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Swiss Agency for
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Humanitarian Aid

Sanitation & Hygiene Promotion Operational Guidelines

GERER SES EAUX USEES ET SA
LATRINE SANS NUIRE A SES VOISINS
C'EST UN SIGNE DE BONNE FOI

حفاظك بمياهك المستعملة ومرحضك

وعدم الإساءة بالجيران علامة حسن الجوار

List of acronyms

BORDA	Bremen Overseas Research and Development Association
CAS	Certificate of Advanced Studies
DEWATS	Decentralised Wastewater Treatment Systems
DPR Korea	Democratic People's Republic of Korea
DRR	Disaster Risk Reduction
Eawag	Swiss Federal Institute of Aquatic Science and Technology
EG WASH	Expert Group WASH
FSM	Faecal Sludge Management
FTE	Full-Time Equivalent
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPW	Global Programme Water (SDC)
GTA	German Toilet Association
GWSP	World Bank Water and Sanitation Partnership
H-LOG	Humanitarian Equipment and Logistics (SDC)
H-OpKom	Operational Committee – Humanitarian Domain
HA	Humanitarian Aid (SDC)
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
INGO	International Non-Governmental Organisation
IWRM	Integrated Water Resources Management
MENA	Middle East and North Africa
MHM	Menstrual Hygiene Management
MOOCS	Massive Open Online Courses
MoU	Memorandum of Understanding
MSF	Médecins Sans Frontières
NGO	Non-Governmental Organisation
O&M	Operation and Maintenance
RANAS	Risks, Attitudes, Norms, Abilities and Self-regulation
RRR	Resource Recovery and Reuse
RWSN	Rural Water Supply Network
SABA	Basic Sanitation model
Sandec	Department of Water and Sanitation in Developing Countries
SC	South Cooperation (SDC)
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
SECO	State Secretariat for Economic Affairs
SET	Sofort Einsatz Team (Rapid Response Team)
SGBV	Sexual and Gender-based Violence
SHA	Swiss Humanitarian Aid
SUPSI	Scuola Universitaria Professionale della Svizzera Italiana
SuSanA	Sustainable Sanitation Alliance
SWM	Solid Waste Management
ToT	Training of Trainers
UN	United Nations
Unicef	United Nations International Children's Emergency Fund
VSA	Swiss Water Association
WABES	Water, Behaviour Change and Environmental Sanitation
WASH	Water, Sanitation and Hygiene
WSSCC	Water Supply and Sanitation Collaborative Council
WWTP	Wastewater Treatment Plant

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Inspection of plugged drainage channels. Democratic People's Republic of Korea. © Guillot, 2013, SHA





Absence of drainage around a non-protected water point: Multiple risks of well contamination through pathogen transmission. Chad. © Haeblerlin, 2014, SHA

1 Background and previous experience

The aim of this paper is to frame and define operational guidelines to develop the sanitation and hygiene promotion components of the SDC/HA WASH programmes.

Water, sanitation and hygiene (WASH) is one of the four priority themes identified for Humanitarian Aid (HA) in the Dispatch on Switzerland's International Cooperation 2017-2020 adopted on 17 February 2016. The other priority themes are protection, sexual and gender-based violence (SGBV) and Disaster Risk Reduction (DRR).

On 17 November 2016, the management of HA adopted an **operational concept** outlining the water, sanitation and hygiene strategic orientation for Swiss Humanitarian Aid (SHA). Five priority topics have been identified:

- 1) Integrated Water Resource Management (IWRM);
- 2) Sustainable WASH for all;
- 3) Regional coordination;
- 4) Contribution to water diplomacy;
- 5) Stakeholder coordination.

This operational concept stipulates inter alia that the sanitation component of HA/SHA interventions should be developed in the coming years to reach a level of maturity similar to the water sector. For the same period, an H-OpKom approved a concept defining the mandate and the tasks of the WASH expert group (EG WASH). This concept completes the operational concept and aims to:

- Give guidelines on professional requirements for its members;
- Define the type of missions;
- Describe the partnerships and networks to be developed;
- Define training and knowledge management;
- Set the composition and tasks of its technical working groups.

So far, SDC/HA contributions to sanitation and hygiene promotion is mainly done through **bilateral and multilateral contributions** aimed at supporting the construction of latrines (e.g. in schools and health centres) and funding hygiene promotion campaigns or the distribution of hygiene kits by international and national partners, with occasional contributions to faecal sludge management and innovative latrines. This type of support shall continue in the future.

Recently, the SDC/HA launched, together with SDC South Cooperation (SDC/SC), a large bilateral sanitation project in Jordan entitled 'Sanitation solutions for underserved communities in Jordan'. This project is aimed at increasing wastewater treatment efficiency, improving faecal sludge management and turning waste streams into physical and financial resources streams by ensuring and promoting the safe reuse of treated wastewater and faecal sludge.

In 2017, the SDC/HA directly implemented the construction of a large sewage network serving 25,000 beneficiaries in the Jerash camp for Palestine refugees in Jordan. Another **direct action** in DPR Korea is aimed at linking WASH to DRR by increasing access to sustainable water and sanitation services in rural areas. In terms of sanitation, the installation of double-pit latrines allows safer handling of faecal matter that is then used as fertiliser. A pilot project for biogas production was developed and has been replicated by the local authorities.

Contributions to the sanitation sector are also made through **SET (Rapid Response Team)** mechanisms, i.e. by constructing ecological latrines in the Philippines in response to a natural disaster (cyclone). Finally, the **secondment** of hygiene promotion experts to UN agencies and to bilateral partners (e.g. Solidarités International in Bangladesh) represents a powerful tool to improve the sanitation and hygiene promotion response of WASH interventions.

