



European
Commission



DG ECHO Thematic Policy Document n° 2

Water, Sanitation and Hygiene

Meeting the challenge of rapidly
increasing humanitarian needs
in WASH

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Humanitarian
Aid and Civil
Protection



DG ECHO Thematic Policy Documents

- N°1:** Food Assistance: From Food Aid to Food Assistance
- N°2:** Water, Sanitation and Hygiene: Meeting the challenge of rapidly increasing humanitarian needs in WASH
- N°3:** Cash and Vouchers: Increasing efficiency and effectiveness across all sectors
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Executive summary*

WASH stands for Water, Sanitation, Hygiene, and is one of the three main sectors of humanitarian operations (the others being food and health). Climate change has a growing and significant impact on WASH among vulnerable people. Humanitarian aid alone will not be able to continue to address the rapidly growing needs. **The role of improving resilience and Linking Relief, Rehabilitation and Development (LRRD) is vital to helping meet these needs before they become humanitarian emergencies. In the face of rapidly growing WASH needs, coordination on WASH is crucial to ensure the most efficient use of the resources available.**

Over the past decade humanitarian **WASH funding has increased thirty fold**. In recent years there have been a total of 1.7 million deaths annually due to inadequate WASH conditions and services. **Water** is also the key medium through

which the impact of climate change will be manifested. Population growth and rapidly growing urban areas are increasing pressure on local water resources. Consequently, needs are increasing even more rapidly than the available funding. UNOCHA (United Nations Office for the Coordination of Humanitarian Affairs) predicts that by 2025 the number of people without access to safe water will rise from just over 1 billion to 2 billion.

“ *The European Union is already the biggest donor to humanitarian WASH, now allocating around 200 million € each year from the EU budget.* ”

The **European Union is already the biggest donor to humanitarian WASH,**

now allocating around 200 million €¹ each year from the EU budget. The Commission has a number of comparative advantages in responding to the changing frequency, scale and nature of humanitarian WASH needs.

First, for the **essential life-saving first phase** following a disaster, the **Commission has invested heavily** in improving the speed of response with its partners, the surge capacity in the global WASH Cluster, and global logistics support. This facilitates better needs assessments, more timely and appropriate responses, better coordination, and overall it uses humanitarian budgets more efficiently and effectively to help those in need. In time of budgetary constraints, getting the best value for our money is even more important.

Second, the Commission, through its Humanitarian Aid Directorate (DG ECHO), co-ordinates an **increasing number of deployments** through funding for **humanitarian partners**, and support and facilitation for the deployment and coordination of Member States **civil protection assistance** in response to major emergencies inside and outside the EU. The complementary roles of humanitarian and civil protection are strong in the WASH sector: the growing urban humanitarian

* - European Commission Staff Working Document, September 2012, SWD(2012)277

1- UN Financial Tracking Service.

WASH needs often require a technically sophisticated response beyond the capacity of many humanitarian agencies, which can be provided through civil protection actors.

Third, with **an extensive network of NGO, UN and Red Cross partners**, together with a network of **140 field experts**, the Commission reviews and **promotes quality and best practice** in the face of changing humanitarian WASH demands. Both through funding, and extensive partnerships, the Commission works to improve the enabling environment for humanitarian WASH responses. This includes work with the global WASH Cluster as the focus of the global humanitarian WASH community to deliver quality aid through an inclusive and effective preparation and coordination.

To complement humanitarian responses, the work of development actors in the area of early recovery is vital. For the 712 million € allocated to date through the European Commission's Development 'Water Facility' for African, Caribbean and Pacific countries, project selection is at times done jointly with the Commission's humanitarian experts. Last but not least, based on its expertise, the Commission has a substantial role to play in terms of advocacy for water issues in general and WASH in particular.

1. Introduction

Water is essential in terms of its quantity and quality to sustain life and promote health. Basic sanitation and adequate hygiene behaviour and management are essential conditions to create a safe environment which reduces the risk of people's immune system being undermined as a result of chronic exposure to WASH related diseases.² Water is often used to support basic food needs and livelihoods functions. Food assistance and nutrition policies require an adequate level of WASH services.

WASH is a humanitarian priority for 300 million people now affected by natural disasters and conflicts each year,³ but the present global humanitarian WASH capacity can no longer meet the rapidly growing WASH needs. **More than 3,000 children die every day from diarrhoeal diseases.**⁴

“ In recent years, there have been a total of 1.7 million deaths annually due to inadequate WASH conditions and services. ”

In recent years, there have been a total of 1.7 million deaths annually due to inadequate WASH conditions and services. Dry lands have the highest infant-mortality of all eco-systems.⁵

Water is also the key medium through which the **impact of climate change** is manifested. The number and scale of natural disasters is increasing. In addition, rapid population growth reinforces existing pressure on natural resources. Conflict and repression continue to undermine people's ability to pursue their day-to-day livelihoods, and are often the cause of large numbers of refugees and internally displaced persons (IDPs).

The frequency and scale of floods and droughts is already creating major 'water insecurity' challenges for the humanitarian WASH community. The number of recorded natural disasters has doubled from approximately 200 to over 400 per year over the past two decades. The number of floods and cyclones is rising dramatically as a proportion of these disasters.⁶ Such natural disasters often result in a sharp deterioration of environmental health conditions, particularly in terms of access to basic water and sanitation services. According to the World Bank, roughly 38% of the land area is exposed to some level of drought, thereby affecting 70% of the world's population.⁷

2 - All Water borne diseases, Sanitation & Hygiene-related diseases (including those associated to inadequate waste disposal), and/or Vector or Insect-borne diseases.

3 - According to CRED, University of Louvain, compiled by IFRC in the World Disasters Report of 2011 : 260 million people per year are affected by hydro-meteorological disasters, earthquakes and epidemics. According to UNHCR World Trends (2010), 43 million people worldwide were forcibly displaced in 2010.

4 - UNICEF

5 - World Bank, UNDP, UNEP (2005) Ecosystems and Human Well-Being, Synthesis Report, Washington.

6 - UNEP 2010 Trends in natural disasters.

7 - World Bank cited in Lezlie, C. Moriniere, E. et al. (2009) Climate Change and its Humanitarian Impacts (Feinstein International Centre, King's College London).

The past decade has seen a thirty fold increase in funding for humanitarian WASH needs.⁸ Future trends show how needs will greatly increase. Despite recent progress made on improving access to water in many parts of the world, the number of people without access to safe water is expected to rise from just over 1 billion to 2 billion by 2025.⁹ The FAO (Food and Agriculture Organisation of the United Nations) estimates that by 2025, 1.8 billion people will be living in countries or regions with 'absolute water scarcity'¹⁰ (22.5% of the projected global population), and some 65% of the world's population could be living under 'water stress' conditions. The lack of access to basic sanitation is also increasing. Only 63% of the world now has improved sanitation access, a figure projected to increase to only 67% by 2015. Currently 2.5 billion people still lack improved sanitation.

The situation is being exacerbated as rapidly growing urban areas place pressure on local water resources.¹¹ Millions more people will be in need of humanitarian WASH assistance in the years to come.¹²

The rapidly growing range, frequency and scale of humanitarian WASH needs represent a major challenge for the capacity and resources of the global humanitarian system. This paper sets out how the European Commission is helping to meet these challenges.

The EU is the biggest donor to the global humanitarian WASH response.¹³ Globally, an average of 290 million € was allocated annually to humanitarian WASH in 2010, and again in 2011, of which the Commission allocated an average of over 108 million €¹⁴ annually for dedicated humanitarian WASH projects. In addition many other Commission humanitarian projects include WASH components. Taking this additional WASH funding into account, the overall contribution to WASH from the EU budget was nearly 200 million € in 2010, and the same in 2011.

Humanitarian aid alone is not able to continue to address the rapidly growing and changing needs. The role of improving resilience and LRRD is vital to helping meet these needs before they become humanitarian emergencies. In the face of rapidly growing WASH needs, coordination on WASH is crucial to ensure the most efficient use of the resources available.

With its own specific comparative advantages, and working through its many partnerships, the Commission is meeting the challenge of helping those in need by promoting standards, reinforcing new global structures and pursuing advocacy beyond the humanitarian sphere.

8 - Based on UN Financial Tracking Service, as reported in [WASH News International](#).

9 - [Water Scarcity and Humanitarian Action: Key Emerging Trends and Challenges](#) (UNOCHA brief #4, Sept. 2010).

10 - Defined as when a country goes below 500 cubic meters fresh water availability per capita.

11 - Food and Agricultural Organisation (FAO) [WATER 2010: Natural Resources and Environment department, Rome; FAO 2007, Coping with water scarcity, challenge of the twenty first century, World Water Day 2007; UNOCHA ibid.](#)

12 - [Progress on Drinking Water and Sanitation](#) (WHO/UNICEF Joint Monitoring Programme for WASH, 2012).

13 - According to the UN Financial Tracking Service, DG ECHO contributes between 32 and 46% of global humanitarian WASH funding.

14 - UN Financial Tracking Service.

The main objective of humanitarian WASH assistance

is to save and preserve life and alleviate the suffering of populations facing severe environmental health risks and/or water insecurity in the context of anticipated, ongoing and recent humanitarian crises.

With the following specific objectives

- 1** *To ensure timely and dignified access to sufficient and safe WASH services for populations threatened by on-going, imminent or future humanitarian crises, and to increase their resilience to withstand water stress and shocks.*
- 2** *To implement measures to prevent the spread of WASH related diseases in populations threatened by on-going, imminent or future humanitarian crises.*
- 3** *To enhance the impact, relevance, efficiency and effectiveness in the delivery of WASH assistance by strengthening the capacities of the humanitarian aid system, including its coordination mechanism.*

This document sets out how Commission humanitarian WASH assistance is addressing the growing global challenges of humanitarian WASH needs.¹⁵

The way in which the Commission programmes, implements and coordinates its humanitarian WASH delivery to achieve these aims involves the full range of measures at its disposal, as set out in this document. In particular these build upon the Commission's comparative advantages as a humanitarian actor. At the global level, the Commission is actively and constructively engaged with the 'Transformative Agenda' to strengthen the global humanitarian response system, including the functioning of the Global WASH Cluster. Within this global enabling environment, the Commission is ensuring the application of best practice to improve the quality of humanitarian WASH assistance, and the resilience of the vulnerable populations assisted. Commission humanitarian WASH assistance applies in anticipation of, during, and in the aftermath of humanitarian crises.

15 - In accordance with the orientation of the Humanitarian Aid Consensus, such as the needs based approach; in accordance with the Commission's humanitarian mandate defined by the humanitarian legal framework; to improve policy coherence, coordination and complementarity in the provision of humanitarian WASH assistance; to inform Member States and other donors, partners and other stakeholders of the European Commission's objectives, priorities and standards in the delivery of humanitarian WASH assistance.

2. Basic Principles

2.1 Entry & Exit Criteria

In acute crises, the main entry point for humanitarian WASH operations is:

- A sudden (partial or total) loss of access to existing WASH services (regardless of its pre-disaster quality and coverage) and/or;
- A high risk of rapidly contracting life-threatening or severely disabling WASH related diseases.

The exit criterion is the establishment, or re-establishment, of basic WASH services at a level that successfully reduces vulnerabilities brought upon by acute water insecurity and/or environmental health risk(s). The application of this exit criterion is advised by the timing required for a gradual transfer of WASH services to local beneficiaries, structures and/or other entities.

In non-acute crises, WASH interventions are mainly conceived in support of other sector interventions (such as health, nutrition, food assistance or protection) or as part of an integrated package of several sector interventions, and thus subject to a common entry criterion. For example, where appropriate, the restoration of WASH services may act as a 'pull' factor encouraging returnees to settle back into their home villages. Similarly, where WASH interventions are triggered as part of a preparedness and/or DRR (Disaster Risk Reduction) initiative, the entry criterion would be that of the initiative. However, in case a WASH action is initiated in support of other sector(s), the exit strategy of that action should be WASH specific to ensure that minimum standards of WASH services are provided before exiting.

Overall, exit criteria for post-acute, chronic and protracted crises are applied with consideration to the comparative advantage and cost-effectiveness of a sustained humanitarian intervention against that of local authorities/agencies, or other donors and/or partners able to intervene.

2.2 Needs Assessment and Prioritisation

Humanitarian WASH interventions are preceded by a detailed needs assessment with causal analysis. Such assessments are timely, and on an appropriate scale. Joint/common methodologies are applied, using pre-agreed assessment formats where feasible, to maximise coordination and the speed of data collection, analysis and sharing. WASH needs related to other sectors (including transversal) are included in the scope of the assessments.

Needs assessments are considered as an iterative **process that is constantly updated** according to the evolution of the assisted population's WASH needs. They prioritise basic survival needs but also include socio-economic-related needs whenever these are likely to affect the response to basic needs.

Access to sufficient and safe water for household consumption is the utmost priority for survival, and must be prioritised over all other water

usage needs. Such prioritisation is fully informed by other demands on water supply, and seeks where possible to achieve, to address the most vital needs to increase resilience and sustain livelihood – for example, sustaining minimal number of livestock for pastoralists.

Given limited resources and a broad potential scope of work, the Commission prioritises emergency WASH activities and responses first and foremost to achieve immediate life-saving during emergencies and their aftermaths. **The main criteria for prioritisation are (i) the greatest needs and the highest level of vulnerability, (ii) the severity of the crisis and the scale of the unmet need, (iii) the immediacy of the crisis.**

EU funding is prioritised on the basis of the impact foreseen, speed and quality, considering the beneficiaries needs and priorities as well as the comparative cost-effectiveness of the chosen response compared to other response options.

2.3 Integrated Programming and Partnerships

Actions defined to prevent the development and transmission of WASH related diseases integrate the three mutually supporting components which are hygiene, sanitation and water supply, whether completed under the same WASH response or not. In order to maximise the effectiveness, efficiency and sustainability of actions, 'stand-alone' WASH operations should be integrated as a coherent part of a broader, transversal and cross-sectoral response to humanitarian needs. Equally, basic WASH services ('minimal WASH package') are always provided as part of other 'stand-alone' sector service deliveries, such as nutrition, health and shelter.

EU funded WASH operations are coordinated with other existing initiatives being implemented in the area of intervention, avoiding overlapping and promoting complementarities and synergies.

This includes respect for on-going development processes and where possible, transition to such broader programmes. In this context, coordination with Disaster Risk Reduction or Climate Change Adaptation strategies is of particular relevance.

“ Actions defined to prevent the development and transmission of WASH related diseases integrate the three mutually supporting components which are hygiene, sanitation and water supply, whether completed under the same WASH response or not. ”

In humanitarian WASH, the Commission's traditional partners are Non-Governmental Organisations (NGOs) and International Organisations (the United Nations humanitarian agencies, the Red Cross/Crescent movement). Civil Protection agencies of States participating in the EU Civil Protection Mechanism can deploy personnel and equipment through the

Mechanism, thus complementing the humanitarian response if the assistance provided complies with the humanitarian WASH priorities and standards, and does not compromise humanitarian principles.

Given the scale of WASH needs to be addressed, the Commission also seeks partnerships and networks beyond its traditional partners. While the existing Humanitarian Regulation does not permit direct financial engagement with state or local actors, academic institutions, national civil society organisations or private

institutions, such entities can be supported indirectly on the basis of sub-contracted arrangements on the condition that they have credible and viable capacities, that quality control is envisaged and that humanitarian principles are not compromised.

2.4 Standards, Information & Knowledge Management

The application of best practice to ensure the quality of humanitarian WASH assistance is fundamental if beneficiary communities are to understand and respect humanitarian principles. Equally the application of these principles is a fundamental part of achieving best practice in the delivery of humanitarian WASH services. Building on its field presence, and in particular its network of WASH experts, the **Commission actively promotes best practice through coordination fora such as the WASH Cluster, and through its network of partnerships.**

Through the allocation of funding, together with its WASH expertise, **the Commission supports, contributes to, and promotes the setting and use of international standards** such as the Sphere project, one of the internationally recognised sets of common principles and universal minimum standards in life-saving areas of humanitarian response. Such standards facilitate emergency preparedness, and the speed and coherence of response. The Commission recognises that in certain contexts a more flexible application of international standards may be justified. The Commission actively participates in coordination forums such as the WASH Cluster to ensure the timely design of appropriate and context specific applications of standards.

The Commission requires that **all WASH actions supported are designed around targets and outcome indicators that are Specific, Measurable, Achievable, Relevant and Time-bound (SMART).** The Commission also supports the establishment and promotion of common indicator sets, and standards for compatible data, that facilitate information sharing and coordination, and quality control through the monitoring and evaluation of the actions that it funds.

The Commission supports initiatives focused on improving knowledge management in order to ensure that the lessons of evidence based good practices are learned and applied, documented and disseminated to feed the design, programming and implementation of future operations.

“The application of best practice to ensure the quality of humanitarian WASH assistance is fundamental if beneficiary communities are to understand and respect humanitarian principles.”

3. Types of Crises

Emergency WASH operations can be conducted in preparation or as a response to a crisis. The Commission has two complementary ways of working to support emergency humanitarian WASH operations: traditional humanitarian aid, with financial grants to international NGOs, Red Cross movement and United Nations humanitarian agencies, and through the EU Civil Protection mechanism.

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The type of humanitarian crisis faced at any given time conditions the way emergency humanitarian WASH interventions are designed and implemented. These divide broadly into five, often overlapping, crisis response phases referred to as: **Preparedness, Acute, Post-acute, Protracted and/or Chronic crises**. These phases are further

Case Study 1: DRR/Emergency preparedness in WASH programming in drought stricken and water scarce areas

In 2007, a series of elements raised awareness on the risk of drought faced by the population hosted in the Internally Displaced Person (IDP) camps in Darfur.

