

COMMON DONOR GREENING PRIORITY ACTIONS



PRIORITY ACTION 6

Avoid overexploitation and pollution of water resources and support proper wastewater management

February 2026

Climate change is increasingly triggering extreme weather events such as droughts and floods. This worsens water scarcity and puts hygiene at risk in many regions, driving and exacerbating health risks, livelihood insecurity, and food insecurity for communities worldwide. At the same time, degraded environments and ecosystems increase climate vulnerability (the likelihood of being adversely affected by climate change) for example through decreased soil infiltration and filtration capacity, which reduces natural water retention and buffering functions. Preserving both the quantity and quality of water resources in humanitarian contexts is therefore essential, particularly in countries suffering from chronic water scarcity driven by environmental and human factors, including poor water governance.

When implementing Water, Sanitation and Hygiene (WASH) programmes or providing water, humanitarian organisations should protect water sources and consider the natural recharge capacity of those sources. Wastewater generated by humanitarian activities should also be properly managed to prevent environmental pollution, as inadequate management can lead to long-term contamination of water sources and surrounding soil, create breeding grounds for vector-borne diseases, degrade soil and water quality, and have devastating impacts on human and ecological health.



KEY RECOMMENDATIONS

Before getting started

- ✓ Conduct environmental screenings/assessments of planned interventions, using appropriate tools such as the WASH module of the Nexus Environmental Assessment Tool/NEAT+, (*see PA 1 Guidance Note*) to identify potential negative impacts and integrate risk mitigation measures into project design.
- ✓ To prevent over-extraction, conflicts over scarce water, and unintended impacts on quality access and sustainability: coordinate with local stakeholders and WASH actors (including humanitarian and development organisations) in the area, assess all users of the shared water source, consider hydrogeological conditions and calculate the water balance (supply vs. demand). This includes structured engagement and technical consultations with national and local authorities (e.g. water management authorities and community-level water committees), water experts and a review of national regulations applicable to WASH activities.
- ✓ Establish routine water quality monitoring for all water sources and supply systems and ensure that results inform corrective actions where necessary to protect public health and water resources.

Reduce and manage water use in projects, programmes, and your organisation's own facilities

- ✓ As a priority, fix leaks, and repair or rehabilitate existing water points, pipes and reservoirs. This is because in some humanitarian contexts, up to 40% of clean water pumped is wasted because of leaks in the infrastructure¹. In cases where major investments in water network infrastructure are needed, liaise with development actors to seek the necessary funding if the political context allows.
- ✓ For interventions that rely on groundwater, identify the most appropriate source and location and establish safeguards and monitoring protocols to ensure that water is not extracted faster than it can be replenished. This may require coordinating with local authorities, consulting experts, professional drilling companies and other parties utilising groundwater in the area.
- ✓ Whenever possible, make sure that run-off or spent water (water that spills or flows away during use) from boreholes, hand pumps, and wells is collected and reused for productive purposes, such as irrigation.
- ✓ Promote water efficiency: explore the possibility of utilising water saving technologies² or practices to manage water consumption. Promote water reuse where possible, such as through rainwater harvesting, the reuse of greywater³ (*see below*) and public awareness campaigns to support this increased water efficiency.

Ensure proper wastewater management

- ✓ As a priority, assess risks of waste and sanitation programmes on the local environment, including water resources, and implement mitigation measures to protect the local environment from wastewater contamination.
- ✓ If the project includes the construction of latrines, use the SPHERE standards⁴ to guide placement of the latrines (i.e. they should be at least 30m away from any groundwater source, and the bottom of the latrine pit should be at least 1.5m above the water table) to avoid contamination of surface/groundwater sources.
- ✓ Where available, use detergents and cleaning products that are respectful of the environment and do not contain harmful chemicals to limit contamination of groundwater
- ✓ Ensure that faecal sludge and sanitation waste are safely managed along the full faecal sludge management (FSM) chain, from containment to treatment and final disposal or reuse. Sanitation facilities should be properly designed to prevent leakage and water contamination, with connection to local sewer system or regular desludging carried out by trained staff and safe transport to authorised treatment facilities. Where treatment options are limited, interim solutions should be developed with local authorities and wastewater experts and supported by community engagement and a clear "Do No Harm" approach to public health and the environment. Consider Nature-based Solutions for wastewater and FSM as these can often be less costly and deliver positive outcomes for nature and biodiversity.
- ✓ When possible, implement wastewater and greywater reuse programmes where there are clear public health, environmental and livelihood benefits, and apply strong safeguards. Treat greywater based on its source and intended use and prioritise low-risk reuse applications.