In the field of sanitation and hygiene promotion, the SDC/HA increased technical and strategic exchanges with the SDC's Global Programme Water (SDC/GPW). The SDC/GPW has confirmed the importance of sanitation and hygiene promotion within its portfolio and fully supports the idea that the SDC/HA will be more active in these fields. The SDC/GPW strategic framework for 2017-2020 strives to ensure sustainable access to water resources using a comprehensive approach. This depends not just on the water and sanitation sector, but requires integrating associated fields such as health, education, gender equality, energy, industry, trade, agriculture, nutrition, social development, environment and climate change. The SDC/GPW contribution to the sanitation and hygiene promotion sector is carried out through:

- **Contributions to global partners and platforms:** Water Supply and Sanitation Collaborative Council (WSSCC), World Bank Water and Sanitation Partnership (GWSP) and Rural Water Supply Network (RWSN);
- **Support for NGOs:** Swiss Water and Sanitation NGO Consortium;
- **Support for initiatives:** Research for Action (WABES) through Eawag-Sandec, Scaling Up Safe Water (Antenna Foundation) and Resource Recovery and Reuse (RRR) in which Eawag-Sandec is involved;
- **Specific projects:** SABA plus, which aims at increasing sanitation coverage in rural areas.

Another important Swiss actor in the field of sanitation and solid waste management is the State Secretariat for Economic Affairs (SECO). SECO's investments in the field of sanitation are far beyond the SDC/HA's financial capacity and mandate. Thus, the SDC/HA is in no way willing to compete or challenge SECO's mandate by constructing large infrastructures, but will remain focused on the rehabilitation aspects (i.e. repair after partial destruction, not reconstruction) and transitioning from emergency responses to the stabilisation phase. SECO's contribution to the WASH sector includes:

- Financing and constructing large wastewater collection and treatment systems;
- Supporting water utilities by improving service quality and financial sustainability;
- Improving solid waste management in municipalities.

Surface water contamination by municipal solid waste. Bangladesh. © Bünzli, 2017, SHA



2 Thematic orientation

The United Nations General Assembly passed and adopted Resolution 70/169 on the **human rights to water and sanitation** on 17 December 2015. The resolution recognises the distinction between the right to water and the right to sanitation, making a huge step in the prioritisation of sanitation. The text, adopted by consensus, recalls that the right to water and the right to sanitation are distinct rights but they remain related and are both derived from the right to an adequate standard of living. It acknowledges the importance of equal access to safe drinking water and sanitation as an integral component of the realisation of all human rights. The text further recognises that everyone is entitled:

- To have access to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic use;
- To have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, and socially and culturally acceptable and that provides privacy and ensures dignity.

The resolution also highlights the gender-specific impacts of inadequate water and sanitation services, in particular the reinforcement of widespread stigma associated with menstruation when WASH services are inadequate, and the impact on other human rights such as the right to education for girls. The United Nation's **Sustainable Development Goals (SDGs) 6.2 and 6.3** related to sustainable access to sanitation for all, provide a list of targets and indicators for the WASH sector:

- SDG 6.2 by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- SDG 6.3 by 2030, improve water quality by reducing pollution, eliminating dumping and minimising the release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.

On the operational level, the **Sphere Project** and its handbook introduce considerations of quality and accountability to humanitarian responses. The Sphere Project has set out a humanitarian charter and identified a set of minimum standards in key life-saving sectors which are now reflected in the handbook's four technical chapters on: 1) water supply, sanitation and hygiene promotion; 2) food security and nutrition; 3) shelter, settlement and non-food items and 4) health action.

Manual borehole drilling. Bangladesh. © Geser, 2018, SHA



These minimum standards are evidence-based and represent sector-wide consensus on best practice in humanitarian responses. The Sphere standards are currently under review. For WASH, the main updates will be:

- Chapter introduction, the right to water and sanitation, important aspects of WASH in humanitarian responses, and key protection considerations;
- The effective WASH programmes section includes standards on community engagement and action, sustainable solutions, and integrated programming (soft components);
- A new hygiene standard on menstrual hygiene management and incontinence;
- The excreta management section also covers collection, transport, disposal and treatment as well as safe management and maintenance of facilities, infrastructure and systems.

Although humanitarian WASH interventions primarily focus on life-saving measures, the humanitarian community has been increasingly confronted with longer-term protracted crises often situated in urban and camp contexts, where there is a need to serve refugees and host communities at the same time and to better link relief, rehabilitation and development. The **Compendium of Sanitation Technologies in Emergencies** addresses this reality by covering technologies that are suitable for acute responses and the stabilisation and recovery phase, addressing a broad spectrum of scenarios that humanitarian WASH practitioners may encounter when planning, implementing and operating appropriate sanitation services. These longer-term solutions would contribute to a holistic management of the water cycle ultimately influencing **public health conditions and environmental protection**. The Compendium of Sanitation Technologies in Emergencies was launched during the Global WASH Cluster meeting on 11 April 2018 in Berlin and has been adapted from the Compendium of Sanitation Systems and Technologies (development oriented) by Eawag-Sandec, GTA (German Toilet Association) and Borda (Bremen Overseas Research and Development Association).



In cooperation with Eawag and Cewas Middle East, the BENAA Foundation prepared the Arabic translation of the Compendium of Sanitation Systems and Technologies and was responsible for its dissemination in the Middle East, including via the Arabic Compendium’s online page (released in March 2017). Since its launch, the page has acquired 2,100 followers. The book reached an audience in the entire MENA region, especially in Algeria, Jordan and Egypt, with almost 200,000 views. In addition, almost 18,000 users from the MENA region downloaded the book through Facebook campaigns. The Arabic Compendium was also promoted in local, regional and global events reaching almost 8,000 persons.

