-term cost-effective solutions. 	<ul style="list-style-type: none"> ◦ Toilet blocks ◦ Shower blocks ◦ Water points / rainwater harvesting / tanks

Post emergency phase

As per the **UNHCR WASH Response Programme Framework above**, as the population numbers stabilize or as emergency live-saving standards are met, additional extensions and upgrades are undertaken to align with local standards, targeting at least basic WASH services. In this phase, strong collaboration with development stakeholders and local authorities is paramount, aiming for longer-term inclusion in local systems. Lessons learned and key issues in such a transition by World Bank and UNHCR in Uganda are summarized in this [Discussion Paper](#).

Note: These are not mandatory steps. In some cases, existing infrastructure and systems will already be aligned (or close to) the transition or basic levels. Sequencing is only valid in responses that are not already aligned. Depending on context, emergency responses need to move to basic levels as fast as possible, to avoid health and environmental issues, and boost sustainability of operations of WASH systems.

Checklist

- Review local standards and norms, and service levels.
- Review standards met as part of the emergency phase.
- Establish a multi-stakeholder strategy (including relevant authorities and service providers) to achieve at least basic, or safely managed WASH services.
- Leverage development actors as part of such WASH strategy.

4. Standards

UNHCR has key WASH indicators which are systematically tracked by UNHCR and partner staff through the UNHCR [WASH Monitoring System](#) (WMS). The indicators recorded in the WASH Monthly Report Card should be collected every week during emergencies while those verified by Knowledge Attitude and Practice surveys should be collected at least once during the first phase of the emergency.

The main WASH standards and indicators are summarized below. While for the emergency response they are aligned with [Sphere](#), beyond this they take into consideration the often-protracted nature of forcible displacement which may last for decades. Emergency standards need also to be adapted, taking into consideration the cultural habits and preferences of forcibly displaced, specific climatic conditions, public health considerations, and the national standards of the hosting country – these are agreed collectively within the sector.

It is important that all WASH responders (UNHCR, other UN agencies, partners, local authorities, etc.) report through the UNHCR WMS, in order to generate comparable data and allow for consequent aligned response.

Note: where no basic standard is provided, the emergency standard is used.

a) Water Supply

The main water supply standards below, and their means of verification are applied by UNHCR.

1. Access and water quantity. People have equitable and affordable access to sufficient quantity of safe water to meet their drinking, domestic and hygiene needs.
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.

Indicator	Unit	Standard		Means of Verification
		Emergency	Basic	
Water Quantity				
Average volume of potable water available	litres per person per day	7.5 - 15	20+	Monthly Report Card
Average volume of potable water collected at household level	litres per person per day	≥ 15	≥ 20	Annual KAP
Households with at least 10 liters/person of potable water storage capacity	%	≥ 70%	≥ 80%	Annual KAP
Schools: average volume of potable water	litres per pupil per day	3		WASH in Schools Checklist
Health clinic/nutrition feeding centre: average volume of potable water	litres per outpatient per day	10		Health Facility Balanced Score Card
Health clinic/nutrition feeding centre: average volume of potable water	litres per inpatient bed per day	50		Health Facility Balanced Score Card

Water Access

Maximum distance from household to potable water collection point	meters	≤ 500m	≤ 200m	Mapping
Access to usable hand pump / well / spring	persons per usable hand pump/well/spring	≤ 500	≤ 250	Monthly Report Card
Access to usable water tap	persons per usable water tap	≤ 250	≤ 100	Monthly Report Card
Schools: access to usable handpump/well	pupils per usable handpump/well	≤ 400		WASH in Schools Checklist
Schools: access to usable tap	pupil per usable tap	≤ 200		WASH in Schools Checklist
Health clinics/nutrition feeding centre: separated water point	water points/facility	1		Health Facility Balanced Score Card
Water Quality				
Households collecting drinking water from protected/treated sources	%	≥ 70%	≥ 95%	Annual KAP

Water quality tests at non chlorinated water collection locations with 0 CFU/100ml	%	≥ 95%	≥ 95%	Monthly Report Card
Water quality tests at chlorinated collection locations with FRC in the range 0.2-2mg/L and turbidity <5 NTU	%	≥ 95%	≥ 95%	Monthly Report Card

Key considerations

Water supply systems design.