Sustainable water extraction (*see also PA 7 Guidance Note on water trucking*)

¹ Solidarité Internationale, Baromètre de l'eau 2019 https://www.solidarites.org/wp-content/uploads/2019/03/barometre-de-leau-2019-solidarites_international.pdf

² Water-saving devices reduce water use while maintaining performance, making them particularly beneficial in water-scarce contexts; examples include low-flush and dry toilets, waterless urinals, water-efficient showerheads, and self-closing taps.

³ Greywater refers to wastewater from baths, showers, washbasins and the kitchen

⁴ Sphere standards, 2018 version, Water Supply Sanitation and Hygiene Promotion https://handbook.spherestandards.org/en/sphere/#ch006_004

- ✓ Pumping and distributing water in humanitarian settings is highly energy-intensive⁵ and frequently dependent on diesel generators, with associated environmental and cost impacts. Where feasible, renewable energy should be prioritised for the operation and maintenance of water services.
- ✓ Solar-powered water schemes can significantly reduce emissions and operating costs. However, lower energy costs can sometimes encourage increased water extraction and place additional pressure on groundwater resources⁶. Solar technologies should therefore be supported by effective water governance and monitoring.
- ✓ Where multiple solar pumps draw from the same aquifer, this can lead to falling water levels and, in some areas, increased salinisation. To address these risks:
 - Ensure the water supply system is professionally operated and maintained, and conduct effective monitoring, and sustainable groundwater management.
 - Provide training for follow up and for ensuring proper operation, maintenance and small repairs of renewable energy solutions.



KEY RESOURCES

The Nexus Environmental Assessment Tool (NEAT+) WASH Activity Module

- **Organisation responsible:** developed by the UNEP/OCHA Joint Environment Unit, USAID, UNHCR, NRC, IUCN, WWF with support from DG ECHO
- **Short description:** NEAT+ is a rapid and simple project-level environmental assessment tool (see *Guidance on Priority Activity 1*). There are questions about water resources in the first part of the tool and a specific WASH module which helps to identify potential environmental risks linked to WASH programmes.
- **Accessibility:** download the tool [In English here](#); [In French here](#) ; [In Spanish here](#)

Guidance on the operationalisation of the minimum environmental requirements and recommendations for EU-funded humanitarian aid operations (Section on WASH, pages 55-62)

- **Organisation responsible:** DG ECHO
- **Short description:** Detailed guidance on how to reduce environmental impacts of WASH programme activities to preserve the quality and availability of water in humanitarian settings.
- **Accessibility:** English

The Sphere Handbook (Section on Water Supply, Sanitation and Hygiene Promotion)

- **Organisation responsible:** Sphere
- **Short description:** This section of the Sphere Handbook outlines the Sphere Minimum Standards for water supply, sanitation and hygiene promotion and provides detailed guidance on how humanitarian actors can apply these standards.
- **Accessibility:** available in [English](#), [French](#), [Spanish](#), [Arabic](#) and many other languages.

[The Global WASH Cluster \(GWC\)'s Key Resources page](#) : Managed by the GWC, this page contains a wealth of WASH resources, tools and guidance from cluster members, academia and other sources.

⁵ Pump systems across water, wastewater, and industrial sectors are reported to account for around 10 % of global electricity consumption (Europump & Hydraulic Institute; Siemens Industry).

⁶ Because solar pumps are cheaper to operate than fuel-powered systems, there may be little incentive to limit pumping, particularly where controls are weak or systems run whenever the sun is shining.

The Humanitarian Sanitation Hub

- **Organisation responsible:** a joint sector effort from GWC members
- **Short description:** a platform bringing together knowledge on planning and implementing sanitation and faecal sludge management in emergencies. It enables and guides humanitarian WASH practitioners with easy access to contextualised and relevant guidance, resources, tools.
- **Accessibility:** English

Oxfam's Water, Sanitation and Hygiene Promotion Resources

Website containing guidance, technical briefs, videos and templates on a range of subjects e.g.