3 Vision and objectives

At the end of the 2017-2020 period, the WASH sector within the SDC/HA will have contributed to improved **public health conditions** as well as **environmental protection** through its water, sanitation and hygiene promotion programmes.

From a **sanitation** perspective, SDC/HA programmes should reach a level where:

- Ecologically-sound disposal systems for human excreta are systematically proposed and implemented;
- Sustainable management of faecal sludge is in place;
- Groundwater pollution by human excreta is limited to a minimum;
- Optimised recycling of final products such as sludge and treated wastewater has become the norm rather than the exception.

From a **hygiene promotion** perspective, SDC/HA programmes should contribute to public health by:

- Helping people to understand and develop good hygiene practices;
- Preventing diseases;
- Reducing the transmission of waterborne diseases;
- Promoting a positive attitude towards hygiene.

Considering this vision and objectives, the SDC/HA WASH programmatic approach will continue to be based on the needs of the beneficiaries, with life-saving activities remaining at the core of Humanitarian Aid. In this framework, the provision of safe water and messages on good hygiene represent one of the key priorities in emergency operations. However, a vision for sanitation shall be developed in parallel from the beginning to avoid unexpected negative impacts on public health and the environment.

The WASH sector is characterised by a focus on water while less attention is paid to sanitation and hygiene promotion. This statement is also valid for the SDC/HA whose WASH programmes show an emphasis on water, whereas sanitation and hygiene promotion remains partly neglected. In the coming years, the number of projects dedicated to sanitation and hygiene promotion shall increase continually, for instance by mainstreaming and promoting these topics in the design of WASH programmes more systematically.

Solid waste often represents a burden affecting humanitarian activities, and its management is a part of the WASH response including collection, transport, treatment and disposal/recycling. The SDC/HA does not consider **Solid Waste Management (SWM)** as an operational priority. Indeed, SWM involves financial volumes beyond the capacity of the SDC/HA. Where deemed necessary however, the SDC/HA will strive for an integrated solution to solid waste issues by focusing the main aspects of its management on waste fractions that are considered to be a priority. The SDC/HA's support for SWM will most likely be carried out through bilateral or multilateral funding.

4 Sanitation and hygiene promotion

4.1. Context

SDC/HA operations take place during three different phases: **emergency** (e.g. natural disaster, life-saving assistance), **protracted crises** (resilience-oriented assistance) and **reconstruction** (stabilisation and early recovery).

This implies specific working environments as well as different timeframes, needs, coordination mechanisms and interactions with other humanitarian stakeholders and the local/regional authorities. The differentiation of SDC/HA programmes in emergency, protracted and reconstruction settings makes sense from a programmatic perspective as the context remains important for the design of projects. Operations during the reconstruction phase or in protracted crises (resilience-oriented) mean working more often in urban areas where the needs span the full spectrum between relief and development within a humanitarian context.

In these contexts, the SDC/HA aims to develop significant expertise in specific niches in the field of sanitation and hygiene promotion. This will be done by slowly increasing the contribution to sanitation and hygiene promotion without weakening or reducing the long-standing expertise in the water domain.

4.2. Enabling environment

Sustainable and safe water supply, sanitation and hygiene practices are pivotal for achieving the SDGs. The soft components (e.g. behaviour change, community mobilisation) of sanitation and hygiene promotion interventions cannot be overemphasised.

Experience shows that WASH facilities and products are rarely used in an effective manner unless sanitation and hygiene promotion is carried out. Changing or re-enforcing behaviours is the starting point when it comes to ending open defecation, improving hygiene practices and promoting drinking water safety. Behaviour change is far more than just raising awareness and requires a systematic and combined approach of behaviour change techniques that are based on a sound understanding of individual habits, interpersonal structures, barriers and enabling factors. Therefore, participatory methods focusing on interaction with the affected community are often the most successful approaches for achieving change.

A key area for SDC/HA interventions in the medium term will be to foster **behaviour change** as an integral part of sanitation and hygiene promotion interventions. To establish long-term behaviour change, ensure the maintenance and functionality of sanitation technologies, and thus achieve related health and environmental benefits, techniques that can foster sustainable behaviour change must be implemented. The **Risks, Attitudes, Norms, Abilities and Self-regulation (RANAS)** method has been developed by Eawag's Environmental and Health Psychology Group, which is interested in developing a simplified RANAS approach and tools that can be used in emergency contexts.

The RANAS approach to behaviour change is a method for designing and evaluating behaviour change strategies that target and change the factors influencing a specific behaviour in a specific population. In brief, it is a method for measuring behavioural factors, assessing their influence on behaviour, designing tailored strategies that change behaviour, and measuring the effectiveness of these changes. The RANAS approach involves four phases:



Basic hygiene covered with unimproved service. Bangladesh. © Keller, 2017, SHA

- Identify potential behavioural factors;
- Measure the behavioural factors identified and determine those steering the behaviour;
- Select corresponding behaviour change techniques and develop appropriate behaviour change strategies;
- Implement and evaluate the behaviour change strategies.

To guarantee the **sustainability** of its programmes, SDC/HA interventions must be aligned with national strategies and humanitarian response plans. In addition, the connection and the development of a sound interface and relationship with the national, regional and local authorities (e.g. water ministries, water establishments, public health engineering departments) must be part of a larger institutional implementation framework.

4.3. Sanitation

Many disaster situations show the need to implement sustainable sanitation solutions. Such systems aim to enhance human health by providing a clean environment and by breaking the cycle of water-borne diseases. To be sustainable, sanitation systems have to be economically viable, socio-culturally acceptable and financially, technically and institutionally appropriate. Thus, sanitation should be considered as more than a public health issue only, and be perceived in its environmental dimension as a contribution to the dignity of the beneficiaries.