Data collected on Darfur rainfall patterns showed a continuous decrease in the rainfall over the last 50 years. At the same time, the population living in IDP camps kept on increasing, with 50% living in an urban context while 81% of the population lived in rural areas prior to the conflict.

This has been putting an exacerbated stress on local natural resources, including local aquifers. Tearfund released a report (*Darfur – water supply in a vulnerable environment*) identifying 21 IDP camps as vulnerable to groundwater depletion. One IDP camp in Northern Darfur (Abou Shouk) ran dry of groundwater. Data collection related to water in the camps was mainly oriented towards a supply perspective (litres per day).

The IDP camps were located in arid areas, with no alternative to groundwater for water supply and little understanding on the link between rainfall and local aquifers. In order to have the elements to be prepared to react in case of drought, a proper risk analysis of drought had to be carried out - including the possible impact on the water availability for the population living in the IDP camps, dependant on groundwater for its water supply.

- Rainfall data collection and analysis
- Monitoring of groundwater fluctuation (linking the rainfall and groundwater levels)
- Monitoring of the water usage in the camps
- Mapping of the groundwater resource available for drilling

In parallel, mitigation measures were established:

- To increase water availability with the construction of sub-surface dams to increase the water recharge in the aquifers, and the construction of rainwater run-off catchment system (water pans or 'hafirs');
- To reduce the risk of over pumping and exhausting the water resource by putting restrictions on new water points in the camps by carrying systematic pumping tests for the selection of appropriate pumping capacity; by raising the awareness of communities and traditional leaders on groundwater fluctuation and need to act upon it;
- To reduce the need for water: with the promotion of alternatives to high water demand livelihood activities; support for Cash for Work activities to create labour opportunities for IDPs; the design of building and sanitation facilities to avoid using mud bricks;
- To be better prepared to react with the stock piling of emergency equipment and consumables.

affected by the nature and cause of the crisis, the scale of displacement, and the context.

3.1 Emergency WASH Preparedness

The aim of emergency WASH preparedness is to build resilience, to reach a reasonable level of preparation and to reinforce the coping capacity of local WASH actors (agencies and/or communities) in order to reduce vulnerability and ensure a timely and appropriate response to a disaster event in order to avoid preventable loss of life and decrease suffering.

Emergency preparedness within the scope of WASH programming reduces or removes the negative impact of sudden shocks or stresses on access to adequate WASH services. This in turn reduces the likelihood of an increased incidence of WASH related diseases and/or undernutrition, both during and following the disaster itself. Where the vulnerability of local communities is extremely high, and where environmental health risks are clearly life-threatening to local communities, it may be justified to integrate WASH activities in Disaster Risk Reduction programming.

Emergency preparedness activities may also be directed at (inter-agency) WASH contingency planning, such as response simulation exercises and WASH capacity mapping; training of emergency WASH personnel and/or the pre-positioning of WASH emergency stocks (such as hygiene kits, water reservoirs, and latrine slabs). Emergency preparedness in WASH has been recognized as often being a more cost effective way of working, particularly in situations where there are frequent natural disaster events.

3.2 Emergency WASH Response in Acute Crises

In such circumstances the main priority is to (re)establish WASH services for 'life-saving' purposes. Temporary WASH services are usually required until more permanent solutions can be found.

Civil Protection, Water Purification Team in Haiti, 2010 © by EC/ECHO



Case Study 2: Role of Civil Protection in complementing Commission humanitarian WASH operations

During the acute phase of the response, the Emergency Response Coordination Centre (ERCC) may encourage states participating in the EU Civil Protection Mechanism to deploy WASH personnel and equipment based on the results of a needs-based joint assessments conducted in close coordination with Commission humanitarian field personnel, and in some cases support from the EU delegation in the affected country. If in-kind assistance provided by EU Civil Protection (CP) follows internationally accepted standards and local priorities, it has the potential to greatly complement the financial support allocated by the Commission to its humanitarian implementing partners, hence adding value to the overall WASH response.

Commission humanitarian implementing partners can play a fundamental role in the reception and appropriate use of the assets deployed by Civil Protection (such as water treatment, water pumping, storage, transport and purification equipment). Commission funded humanitarian projects can integrate appropriate in-kind contributions so that they reduce their material costs and gain in effectiveness and efficiency. In some cases, the staff of the Commission's humanitarian partners can be trained by Civil Protection specialized personnel in the installation, maintenance and operation of such equipment, so that it can be used during a longer period of time or for future emergencies in the affected country.

Commission humanitarian implementing partners should also be open to, in specific cases, become the consignees for in-kind assistance coming from Civil Protection. In certain cases it is preferable that the assistance is not channelled directly to the government of the affected country and in these cases alternative consignees for the assistance need to be found.

Timeliness of the intervention is the Commission's primary concern; hence the focus is on the speed of the response.

Sector specificities:

In accordance with international standards and local conditions:

- *Water* supply interventions focus on providing reasonably clean and safe water supply, in sufficient quantities in the fastest possible time. The priority is to provide equitable access to an adequate quantity of water even if it is of intermediate quality.¹⁶
- *Sanitation* interventions focus on immediate and safe excreta disposal. Priority should be given to protecting drinking water sources.
- In coordination with the community, *Hygiene Promotion* focus on immediate actions which hold the greatest potential to reduce the spread and the risk of environmental health related outbreaks (such as handwashing and safe excreta disposal).

3.3 Emergency WASH Response in Post-Acute Crises

The emphasis is on early recovery and the rehabilitation of WASH services with a gradual return to normality and self-sufficiency. The WASH strategy seeks to reinforce beneficiary participation and dignity.

The proposed solutions are durable and may include both mitigation measures and disaster preparedness activities. Linkages with the long-term actors are initiated and transitional strategies (LRRD) are gradually mainstreamed.

Sector specificities:

- Focus on rehabilitation and repair of existing WASH systems/facilities before constructing new ones; and re-establish institutional, social, and organisational structures to manage these WASH services. If the above measures cannot be implemented or remain insufficient, then the introduction of new structures/services are sometimes warranted.
- Improving hygiene is usually best achieved through a participative approach with the beneficiaries and by addressing long-term behavior change. This requires more permanent and durable interventions which lay the groundwork for developmental-type interventions and levels of service.

3.4 Emergency WASH Response in Protracted Crises

“ Adequate Operation & Maintenance (O&M) is crucial to avoid the deterioration of the existing WASH services. ”

The emphasis is on cost-effectiveness, quality, resilience and durability of the service and/or the replacement of temporary services where still in operation. Adequate Operation & Maintenance (O&M) is crucial to avoid the deterioration of the existing WASH

services. Focus will also be on increasing the self-sufficiency of beneficiaries and on articulation with development efforts. Priority is given to comprehensive

16 - As indicated by locally accepted or SPHERE standards.

assessments of WASH needs and the introduction of appropriate and affordable technologies, which have lower and simpler O&M requirements. Improved targeting of beneficiaries is also required. Whenever feasible, the various instruments for addressing humanitarian and development WASH assistance needs in protracted crises and/or post-crisis situations should be managed in a coherent and coordinated manner.

Sector specificities:

- *Water supply* services and infrastructure is more perennial than in acute scenarios, requiring that both the design and implementation of the proposed solutions are owned by the beneficiaries. Consideration should be given to accommodating competing demands for domestic water supply, especially from livestock, agricultural or industrial uses (such as brick making). Attention will also be paid to the sustainable management of available water resources and possible linked measures such as protection of catchment areas.
- *Sanitation* facilities are sustainable and encompass local considerations and customs. Sanitation solutions are designed to have an impact beyond the immediate crisis, and prevent further emergencies from occurring.
- *Hygiene promotion* strategies look beyond the basic messages provided in the acute phase aiming at achieving long-term behaviour change, which are designed on the basis of a thorough understanding of hygiene Knowledge, Attitude and Practice (KAP) of beneficiaries and implemented with respect to broad participation and awareness of gender issues.

3.5 Emergency WASH Response in Chronic Crises

In chronic crises, WASH interventions are generally linked to other sector initiatives such as health, nutrition or protection rather than stand-alone projects, while ensuring that the exit strategy for the WASH component remains WASH-specific. Only in exceptional cases is WASH a justification, or entry point, for Commission humanitarian interventions in chronic crises.

The main objective is to respond to acute needs, prevent the impact of the crisis from worsening, assist those most affected through re-establishing a certain level of self-sufficiency, and ultimately lay the ground work for development efforts to come in (while avoiding getting trapped indefinitely because of a continued absence of development actors).

Sector specificities:

- Priority interventions in chronic situations for *water supply* are properly planned and designed to be more perennial, requiring that both design and implementation of the proposed solutions are owned by the beneficiaries.
- *Sanitation* favours systems that are more durable, possibly based on household level services, and appropriate to the local social and cultural preferences. Sanitation solutions are designed to have an impact beyond the immediate crisis, and prevent further emergencies from occurring.
- *Hygiene promotion* messages in chronic scenarios focus on the objective of achieving long-term behaviour change in key areas known to reduce the risk of disease transmission. Efforts are made to increase long-term capacity for sustained behaviour change at all levels, i.e. through community mobilisation and social marketing methods and institutional support such as the training of extension staff.

The Commission recognises that its humanitarian WASH assistance does not have a comparative advantage in addressing chronic water insecurity. In principle, it does not use humanitarian WASH assistance to address this issue, except: where non-intervention poses immediate or imminent humanitarian risk of significant scale and

“In all emergency WASH response phases, attention should be paid to reducing chronic exposure to diarrhoeal diseases and its detrimental impact on under-nutrition, particularly amongst children under five and other vulnerable groups (such as pregnant women, elderly people, and HIV patients).”

severity; where other more appropriate actors, including its own development instruments, are either unable or unwilling to act, and cannot be persuaded to act; and where, in spite of its comparative disadvantages, positive impact can be expected within the time limitations of its intervention. In such cases, the Commission only engages humanitarian WASH assistance on the basis of dialogue, coordination and advocacy with potential development partners, where they exist, and with a clear and realistic exit strategy defined, ensuring coordinated transition and thus avoiding uncoordinated overlap.

In all of the above described emergency WASH response phases, attention is paid to reducing chronic exposure to diarrhoeal diseases and its detrimental impact on undernutrition, particularly amongst children under five and other vulnerable groups (such as pregnant women, elderly people, and HIV patients).

For more information on the type of WASH operations potentially eligible for funding by DG ECHO, please consult the WASH Technical Guidelines (annex II).

4. Key Determinants for Interventions

The Commission supports two strategic areas of WASH programming: *Emergency WASH Operations* and *Humanitarian WASH Capacity Building*. Interventions in both are informed by the following main strategic considerations for humanitarian WASH.

Emergency WASH Operations

As set out in section 3, this is **the delivery of WASH services** and/or improvement of WASH conditions for the direct benefit of disaster exposed and/or affected populations. **This constitutes by far the largest area of humanitarian WASH funding. Its primary aim is to contribute to the establishment of basic on-site WASH conditions for beneficiaries to live in health, dignity and security.** Emergency WASH operations may be implemented either in response to or in preparedness of humanitarian emergencies. Nevertheless, the bulk of the funding is allocated in response to such events.

Humanitarian WASH Capacity Building

Humanitarian WASH Capacity Building relates to the individual and/or collective strengthening of the institutional capacities of the Commission implementing partners to design, deliver and coordinate more timely, effective and appropriate forms of WASH assistance. This area constitutes a limited but crucial area of humanitarian WASH funding. WASH capacity building may be directed at implementing partners and/or at the integration of the humanitarian WASH system. **Priority areas** for Humanitarian WASH Capacity Building include amongst other, adequate surge mechanisms (resources mobilisation and deployment), improved needs assessment, improved response analysis, enhanced impact and accountability measurement, improved technological assets, strengthened logistics (stockpiling, transportation of WASH equipment/materials), improved availability of skills and competencies/expertise, and enhanced (cross) sectorial (co)leadership and coordination (including national actors and authorities where appropriate).

Strategic Considerations for WASH Programming

The choice of the most appropriate type of WASH intervention is a context specific choice which is reviewed over time. The relevance and comparative advantage of the proposed response option – and the combination of tools to be used – is demonstrated for the specific situation, based on needs assessments that are as accurate and up to date as possible given the urgency and complexity of the situation on the ground. Building on this, the following strategic considerations are addressed where they arise for humanitarian WASH interventions.

4.1 Beneficiaries

Targeting. Targeting of humanitarian WASH programming is based on **priority humanitarian needs rather than on coverage of WASH services.** A vulnerability and coping capacity analysis is required to ensure WASH assistance

Case Study 3: Liberia O&M and user fee transition

During the Liberian civil war of the 1990s, the 'White Plains' water plant that supplied the capital city Monrovia was repeatedly damaged in the fighting. Most of the population in Monrovia (700,000 inhabitants) were highly vulnerable, including many internally displaced.

Through humanitarian interventions the water plant was partially repaired, operated and maintained, to ensure a supply of clean water for the city. Also benefitting from this humanitarian-funded water supply were a number of commercial enterprises producing beverages.

Throughout the early transition, funded by the EU, commercial and other users of the water supply who could pay, did pay. This ensured a reliable supply for those who paid, while the revenues subsidised free water for the most vulnerable. Humanitarian funds were thus liberated to address the many other humanitarian needs.



White Plains Water, Treatment Station. Monrovia, Liberia © Matthew Sayer, 1990.

is provided to those who need it most. This requires an understanding of the local context and how a particular crisis impacts on particular groups of people in different ways due to their pre-existing coping mechanisms and/or vulnerabilities in relation to local WASH resources, technologies and services. Support for beneficiaries' coping strategies, resilience and recovery capacity to re-establish access to basic WASH services is essential. Targeting is refined as the crisis evolves and time allows for a more profound understanding of the local context.

Gender. An equitable and effective participation of men and women that results in planning, decision-making and local management of appropriate emergency WASH services benefits the entire population. The specific strengths and vulnerabilities of women and children in the delivery and use of these services require special consideration. If gender issues are not taken into consideration, emergency interventions can put women at risk. For example, the use of communal WASH facilities in refugee or displaced camps can increase women's and girl's vulnerability to sexual and other forms of gender-based violence.

Beneficiary participation & accountability.

WASH interventions are driven by people-centred approaches and should be accountable to beneficiaries.

This requires the earliest possible beneficiary and community participation and is then followed through to ensure the sustainability and resilience of the recovery after the acute phase. Accountability to the beneficiaries reinforces this process, and builds respect for humanitarian principles. For example, the early application of Knowledge, Attitude and Practice (KAP) surveys ensures clearly measurable progress through establishing a baseline for what WASH practices at the outset of a humanitarian intervention. Design and location of WASH facilities requires beneficiary participation if they are to be used, and sustained.

Livelihood. Water is also an economic means used for livelihood even in an emergency context (such as brick making, water for vegetables, water for livestock, and kitchen gardens). Increasing pressure on sometimes scarce resources can trigger water stress and provoke conflicts about access to water points. This is carefully considered before establishing drinking water supply services. Frequently, labour intensive works in the scope of emergency WASH operations can be used for improving livelihood conditions through measures such as *Cash for Work or Food for Work*, which facilitates engaging the beneficiaries in the construction of their own WASH services while promoting empowerment and ownership, knowledge transfer, and operation and maintenance within beneficiary groups from the onset of the crisis.

Operation and Maintenance, and User Fees. WASH interventions support locally appropriate technologies and designs. A balance is ensured between technically reasonable solutions and what the beneficiary population in a given context can manage after the end of the project. Consideration is given to management issues regarding the access to any WASH service, its functionality with regard to its end users (for example, hand pumps should be easy for girls and women to operate) and its running costs over the longer term. Generally, the simpler the WASH system design is, the lower the running costs are and the easier it can be managed by users (frequently not technically skilled).

While cost recovery is not a priority in acute emergencies, **awareness of the protracted financial consequences of (re)establishing WASH services is essential from the outset. Humanitarian interventions should be open to early transition to fee based WASH services to create conditions for a sustainable operation and maintenance.** To achieve this requires:

- an enabling environment is in place or created (for example, linking the Operation and Maintenance (O&M) to an existing spare parts supply system);
- the user fee ensures that the needs of the most vulnerable are covered and that this part of the population will not be excluded from accessing WASH services.

“While cost recovery is not a priority in acute emergencies, awareness of the protracted financial consequences of (re)establishing WASH services is essential from the outset.”

4.2 Environment, Context, and WASH Related Epidemics

WASH related epidemics. Man-made or natural disasters such as complex emergencies and floods resulting in population movements, as well as overcrowded camps for refugees/internally displaced are conducive to outbreaks of water, sanitation and/or vector-borne related diseases with high morbidity and mortality rates.

Urban settings. In addition to land issues and overcrowding constraints, the main challenges are usually the availability of spare equipment and materials to

Case Study 4: Environmental impacts in WASH operations, India

WASH interventions in both rural and urban settings have an impact on the environment, which might put at risk the sustainability of the intervention in the short, medium or long-term. These impacts must be considered prior to scheduling an operation beyond life-saving operations and immediate emergency operations. Coordination between donors and partners is essential to avoid an over-exploitation of natural resources in a given environment, and to minimise the environmental impacts of humanitarian WASH projects such as pollution of ground water.

For example : *During the Bihar floods in north-eastern India, existing wells were rehabilitated and hand pumps replaced, while simple family pit and Ventilated*

Improved Pit (VIP) latrines were newly introduced into the area to overcome the problems caused by the predominant open defecation in the villages.

The various projects implemented were not sufficiently coordinated. The required distances between the latrine pits and the wells, all settled on sandy soil and shallow aquifers, were not respected. This resulted in the pollution of the groundwater, with significantly elevated numbers of coliform bacteria in the aquifer verified by systematic water tests for many villages.