An Introduction to Community Engagement in WASH

- **Short description:** This guidance note provides practical, field-tested advice on how to effectively engage communities in humanitarian WASH programmes. It focuses on the principles and day-to-day practice of placing crisis-affected communities at the centre of programme design, implementation, and monitoring.
- **Accessibility:** [English](#) and [French](#)

Rainwater Harvesting Guidelines

- **Short description:** The purpose of this guidance is to collate and document existing knowledge, information and practical experience on rainwater harvesting.
- **Accessibility:** English

Solar-pumping for Water Supply

- **Short description:** This resource provides practical and technical guidance on designing, implementing, and managing sustainable solar-powered groundwater pumping systems to support long-term water supply, particularly for NGOs, governments, and humanitarian practitioners.
- **Accessibility:** English

Oxfam's resources on WASH Climate Change Adaptation

- **Short description:** This webpage features 12 Guidance Notes intended to support organisations to consider climate risks and how to adapt WASH programming in response. They cover a wide range of climate change adaptations such as Integrated Water Resource Management, Nature-based Solutions to address Climate Change in WASH and Climate Resilient Faecal Sludge Management.
- **Accessibility:** English

Compendium of Water Supply Technologies in Emergencies, 1st Edition

- **Organisations responsible:** German WASH Network, University of Applied Sciences and Arts Northwestern Switzerland, Global WASH Cluster, Sustainable Sanitation Alliance.
- **Short description:** A practical reference and planning guide that supports decision-making on appropriate water supply technologies across all phases of humanitarian emergencies.
- **Accessibility:** English

Compendium of Hygiene Promotion in Emergencies

- **Organisations responsible:** Partners of the Global WASH Cluster, coordinated by the German WASH Network in cooperation with IFRC and with contributions from WASH experts.
- **Short description:** A structured, practical reference that compiles key concepts, components, methods and tools for hygiene promotion in humanitarian emergencies.
- **Accessibility:** English

Compendium of Sanitation Systems and Technologies, 2nd Edition

- **Organisation responsible:** Eawag (Swiss Federal Institute of Aquatic Science and Technology) in collaboration with Water Supply and Sanitation Collaborative Council and the International Water Association.
- **Short description:** A practical, unbiased guidance tool for engineers, planners and sanitation practitioners, especially in low- and middle-income countries. It presents a wide range of proven sanitation systems and technologies in one structured document.
- **Accessibility:** English

Sustainable Sanitation and Water Management Toolbox

- **Organisation responsible:** Managed and maintained by a network of contributors and supported by organisations involved in water and sanitation development and research
- **Short description:** A comprehensive online knowledge platform and toolbox providing practical tools, guidance, and best practices to support NGOs, practitioners, and decision-makers in sustainable and integrated water and sanitation management approaches.
- **Accessibility:** English

Rehabilitating water infrastructure, ICRC – Gaza & Jordan

- **Organisation responsible:** DG ECHO
- **Short description:** This case study illustrates how the ICRC improves long-term water access by rehabilitating existing infrastructure, strengthening local water management capacity, and prioritising preventive, sustainable approaches in complex and water-stressed crisis settings.
- **Accessibility:** [English](#) and [French](#)

WHO Technical Note: Rehabilitating small-scale piped water distribution systems

- **Organisation responsible:** World Health Organisation
- **Short description:** Short step-by-step guidance on the rehabilitation of small water distribution systems in disasters.
- **Accessibility:** English

WHO Technical Note: Rehabilitating water treatment works after an emergency

- **Organisation responsible:** World Health Organisation
- **Short description:** Short step-by-step guidance on the rehabilitation of water treatment works after an emergency, including guidance on how to prioritise activities
- **Accessibility:** English

RésEAU : SDC Water Network

- Hosted by the Water section of the Swiss Agency for Development and Cooperation (SDC), this platform provides guidance on water-related themes. Relevant resources e.g. [RésEAU Brief on Sustainable Groundwater Management](#)
- **Accessibility:** English



PITFALLS TO AVOID

- Do not ignore the cumulative impacts of multiple actors: in humanitarian settings where many organisations are present, overall water extraction may exceed recharge if coordination is weak. It is therefore vital to ensure the sharing of data and information through the established coordination platforms and to coordinate interventions.
- Do not implement greywater and wastewater activities without proper evaluation of the potential health, sanitation and environmental risks.



GOOD PRACTICES

- Involve local authorities, experts, users and water committees in decisions on extraction rates, placement of infrastructure, and water-saving measures. This strengthens ownership and long-term sustainability.
- Introduce simple tools such as metering, scheduled pumping times and volumes (which are defined in Operation and Maintenance Manuals and applied accordingly), or community water-use agreements to distribute water sustainably and equitably.
- Allocate resources for spare parts, training of local technicians, and routine infrastructure checks and regular maintenance. This reduces breakdowns and prevents water loss.
- Train local authorities, water user committees, and partner organisations on management of water supply systems, environmental safeguarding and safe water extraction techniques.