In sanitation, the main shortcomings of current approaches include insufficient investment, absence of sustainable solutions and insufficient human resource capacity in humanitarian agencies, in particular for urban sanitation. The low priority assigned to sanitation facilities and particularly to faecal sludge collection and treatment has led to the provision of unsuitable urban sanitation systems. Often, the faecal sludge management consists of indiscriminate disposal in the urban environment

and water bodies that leads to terrestrial and aquatic contamination, high risk of transmission of gastro-intestinal infections as well as morbidity and mortality related to water-borne diseases. In this context, the SDC/HA identified **Faecal Sludge Management (FSM)** as the main thematic niche where Switzerland can bring substantial benefit. Most target countries of the SDC/HA rely significantly on onsite sanitation systems and FSM shows particular relevance in water scarce countries where there is not enough water for sewer-based systems. **Reclaimed or recycled water** (i.e. the reuse of treated wastewater) is an important fresh water-saving measure and can be used for a large variety of activities such as irrigation (restricted or not), toilet flushing, businesses, industries, improvement of streamflow, groundwater artificial recharge or even the production of drinking water.

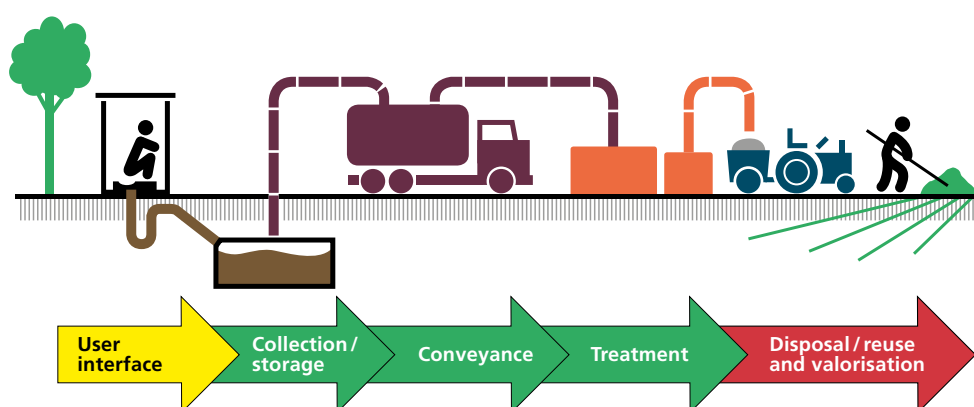


Faecal sludge emptiers – an important contribution to environmental sanitation. Bangladesh. © Bünzli, 2017, SHA

4.3.1. Emergency

During the emergency phase of a crisis, the SDC/HA is able to activate a rapid response mechanism by deploying SHA WASH experts covering a large spectrum of technical expertise. Currently, only few agencies (e.g. Oxfam, MSF, ICRC, IFRC, GIZ, Austrian Red Cross) have sound expertise in sanitation in emergencies. Preliminary fields of activities are presented below:

- **Rapid assessments** of the situation aimed at providing a qualitative, cross-sectional snapshot through observation, key interviewees, focus group discussion and secondary sources. The objectives are first to assess the extent of the emergency, identify the principal needs and gaps, and identify potential health threats to the population, and then to define and prioritise the type and scale of interventions and priority activities and provide information needed to plan their implementation. The SDC/HA will explore how new emerging mobile technologies for data collection could be integrated in its operations.
- As it is difficult to act on the entire human excreta management cycle during an emergency phase, the SDC/HA will focus on the partial **collection/storage – conveyance – treatment** cycle (in green in the figure below). It is very unlikely that the disposal/reuse and waste valorisation aspects (in red in the figure below) can be developed during an emergency phase.
- The SDC/HA assumes that the **user interface** (in yellow in the figure below) is normally managed by other organisations (i.e. NGOs). Where deemed necessary however, the user interface including temporary interfaces (e.g. toilets) will be explored in close cooperation and partnership with the Construction Expert Group. In any case, the SDC/HA's support for the user interface will continue to be carried out through bilateral or multilateral funding.
- Based on SDC/HA experience in the Middle East and considering the needs assessment by SHA WASH experts, the evaluation, assessment, technical advice and potential rehabilitation work on **large-scale conventional wastewater treatment plants (WWTP)** should be explored (i.e. on the model of ICRC actions). This aspect requires multiple specific skills (see section 7 for details).

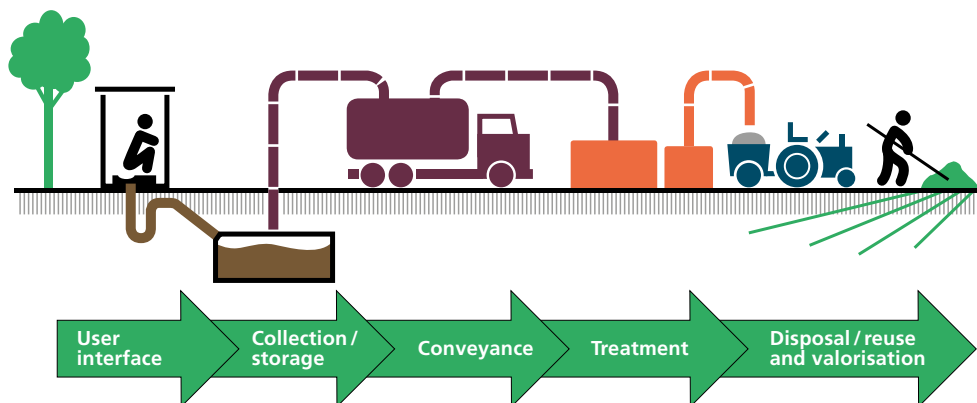


4.3.2. Protracted crises

In protracted crises, the SDC/HA is mostly supporting resilience-oriented humanitarian responses through bilateral and multilateral support to (I)NGOs, UN agencies and the ICRC. Whenever possible, direct actions will be conducted.