The solution applied was to increase the depth of the wells in the affected villages in order to tap bacteria-free deeper groundwater. The quality of the wells was prioritised over the quantity of wells.

repair WASH infrastructure (including power generation and transmission) and the associated technical expertise to normalise the delivery of WASH services (such as the establishment of temporary urban sanitation facilities like elevated latrines, and raising awareness about unsafe environmental health conditions and hygiene behaviours). Key strategic considerations for intervening in urban settings include:

- i) Assessing damages and/or shortcomings of the existing WASH services and designing properly targeted¹⁷ WASH responses (usually in support of the local water agency).
- ii) Implementing a twin approach aimed at simultaneously establishing temporary WASH service delivery points, while implementing emergency rehabilitation work on permanent WASH systems (usually achievable through the local WASH agencies with support from development agencies, financing institutions and the private sector). This often requires close coordination between the deployment of humanitarian aid and civil protection.

Environmental impact and water scarcity. Basic environmental impact considerations inform humanitarian WASH programming. This is achieved by raising awareness around potential contamination and other negative effects of poorly planned WASH activities such as over exploitation of natural resources (land degradation and deforestation for example), breeding of infectious disease vectors (such as in pit latrines and in drainage ditches) or bacteriological/ chemical contamination (such as from emptying latrine pits, poor disposal of water treatment plant sludge, inappropriate handling and disposal of medical waste, and mass distribution of non-biodegradable materials) and by implementing corresponding mitigation measures.

Equally, WASH interventions in water scarce areas should seek to integrate adequate Disaster Risk Reduction strategies such as monitoring of groundwater depletion, increasing surface water collection potential, improving water distribution targeting, reducing water use wastage, etc. Addressing water scarcity requires an integrated approach that goes well beyond the scope of humanitarian aid. However, given the ever increasing impact of water scarcity on the delivery of WASH services in humanitarian action in many contexts, the Commission sometimes considers supporting initiatives aimed at:

- Highlighting and documenting the implications of water scarcity on vulnerability and humanitarian needs to enable the humanitarian system to be proactive in pre-empting water scarcity-driven humanitarian needs.
- Developing humanitarian partners' capacities and strengthening information and monitoring systems aimed at measuring and/or forecasting water availability in chronically water stressed areas with recurrent humanitarian crises.

4.3 Actions

Disaster Risk Reduction (DRR) & Resilience. The extent to which DRR considerations need to be addressed in WASH programming is influenced by the type of hazard faced and level of vulnerability of any given context. Physical infrastructure is particularly vulnerable to disasters. A rapid onset event such as a flood, earthquake or hurricane can destroy or severely damage WASH infrastructure,

¹⁷ - Often in the scope of heterogeneous urban contexts composed of both affected and non-affected populations.

Case Study 5: 'Watershed' approach to drought preparedness in Uganda

Droughts represent the second most recurrent type of disaster in Africa, but the main one in terms of population affected. Arid lands are a very fragile ecosystem, easily negatively affected by issues such as permanent settlements, and over-use of natural resources. An adequate natural resource management perspective needs to be integrated into the approach for interventions in arid lands. Watershed limits correspond to natural boundaries regarding water, but this dimension is too often absent from programming at local, country, regional levels.

With EU support, an ACF & IUCN pilot project in Uganda is building resilience against drought through improved water resource management, consisting in the following results and activities:

1. Socio-economic and hydro-geological information to enable water management decisions

- Desk study on existing data and literature available for the targeted area regarding hydro-geological condition

- Socio-economic assessment and hydrological as well hydro-geological surveys
- Hydro-geological and surface water mapping

2. The drafting of a water management plan for the Okok watershed

- Identification of customary rights around water resources
- Awareness on water resource rights as well as roles and responsibilities of the different stakeholders
- An inventory of water use and demand
- The training on integrated water resource management and groundwater monitoring
- The dissemination of the findings

The project supported is valid for an approach aiming at Linking Relief, Rehabilitation and Development and contributing to an evidence-based advocacy strategy. It may not be replicable as such for short-term emergency response, but a natural resource management approach should be integrated into emergency response as a normal best practice in WASH programming.

as well as limit the capacity of WASH service providers (community, government or private sector) to operate and maintain these systems.

Risk-informed WASH programming is paramount, meaning that where feasible and relevant, DRR measures are integrated in every stage of the response cycle of emergency WASH operations. For example, a slow onset or chronic event such as drought can increase water scarcity. Investment in making WASH systems more disaster-proof should always be based on an assessment of local hazards and vulnerabilities of the WASH services, considering: the situation (nature and frequency of risks); the impact of previous events; and environmental & demographic pressure and DRR and Climate Change Adaptation Strategies & Capacities.

In response, the main focus is on building back infrastructure to be more disaster-proof. DRR may also be accompanied by emergency preparedness activities. DRR may also contribute to the exit strategy of WASH programming, ensuring greater **resilience** for vulnerable populations, for example through an integrated approach which promotes community-based Operation and Maintenance and a sustainable user-fees system. DRR and emergency preparedness in WASH programming may also contribute to improved integrated watershed management.

“DRR may also contribute to the exit strategy of WASH programming, ensuring greater resilience for vulnerable populations.”

Emerging and New Ways of Working. Beyond direct project implementation, different modalities for the provision of WASH services may be considered under the specific circumstances. These include in-kind contributions, private sector partnerships, water vouchers and cash transfer.

In certain contexts, **in-kind contributions** of specialised WASH equipment may be provided through the **EU Civil Protection Mechanism**, while in others ‘standby arrangements’ between the Commission implementing partners and private foundations (such as international water utilities) may be used to mobilize specialised WASH expertise and equipment to disaster areas. Where pre-conditions are met, the **Commission may temporarily support the use of vouchers for water supply** as an improvement over short-term emergency response such as water trucking.

The most appropriate and effective of these modalities are adopted for any given context ensuring a coordinated and complementary response meeting internationally recognised standards and strictly respecting humanitarian principles.

5. Coordination

With humanitarian WASH needs growing, the global humanitarian WASH community has to work together better. Coordination, coherence and complementarity are being promoted to prevent gaps in assistance, to prevent duplication, to ensure continuity and sustainability, and to maximise the overall impact of the resources available. Close coordination is being promoted with all actors in line with the Paris Declaration on Aid Effectiveness.¹⁸

5.1 Crisis Specific

WASH sector

The European Union supports the establishment and use of WASH coordination platforms, such as Clusters or equivalent, in order to have a comprehensive response approach. To this end, partners are required to participate in such coordination mechanisms. Engagement at local level, to work with local know-how is an essential part of this coordination.

When relevant and if in line with expected results, the Commission may provide direct support to the WASH leadership mechanism and/or coordination structure. The Commission also strongly supports the participation of beneficiary representatives and/or WASH governmental institutions in such coordination mechanisms. Where activated, the Commission fully supports the WASH Cluster, with an emphasis on ensuring a clear improvement in aid delivery. The Commission will participate and promote other donors participation in WASH coordination mechanisms to favor complementarity and accountability.

Coordination of humanitarian aid and civil protection is usually in acute crises. Humanitarian aid and civil protection maintain regular coordination in order to have a unified/coordinated position in terms of WASH needs, priorities and lines of action towards the WASH coordination mechanisms (including Clusters) and local institutions of the affected country. Often Commission humanitarian field staff already have developed a relationship with local authorities before the emergency. In this case, EU CP can use the existing communication channels. Given the Commission's presence in the WASH Cluster and its regular contacts with humanitarian WASH implementing

Case Study 6: WASH Cluster in Palestinian Territories

*The occupied Palestinian Territories (oPt) WASH cluster creates an enabling environment for humanitarian WASH interventions in a notoriously difficult context. It brings together the many partner organisations in order to develop coherence towards both a strategic and operational approach. **The creation of a unified set of standards, parameters and quantifiable indicators allows for improved tracking, monitoring and therefore reporting by the cluster of specific and general trends and the needs that arise from this.***

*This coordinated, rationalized and strategic approach has improved the prioritization and timely release of funding. **Several working groups (water scarcity, water quality, demolitions response and sanitation) have been created under this framework and encompass both mitigation measures and response actions. The established coordination and monitoring mechanism provides DG ECHO with a comprehensive annual analysis and status of the humanitarian needs and projected trends within the WASH sector.** In addition it identifies, and thereby advocates for, areas highly vulnerable to critical emerging or existing risks. By establishing a framework that sets out a multi-faceted approach of mitigation, preparedness and response, this provides more sustainable measures that can also be extended into early recovery, linking to and complementing longer term development strategies.*



Rehabilitation of wad Abu Shubban Spring in Lasafa Village, oPt. © Thomas Dehermann-Roy, 2009.

18 - OECD, *The Paris Declaration on Aid Effectiveness and the Accra Agenda for Action*.

partners in the field, it has a role in facilitating coordination among the different EU members states CP agencies with WASH capacity, and in facilitating the contacts between them and other WASH implementing partners. As a result, participating States of the CP Mechanism can provide assistance with the highest added-value. As in all sectors, provision of CP assistance follows basic humanitarian WASH priorities and standards (usually defined by the UNOCHA Emergency Relief Coordinator/Humanitarian Country Team and WASH Cluster/coordination platform) and do not compromise humanitarian principles.

Cross-sector articulation

WASH interventions may be integrated with other sectors, or mainstreamed through other sectors. In this respect, the Commission supports cross-sector coordination mechanisms and/or tools and methodologies that increase the integration of WASH assistance within the other sectors.

5.2 Global Level Coordination

Overall, maximising the impact of Commission humanitarian WASH interventions requires an *enabling environment*.

Coordination and cooperation between Commission services, EU institutions, EU Member States and other major humanitarian donors is being maximised to ensure that Commission WASH programming decisions are made on the basis of need, factoring in all funding and assistance strategies expected from other donors and actors.

The Global WASH Cluster has a key role to play in this. It is the forum through which WASH humanitarian agencies, major donors and other actors can agree, task and resource global humanitarian WASH priorities in direct support of field operations.

The Commission's network of humanitarian WASH experts works to strengthen the functioning of the WASH Cluster, and ensures the articulation between local level project performance and coordination with regional and global strategies, priorities and standards. It also encourages an equitable participation between the Cluster Lead agency and other WASH implementing partners, in order to promote inclusiveness, co-responsibility and mutual accountability. The Commission recognises the importance of fully exploiting synergies available through closer coordination with other Global Clusters, often also supported through Commission humanitarian funding. For example, the regional storage of WASH items in the UN Humanitarian Response Depots and IFRC Regional Logistics Units and transport facilities provided through the global Logistics Cluster.

5.3 Transition/LRRD

In accordance with the orientation of the Commission's position on Linking Relief, Rehabilitation and Development,¹⁹ the Commission's humanitarian WASH interventions maximise the opportunities for linkage.

¹⁹ - European Commission (2001) *Linking Relief, Rehabilitation and Development – An Assessment*, COM (2001) 153 final of 23.04.2001.

This applies in the technical design of the intervention through awareness of the nature of pre-intervention WASH services and through active planning and articulation with local authorities and appropriate international donors and agencies to ensure the sustainability and resilience of humanitarian WASH interventions. During this transitional phase, greater alignment of WASH standards and strategies between humanitarian and development programming is sometimes required.

As part of this approach, the inclusion of Integrated Water Resource Management (IWRM) is an integral part of relief response rather than an add-on consideration. Such strategies involve a comprehensive evaluation of water resources, an assessment of current and future demand, the definition of the roles and functions of local and national authorities, and the creation of water management bodies (with representatives of all water users), and the drawing up and enforcement of water-use rules and/or master plans for water, or waste water, systems in urban settings.

This also applies proactively through engagement with other actors involved in contexts of high vulnerability and/or humanitarian crisis. Such engagement is within the Commission, for example with the 'Water Facility', and with other donors and agencies, in particular where these have specific budget lines or comparative advantages not available to EU WASH funding. Such reinforced coordination is both at country/crisis level, for example with EU Delegations, and at global level, for example through initiatives and processes such as 'Sanitation and Water for All'.

The Commission recognises that humanitarian WASH assistance is limited in space and time to the immediate prevention of, response to and recovery after a crisis. In some particular cases, however, the timeframe of the humanitarian assistance is sometimes extended to ensure the transition towards development funding while articulating with other actors better suited to address such needs.

*Waterhole construction
in Kolemara Sara,
Chad. 2008.*

Case Study 7: LRRD good practice: Inter-departmental cooperation in allocating the DEVCO 'Water Facility' funding

The EU/ACP Water Facility is a concrete way of facilitating the Link between Relief, Rehabilitation and Development in post-conflict and post-emergency scenarios.

In the framework of the 2nd and 3rd Calls for Proposal, DG ECHO humanitarian experts worked with DG DEVCO and the EU Delegations to specific African countries where DG ECHO is or was active, in order to provide assistance with the evaluation of concept notes/full applications.

Two complementary criteria were set up to the participation of ECHO WASH sectorial experts in the evaluation process. The EU Delegations have been invited to request technical support for:

- Projects to be implemented by actors that are also DG ECHO's implementing partners or potential partners;*
- Projects that are linked to DG ECHO's mandate and range of activities.*



Four components of LRRD have been identified:

- Operations continuing EU humanitarian funded projects;*
- Projects focusing on Operation and Maintenance, regulation, complementing EU humanitarian funded operations in creating an enabling environment for sustainable outputs;*
- Recovery and rehabilitation projects in areas where DG ECHO has been / is still involved;*
- Operations targeting areas suffering from extreme underdevelopment.*

6. Advocacy

The Commission plays an active role in framing and advocating a global agenda for access to basic humanitarian WASH services in humanitarian crises, in collaboration with other EU services and international partners.

Reaching out beyond the humanitarian sphere includes engagement with global actors able to assist in identifying the potential for humanitarian WASH needs, and to act to prevent those needs arising, for example through active advocacy on the need to build resilience throughout all sectors of humanitarian operations.

Key messages for advocacy are:

- Climate change has a growing and significant impact on water, sanitation and hygiene among vulnerable people. Humanitarian aid alone will not be able to continue to address the rapidly growing needs. The role of improving resilience and LRRD is vital to helping meet these needs before they become humanitarian emergencies.
- In the face of rapidly growing WASH needs, coordination on WASH is crucial to ensure the most efficient use of the resources available. Internationally, the global WASH Cluster should be a key mechanism for such coordination. Internally, and given the increasing proportion of urban WASH needs, we need to improve synergies between civil protection and humanitarian aid.

Other advocacy priorities include:

- Recalling the responsibility of governments and development actors to improve basic WASH services for the most vulnerable populations, particularly in the context of chronic humanitarian crises and transitional situations – and advocate for adequate flexible funding.
- Strengthening the global humanitarian WASH assistance capacity; promoting the crucial role of WASH in humanitarian action; and to highlight and formulate solution to humanitarian gaps and bottlenecks in the WASH sector.
- Better integration of WASH assistance in other sectorial responses – such as WASH in health, in nutrition, in food assistance, in adaptation to climate change, and in livelihoods – and vice versa.
- The crucial role of women and children in WASH related tasks, including in hygiene promotion transfer, and the need to alleviate the disproportionate burden of water collection duties on women and children.
- Improving the synergies between humanitarian assistance and civil protection, especially in addressing urban WASH needs.

Finally in reaching out beyond the humanitarian sphere, while Commission humanitarian assistance is needs-based in its humanitarian approach, its advocacy contributes to the fulfillment of the human right²⁰ to water and

²⁰ - See for example UN July 2010 universal declaration on the right to 'water and sanitation'.

Comparative advantages in meeting the challenge of increasing and changing humanitarian WASH needs

Natural disasters and conflicts cause humanitarian crises. Climate change, population growth and urbanisation increase both the number and complexity of emergencies. The Commission, working with its partner humanitarian actors, is improving responses through increasing the coverage of programmes, making them more efficient, better coordinated and adapted to new contexts. In doing so, it combines major comparative advantages.

- *Scale as a donor.* With up to Euros 200 million now allocated to WASH each year the Commission is now the biggest donor in humanitarian WASH, identifying and promoting best practice. This WASH funding is part of around Euros 1 billion allocated to humanitarian aid each year, a strong cross-sector involvement to promote integrated programming and coordination.
- *Coordination of Civil Protection, composed of 32 European States, provides in-kind assistance and expertise to crisis response complementing humanitarian agencies capacities.*
- *Dedicated humanitarian field expert network.* Working closely with all partners, 140 international experts ensure the quality of humanitarian responses.
- *Speed of response.* Through both its rapid deployment of field expertise, matched by rapid funding for identified needs, the Commission is present at the very outset of a disaster. This is being supported and improved through global capacity building, especially in the logistics sector.
- *Coverage of Forgotten Crises.* This remains a strategic priority, in addition to the Commission's proven speed of response to new crises, to ensure a comprehensive response to all types of humanitarian WASH needs.



Commission funded global Humanitarian Response helicopter responding to floods in Ethiopia, 2012.