- Water supply systems should be designed to deliver at least 20 l/p/day.
- Calculations of water needs should also consider the needs of health centres, feeding centres, schools, and religious centres.
- The needs of livestock or agriculture activities should also be factored in. Thus, coordination with livelihood actors is crucial to define overall water requirements.
- When groundwater is extracted, continuous groundwater monitoring should be undertaken to ensure extraction and recharge is done within the capacity of the aquifer to recharge (safe yield).

Water quality. Water quality standards apply to all water collection locations, including those at health care facilities and schools.

Water safety

- All settings (with the exception of locations where provision is guaranteed through public provision such as in urban and in some cases rural areas) receiving forcibly displaced populations should 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.
- The most acute threats to human health associated with consumption of water are due to contamination by human or animal faecal matter. Test for residual chlorine and microbiological indicators of faecal contamination is thus paramount. The emergency operation should also ensure sufficient availability of test consumables to ensure tests can be conducted as frequent as necessary in line with a risk-based approach.
- Assess water safety using a risk assessment approach, including sanitary inspections. [The](#)

[Green Companion](#) highlights potential sources of contamination and good practices to protect ground and surface water sources.

Participation. Participation of forcibly displaced persons in water supply services should be developed through capacity-building, community-led hygiene promotion activities and the establishment of active gender-balanced and representative water users' committees. Water committees should participate in the design and location of water points and the operation and maintenance of facilities and services.

Climate and environmental related considerations

- Climate change poses serious risk to the delivery of water services to forcibly displaced and host communities. It impacts water resources and water requirements and drought and heatwaves, storms and flooding make the delivery of services more complex.
- Renewable energy sources should be prioritized over carbon-based fuel generators to eliminate as much as possible fossil fuel consumption in the operation and maintenance of water pumping, treatment and distribution, as early as possible in the emergency response.
- Leakage at extraction points, in water distribution systems and at communal collection points wastes water causes localized erosion, increases the risks of stagnant water, source contamination and can create water hazards, especially for young children. Leak mitigation measures should be included in the operations and maintenance of water systems.
- For further information on how to reduce the environmental impact of WASH responses please refer to [the Green Companion](#), as well as the Climate and Environmental Considerations in Emergencies entry.

[This study](#) highlights these impacts from the 20 largest refugee settlements worldwide.

b) Sanitation, excreta and wastewater management

Safe excreta disposal and wastewater management is an essential element of any WASH programme because it helps to reduce direct and indirect water-borne disease transmission, water contamination and further pollution.

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.
2. Access to and use of toilets: People have adequate, appropriate and acceptable toilets to allow for rapid, safe and secure access at all times.
3. Management and maintenance of excreta collection, transport, disposal and treatment: Excreta management facilities, infrastructure and systems are safely managed and maintained to ensure service provision and minimum impact on the surrounding environment.

Wastewater consists of blackwater from toilets, which is faecally contaminated, and greywater from bathing areas, laundries, kitchens and other use points, which is not generally faecally contaminated.

Key sanitation indicators, standards for emergency, transition and basic WASH services, and

their means of verification are shown in the table below.

Indicator	Unit	Standard		Means of verification
		Emergency	Basic	
Access to toilet	# of persons/toilet	≤ 50	5 or one household	Monthly Report Card
Households reporting defecating in a toilet	%	≥ 60	≥ 85	Annual KAP/ Monthly Report Card
Households with a household toilet	%		≥ 85	Monthly Report Card
Access to bath shelter/shower	persons per bath shelter/shower	≤ 50	5 or one household	Monthly Report Card
Schools: access to toilet	pupils per toilet	50 (30 girls per toilet, 60 boys per toilet - add urinals for boys)	50 (30 girls per toilet, 60 boys per toilet - add urinals for boys)	WASH in Schools Checklist
Health clinics/nutrition feeding centres: access to toilet	patients per toilet	20 outpatients per toilet 10 inpatients per toilet	20 outpatients per toilet 10 inpatients per toilet	Health Facility Balanced Score Card

Key considerations.

To improve safe access to sanitation it is necessary to meet standards of privacy and safety using sanitation structures that are locally or culturally acceptable. Access to sanitation can be

scaled up through the distribution of sanitation construction materials or cash-for-toilet programming and proper monitoring.