Protracted crises include transitional to long-term projects. This setting implies the involvement and inclusion of many actors, from the governmental authorities to the private sector. Interventions often become highly institutional, and alignment with national plans is essential. Preliminary fields of activities are presented below:

- Whereas the first responders in emergencies are known, there are many more sanitation actors in protracted crises and a proper **actors' mapping** should be carried out.
- Depending on the settlement's typologies (e.g. rural, urban, camps, informal settlements, war-damaged area) and the spatial organisation (i.e. nucleated, linear or dispersed), various types of intervention are foreseen. **Adapted treatment systems** (e.g. considering constraints such as topography, space, vegetation, dimensioning) and operation and maintenance (O&M) must be taken into consideration, and small-scale sanitation solutions including resource recovery (e.g. biogas, recycled water) should be explored.
- In protracted crises, FSM presents interesting perspectives and the SDC/HA will work on the **entire human excreta management cycle: user interface – collection/storage – conveyance – treatment – disposal/reuse and valorisation** (in green in the figure below).



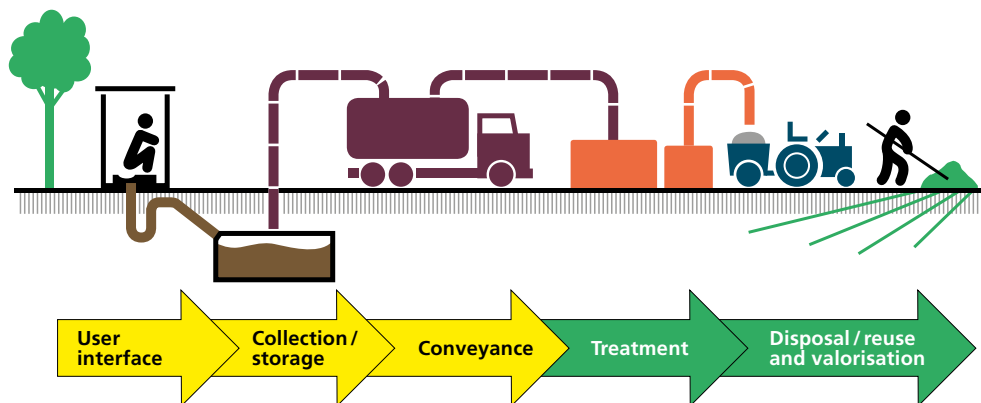
Latrine block overlooking a steep slope. ©Keller, 2017, SHA



4.3.3. Reconstruction

Reconstruction programmes are launched in response to natural disasters or in post-conflict situations that leave individuals, societies and their infrastructures vulnerable, which can in turn lead to great financial or human losses. In a reconstruction setting, the provision of services involves people, hardware and consumables in addition to infrastructure. Service provision (e.g. water supply, wastewater evacuation, electricity) are often interconnected and the combination of indirect and direct impacts may lead to service decline and risks for public health and environmental degradation. Preliminary fields of activities are presented below:

- In urban areas, large infrastructures play a major role and the **rehabilitation of sewage networks and/or wastewater treatment plants** becomes a priority. The impact of such interventions may be crucial for large populations whereas the investment can remain relatively moderate.
- An integrated approach shall remain a key concept, which implies inter alia a **more systematic use of recycled water and other biosolids**. However, this approach becomes challenging when it comes to countries where recycling was not really considered and implemented before the crisis. In terms of FSM specifically, the SDC/HA will focus on the partial human excreta management cycle: **treatment – disposal/reuse and valorisation** (in green in the figure below), although the previous steps might be considered if deemed necessary (in yellow in the figure below).
- Another approach could be a contribution to the establishment of **strategic planning**.
- **WASH in schools** remains a priority for the SDC/HA, but long-term sanitation issues are not being considered enough for the time being. Schools represent one of the perfect entry points for both behaviour changes through education and the implementation of sustainable solutions.