Source: DG ECHO HOPE



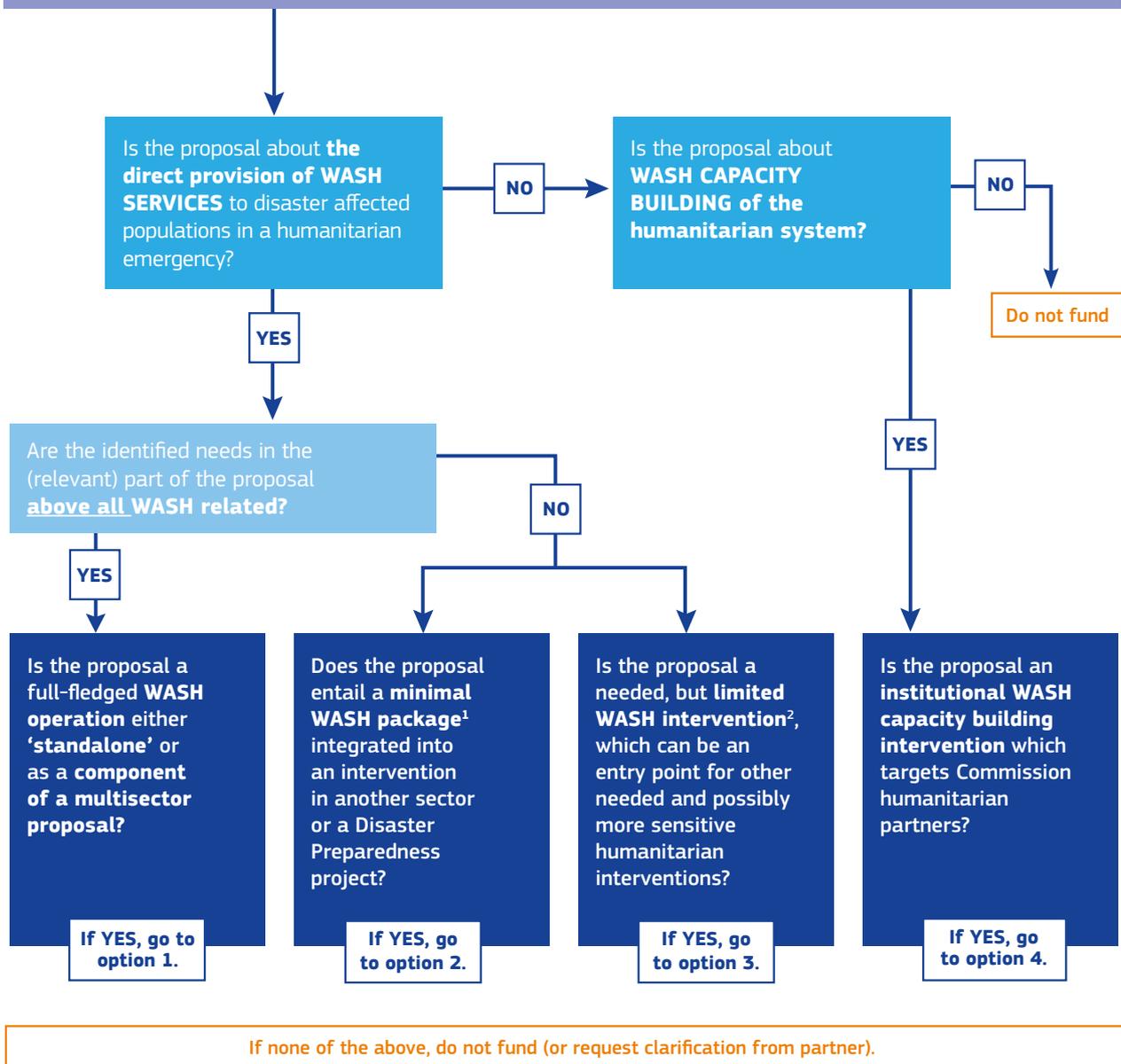
sanitation within the possibilities and scope of its humanitarian mandate. The human right to water and sanitation requires that water and sanitation are available, safe, acceptable, accessible and affordable for all without discrimination. Such coordination with the rights-based approach informs the evidence base, and helps advocate for pre-emptive action to stop WASH stress becoming humanitarian WASH needs. Advocating for the rights to water and sanitation within WASH can also help to make progress more inclusive and sustainable, while promoting equity, accountability and policy coherence.

Annex I

Indicative Decision Tree

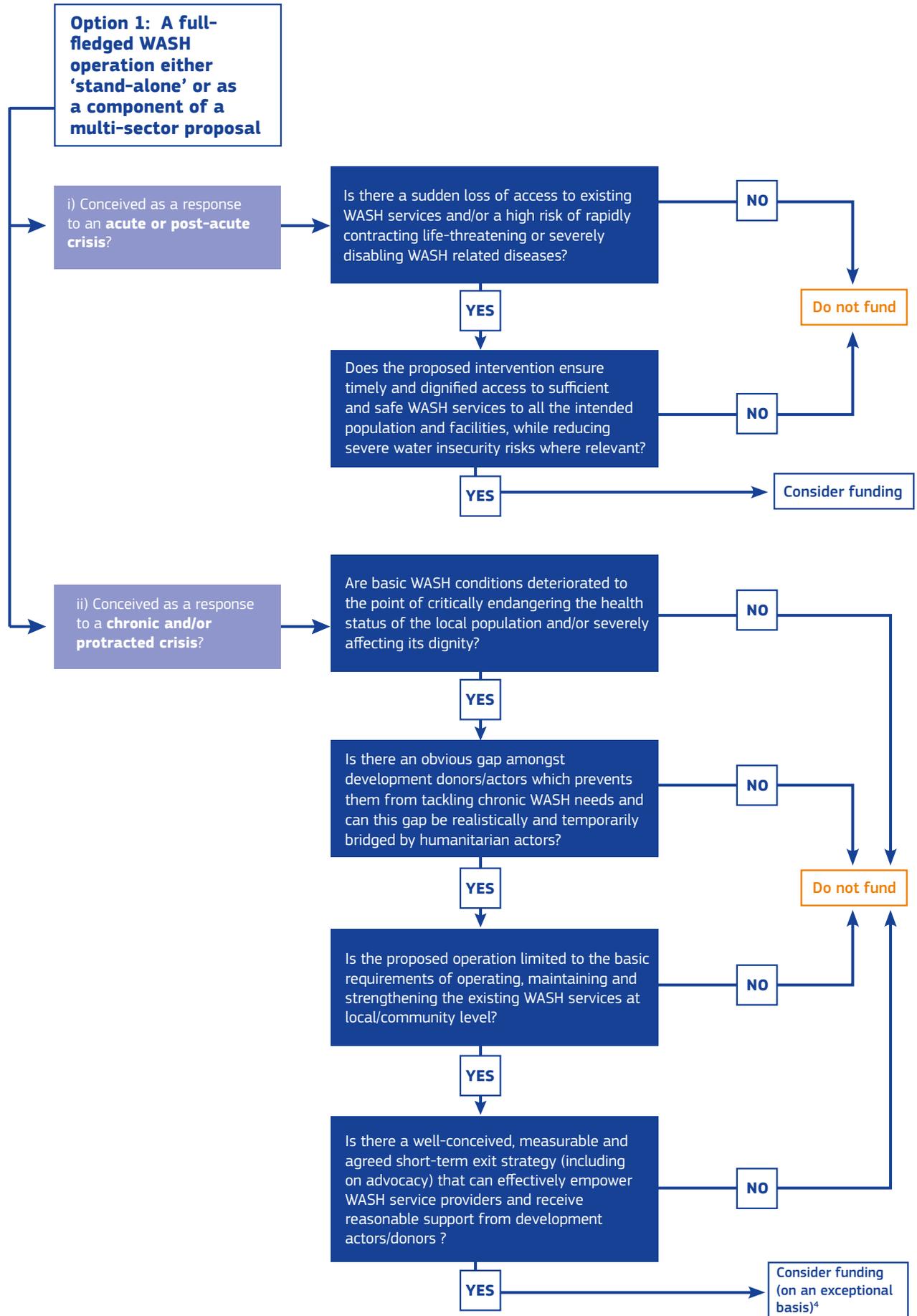
Assuming that:

- a) an assessment has confirmed a humanitarian need which is consistent with the objective of the applicable funding decision;
- b) the provision of emergency WASH services is achievable through standard humanitarian and/or civil protection means;
- c) the implementing partner is equipped and competent to deliver such services, ask yourself:

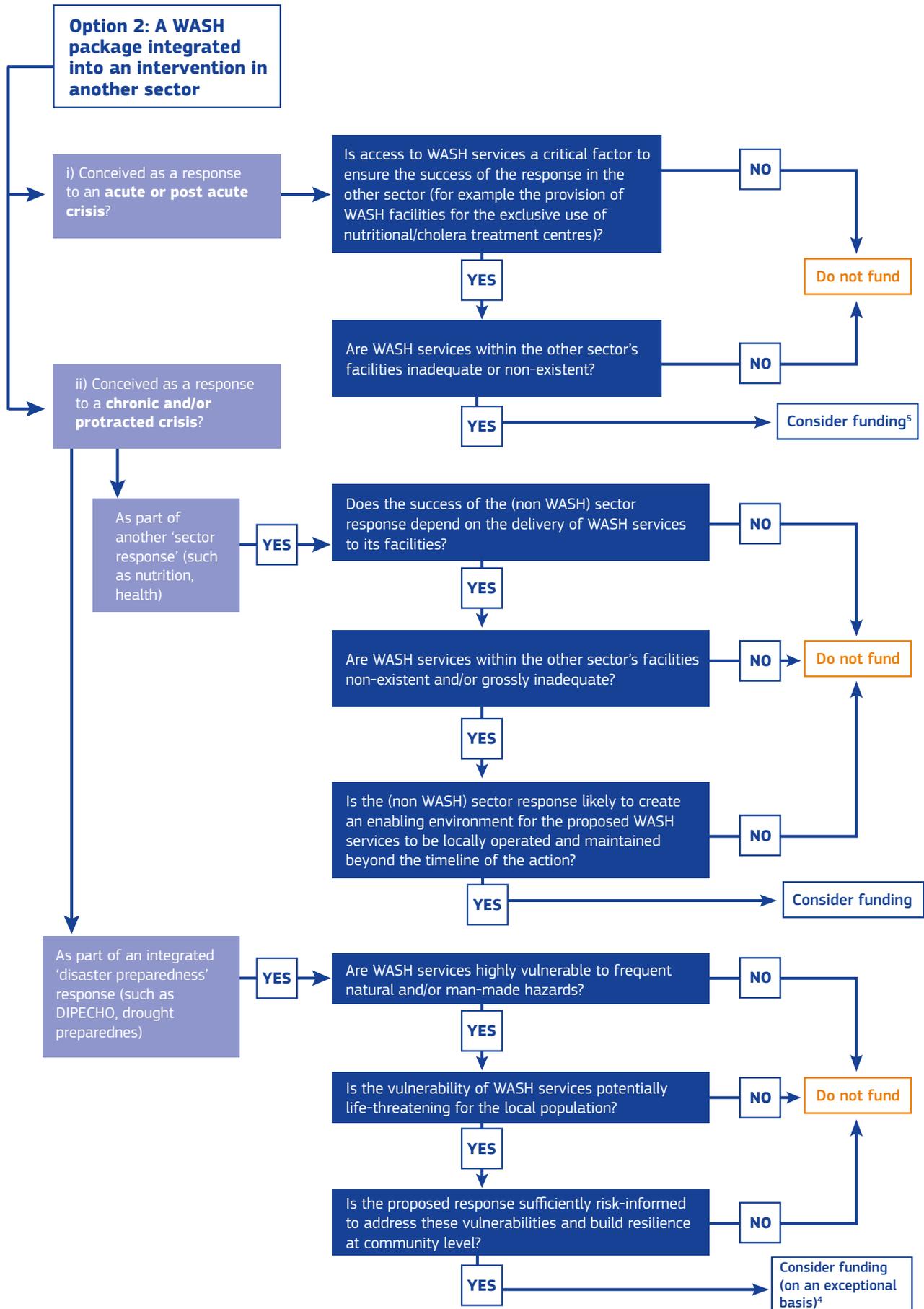


1 - As a 'Minimum set of basic WASH services' integrated into (an) other sector(s) intervention.

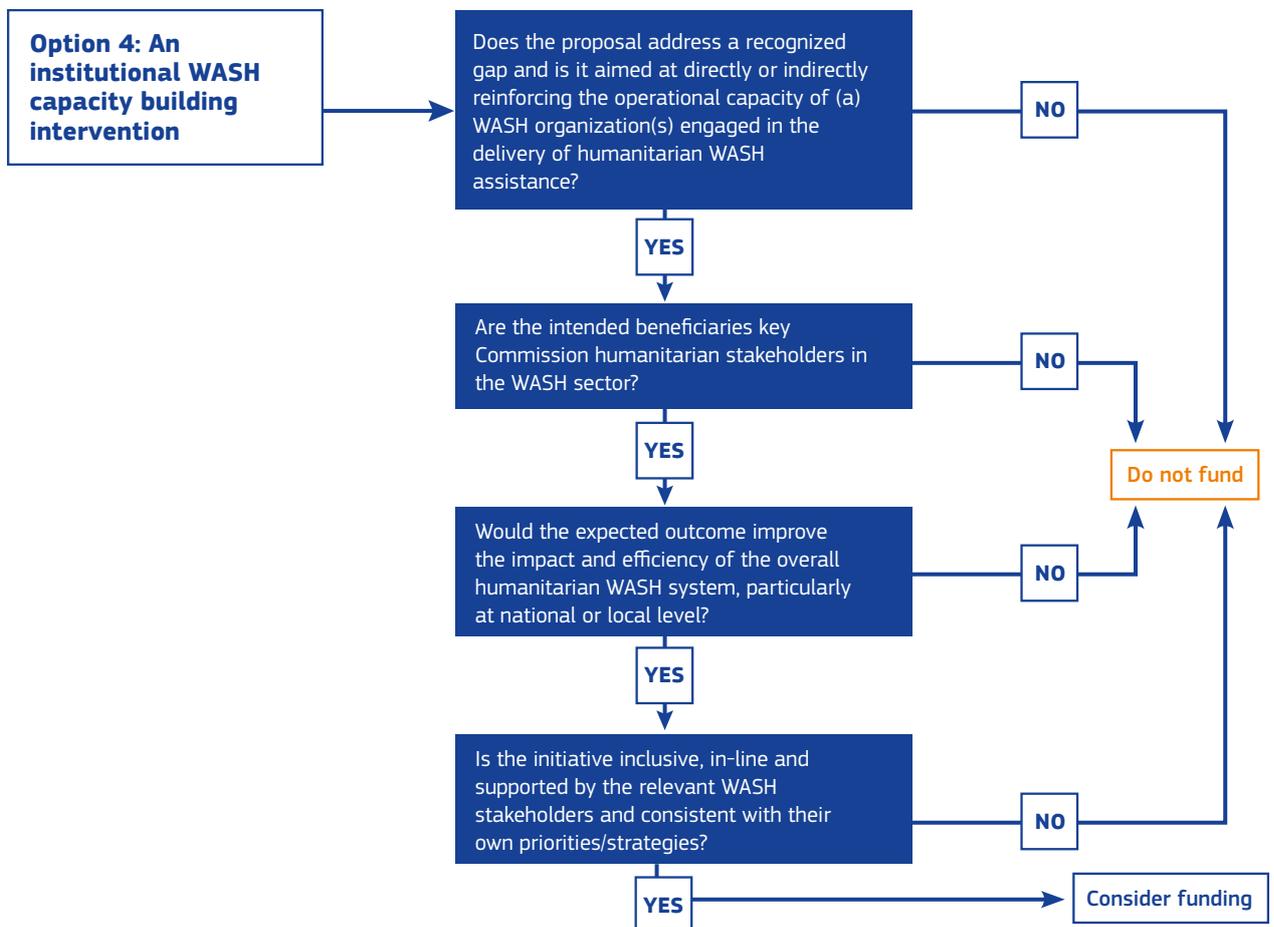
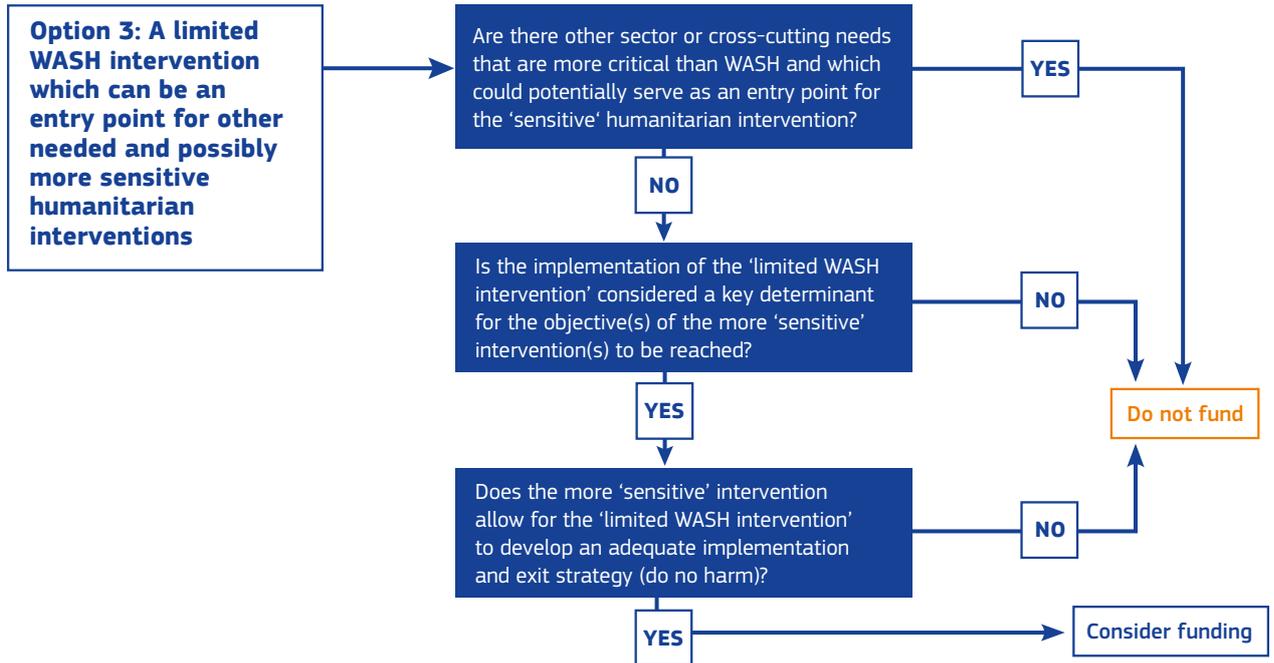
2 - Under strict conditions, a limited 'WASH intervention' may be justified as an 'entry point for another type of humanitarian intervention, particularly if the nature of the 'intended' intervention is considered highly sensitive (Protection, cholera surveillance, advocacy, etc.).