The following should be considered:

- **Protection of water sources from fecal contamination.** No excreta containment systems (pits, tanks, seepage, sewerage or spillage) should contaminate surface water or shallow groundwater sources. Toilets should be located at least 30 metres from groundwater sources. Additional measures should be taken in locations that have a high watertable or are prone to flooding. The bottom of pits and soak-aways should be at least 1.5 metres above the groundwater table.
- **Toilet access.** Ensure that communal or family-shared toilets are evenly dispersed throughout a settlement; no dwelling should be more than 50 meters from the nearest toilet.
- **Universal access.** Make sure that all toilets can be used safely by all persons, including children, the elderly, pregnant women, persons with reduced mobility and other with specific needs. Collect data on users who have disabilities and construct dedicated toilet facilities as near to them as possible, considering the results from community consultations.
- **Handwashing.** Ensure that all toilets (public, communal, shared, and household ones) have hand-washing facilities, with soap (or a clean rubbing agent), and that arrangements are in place to ensure they remain functional. Target one handwash device per toilet block in the emergency response, and one per household when targeting basic WASH services.
- **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, incentives for toilet cleaning can be considered. In the case of family-shared or household level toilets, the family will be responsible for their cleaning and maintenance.
- **Gender disaggregated distribution.** As a rule of thumb, provide three female toilets to every male toilet, based on disaggregated population numbers. Toilet blocks should be segregated by sex and marked with culturally appropriate signage.
- **Participation and gender-balanced representation.** Ensure that programmes are developed and run in cooperation with the refugee population. Women, adolescents and marginalized groups should be consulted on the design and siting of toilet facilities. All programmes should have active gender-balanced and representative sanitation or hygiene committees. Committees should participate in the operation and maintenance of facilities and services, and eventually through contributions of labor or finances.

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. Locks and lighting (in discussion with users) should be installed during the initial emergency response.

- **Household toilets.** Ensure as soon as possible that refugees have the means, tools, materials and appropriate technical guidance to construct, maintain and clean household toilets. It is recommended to support families if they have no means to achieve self-construction.
- **Bathing facilities.** Ensure that refugees have access to facilities for bathing. These

facilities should provide privacy and dignity. If this cannot be achieved at household level or if it is not culturally appropriate, 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.

- **Laundry facilities.** For laundry facilities, aim to meet the needs of small communal groups of up to 16 households; avoid large public wash blocks to improve privacy and dignity and which may be easier to maintain hygiene standards.
- **Wastewater management.** Ensure that wastewater (from tapstands, bathing, laundry, handwashing points) is disposed in soakpits or drainage systems to minimize bodies of stagnant water, which act as breeding sites for disease vectors. Coordinate with settlement planning officers, and if relevant, local authorities, to develop an overall drainage plan, transitioning out of emergency drainage systems as quickly as possible. Beyond the emergency response, services should be upgraded to include safe treatment and disposal of wastewater. In arid zones and where culturally appropriate, runoff water may be reused in sub-surface irrigation systems, e.g. for household gardening purposes.
- **Monitoring.** Ensure that sanitation facilities are monitored regularly (toilet distribution, use, access, cleanliness, conditions, etc.).

c) Solid waste management

Uncontrolled accumulation of garbage is unhealthy and promotes rodent and insect borne disease. Solid waste management is a joint responsibility of field coordination, as well as the WASH and health sectors. In urban and dispersed settings, national/municipal systems should be employed and, where necessary, strengthened. The main solid waste management standards below, and their means of verification are applied by UNHCR.

1. Environment free from solid waste. Solid waste is safely contained to avoid pollution of the natural, living, learning, working and communal environments.
2. Household and personal actions to safely manage solid waste. People can safely collect and potentially treat solid waste in their households.
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.

Key solid waste management indicators, standards for emergency, transition and basic WASH services, and their means of verification are shown in the table below.

Indicator	Unit	Standard		Means of verification
		Emergency	Basic	
Households with access to solid waste disposal facility	%	≥ 70%	≥ 90%	Annual KAP

Key considerations.

- **Collection:** While in the emergency phase centralised solid waste management solutions may be appropriate, as the situation moves towards the provision of basic services, decentralised household level solid waste management solutions, as well as recycling and reuse, should be implemented where possible.
- **Treatment and disposal:** Safe treatment and disposal should be prioritized as quickly as possible.
- **Disposal:** Ensure solid waste disposal is properly managed, to avoid health hazards (injuries to children, mosquito breeding sites, etc.).
- **Waste minimization:** Waste minimization, including reducing, reuse and recycling, should be prioritized as quickly as possible. This should include strong community engagement activities and the development of final treatment and disposal systems.
- **Hazardous substances and e-waste:** Batteries (especially lead-acid), used oils, and broken electrical equipment can pose serious risks to public health and the environment, even in small quantities. Arrangements to collect such waste separately should be made. Prioritize interventions that prevent hazardous substances from entering the domestic waste stream over management of relatively inert domestic waste.
- **Medical waste:** 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, in line with protocols of the local Ministry of Health.

d) Hygiene

The main hygiene standards focus on knowledge and behaviour.