High-end, conventional wastewater treatment plant. Lebanon. © Geser, 2015, SHA

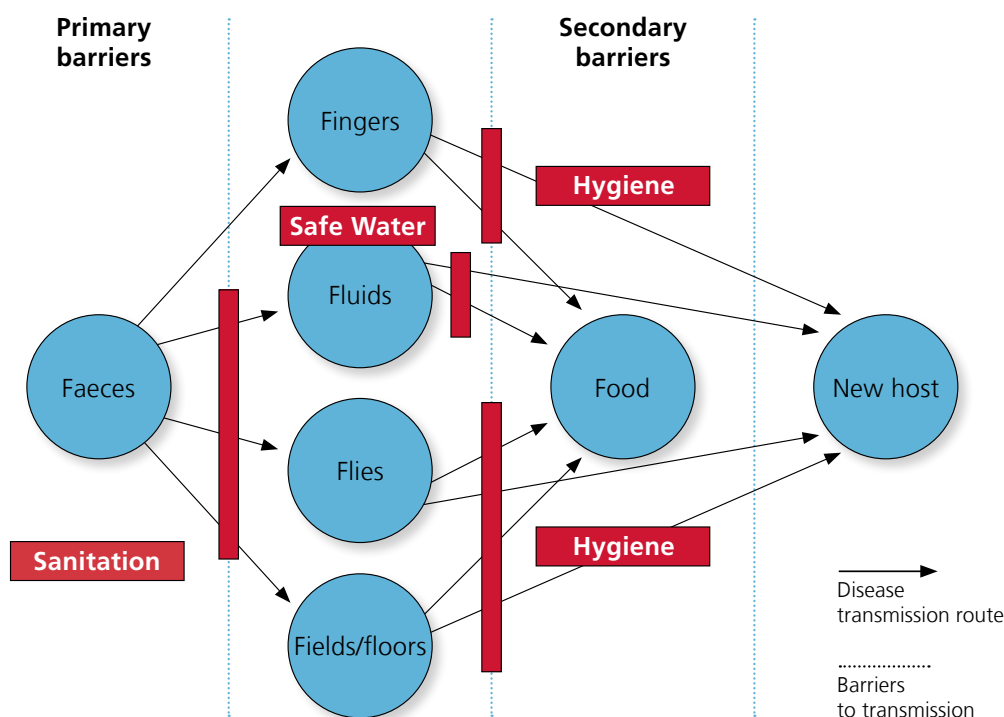


4.4. Hygiene promotion

Access to improved water and sanitation facilities alone does not necessarily lead to improved health. Hygiene promotion as described below is applicable in **emergency, protracted crises** and **reconstruction** phases and contexts and must be seen as a long-term process.

Improved water supply and sanitation services are only effective when combined with good hygiene practices and conditions. SDG 6.2 explicitly stipulates that “by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations” and measures related progress through the presence of basic hand washing facilities with water and soap. SDGs define hygiene “as the condition and practices that help maintain health and prevent spread of disease including hand washing, menstrual hygiene management and food hygiene”. Some specific aspects of hygiene promotion in humanitarian contexts are:

- **Household water treatment and safe storage** is important to improve the quality of drinking water at point of use. It is of especial importance in emergency contexts, where water safety at source cannot be ensured and recontamination during transportation in dirty containers and unsafe handling at household level is common. All efforts to make water clean are pointless if water is improperly stored or handled.
- **Washing hands** with water and soap at critical times (after contact with faeces and before handling food) is an effective way to prevent diarrhoea.
- Access to water and sanitation are important prerequisites for **Menstrual Hygiene Management (MHM)**. Women and girls need privacy to change sanitary cloths or pads as well as clean water for hand washing and laundry and facilities for safe disposal of used materials. MHM does not only consider the interface (e.g. toilet) but implies a proper waste system including collection, transport and safe disposal (e.g. landfills, bury pits, incinerators). Whenever possible, SWM services should be adapted to existing SWM infrastructures and include MHM. There is also a need for both women and men to have a greater awareness of menstrual hygiene. Currently, cultural practices and taboos around menstruation negatively influence the lives of women and girls, and reinforce gender inequities and exclusion. In most parts of the world, menstrual hygiene is a taboo and is rarely talked about.



While the SDC/HA acknowledges the importance of addressing hygiene promotion in its WASH interventions, identifying the niches where to invest and develop specific expertise requires further analysis. Identifying these niches is under the lead of the sanitation and hygiene task force (see section 8) with the objective of better understanding the needs, capacities and limitations of hygiene promotion in humanitarian contexts. To date, there is a general agreement that SDC/HA WASH experts should also be familiar with the basic approaches, main behaviour change techniques and communication channels to promote adequate sanitation and hygiene behaviour. In the coming years, specific trainings on soft skills will contribute to the capacity building of SDC/HA WASH experts.

The SDC/HA's main contribution to hygiene promotion will be done through bilateral support to (I) NGOs and multilateral support to UN agencies, mainly UNICEF but also the IFRC its the national societies, which have developed strong hygiene promotion skills. Another promising intervention modality for the SDC/HA is the secondment of experts to specific projects and/or NGOs, including strategic activities such as the preparation of guidelines/technical documents or Training of Trainers (ToT). Preliminary fields of activities are presented below:

- The EG WASH has developed expertise and capacities in the field of water quality testing and on-site chlorination using WATA devices (Antenna Foundation). Expanding the current primary focus on the provision of safe drinking water at distribution points towards integration of the entire chain from **collection, transportation, storage** to access at home, would strengthen the WASH interventions and contribute to improved health (e.g. knowledge of designing and implementing a cleaning campaign for water containers at water distribution points).
- **Focusing on MHM** would allow the development of a strong synergy with SDC colleagues active in SGBV and gender issues. As the context needs to be relatively stable to reach a proper impact, areas for interventions could be schools and camps, where management structures exist. Synergies with Eawag-Sandec are to be explored.
- Evaluate and field **test technical innovations for hand washing** stations and develop a SDC/HA hand washing module (e.g. membrane technology with water recycling that reduces water demand).
- Explore **CASH-based options** for the delivery of hygiene products and simple hand washing facilities. This approach might be adapted for emergency interventions.

4.5. SET modules

The EG WASH has developed several WASH modules (SET) with a focus on water supply in emergencies. One of these modules is the 'water distribution 5000' aimed at ensuring safe water supply to approximately 5,000 beneficiaries. In order to close the water cycle in a sound manner and guarantee a mitigation of the risks for public health and the environment, the development of **emergency sanitation modules** will be explored in close cooperation with SDC Humanitarian Equipment and Logistics (H-LOG). Preliminary fields of activities are presented below:

- A **field laboratory** for sludge characterisation would guarantee a continuous analytical quality control that is a prerequisite for the stable operation of any treatment process. Therefore, and in addition to the appropriate technology, an easy to handle field test laboratory is required. The SDC/HA will join forces with organisations who have already developed such field laboratories and will further explore existing analytical field tests allowing reliable quality control for on-site sludge treatment processes and adjust it to its specific needs. The field test kit should offer the possibility to monitor key parameters for faecal sludge and wastewater treatment processes. In emergencies, the objective would be to deploy the field laboratory with a trained expert.
- Considering the lack of a sound strategy for sanitation in emergency operations, the SDC/HA will explore the opportunity to develop a modular **collection/storage-conveyance-treatment (stabilisation) module** for the excreta which would be complementary to the 'water distribution' module. Such a module would contribute to paving the road for more sustainable sanitation solutions by providing a vision and a strategy and by ensuring that public health and environmental protection are guaranteed. Such an emergency module shall give more time to implement infrastructures that are more resilient.