4 - Where DG ECHO's comparative advantages as a donor are clear and LRRD conditions are in place (for example in the case of a planned return/resettlement project following displacement).



5 - While the provision of a 'minimal WASH package' is critical to support other sector responses, particularly in health and nutrition, it is often insufficient where water insecurity conditions prevail and/or where there is a high risk of rapidly contracting life-threatening WASH related diseases. In such a context, additional funding for emergency WASH operations is required to ensure that essential WASH services are concurrently provided at household community level (based on the logic of option 1) of this decision tree.



Annex II

WASH Technical Guidelines

These Guidelines broadly illustrate the scope of WASH operations potentially eligible under DG ECHO funding, by building on the DG ECHO 2005 WASH Summary of Model Guidelines. The Guidelines are not meant as a detailed, exhaustive and/or prescriptive description of humanitarian WASH activities, services, technologies and/or items, as such descriptions are available in more technical and normative references. Similarly, they should not be regarded as a substitute for more in-depth and contextualized advice which can be delivered by DG ECHO WASH experts, particularly in complex situations.

The purpose of these Guidelines is to describe how the broad principles laid down in Chapter 3 of the WASH policy can be implemented to deliver WASH services within the scope of DG ECHO funded humanitarian aid.

The Guidelines should be regarded as a **living document which will be revised as appropriate** to ensure its continued relevance to operational needs, DG ECHO mandate, strategic programming and funding modalities;⁶ and to keep abreast of good practices and evidence-based lessons learned in the sector.

These Technical Guidelines set out **five main types of response** under which 'emergency WASH operations' can be implemented for the direct benefit of disaster affected population (see in that regard Chapter 3 of policy): **1) Acute Crisis; 2) Post-Acute Crisis; 3) Protracted Crisis; 4) Chronic Crisis and; 5) (Disaster) Preparedness.**

None of these responses are mutually exclusive and there is often overlap between them. As a crisis evolves or retreats, a response can evolve from one category to another, or draw from Priority Actions and Delivery Mechanisms discussed under other sets of crisis response. Equally, a Disaster Preparedness response can be implemented simultaneously with a Post-Acute Crisis response, or as a set of activities within that later response. Strategies used to implement WASH interventions are context dependent and will vary according to the cause(s) or nature of the crisis such as natural disaster, or man-made/conflict disaster, its setting(s) (such as camps, urban, rural) in addition to the pace at which a given disaster is experienced (slow or rapid onset).

The five main types of response are presented in three sections, namely: Annex II.a Acute Crisis, Annex II.b Post-Acute, Protracted and Chronic Crises, Annex II.c Disaster Preparedness.

For each of these, sub-sections provide a brief description of:

- The crisis phase, main focus, key elements and DG ECHO funding;
- General conditions for WASH Programming
- Priority actions and delivery mechanisms;
- A selection of possible indicators for the priority actions.

Note that **the Guidelines do not require to be read in their entirety** but can be consulted by directly referring to one of the three sections depending on the relevant context.

⁶ - Such as to inform section 3.2.2.2 of the technical annex of regional/country Humanitarian Intervention Plans or HIP's.

II.a Acute crisis⁷

For background on logic of intervention (DG ECHO mandate), see the indicative decision tree in annex I.

CRISIS PHASE

While there is no fixed humanitarian intervention timeline, a response to an ACUTE CRISIS will typically start right after the onset of a disaster event and last for up to 3 to 6 months. In some cases a response to an ACUTE CRISIS may coincide to the Early Response phase to a CHRONIC CRISIS.

MAIN FOCUS

Saving and preserving life through rapid response and adequate coverage of basic WASH services

KEY ELEMENTS

- **Ensure timeliness/speed of the response** (implement WASH actions that deliver rapid results with highest possible impact)
- Provide temporary (emergency) WASH services until more permanent solutions can be implemented
- As far as possible, design systems that provide a basis for more durable solutions to be introduced
- Make use of local resources and seek to rapidly (re)establish existing WASH services **but resort to temporary infrastructure and technologies where this expedites the response**
- Involve beneficiaries and local WASH institutions where possible, **but avoid loss of operational speed**
- Establish benchmarks to monitor service delivery as soon as possible (Sphere and/or national standards should be used with a view to quickly replacing initial emergency measures)
- Optimise operational cost once emergency WASH services are (re)established

In conflict contexts, implementation of WASH programming may be forced to resort to 'hit and run' interventions: going in quickly, implementing high priority actions and leaving before the next round of violence/insecurity.

DG ECHO FUNDING

Response to an ACUTE CRISIS will mostly be funded through **'primary emergency' (0-3 months) decisions and/or in some cases through 'emergency' funding decisions (3 to 6 months after the onset of the crisis).**

7 - This table only refers to Response activities. However Emergency Preparedness (EP) activities may be included as part of a Response to a crisis (such as protracted, chronic). These activities are described in Table 3 on Disaster Preparedness.

General considerations for WASH programming for Acute Crisis

RAPID WASH ASSESSMENTS AND RESPONSE ANALYSIS

- Promote an integral approach to WASH based on needs assessment. While a proposed action may not be comprehensive (if WASH needs are covered in a way or in another), the assessment should clearly refer to the comprehensiveness of the needs analysis
- Implement (adapt if required) local WASH contingency/emergency preparedness plans (if available and useful)
- If such plans are inexistent/inadequate, collect basic information on the context before the crisis (such as hydro-geological, GIS, existing water points), socioanthropologic data (related to WASH), local/regional capacity and availability (technical expertise/services such as drilling, local materials & equipment)
- Conduct rapid household surveys and rapid WASH system damage assessments
- Consider how the specificities of the context affect WASH service delivery (rural/urban/camp, concentrated/dispersed population)
- Where possible, coordinate assessments with other WASH stakeholders to ensure sector-wide efficiency and coherence
- Where appropriate, use/adapt existing WASH assessment methodologies and tools (such as Global WASH Cluster, local tools)
- Contribute to the WASH component of intersectorial assessments (such as Multi-cluster Initial Rapid Assessment - MIRA)
- Use the most adapted combination of WASH assistance options available, including the provision of 'fixed' WASH services (such as permanent WASH infrastructure/systems) and/or 'mobile' WASH services (such as WASH kits/NFI, HWTS). Note that these options are not mutually exclusive
- Ensure WASH services are provided to the general population and to all basic community services (such as health centres, schools), ensuring that minimal WASH packages are included in other non-WASH interventions, particularly in relation to health and nutrition
- Ensure that the proposed action is in line with the assessment and feeds into an overarching and coordinated WASH sector response

SECTOR COORDINATION, ADVOCACY AND BENEFICIARY PARTICIPATION

- Ensure minimal sectoral coordination with other international/national WASH stakeholders and related coordination platforms/clusters (such as to agree on sector strategy/standards, avoid duplication, increase cost effectiveness of overall response)
- Mobilise WASH cluster (global/regional) surge capacity resources where required/relevant
- Where feasible, coordinate with national and local authorities
- As far as possible, promote the role of beneficiaries in supporting the response, such as for the siting of WASH facilities
- Ensure basic Information Management (3 W⁸, websites) and access to information to WASH actors and beneficiaries
- Ensure basic cross sector coordination mechanisms and/or tools

- Consider the potential role/capacity of the Civil Protection agencies
- Agree on key advocacy messages and lobby lead agencies, governments, donors to support basic WASH service delivery/funding
- Identify and mainstream potential early recovery actions in WASH programming, including the use of cash for work, where appropriate

WASH RELATED EPIDEMICS

Cholera: When a cholera outbreak is confirmed or suspected, implement targeted WASH control measures in close coordination with related health interventions. Emergency WASH response to cholera may include the following activities:

- Surveying most used water sources and assessing surrounding environmental sanitation to identify contaminated sources and potential sources of contamination
- Organizing continuous disinfection services for all high risk water sources and supplies
- Ensuring adequate quantities of water for drinking and hygiene purposes
- Ensuring data collection, cases investigation and WASH/epidemiology analysis in close coordination with health sector
- Implementing specific WASH measures in health structures that receive cholera patients (isolation and sanitary barriers)
- Implementing WASH response activities to break down transmission routes and target population at high risk
- Where required, implementing WASH prevention measures for adjacent areas and population at high risk of cholera but not affected yet

Possible indicators to measure WASH actions in cholera response include:

- % of Cholera Treatment Center (CTC) that have implemented adequate WASH/sanitary barriers
- Delay between the confirmation of a cholera case and a WASH based community intervention (3 days maximum)
- % of staff in health structures with improved knowledge on WASH related cholera prevention measures

Other WASH related epidemics (such as **malaria, dengue**) will require tailored-made responses, whose description goes beyond the scope of this summary guidance.

Sub-sector water supply in Acute Crisis

Water Supply interventions in acute crises should focus on providing:

- Reasonably safe water supply, in sufficient quantities in the fastest possible time
- Equitable access to an adequate quantity of water even if it is of intermediate quality

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Water supply resources assessment and response analysis

- Conduct rapid inventory of water resources capacities and systems
- Define emergency water supply needs, match with local resources capacity and describe gaps

Water sources selection and protection

- Survey water sources and environmental sanitation to identify contaminated sources and potential sources of contamination
- Implement measures to avoid direct contact between the water sources and potential sources of contamination (such as fence, guard, drainage)
- Identify existing national policy and local experience on water source/ catchment protection
- In water scarce context, ensure that locally available water sources are reprioritized for human consumption

Rapid cleaning and disinfection of boreholes/wells

- Focus on wells and boreholes that can yield a substantial volume of clean water with the least possible treatment. If flooding was caused by seawater, cleaning will probably not immediately reduce salinity levels
- Test for faecal coliforms, turbidity and palatability after cleaning, and for salinity in case flooding was by sea water
- Where higher than normal levels of chemical constituents (such as iron, fluoride) are suspected, test for these and apply appropriate treatment as required

Emergency water treatment

- Strictly limit access to water supplies used for human consumption
- Ensure treatment of all high risk water sources and supplies. Chlorinate water, at system level preferably, or otherwise at household level
- Control basic parameters of water quality (bacteriological and physical, chemical only if warranted) and residual chlorine

Emergency repair/extension of affected water systems

- Focus on existing systems what can be repaired rapidly and thus immediately increase the availability of good quality water. Identify possible repair of water networks and water production stations
- Select systems that are less likely to be damaged and/or that can be protected against violence
- Where displaced people have settled among a host community, it may be necessary to expand and/or improve the existing water systems
- Repair energy supplies to generate electricity for pumps and other WASH equipments (or consider supplying emergency power generators)
- Local water and sanitation institutions may often still function and staff can assist. Seek to work with and through them where possible

INDICATORS

- **Number of persons provided with sufficient and safe water for drinking, cooking and personal hygiene use** (standard: Every person provided with > 15 litres/day)⁹
- Quantity of water used per person per day for drinking, cooking, hygiene and laundry¹⁰
- **Number of drinking water samples (taken at water collection and/or use points) with faecal contamination** (standard: No 100 ml sample contaminated with E. Coli)⁹
- Proportion of households with access to a source of safe drinking-water¹⁰
- **Number of persons per water collection point** (standard: < 250-500 persons/collection point)⁹
- **Distance between farthest targeted beneficiary household and the nearest water collection point** (standard: < 500 metres)⁹
- **Number of persons with access to bathing facilities (m/f separated, if communal)** (standard: 1 shower per 40 users, with at least 2 to 6 litres of water per person/day)⁹
- Access to appropriate bathing facilities¹⁰

9 - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

10 - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Development of new emergency water systems

- Only consider where such systems can be implemented very quickly (such as water kits) and where no better alternatives exist (such as emergency repair of existing systems)
- Often required where displaced people settle in new camps or temporary collective centres
- Simple technology is often sufficient and can later be taken over by communities later on
- Where there is potential for conflict flare-ups, the focus should be on small-scale and/or household water systems if possible/technically feasible
- Design of system should be risk-informed (such as raised boreholes in flood prone-areas). See Table 3 on Disaster Preparedness for more information
- Consult as early as possible with the local communities, especially women, over preferences for service delivery

Provision of water supply materials/NFI

- Organise mass or targeted distribution of water NFI to the beneficiaries including for water transport and household storage and treatment
- Provide temporarily the required material, equipment, consumable (such as fuel, lubricants, spare parts, pumps, generators, water kits, trucks) to affected (including host) communities and/or water authorities to increase the production of safe water (if required and if the items cannot be financed/obtained by the community and/or water authority itself)
- In conflict contexts, avoid the provision of items that may cause conflict, are prone to misuse, or are likely to be confiscated or stolen

Water tankering

- Only consider where no other solutions can be implemented as quickly
- Replace tankering as soon as possible by other, less costly/durable systems
- In conflict areas, assess whether security situation allows for water tankering
- Ensure physical state of local transport tanker (fleet) and cleanliness of cisterns (no toxic material)
- Ensure quantity and quality of water source and water treatment before delivery
- Monitor volume delivered and residual chlorine at distribution level
- Where relevant and feasible, consider the use of vouchers as a temporary solution for water distribution

Home Water Treatment and Storage (HWTS) and Handling

- In circumstances where security, corruption or the potential for misuse of water as a resource is likely, household level water systems should be considered over (or to complement) public systems
- The HWTS strategy should be based on treatment effectiveness, acceptability, access and ease of use by beneficiaries as well as feasibility of implementation during the project's time scale and scalability
- Products/equipment that could present a health risk if incorrectly used must be avoided

INDICATORS

- **Number of persons with access to laundry facilities** (standard: 100% of all targeted persons; at least one sink/washing stand for 100 persons and a private area for laundry of women)⁹
- Access to appropriate laundry facilities¹⁰
- Likelihood of a critical fall in the quantity of water available per day within the next month¹⁰
- Average time required (minutes) for one water collection journey, including travel in each direction and queuing¹⁰
- Capacity of water transport fleet per beneficiaries (litre/person/day)
- Number of functioning Household Water Treatment System (HWTS) per number of beneficiary household

Sub-sector sanitation in Acute Crisis

Sanitation interventions in acute crises focus on:

- Immediate and safe excreta disposal
- Protecting drinking water sources from possible contamination, particularly human and animal excreta

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Rapid sanitation assessment and response analysis

- Conduct rapid inventory of excreta disposal facilities and systems
- Define emergency excreta disposal needs, match with local resources capacity and describe gaps

Construction of emergency toilet facilities

- Design and build defecation fields or trenches or public pit latrines
- Consider other excreta disposal options (such as mobile solutions) where the context (such as urban), ground (such as solid rock bed, sandy soils) and/or water table conditions make the excavation of pits difficult
- Assess the need for sanitation NFI or locally available construction materials
- Take local practices and designs of the displaced (and host) communities into account, as much as possible
- Consider basic issues of privacy and security, especially for women and girls
- Promote the proper use and maintenance of the facilities
- Construct the facilities away from water sources but close enough to dwellings

Emergency repair of excreta disposal systems

- Only where this is likely to directly increase the excreta disposal capacity or improve hygiene
- In conflict areas, target systems that are less likely to be damaged again or that can be protected against future violence. Otherwise assess the possibility of implementing household excreta disposal systems

Removal of solid waste and waste waters and drainage of water runoff and medical waste

- Assessment of the state of the systems prior to the crisis, design and implementation of waste disposal plans accordingly, and taking into account the context and minimum standards
- Where required for immediate hygiene and/or operational purposes, remove solid waste, silt deposits and other wastes (including medical), and drain/remove excess surface waters
- Rubble: assessment of the quantity and quality of the rubbles and problems posed by their presence. Disposal is planned and executed on the basis of the urgency of removing (prioritization is key: access road, areas for relocation of affected populations, areas for reinstallation of institutions in charge of basic services, areas for reconstruction of human settlements). Not exclusively WASH related: coordinate with other concerned actors and sectors such as shelter, CCCM

INDICATORS

- **Number of human settlements free of human faeces on the ground in and around the site**¹¹
- Presence of human faeces on the ground on and around the site¹²
- Number of persons per toilet/latrine with functioning hand washing facility (standard: < 20 persons/toilet or latrine)¹²
- Average number of users per functioning toilet¹²
- Proportion of toilets with functioning and convenient hand washing facilities¹²
- **Distance between farthest targeted beneficiary household and nearest toilet/latrine** (standard: < 50 metres)¹¹
- Proportion of households with access to a functioning toilet¹²
- Proportion of toilets that are clean¹²
- **Number of human settlements free of solid waste on and around the site**¹¹
- Presence of solid waste on and around the site¹²
- **Frequency of solid waste removal from the immediate living environment** (standard: collection is done on a daily basis, and from the settlement environment a minimum of twice a week in all of settlement)¹¹

11 - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

12 - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Vector control

- Residual indoor and/or outdoor spraying/fumigation, larviciding, provision of mosquito nets, drainage or back filling of standing water pools, drainage at new water points, removal of organic waste
- Train and provide equipment to operators and take safety precautions for both implementing staff and beneficiaries
- Inform population on basic prevention measures in case of vector related outbreak

Clearing and disposal of corpses

- Act in accordance with the customs, laws and culture where possible and consult population and local authorities
- Agree on and implement a procedure for corpse recovery, storage, identification, information and communication, and disposal. In case of epidemics, organise mass grave and desinfection with lime
- Coordinate above procedures and establish list of material required (such as body bags, lime) with the health sector
- Ensure that surface water from graveyards (and mass graves) does not enter inhabited areas and fence graveyard to prevent access of marauding/wild animals

INDICATORS

- Presence and effectiveness of a solid waste management system¹²
- **Distance between farthest targeted beneficiary household and nearest domestic waste collection facility** (standard: < 100 metres)¹¹
- **Number of human settlements free of stagnant water** (standard: No settlement with stagnant water on and around households and basic facilities)¹¹
- Presence of stagnant water on and around the site¹²
- **Number of human settlements where shelters, paths and basic facilities are flooded and/or eroded** (standard: No settlement with shelters, paths and WASH facilities flooded and/or eroded by water run-off)¹¹
- **Number of persons equipped and using insecticide-treated mosquito bed nets** (standard: All targeted persons have received bed nets and use them effectively)¹¹
- Proportion of households possessing one or more effective insecticide-treated mosquito nets¹²
- Proportion of pregnant women, children under five and other vulnerable people sleeping under effective insecticide-treated mosquito nets¹²
- Proportion of households adopting measures to reduce biological vector-borne disease risk¹²
- % of corpses disposed of in a manner that is dignified, culturally appropriate and based on good public health practice

Sub-sector hygiene in Acute Crisis

Hygiene Promotion (HP) in acute crises focuses on:

- Immediate actions which hold the greatest potential to reduce the spread and the risk of environmental health related outbreaks, such as hand washing and safe excreta disposal
- Discouraging risky habits without aiming to permanently change these HP interventions should be devised considering the intensity and scale of the emergency and what is feasible in terms of customs, culture, level of education, resources and timing (mindful of the short duration of DG ECHO funded operations). HP as a stand-alone action is not sufficient to achieve the desirable 'hygiene improvements'. Hygiene Improvement Frameworks in emergencies must be based on an enabling environment, hygiene promotion and access to basic WASH services and commodities.