1. Hygiene promotion: People are aware of key public health risks related to water, sanitation, and hygiene, and can adapt individual, household and community measures to reduce them. This is done in close collaboration with health teams.
2. Identification, access to, and use of hygiene items: Appropriate items to support hygiene, health, dignity and well-being are available and used by the affected people.
3. Menstrual hygiene management and incontinence: Women and girls of menstruating age, males and females with incontinence, have access to hygiene products and WASH facilities that support their dignity and well-being.
4. WASH in healthcare facilities: All healthcare facilities should maintain minimum WASH-related infection prevention and control standards (IPC), including in disease outbreaks. While this is the responsibility of health workers, WASH actors can play an important support role in meeting this standard.

Indicator	Unit	Standard		Means of verification
		Emergency	Basic	

Number of persons per hygiene promoter	persons per hygiene promoter	≤ 500	≤ 1000	Monthly Report Card
Households with access to soap	%	$\geq 70\%$	$\geq 90\%$	Annual KAP
Women of reproductive age who receive and are satisfied with menstrual hygiene management materials and facilities	%	$\geq 70\%$	$\geq 90\%$	Annual KAP

Key considerations:

Monitoring:

- In protracted or post-emergency situations, a KAP survey is recommended at least once a year. (Ideally, conduct one KAP in the dry and another in the rainy season). See the entry on [WASH needs assessment](#)).
- The standardized expanded nutrition survey (SENS) which happens in many operations includes a short WASH module and covers the core WASH household indicators. To use resources efficiently and avoid survey fatigue, liaise with a public health/nutrition officer on whether a SENS is already planned.

Access to soap:

- 250 grams/person/month should be supplied for personal hygiene only;
- Additional soap 250 grams/person/month for women and girls menstrual hygiene;
- For laundry, provide 200 grams/person/month.

These standards can be also achieved by including access to soap in CBI.

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 influencing attitudes and mind-sets.

Key hygiene messages strategy

- Ensure hygiene promotion activities and messages are closely coordinated with the health sector: avoid duplication of efforts, especially when health promotion can already cover hygiene related messages
- Jointly with the health sector, develop hygiene messages and IEC materials within the first three months of an emergency. Review those every six months based on monitoring feedback.
- 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, these 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 (e.g. non-use of chlorinated water, open defecation, etc.). Focus on priority groups at risk, risky practices, key interventions, and key indicators that can further inform any adjustment to the WASH response
- Do not attempt to communicate too many messages. Concentrate on practices that are most responsible for transmitting diseases and on interventions to prevent them.

Empowerment. Develop and run hygiene promotion programmes in full cooperation with forcibly displaced people and the host population.

During outbreaks of waterborne diseases (cholera, Hepatitis E, Dengue, etc.), it may be necessary to:

- establish a task force composed of the WASH and health sectors that meets on very regular basis to make sure messages are consistent and harmonized and there is complementarity (rather than duplication) of efforts
- ensure soap is distributed regularly and used
- ensure knowledge about handwashing is increased, and household-water treatment and safe storage is demonstrated and promoted.
- work closely with health sector to tackle any gaps (in hardware or soft skills)

Monitor disease trends and outbreaks (diarrhoea, Hepatitis E, cholera etc) in settlements and health centres. The information gathered can guide efforts to prioritize WASH interventions. In close collaboration with the health sector correlate WASH trends (WASH monitoring) and water-related disease trends (public health monitoring) to inform targeted interventions.

High risk vectors: Elimination of high-risk disease vectors should be given the same priority as water supply, excreta management and hygiene promotion.

- 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.

5. Learning and field practices

[Good practices on cash-based interventions and water, sanitation and hygiene \(W...](#)

[WASH Manual](#)

6. Links

[Sphere Handbook. Humanitarian Charter and Minimum Standards in Humanitarian Res...](#)

7. Main contacts

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