After an assessment phase, these modules shall be formally presented and discussed during an H-OpKom.

5 Eawag-Sandec backstopping mandate

SDC/HA in-house capacity in sanitation is currently insufficient to efficiently support the field operations with strategic orientation, programmatic advice and technical support. To initiate this sectoral development, technical collaboration with Eawag-Sandec has begun.

Sandec is the Department of Water and Sanitation in Developing Countries at the Swiss Federal Institute of Aquatic Science and Technology. The Sandec team is composed of scientists and engineers who develop new water and environmental sanitation concepts and technologies with partner organisations worldwide, while making use of Eawag's multidisciplinary scientific and technological knowledge. Sandec is one of the global leaders in WASH-related research for development and has a successful track record in applying for global funding for applied research through development banks, the Gates Foundation and other bilateral donors. Sandec is committed to:

- Developing and facilitating the implementation of new concepts and technologies in water supply and environmental sanitation;
- Increasing research capacity and professional expertise in low and middle-income countries in the field of water supply and environmental sanitation;
- Raising awareness and enhancing professional expertise in high-income countries for water supply and environmental sanitation issues in low and middle-income countries.

After an initial one-year phase in which the exact modalities of the collaboration have been tested and fine-tuned, the backstopping mandate has been extended to cover the remaining period of the 2017-2020 Dispatch. The objective of the backstopping mandate is to enhance the design of sanitation interventions and improve the programming of sanitation projects by:

- Developing the skills of the experts belonging to the EG WASH and to some extent to the partners of the SDC/HA;
- Supporting selected field operations with technical advice and know-how transfer from Switzerland (techniques and technologies);
- Innovating by testing emerging methods and technologies (e.g. faecal sludge field laboratory, mobile data collection).

In terms of skills **development**, Eawag-Sandec shall be involved in:

- Development of trainings for SHA members in Switzerland with the possibility of conducting tailor-made trainings on specific sanitation solutions and related topics;
- Development of trainings abroad and for a wider audience including local and regional partners/actors;
- Individual coaching on sanitation issues with a number of experts from Eawag-Sandec who can be mobilised to support SHA WASH experts in the field.

In terms of **field support**, EAWAG-Sandec shall conduct field missions to identify specific challenges and prepare recommendations including the technical design of adapted solutions, mobilisation strategies to trigger behaviour changes and recommendations based on its broad expertise on the most adaptive ways to implement sustainable O&M schemes.

6 Partnerships and institutional setups

Progress in the WASH sector and specifically in the sanitation and hygiene promotion sectors requires new types of partnerships. Governments, international organisations, the private sector, academia and civil society must build bridges from local to global levels and encourage multi-sectoral approaches. The current SDC/HA sanitation network includes SUPSI, Eawag-Sandec, SuSanA, Borda, Waste, Oxfam, the IFRC, the Austrian Red Cross and the global WASH cluster. For instance, solutions through innovative approaches (e.g. testing new approaches, tools and concepts, partnership models that foster research, technology, knowledge transfer, service delivery, WASH management and more sustainable business models) should be encouraged and developed.

Institutional synergies and coordination are already taking place with other SDC actors such as SDC Global Program Water, SDC Global Program Health, SDC Global Program Food Security and SDC South Cooperation. Although direct collaborations with SECO are unlikely, synergies and the exchange of expertise will be explored whenever possible.

At the level of the expert groups, cooperation and synergies will be further developed with EG Construction (e.g. WASH in schools) and H-LOG (e.g. sanitation emergency modules). Synergy with and the potential involvement of the German and the Swiss WASH network should be further explored. A partnership with the Swiss Water Association (VSA) will be explored. The VSA offers a platform for exchanges, capacity building, technical expertise and recommendations, and international cooperation through its network.



Construction of a water reservoir. The source protection perimeter will be fenced afterwards.
Democratic People's Republic of Korea. © Guillot, 2013, SHA

7 Structure of the EG WASH

By further developing the sanitation and hygiene promotion components within the SDC/HA, the structure of the EG WASH needs to be modified. Currently, a WASH thematic programme officer and their deputy lead the EG WASH.

Based on the development of the sanitation and hygiene promotion domains, the EG WASH will be subdivided into **three sub-groups**, namely water (existing), sanitation and hygiene promotion. As mentioned above, the sanitation and hygiene promotion domains necessitate the recruitment of specific profiles. Whereas the sanitation part will mainly consider profiles with a strong technical background, the hygiene promotion group will focus more on experts specialising in social sciences, with some experts possibly coming from other expert groups such as Protection or Coordination/Administration. To support this new structure, a second **deputy head** will be specifically in charge of the sanitation and hygiene promotion aspects. They will be responsible for conducting initial interviews, allocating functions within the group, defining training needs and the content of the training modules and developing the emergency modules.

Finally, the set-up and activation of an **interim sanitation and hygiene promotion task force** will support the development and the steering of the sanitation and hygiene promotion components. This task force will be backed by the Eawag-Sandec backstopping mandate and shall be replaced by a technical working group after an initial phase.