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Rapid Assessment and response analysis

- Identify main risk practices/gaps, target groups at higher risk, key people and responsible(s) of community mobilisation, communication channels, availability of hygiene facilities and items
- Assess hygiene education needs (habits depends on the beliefs and taboos of the people, their knowledge and perception of the risks)
- Assess personal hygiene item needs such as soap (for personal hygiene and laundry), water collection and storage containers, menstrual hygiene material and bleach
- Assess communal hygiene item needs such as tools and equipment for digging, maintaining and/or cleaning latrines, drainage channels

Hygiene Promotion through both mass communication means/ media and face to face messaging

- Identification and promotion of key messages to the affected population
- Complement mass communication methods with more interactive approaches as early as possible with an emphasis on mobilising beneficiaries to take action
- Direct targeted messaging using outreach staff and trained beneficiaries
- Promote/explain the most important messages:
 - dangers of contaminated water sources for human consumption
 - where to obtain clean water for drinking
 - use of water treatment product at domestic/household level
 - boiling of untreated water for drinking
 - importance of hand washing at critical times
 - prevention of vector-borne diseases
 - proper use and maintenance of toilet facilities
 - groups more at risk of poor hygiene such as children under five
- Methods may comprise:
 - verbal announcements (loudspeaker), one-to-one messaging and home visits
 - group discussions and/or story telling
 - messaging by popular or important persons at the site or on TV, radio or posters
 - verbal or written warnings about unsafe behaviours
 - reinforcing positive behaviours through pictures or film
 - new information and communication technology (such as sms)

INDICATORS

- **Number of persons who regularly (250 gr/person/month) receive bathing soap** (standard: Presence of soap at household level)¹³
- Proportion of households possessing soap¹⁴
- **Number of households possessing at least one clean narrow-necked or covered water container for drinking water** (standard: Presence of such container at household level)¹³
- Proportion of households possessing at least one clean narrow-necked or covered water container for drinking water¹⁴
- Average total capacity of water collection and storage containers at household level¹⁴
- Proportion of households with appropriate water treatment supplies and equipment¹⁴
- **Number of persons reporting being satisfied with the availability of hygiene consumable and NFI** (as measured through Post Distribution Monitoring)¹³
- Accessibility of appropriate sanitary protection materials for menstruation, and underwear, for women and girls¹⁴

13 - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

14 - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

- Ensure cultural and religious appropriateness of messages and methods
- Focus on limited number of most critical messages
- Communication strategies should be adapted according to local context and culture (assess literacy rates and most common channels of popular communication)
- Wherever possible field test promotion methods and messages with beneficiaries before use

Selection and distribution of hygiene items/NFI

- Implement mass distribution and targeted distribution where appropriate
- In case of settlement among a host community, provide the items to both the displaced and the host populations
- If possible, resort to the provision of cash or vouchers to enable people to make their own decisions about the need to acquire hygiene items

INDICATORS

- **Number of persons reporting using public hygiene facilities**¹³
- **Number of persons able to mention main contamination reservoirs, routes and vectors in feco-oral transmission (as measured through KAP monitoring)** (standard: 50 to 75%)¹³
- Proportion of households where only safe water is used for drinking and cooking¹⁴
- Proportion of men, women, boys and girls who last defecated in a toilet (or whose faeces was last disposed of in a safe manner)¹⁴
- Proportion of men, women, boys and girls washing hands with water and soap or substitute after contact with faeces and before contact with food and water¹⁴
- Proportion of households where food is safely stored, prepared and consumed¹⁴
- **Number of persons reporting being satisfied with the appropriateness of hygiene consumable and NFI (as measured through Post Distribution Monitoring)**¹³

II.b Post-acute, Protracted and Chronic crises¹⁵

For background on logic of intervention (DG ECHO mandate), see the indicative decision tree in annex I.

CRISIS PHASE

- While there is no fixed humanitarian intervention timeline, a response to a POST-ACUTE crisis will usually last from 3 to 12 months after the onset of the disaster event
- Response to a PROTRACTED crisis will usually start around 12 months after the disaster event and may last many months, sometimes requiring back to back humanitarian WASH interventions
- Response to a CHRONIC crisis may in some cases overlap with an ACUTE crisis response (0-3 months after the disaster event) but will usually not last beyond 12 months

MAIN FOCUS

- Upgrading the quality and extending the coverage of WASH services to commonly agreed humanitarian/local standards
- Improving beneficiary targeting of WASH services
- Increasing self-sufficiency of beneficiaries
- Facilitating gradual integration of community WASH services with local systems to ensure Operation and Maintenance (O&M)
- Optimizing running costs of WASH services
- Ensuring contingency WASH planning (granted the context is disaster-prone and local WASH capacity is limited)
- Reducing the environmental impact of WASH responses

Efforts to Link Relief to Rehabilitation and Development (LRRD) should:

- Consider using approaches based on beneficiary motivation, self-help and/or community-led WASH management models
- Ensure WASH facility designs based on national capacities, norms, national sector policies, locally adapted technologies, and on the needs of vulnerable groups and women
- Where feasible, bridge WASH actions with existing central or local government policies or agencies
- Ensure WASH services are adapted to the capabilities and capacities of local communities and WASH institutions
- Promote disaster-proof designs and mitigation measures where disasters are recurrent (see Table 3 on Disaster Preparedness)
- Where relevant, coordinate with third parties to make optimal use of knowledge, experiences and resources, and to avoid negative impacts of humanitarian WASH actions (such as groundwater depletion)

KEY ELEMENTS

Humanitarian WASH programming in POST-ACUTE, PROTRACTED and CHRONIC crises should apply the basic principles outlined in the above main focus section. However, the extent and pace at which these principles should be implemented is highly context dependent. As a rule of thumb, a WASH response should pay particular attention to:

15 - This table only refers to Response activities. However Emergency Preparedness (EP) activities may be included as part of a Response to a crisis (such as protracted, chronic). These activities are described in Table 3 on Disaster Preparedness.

In POST-ACUTE crises:

- Ensure a gradual return to normality of WASH services and self-sufficiency of beneficiaries
- Promote early recovery and rehabilitation of existing WASH services/systems
- Reinforce beneficiary participation and dignity

In PROTRACTED crises:

- Ensure WASH service durability, cost-effectiveness and quality
- Introduce appropriate and affordable technologies and reinforce local skills
- Promote an exit strategy by articulating the response with development efforts, long-term actors and transitional strategies (LRRD)

In CHRONIC crises:

- Timely response to severe needs (if responding at the onset of a disaster refer also to Table 1 on Acute Crisis)
- Build back WASH infrastructure and services to be more disaster-proof
- Re-establish basic self-sufficiency of WASH services based on a holistic resilience response strategy (generally linked to other sector initiatives)
- Articulate the risk-informed response with development efforts/strategy, long-term actors and transitional strategies (LRRD) addressing the root causes of Chronic Crises

DG ECHO FUNDING

- Response to 'POST' crisis contexts (be they POST-ACUTE, PROTRACTED or CHRONIC) will mostly be funded through Global Plans, although POST-ACUTE crises could be funded through 'emergency' funding decisions (i.e. 3 to 6 months after the onset of the crisis).

General considerations for WASH programming in Post-Acute, Protracted and Chronic Crisis

IMPLEMENT 'FOLLOW-UP' WASH ASSESSMENTS AND FORMULATE MEDIUM TO LONG-TERM SOLUTIONS

- Promote an integral approach to WASH, based on needs assessment. While a proposed action may not be comprehensive (if some of the needs are already covered), the assessment should at least clearly refer to the comprehensiveness of the needs analysis
- Plan and carry out regular and comprehensive (sector-wide/multi-sector) needs assessments in follow-up to the ones conducted during the ACUTE crisis phase, (re) assessing the (emerging) capacity of local authorities and beneficiaries to support the response
- Where feasible, participate in assessments that include agreed methodologies/tools and with other WASH stakeholders to ensure efficiency and coherence of findings
- Share/disseminate assessments findings with the WASH coordination platform/cluster, partners and beneficiaries
- Encourage participative, transparent and unbiased comparative analysis to decide on and select the WASH options, technologies and/or systems to be implemented, weighting all feasible options against criteria and risks (such as performance, investments, O&M requirements/costs, supply chain)
- Consider the context's characteristics on WASH service delivery (such as settlement type: rural/urban/camp/host communities, demography: concentrated/dispersed population)

- Factor in the potential impact of humanitarian WASH responses on local initiatives/plans (such as master plans/feasibility studies of WASH systems in large urban settings, Integrated Water Resources Management (IWRM) strategies in rural areas) and other parallel humanitarian initiatives (such as site planning of camps)
- Re-assess the amount/type of WASH NFI distributed during ACUTE phase, consult beneficiaries on needs and preference, survey local markets, focus on consumable, revise coverage/targeting and ensure extended coverage to new caseloads/arrival, conduct post-distribution monitoring
- Mainstream 'early recovery' recommendations which lay the ground work for development efforts to come in, while avoiding getting trapped indefinitely because of a continued absence of development actors
- Revise/define the most adapted combination of WASH assistance options, such as the provision of 'fixed' WASH services (such as permanent WASH infrastructure/systems) vs. 'mobile' WASH services (such as WASH kits/NFI, HWTS). Note that these options are not mutually exclusive
- Consider the economical impact of WASH services (such as where water is treated as a commodity, Emergency Market Mapping Analysis (EMMA) and resale survey may be useful to map stakeholders, vested interests, risks, bottlenecks and opportunities, and to inform a water supply strategy)
- Only where it does not jeopardize access to the most vulnerable, consider gradually and/or partially (re)introducing affordable user fees for WASH services

REINFORCE SECTOR COORDINATION, ADVOCACY, ACCOUNTABILITY AND BENEFICIARY OWNERSHIP

- Assess/lobby/strengthen the national and/or local WASH coordination mechanisms (sector platform/cluster/TWIG) and promote timely 'performance evaluation' of coordination mechanisms where required
- Where feasible, reinforce the lead role of national and local authorities
- Ensure a more intense consultation process with beneficiaries (such as design/sitting of WASH facilities)
- Guarantee access to WASH services by vulnerable groups (such as HIV, single headed households, handicapped, children) and pay attention to gender/age specificities
- Ensure effective Information Management capacity (3 W¹⁶, websites)
- Promote cross sector coordination while prioritizing synergies according to hazard(s) faced (such as cholera with health)
- Reinforce WASH programming Monitoring & Evaluation (M&E) systems/procedures and of the quality of WASH services (such as design/workmanship of WASH system) and delivery (such as presence of residual chlorine)
- Strengthen accountability mechanisms of WASH projects towards beneficiaries (and donors)
- Identify/revise key WASH advocacy messages and continue to disseminate/lobby lead agencies, governments, donors, to ensure adequate WASH service designing/delivery/funding
- If relevant, facilitate transition of assistance provided by Civil Protection agencies during the ACUTE phase (such as hand-over and follow up of in-kind donation such as mobile water treatment plants)

ENSURE ADEQUATE RISK-INFORMED PROGRAMMING

- Factor in DRR analysis and integrate its most basic recommendations: the main focus of risk-informed WASH programming is to build (back) WASH infrastructure and make these services more disaster-proof
- Risk-informed programming should also contribute to the exit strategy of WASH programming. See Table 3 on Disaster Preparedness for more information

REINFORCE SOCIAL INFRASTRUCTURE IN COMMUNITIES/SETTLEMENTS/CAMPS

- Support existing (or create new) community committees to educate, train and promote hygiene and analyse issues related to WASH, but also to organise WASH project implementation and longer-term O&M
- Establish (neighbourhood) committees with people volunteering to educate, train and promote health and hygiene and ensure community groups elect a project committee for the planning and organisation of community WASH projects (and other projects of importance to public health)
- Strengthen WASH management capacity of committees through targeted training and coaching
- Conduct information campaigns towards population as required (such as highlighting need to contribute to the O&M of WASH systems)

REINFORCE THE CAPACITY OF LOCAL WASH SERVICE PROVIDERS

- As much as possible, work with and through local WASH agencies
- Where appropriate, promote agreements with relevant local authorities and institutions to reinforce and/or gradually hand over WASH services provided by humanitarian actors to institutional service providers
- Consider limited actions to improve the structure, functioning, skills and/or basic equipment/tools of local WASH service providers
- Where considered opportune (such as chronic collapse of centrally managed water services), facilitate the transition from an agency-run systems to a community-based management model with a beneficiary entity taking over responsibility for administration and O&M
- If relevant, establish linkages between displaced populations and local authorities to avoid negative impacts or tensions with host populations and support these initiatives with limited technical WASH assistance, training, as needed
- Where feasible and beneficial, encourage the participation of the private sector
- Ensure supervision of (sub)contractors designing and building/repairing WASH facilities (such as quality of materials and workmanship, safety of staff employed)

IMPROVE WASH DISASTER PREPAREDNESS CAPACITY OF LOCAL WASH AGENCIES

- Where appropriate and relevant, initiate limited actions to improve the WASH disaster preparedness capacity of local communities and local/national WASH related agencies/institutions. See Table 3 on Disaster Preparedness for more information
- Train local WASH authorities and local NGOs in using and managing appropriate technologies and tools (such as hand drilled tube wells, open well rings building, hand pump installation/repair) to be able to implement relief and recovery programmes
- Assist WASH related institutions to execute vulnerability assessments and to develop and execute rehabilitation, mitigation and disaster preparedness interventions that improve physical infrastructure and organisational capacities/skill

Sub-sector water supply in Post-Acute, Protracted and Chronic Crisis

Water Supply in POST-ACUTE CRISES should focus on:

- Strengthening the existing WASH services rather than extending them
- Re-establishing basic social and organisational structures to manage these WASH services

Water Supply in PROTRACTED CRISES should focus on:

- Accommodating competing demands for domestic water supply (such as livestock, agricultural, industrial uses)
- Sustainable management of available water supplies and possible linkages with related development initiatives

Water Supply in CHRONIC CRISES should focus on:

- Perennial infrastructures/services, with design and implementation of proposed solutions that are disaster specific proof

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Water resources 'rolling assessments'¹⁷ and response analysis

- Update of water needs in terms of quantity, quality and access and match with inventory of locally available resources, capacities, infrastructure and services and define related gaps
- Improve water management systems and cost recovery mechanisms
- Protect water resources/systems against future disasters
- Contribute to the development of water resources without damaging the environment and/or jeopardizing the access to water of local host populations
- Consider watershed aspects/impact in case water resources extend beyond the local level
- Optimize water use (especially in case of drought) and reduce the impact of changes on livelihoods

Rehabilitation, expansion and/or improvement of water systems

- Facilitate the transition from costly emergency WASH services (such as water tankering) to cost-effective, durable and quality services
- Return the level of services to the pre-event levels or improve them if those services were below humanitarian standard (such as taking into account the risks of epidemics due to over crowding)
- Where WASH systems were inoperable prior to the emergency, investigate the causes and assess whether it is worthwhile to take action
- Improve existing facilities at their most 'critical' points (such as fencing of water points, improved water catchment for drought-prone areas, drainage works to control and divert excess water, and construction of washing slabs)
- Where the intervention timeline allows for it (PROTRACTED crisis), improve existing systems (such as pipeline systems, boreholes with hand pumps, solar or wind driven pumps)
- In conflict contexts, select systems that are less likely to be damaged and/or that can be protected against looting/predation
- Where displaced populations have settled among a host community it may be necessary to expand and/or improve the existing water systems (such as additional water storage capacity/public standpipes) to supply water to the new caseload (using a different approach where relevant)
- Water quality may require improvement using cost-effective technologies such as settlement tanks, roughing and/or slow sand filtration, followed by disinfection

INDICATORS

- **Number of persons provided with sufficient and safe water for drinking, cooking and personal hygiene use** (standard: Every person provided with > 15 litres/day)¹⁸
- Quantity of water used per person per day for drinking, cooking, hygiene and laundry¹⁹
- **Number of drinking water samples (taken at water collection and/or use points) with faecal contamination** (standard: No 100 ml sample contaminated with E. Coli)¹⁸
- Proportion of households with access to a source of safe drinking-water¹⁹
- **Number of persons per water collection point** (standard: < 250-500 persons/collection point)¹⁸
- **Distance between farthest targeted beneficiary household and the nearest water collection point** (standard: < 500 metres)¹⁸

¹⁷ - Assessments which are carried out at regular intervals to take into account the contextual changes, especially at the early stage of the response

¹⁸ - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

¹⁹ - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

- Where feasible and relevant, point of use solutions may be applied (such as sale or distribution of chlorine solutions and /or of household water filters)
- Where relevant, implement a system water point caretakers and regular water quality testing
- Ensure supply of energy and chemicals for water treatment

Implementation of new water systems

- Only undertake if rehabilitation and/or repair of existing WASH systems is insufficient and essential for public health
- Ensure that there is low risk of damage of the new system either by conflict or misuse
- Where feasible, work in collaboration with local institutions and support existing (or establish new) locally owned water management operators
- Include disaster-proof designs and locate in areas least prone to future disasters
- Provide medium-term training and coaching of the institution's staff and management
- As much as possible prioritise, plan, design and implement in conjunction with beneficiaries
- Assist communities to implement systems as part of the community development plan, both with organisation (such as building community management capacity) and infrastructure
- Consider the introduction of appropriate technologies if conventional designs are too expensive or unsustainable (such as solar powered water pumping system)
- Assist the community to set up a simple system for regular water quality control
- Make sure that mechanisms to manage conflicts on access to water are in place

Provision of basic material assistance for communities or water institutions

- Provide basic items temporarily (such as fuel, lubricants, spare parts, pumps, generators) to enable communities and/or relevant water institutions to increase the production of clean water as far as required
- Only provide items that are required to ensure adequate functioning of water systems but that cannot (yet) be financed by the community and/or water institution itself
- Ensure commitment and enable capacity of institution and/or community to re-establish supply chain as early as possible

Implementation of Home Water Treatment and Storage (HWTS) and Handling

- Take into account both the context and the resources available
- Main factors to be considered: microbia effectiveness, acceptability, access and proper use by people, feasibility of use during the project implementation, sustainability and scalability
- Distribution of materials for water supply: such as water treatments products (water disinfection product, provide clear usage instructions, monitor residual levels), water filters, water containers. Materials should be relevant to locally assessed needs

INDICATORS

- **Number of persons with access to bathing facilities (male/female separated, if communal)** (standard: 1 shower per 40 users, with at least 2 to 6 litres of water per person/day)¹⁸
- Access to appropriate bathing facilities¹⁹
- **Number of persons with access to laundry facilities** (standard: 100% of all targeted persons; at least one sink/washing stand for 100 people and a private area for laundry of women)¹⁸
- Access to appropriate laundry facilities¹⁹
- Likelihood of a critical fall in the quantity of water available per day within the next month¹⁹
- Average time required (minutes) for one water collection journey, including travel in each direction and queuing¹⁹

Sub-sector sanitation supply in Post-Acute, Protracted and Chronic Crisis

Sanitation in POST-ACUTE CRISES should focus on:

- Rehabilitation and repair of existing WASH systems/facilities before constructing new ones
- Improve the quality of WASH services (privacy & ownership)
- Re-establish institutional, social, and organisational structures to manage these WASH services
- If the above measures cannot be implemented or remain insufficient, then the introduction of new structures/services are sometimes warranted

Sanitation in CHRONIC or PROTRACTED CRISES should focus on:

- Reusable, replicable and sustainable designs household level services
- Appropriate to the local social and cultural preferences, designs that encompass local considerations and customs
- Sanitation solutions designed to have an impact beyond the immediate crisis, and prevent further emergencies from occurring

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Sanitary rolling assessment and response analysis

- As part of a community-based strategy where feasible, with focus on specific needs such as for excluded groups, women and girls, vulnerable groups including sick people, HIV/AIDs patients, the elderly, handicapped, and children
- Sanitation site planning taking into consideration hazard related risks (such as flood, erosion)

Improving/maintaining and managing existing communal emergency excreta facilities constructed during the ACUTE phase of the crisis

- Monitor the state of the existing facilities (such as emptying, cleanliness) in order to anticipate service expansion and O&M needs

Replacing emergency excreta disposal system with more permanent toilet facilities

- Consider the need for a transition from communal to household (private) type of facilities
- Ensure respect of SPHERE and/or national standards and design norms
- Consider various options and choose/design the facilities with input from the beneficiaries to ensure they are adapted to local habits, culture and preferences. For security and comfort reasons, especially for women and girls, toilets should be near housing units. Include mitigation measures if necessary
- As far as possible, construction should be done by the beneficiaries themselves. Facilitate this by: awareness creation and information campaigns, provision of required tools, donation of key components such as reinforced concrete slabs. Encourage communities to build latrine facilities for vulnerable households and monitor replication and uptake

INDICATORS

- **Number of human settlements free of human faeces on the ground in and around the site**²⁰
- Presence of human faeces on the ground on and around the site²¹
- **Number of persons per toilet/latrine with functioning hand washing facility** (standard: < 20 persons/toilet or latrine)²⁰
- Average number of users per functioning toilet²¹
- Proportion of toilets with functioning and convenient hand washing facilities²¹
- **Distance between farthest targeted beneficiary household and nearest toilet/latrine** (standard: < 50 metres)²⁰
- **Proportion of households with access to a functioning toilet**²⁰
- Proportion of toilets that are clean²¹

20 - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

21 - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Improve or reinforce other sanitation facilities and services

- Develop the systems and corresponding designs with beneficiaries and ensure their participation in the planning and implementation of the interventions (such as surface drainage works, solid waste disposal)
- Include mitigation measures where required and appropriate

Vector control

- Sensitize the population on the need and measures required to control pests (highlighting the risk related to poor drainage/water use)
- Implement preventative measures based on the type of vector threat faced (such as improve drainage, back fill standing water pools, provide impregnated mosquito nets)
- Conduct targeted and timely vector control campaigns (residual spraying/larviciding, rodent/pest control measures) where required
- Implement safety precautions for vector control staff and beneficiaries

INDICATORS

- **Number of persons equipped and using insecticide-treated mosquito bed nets** (standard: all targeted persons have received bed nets and use them effectively)²⁰
- Proportion of households possessing one or more effective insecticide-treated mosquito nets²¹
- Proportion of pregnant women, children under five and other vulnerable people sleeping under effective insecticide-treated mosquito nets²¹
- Proportion of households adopting measures to reduce biological vector-borne disease risk²¹

Sub-sector hygiene supply in Post-Acute, Protracted and Chronic Crisis

Hygiene interventions should be devised considering the intensity and scale of the emergency and what is feasible in terms of customs, culture, level of education, resources and timing (mindful of the relatively short duration of DG ECHO funded operations). HP as a stand alone action is not sufficient to achieve the desirable 'hygiene improvements'. **Hygiene Improvement Frameworks in emergencies must be based on an enabling environment, Hygiene Promotion (HP) and access to basic WASH services and commodities.**

Hygiene Promotion in POST-ACUTE CRISIS should mostly focus on:

- A more participative approach with the beneficiaries
- A more permanent and durable strategy linked to developmental-type interventions and levels of service

Hygiene Promotion in PROTRACTED CRISIS should mostly focus on:

- Consolidating the Hygiene Promotion strategy (and messages) implemented in the POST-ACUTE phase
- Achieving sustained personal, household and environmental hygiene improvements, including long-term behaviour change, where feasible

Hygiene Promotion in CHRONIC CRISIS should mostly focus on:

- Implementing a Hygiene Promotion strategy related to the likely/foreseen impact of the CHRONIC CRISIS
- Promoting long-term behaviour change in key areas known to have an impact on the risk of outbreaks and disease transmission
- Increasing long-term capacity at all levels, such as through community mobilisation, social marketing methods or institutional support

PRIORITY ACTIONS AND DELIVERY MECHANISMS

Needs and capacity assessment and response analysis

- Identify main risk practices, target audience & groups at higher risk, key people and responsible(s) of community mobilisation, communication channels, availability of hygiene facilities and items
- Assess hygiene education needs (habits depends on the beliefs and taboos of the people, their knowledge and perception of the risks)
- Define specific HP objective based on public health imperative (consult health sector), and design strategy and response modalities with beneficiary representatives, plan corresponding allocation of required resources/means

Community level Hygiene (and Health) Promotion

- Ensure an evidence based understanding of local Hygiene Knowledge, Attitude and Practices (such as KAP surveys)
- Identify and target individual groups with high-risk WASH practices/ behaviours (such as children under five)
- Focus on a limited number of simple messages which directly address the most critical hygiene related problematic(s)
- Messages content needs to be context specific but will typically include information about use of different water sources, use of household

INDICATORS

- **Number of persons who regularly (250 gr/person/month) receive bathing soap** (standard: Presence of soap at household level)²²
- Proportion of households possessing soap²³
- **Number of households possessing at least one clean narrow-necked or covered water container for drinking-water** (standard: Presence of such container at household level)²²
- Proportion of households possessing at least one clean narrow-necked or covered water container for drinking-water²³

22 - DG ECHO Key Results Indicator, based on Global WASH Cluster indicators, Sphere and other sources.

23 - Global WASH Cluster indicator

PRIORITY ACTIONS AND DELIVERY MECHANISMS

water treatment product/filters/storage vessels, boiling of untreated water for drinking, hand washing, proper toilet use and maintenance, prevention of vector-borne diseases

- Adapt communication strategies, messages and methods to local context and culture (assess literacy rates and most common channels of popular communication)
- Implement with broad beneficiary participation and full awareness of gender and age issues
- Field test (and monitor the beneficiaries response to) HP methods and messages with beneficiaries before widespread use
- Where feasible, support capacity of local health or hygiene outreach workers (MoH or other) to complement messages associated with WASH projects
- Define and promote the right combination of interactive (face to face) and passive (such as mass media) HP methods

Face to face Hygiene Promotion

- Methods may include household/school visits, group discussions, storytelling, participative games and exercises, learning through enquiry by beneficiaries
- Promote household/school visits with hygiene and/or health promoters meeting regularly with heads of households (female/male) and other groups (such as children at school)

Mass media Hygiene Promotion

- Methods may include the use of loudspeakers (announcements), radio, TV, newspapers, cinema, drama/theatre performance, posters
- Story telling or soap series on TV/radio, verbal or written warnings about unsafe behaviours, slogans, messaging by popular or important persons (on radio, TV or posters), reinforcing positive behaviours through pictures or film

INDICATORS

- Average total capacity of water collection and storage containers at household level²³
- Proportion of households with appropriate water treatment supplies and equipment²³
- **Number of persons reporting being satisfied with the availability of hygiene consumable and NFI (as measured through Post Distribution Monitoring)**²²
- Accessibility of appropriate sanitary protection materials for menstruation, and underwear, for women and girls²³
- **Number of persons reporting using public hygiene facilities**²²
- **Number of persons able to mention main contamination reservoirs, routes and vectors in feco-oral transmission (as measured through KAP monitoring)** (standard: 50 to 75%)²²
- Proportion of households where only safe water is used for drinking and cooking²³
- Proportion of men, women, boys and girls who last defecated in a toilet (or whose faeces was last disposed of in a safe manner)²³
- Proportion of men, women, boys and girls washing hands with water and soap or substitute after contact with faeces and before contact with food and water²³
- Proportion of households where food is safely stored, prepared and consumed²³

II.c Disaster preparedness²⁴

For background on logic of intervention (DG ECHO mandate), see the indicative decision tree in annex I.

CRISIS PHASE

DISASTER PREPAREDNESS can be implemented in anticipation, during and after a particular disaster. As such it may coincide with all other type of crisis responses, namely ACUTE, POST-ACUTE, PROTRACTED and CHRONIC.

MAIN FOCUS

To reduce or remove the negative impact of sudden shocks and/or stresses on WASH services at community level and to lessen the likelihood of an increased incidence of WASH related diseases and/or undernutrition, before, during and/or following disasters.

WASH activities in the scope of Disaster Preparedness are usually not self-standing but integrated with(in) other sectors. Where the vulnerability of a community to natural or man-made hazards is very high and its capacity to withstand these hazards is weak, and where environmental health risks and/or water insecurity are potentially life-threatening, **WASH activities can be conceived in the scope of multi-sectoral Disaster Risk Reduction (DRR) or Resilience related programming.**

KEY ELEMENTS

- **Community based and inter-agency WASH Contingency Planning** (including stockpiling)
- **WASH Capacity Analysis** (including awareness raising) **and Capacity-Building** (including training)
- **Hazard Monitoring, Forecasting and Early Warning/Early Action (EWEA)**
- **WASH Information Management and Communication**

Furthermore, Disaster Preparedness actions need to:

- **Be hazard specific** (see table below)
- **Ensure uptake of proposed options by ensuring replicability** (using demonstration methods)
- **Allow for long-term impact and sustainability** (such as community-based Operation and Maintenance – O&M)
- **Strengthen linkages with, and coordination between, community-based structures, local government and relevant government disaster management agencies**

Depending on the context and corresponding needs, actions may be undertaken as:

- **Disaster Preparedness for WASH services**
- **Support to WASH services in the scope of (multisectoral or other sector) Disaster Preparedness and/or**
- **WASH Emergency Preparedness**

Note that the **three types of Disaster Preparedness WASH actions** above may occur independently or in combination of each others. As a result, the range of possible priority actions and related mechanisms of delivery may vary considerably.

24 - This table only refers to Disaster Preparedness and not response, although Preparedness activities will often be included as part of a response to a crisis (such as protracted, chronic). Note that Emergency Response (ER) activities are described in Table 1 on Acute Crisis.

DG ECHO FUNDING

Response to Disaster Preparedness will mostly be funded through **Global Plans** and **DIPECHO funding**.

General considerations for WASH programming**WASH ASSESSMENT FOR DISASTER PREPAREDNESS NEEDS ANALYSIS AND RESPONSE**

- Ensure that the analysis of a potential disruption to WASH services is based on an in-depth risk assessment of the sector at the required levels (community, local, national and/or international), including data on (hazard specific) WASH service/systems vulnerability and WASH capacity gaps (including inventory/mapping of capacity)
- Provide information on the nature and frequency of risks to WASH services, the impact of previous events, the environmental and demographic pressure and the local DRR and Climate Change Adaptation strategies & capacities
- Promote an integral approach to humanitarian WASH programming, based on needs assessment. While the proposed action may not be comprehensive (if some WASH needs are already covered), the assessment should still refer to the comprehensiveness of the needs analysis
- Clearly identify, justify and articulate the need(s) to intervene at different levels (community, local, national and/or international) in the proposed WASH Disaster Preparedness action

WASH CONTINGENCY PLANNING, COORDINATION, INFORMATION AND ADVOCACY

- Promote regularly updated and operational WASH contingency planning at all required levels (such as community, inter-agency, governments) based on the needs assessment's findings and evidence-based learning of prior disaster events
- Participate to the definition of an informed, concerted and coherent approach to Disaster Preparedness among the main (humanitarian & development) WASH actors and sectors
- Ensure readily deployable WASH resources (such as through a roster of WASH professionals, water drilling equipment, stocks) at local/national level and facilitate pre-deployment agreements
- Support reliable and easily accessible WASH information management and communication systems at local/national level
- Highlight, as evidenced by the assessment, the importance and cost effectiveness of specific measures in disaster-prone contexts, raising awareness at all levels, from community to central government and development actors/donors, about the vulnerability of WASH sector/services, and of investing in preparedness and/or mitigation

RISK INFORMED DISASTER PREPAREDNESS COMMUNITY-BASED WASH PROGRAMMING

- Address predominantly the immediate risks of anticipated disasters at community level (such as sickness/death from WASH related diseases, acute water shocks and stress)
- Avoid or at least reduce possible negative impacts of Disaster Preparedness programming (such as impact on aquifer depletion, land degradation/overgrazing as a result of new boreholes, inappropriate response in view of more immediate acute needs)
- Actions at community level may include the re(location) of WASH infrastructure and services in less disaster-prone areas and/or away from potential hazards (such as landslides, unstable river banks), the reinforcement and/or protection of buildings used by WASH institutions and system components, the maintenance of all-weather access roads to essential WASH infrastructures

REINFORCEMENT OF COMMUNITY WASH MANAGEMENT STRUCTURES/ AUTHORITIES

- Train the local WASH authorities on recognising early disaster warning signs (such as dropping water table, water level reservoirs) and taking timely precautions to ensure the continuity of water resources and WASH services
- Train and assist local water boards/authorities to execute a vulnerability analysis of WASH services in their community and develop local community (health and) WASH Disaster Preparedness plans (including mitigation measures where applicable and required)
- Build the capacity of community-based WASH operators (such as water point committee/board) and clarify the roles and responsibilities of its staff (including in case of a disaster)
- Train (and/or equip) local WASH operators in performing basic (post-disaster) WASH needs assessments, emergency repair of WASH systems, emergency water treatment, basic preventative measures, to control WASH related outbreaks, water quality monitoring, activation of WASH back-up mechanism from local governments/supply chain

BUILDING LINKAGES BETWEEN COMMUNITIES, WASH INSTITUTIONS AND/OR LOCAL GOVERNMENT

- Promote agreements/mechanisms/protocols for timely response of local WASH institutions to support affected communities in case of a disaster event
- Integrate the monitoring of WASH conditions/environment to that of related epidemiological/health surveillance systems
- Ensure the availability of emergency communication equipment (such as VHF) at community level to report any disaster related disruption of WASH services to local governments/institutions and emergency transport means to facilitate the provision of WASH products/tools/expertise