Desludging truck and portable, chemical toilets. Middle-East refugee crisis, Croatia. © Bünzli, 2015, SHA

8 Recruitment strategy

As mentioned above, the internal capacity of the EG WASH in the field of sanitation and hygiene promotion remains relatively marginal and a reinforcement of technical and soft competences is required. Ideally, at least **16 new members of the EG WASH** are needed in the coming years to reach a first level of 4 FTE in sanitation and hygiene promotion-related SHA missions per year. A first step will be to evaluate the CVs of active SHA WASH experts and to attribute specific sanitation functions. By order of priority, competencies to acquire through recruitment include:

- **Faecal Sludge Management:** knowledge of the faecal sludge service chain, from collection to treatment and disposal/reuse and valorisation; understanding of faecal sludge stakeholders' constraints and ability to involve these stakeholders; ability to carry out financial analysis of the whole sanitation chain; knowledge of the treatment technologies and treatment processes; ability to design and set up a faecal sludge collection and treatment service.
- **Decentralised (small-scale) wastewater treatment and sanitation in emergencies:** expertise on small-scale treatment technologies (e.g. anaerobic low cost systems, constructed wetlands, compact aerobic units) including technical design of simplified sewer networks and planning with multi-stakeholder involvement, especially communities. Expertise of sanitation technologies in emergencies, especially the different types of latrines and container-based systems. Capacity to plan a complete sanitation supply chain, from the user interface to the treatment and disposal/reuse and valorisation. Capacity to design the user interfaces, collection and storage and transport components of the chain with a mid-term vision that covers transition and recovery phases.
- **Behaviour change - soft components in WASH:** (1) community mobilisation: ability to engage stakeholders and plan sanitation systems in a participatory manner; (2) behaviour change: expertise with behaviour change approaches and capacity to design, implement and monitor behaviour change measures; (3) business models: expertise in the development of sustainable sanitation services and/or private sector development.
- **Centralised 'conventional' wastewater treatment plants (WWTP) including O&M:** understanding of treatment plants components, treatment processes and capacity to plan and design the rehabilitation, optimisation or upgrade of existing wastewater treatment plants at various scales. It is important to mention that the SDC/HA will not build new or entirely rebuild WWTP, but will limit its mandate to specific rehabilitation, optimisation and technical advice;
- **Sanitation profiles with strong coordination and soft skills:** these specific profiles could be seconded as WASH cluster coordinators.

Profiles required include but are not limited to environmental engineer, public health specialist, mechanical engineer, electrical engineer, civil engineer, biologist / chemist, urban planner, community mobiliser, social analyst, economist, PPP specialist. ... In order to reach as many candidates as possible, there is a need to develop a pro-active recruitment strategy. A number of sectoral associations, having their own platform, newsletters and events have been already identified and will be approached.

9 Trainings, capacity building and events

As outlined above, the SDC/HA needs to build internal capacities in project evaluation, design and implementation (including direct actions) for sanitation and hygiene promotion, mainly for the post-disaster emergency phases and protracted crises. From the beginning of a crisis, a holistic vision taking into account resilience, sustainability and longer-term perspectives should be conceptualised and developed.

From 2018 onwards, the SDC/HA will work intensively on building this capacity. New training modalities such as linking the completion of specific MOOCs with trainings focused on the technical and practical aspects (e.g. case study, design, calculation) or potential internships (e.g. conventional WWTP) will be explored. Events and trainings identified so far include:

- **The third WASH regional workshop MENA**, July 2018. This workshop shall be dedicated to sanitation and hygiene promotion, emphasising certain aspects of the soft components. The new Compendium on Sanitation Technologies in Emergencies shall be one of the highlights of this workshop. Menstrual Hygiene Management and 'Cash for Hygiene' could be other important topics.
- Training on **Solid Waste and Faecal Sludge Management**, September 2018. This training is in response to a specific request from the SHA WASH experts and will be adapted to operational priorities. The objectives of this course will be first to deepen understanding of SWM systems and their different components, with a practical focus on bio-waste treatment, and second on FSM, from the user interface to the disposal/reuse and valorisation.
- **Sanitation workshop DPR Korea**, November 2018. This workshop shall focus on decentralised wastewater treatment systems (DEWATS) and biogas production.
- Based on the tripartite Memorandum of Understanding (MoU) signed between the SDC, the Swiss Red Cross and the IFRC, an **exchange of experts** participating in technical trainings in the field of sanitation and hygiene promotion will be explored.
- SHA WASH experts have requested trainings focusing on the **soft aspects** (e.g. hygiene promotion, community mobilisation, behaviour change).
- **Sanitation within the UN system**: possibilities will be explored with the global WASH cluster to organise specific trainings to prepare SHA WASH experts for sanitation advisory missions within the UN system.
- **SET modules**: specific trainings will be dedicated to the SET modules for sanitation and hygiene promotion.
- **Continuing education**: for example, the MOOC Introduction to public health engineering in humanitarian contexts contributes to capacity building and was sent to the members of the EG WASH. Other available MOOCs on the Eawag-Sandec platform cover the fields of SWM, planning and designing sanitation systems, household water treatment and safe storage and FSM.
- The planned Certificate of Advanced Studies (CAS) jointly developed by Eawag-CHYN-SUPSI is a possible continuing education path for interested members of the EG WASH.



Training on the faecal sludge field laboratory. Uganda. © Austrian Red Cross, 2018.

Impressum

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... What is an 'ideal village'?

"A village will be so constructed as to lend itself to perfect sanitation...The very first problem the village worker will solve is its sanitation."

"If the worker became a voluntary scavenger, he would begin by collecting night soil and turning it into manure and sweeping village streets. He will tell people how and where they should perform daily functions and speak to them on the value of sanitation and the great injury caused by its neglect. The worker will continue to do the work whether the villagers listen to him or not."

Mahatma Gandhi, 1937