PROVISION OF WASH DISASTER PREPAREDNESS ITEMS AT COMMUNITY LEVEL

- Ensure the existence of a constant emergency stock at community level (WASH related items may include consumable such as fuel, lubricants and equipment such as spare pump/parts)
- Consider the need for 'non WASH items' such as generators essential to facilitate the functioning of basic WASH services

- Ensure that items prone to misuse/stealing are safely stored, managed and accounted for

WASH FACILITIES IN PRE-ASSIGNED EVACUATION OR COLLECTIVE CENTRES

- Locate, design and develop risk-proof WASH facilities/services capable of temporarily supporting the anticipated (catchment) population of the centres
- Ensure formal agreement with authorities of hosting facilities (such as schools, local government) especially for the routine maintenance of WASH facilities

BENEFICIARY TRAINING ON WASH DISASTER PREPAREDNESS

- Conduct on-site simulation exercises involving the targeted population on the disruption of basic WASH services and the implementation of related contingency planning at local level
- Train the community in the use of home water treatment products/equipment and hygiene risks related to a disruption of WASH services following a disaster
- Where appropriate, encourage individuals to save clean water/cash for an emergency

WASH MITIGATION WORKS THROUGH EXAMPLE/SAMPLING

- Promote mitigation works that are hazard and context specific. These may include raising boreholes/latrines cleaning/deepening/redirecting storm water channels/drains, increasing the diameter of drain pipes, reinforced latrine pit linings, deepening of boreholes
- Please note that such works require measures for follow-up to ensure replication

WASH DISASTER PREPAREDNESS CAPACITY-BUILDING OF LOCAL/DISTRICT

AUTHORITIES, NGO'S and institutions responsible for assisting communities during and after the disaster with relief, recovery and Disaster Preparedness programmes

- Assess the vulnerabilities and areas at risk and establish/maintain corresponding database (such as technologies, location, mapping) of local WASH services
- Strengthen early response mechanisms (ensure the capacity of the WASH sector to timely respond to new emergencies): contingency planning including trained staff, available stockpile, defined coordination mechanisms
- Ensure that the capacity of the local WASH sector to support cholera or other water borne diseases treatment centre is in place
- Assist local WASH agencies to assess their development and preparedness needs (including lesson learning of past interventions)
- Establish database of implemented WASH actions and share these with concerned communities and authorities to ensure widespread knowledge
- Support EWEA WASH related mechanisms
- Ensure local WASH agencies actively participate to (and know) WASH contingency plans, including Disaster Preparedness and response coordination mechanisms & advocacy

STRATEGIC PRE-POSITIONING OF WASH ITEMS

- Consider the need for pre-positioning WASH NFI stockpiles at local/national/regional level as per evidenced in findings of related needs assessment

- Ensure that information on all available (agency/commercial) stockpiles is up to date and widely shared, and that delivery delays, eligibility rules, mechanisms for dispatching/delivery (and re-stocking cost if applicable) are known by all potential beneficiaries
- Ensure that the specifications of stockpiled items is up to minimal humanitarian/local standards
- Explore potential agreements of delivery of WASH items with private sectors and local suppliers in case of a disaster

INDICATORS FOR WASH DISASTER PREPAREDNESS

- % of recommended emergency WASH response measures included in disaster contingency planning (at community, local and/or national levels);
- Existence of WASH risk analysis based on vulnerability and capacity assessments (at community, local, and/or national levels);
- % of recommendations based on findings of WASH service disruption risk analysis which are implemented (such as regarding WASH facility design, construction, management and operation's considerations);
- Frequency of WASH contingency planning updates;
- % of concrete WASH disaster mitigation measures implemented as a result of advocacy;
- Timely availability of appropriate emergency WASH items and resources (for local communities);
- Local beneficiaries capable of using emergency WASH items (such as WASH kits, water disinfection chemicals);
- Local communities/institutions able to act as first emergency WASH responders;
- Evidence of improved reactivity and competence of local/national WASH institutions and coordination platforms in case of a disaster.

II.d Additional ‘hazard specific’ wash priority actions and delivery mechanisms

POTENTIAL MEASURES SPECIFIC FOR:

FLOOD PRONE AREAS

- Select location for WASH facilities in areas least prone to flooding; protect watersheds and sources (such as through local re-forestation or terracing) and restore soil retention capacities.
- Construct improved foundations, use reinforced concrete and masonry in WASH facilities.
- Build/relocate WASH facilities on raised platforms and/or protect them with dykes, walls.
- Install stronger, better-anchored and entrenched sewage, water supply and drainage pipes and use flexible joints.
- Create overflow systems to avoid over-topping of dams and water retention structures, riprap to riverbanks.
- Dredge obstructed drains/canals to ensure adequate storm-drainage and avoid excess and rapid run-off.

HURRICANE PRONE AREAS

- Reinforce above ground WASH infrastructures (especially where pipelines cross rivers, elevated and ground-level water tanks).
- Construction of strong roofs at roofed WASH infrastructure.
- Reduce the height of WASH structures where possible. If high water tanks cannot be avoided, fill them with water and close valves (install valves if necessary) during periods of high winds. Raise infrastructure that can be flooded due to heavy rains and place flood walls or dikes.
- Improve drainage near WASH facilities.
- Select location for WASH facilities away from high poles, trees, that may fall and lead to damage.
- Entrench main pipelines & sewers, reduce the number of river crossings, fix mains at downstream sides of bridges, promote vegetation for slope stabilisation.
- Implement stronger foundations, wider & stronger dams (improved screens & parapet walls), riprap to riverbanks, stronger concrete and masonry construction.
- Install wood sheeting or gabion baskets along the bank of infiltration galleries creating sedimentation areas as a protection during periods of heavy rains.
- For river intakes, installation of stop-locks upstream and installation of intake of sediment tank several feet upstream of weir.
- Construct wave protected embankments at dams and river intakes.

POTENTIAL MEASURES SPECIFIC FOR:	
EARTHQUAKE PRONE AREAS	<ul style="list-style-type: none"> • Use flexible joints in pipe and sewer connections, adequate pipe material and wall crossings. • Storage reservoirs should be as low as possible, with a limited elevation, located on large platforms to limit the risk of falling. • Include sheet piling, extended wing walls and flexible joints in intakes and dams. For dams, sloping banks below and above water line, parapet walls. • Ensure that foundations of WASH structures are well-tied together, and the walls securely fixed to the foundations and roof (where appropriate), using adequate braces. Study buildings and structures that have survived previous earthquakes. • For boreholes, stronger casings and wider than usual gravel pack with slightly larger diameter gravels.
VOLCANIC AREAS	<ul style="list-style-type: none"> • Carefully select watersheds used for supply of drinking water systems. • Use of appropriate pipe materials and flexible joints, anti-rust measures may be required to prevent water pollution and protect pipes as well as open water storage facilities from the effects of volcanic ash. • Design and construct above ground WASH infrastructure (such as tanks, toilets) to withstand ash loads. • Take fire prevention measures in WASH structures and in the areas around them (preposition fire-fighting equipment). • Provide adequate water storage and water-piping capacity for fire-fighting.
LANDSLIDE PRONE AREAS	<ul style="list-style-type: none"> • Protect watersheds: prevent deforestation and actively promote and execute reforestation. • Select location of WASH facilities away from sloping areas. Protect and stabilise sloping areas through planting of vegetation and other measures. • Use suitable pipeline materials (such as strongly anchored GI at parts subject to landslide or slip). • Pipelines should follow the topography. • Strong reinforcement, entrenchment and anchoring of structures that cross or are located in landslide-prone areas, including slope stabilisation measures, planting of vegetation.

POTENTIAL MEASURES SPECIFIC FOR:**WASH RELATED
EPIDEMIC PRONE
AREAS**

Where there is a high risk of cholera outbreak, focus on preparedness projects integrating health and WASH components within global plans, develop preventive action and prepare an effective response by targeting populations and areas at high risk of cholera. WASH components should be carried out in the months before the usual cholera season.

Cholera response activities may include:

- Survey of water sources and environmental sanitation to identify contaminated sources and potential sources of contamination.
- Daily or continuous chlorination of all high risk supplies.
- Ensuring adequate quantities of water for drinking and hygiene purposes.
- Data collection, cases investigation and WASH/epidemiology analysis done in close coordination with health sector.
- Specific WASH activities organised in health structures that receive cholera patients (isolation and sanitary barriers).
- In areas affected by cholera, WASH activities defined by transmission contexts and targeted to population at high risk.
- Specific urban strategies to be implemented.
- WASH prevention measures implemented for areas and population not affected yet, but close to affected areas and at high risk of cholera.
- In areas where other WASH related outbreaks are likely (such as malaria, dengue), WASH related preparedness activities may be required, although description of the specific Priority Actions and Delivery Mechanisms goes beyond the scope of this annex.

**DROUGHT PRONE AND/
OR HIGHLY WATER
SCARCE AREAS**

- Water resource and water usage mapping: contribute to the establishment of local baseline data inventories of water resource availability and need in fragile and emergency contexts (including to improve water planning and management decisions of local watersheds vulnerable to water scarcity, hosting refugee or displaced populations).
- Strengthen linkages with early warning and monitoring systems, including national, regional and local monitoring capacities, to capture existing and emerging scenarios of water scarcity and to enable the humanitarian system to be proactive in pre-empting water scarcity-driven humanitarian need.
- Design a response that differentiates between the reduction of water resources and rise of water demand.
- Promote tipping point analysis by the local actors/humanitarian community to establish clarity on indicators of acute vulnerability, assessment methodologies, and thresholds related to water scarcity. Define response (such as environmental water harvesting and conservation measures, including sand-dams, sub-surface dams and household rain-water harvesting) and contingency plans on water usage when risk thresholds are met.
- Support local initiatives to undertake contingency planning to reduce the impacts of water scarcity on humanitarian need and allow basic services to continue working in times of water scarcity.
- Undertake advocacy efforts on the specific implications of water scarcity for local vulnerability and humanitarian need.

Annex III Acronyms

ACF	Action Contre la Faim
ACP	African, Caribbean, Pacific
CB	Capacity Building
CCCM	Camp Coordination and Camp Management
CP	Civil Protection
CRED	Centre for Research on the Epidemiology of Disasters
CTC	Cholera Treatment Centres
DEVCO	Development and Cooperation Directorate–General (EuropeAid)
DG ECHO	European Commission Directorate General for Humanitarian Aid and Civil Protection
DRR	Disaster Risk Reduction
EMMA	Emergency Market Mapping Analysis
EP	Emergency Preparedness
ER	Emergency Response
ERC	Enhanced Response Capacity
ERCC	Emergency Response Coordination Centre
EU	European Union
EWEA	Early Warning / Early Action
FAO	Food and Agriculture Organisation
GWC	Global WASH Cluster
HA	Humanitarian Aid
HP	Hygiene Promotion
HRD	Humanitarian Response Depot (5 strategic regional warehouses with preparedness stocks of essential humanitarian items)
HWTS	Home Water Treatment Storage
IDP	Internally Displaced People
IFRC	International Federation of Red Cross and Red Crescent Societies
IMF	International Monetary Fund
INGO	International Non-Governmental Organisation
IUCN	International Union for Conservation of Nature
IWRM	Integrated Water Resource Management
KAP	Knowledge, Attitude and Practice
KRI	DG ECHO Key Results Indicator
LRRD	Linking Relief, Rehabilitation and Development
M&E	Monitoring and Evaluation
MIRA	Multi-cluster Initial Rapid Assessment
MoH	Ministry of Health
NGO	Non-Governmental Organisation
NFI	Non Food Item
oPt	Occupied Palestinian Territories

ORS	Oral Rehydration Salt
O&M	Operation and Maintenance
RECA	Regional WASH Cluster Advisors
RLU	Regional Logistics Unit
RRT	Rapid Response Team
Sphere	Humanitarian Charter and Minimum Standards in Disaster Response
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
TWIG	Technical Working Group of clusters
UN	United Nations
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
UNOCHA	Office for the Coordination of Humanitarian Affairs
VIP latrines	Ventilated Improved Pit latrines
WASH	Water, Sanitation and Hygiene

Annex IV Glossary

Best Practice: Procedures or actions that represent a sector-wide consensus of a particular WASH humanitarian response based on proven practice.

Comparative Advantage: For the context of this paper, this refers to the relative ability of an actor to efficiently and effectively meet a defined set of needs, on the basis of their mandate and operational parameters, compared to another actor.

Do No Harm: A response that does not create undue dependency on the relief system, expose beneficiaries to unjustified risk or cause excessively detrimental impact on the environment.

Early Recovery: Actions taken at the earliest opportunity to strengthen local capacity, work with local resources and restore services.

Enabling Environment: Where the response is evidence based and decisions are made by accurate and timely needs assessment.

Humanitarian Crisis: A humanitarian crisis is an event or series of events which represents a critical threat to the health, safety, security or well-being of a community or other large group of people, usually over a wide area. A humanitarian crisis can have natural or man-made causes, can have a rapid or slow onset and can be of short or protracted duration.

In-Kind: Items or equipment given as a gift by a government, private company or individual.

Relief-Development Continuum: A situation where there is a linear consecutive transition from emergency needs to recovery needs to development needs.

Relief-Development Contiguum: A situation where emergency, recovery and development needs co-exist simultaneously.

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

SPHERE: The Humanitarian Charter and Minimum Standards in Humanitarian Relief reflect the determination of agencies to improve both the effectiveness of their assistance and their accountability to their stakeholders.

Sustainability: The ability of water sources and water resources to continue functioning and yielding water into the long-term future.

Targeting: Consists of defining which geographical areas, communities and population groups will benefit from WASH operations.

Urban settings: Are usually characterised by a high population density supported by complex WASH systems, whose level of functioning is often beyond the scope of competence of many of the Commission's humanitarian partners. These services are often not available on the outskirts of urban settlements, such as slum areas, where the most vulnerable populations live.

Vulnerability: Vulnerability comprises the characteristics of population groups that make them more or less susceptible to experiencing stress, harm or damage when exposed to particular hazards. Therefore, those who are vulnerable to food insecurity may currently be able to maintain an acceptable food intake, but are at risk of becoming food insecure in the future if exposed to a shock.

WASH: All works related to water, sanitation and hygiene, including the provision of safe and affordable access to a clean water supply and methods of disposing of waste. This involves the provision of services and training on how to manage them.

WASH Cluster: The global mechanism of coordinating a WASH response in large scale or complex emergencies. Clusters are groups of humanitarian organizations (UN and non-UN) working in the main sectors of humanitarian action. The WASH Cluster is managed globally by UNICEF, the cluster lead agency.

Water Resource: The wider body of water from which a water source draws its supply, including aquifers, rivers and reservoirs.

Water Scarcity: Two different types of water scarcity can be identified: physical and economic. Physical scarcity occurs when available water resources are insufficient to meet the demand from all sectors, including the environment: this is often due to the over development of resources and over commitment to various users. Economic scarcity is a social construct and occurs when there is a lack of investment in water or a lack of human capacity to keep up with growing water demand.

Water Security: The continued availability of and access to safe water for all required uses. A household or state may be considered water secure when the majority of the inhabitants are not threatened by insufficient or unreliable availability of and access to water or by too much water that may lead to flooding.

Water Source: A specific point or place where water can be accessed and used, such as a well, borehole or hand pump.

Water Stress: Water stress occurs when there is water scarcity during a certain period or when poor quality restricts its use. It causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.).

Annex V References

Action Contre la Faim (2008), *Water, Sanitation and Hygiene for populations at risk*.

Davis J. and Lambert R. (2002), *Engineering in Emergencies: A practical guide for relief workers*, RedR/IT Publications.

Dunoyer J. and Sudre B. (2011), *Capitalisation Report on the cholera epidemic in Chad, 2010*, Action Contre la Faim.

Erway Morinière L., Taylor R. et al. (2009), *Climate Change and its Humanitarian Impacts*, Feinstein International Center, King's College London, Stockholm Environment Institute, Tufts University.

European Commission (2001), *Linking Relief, Rehabilitation and Development – An Assessment*, COM (2001) 153.

Food and Agriculture Organisation, *Coping with water scarcity: challenge of the twenty first century*, World Water Day 2007, FAO.

Harvey P. (2007), *Excreta Disposal in Emergencies: A field manual*, WEDC Loughborough University.

House S. and Reed B. (1997), *Emergency Water Sources: Guidelines for selection and treatment*, WEDC Loughborough University.

Oxfam Great Britain (2008), *Vulnerability and Socio-cultural considerations for Public Health Engineering in emergencies*, Technical Briefing Notes No 2.

Oxfam Great Britain (2009), *UD toilets and composting toilets in Emergency settings*, Technical Briefing Notes No 7.

Oxfam Great Britain (2011), *Urban WASH lessons learned from Post-Earthquake Response in Haiti*, Oxfam GB Technical Briefing Notes.

Sphere project (2011), *Sphere handbook*, 3rd edition.

United Nations Environment Programme (2007), *Trends in natural disasters*, UNEP.

United Nations Children's Fund and World Health Organisation (2011), *Drinking Water*, JMP Thematic report on Drinking Water, UNICEF and WHO.

United Nations Office for the Coordination of Humanitarian Affairs (2010), *Water Scarcity and Humanitarian Action: Key Emerging Trends and Challenges*, UNOCHA.

World Health Organisation (2008), *Guidelines for Drinking-water Quality*, WHO.

World Bank, United Nations Development Programme and United Nations Environment Programme (2005), *Ecosystems and Human Well-Being, Synthesis Report*, WB, UNDP & UNEP.

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