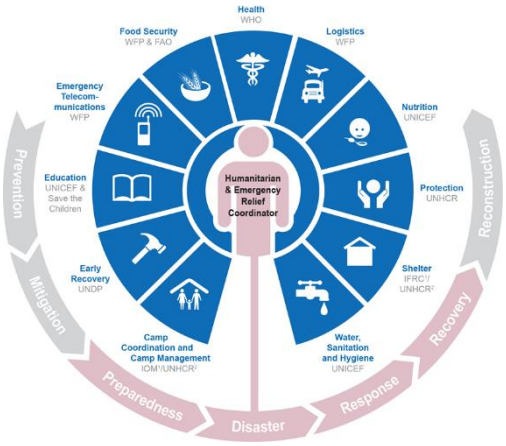
SUDAN WASH SECTOR
STRATEGIC OPERATIONAL FRAMEWORK 2022

BACKGROUND – THE CLUSTER APPROACH

In 2006, the United Nations General Assembly adopted resolution 60/124, strengthening the coordination of emergency humanitarian assistance of the United Nations. Member states called upon humanitarian actors to improve the humanitarian response to natural and human-made disasters and complex emergencies by strengthening the humanitarian response capacities at all levels, strengthening the coordination of humanitarian assistance at the field level, including with national authorities of the affected State, as appropriate, and by enhancing transparency, performance, and accountability.



The cluster approach ensures predictability and accountability in international responses to humanitarian emergencies by clarifying the division of labor among organizations and better defining their roles and responsibilities within the different sectors of the response. It is about making the international humanitarian community more structured, accountable, and professional, so it can effectively partner with host governments, local authorities, and civil societies.

In line with the above, the Inter-Agency Standing Committee (IASC), comprising the primary UN humanitarian agencies and critical partners, agreed that the cluster approach should be the framework for response in all significant new emergencies. Global cluster lead agencies were identified for key areas of responsibility. Global leads have agreed to be accountable to the Emergency Relief Coordinator for ensuring system-wide preparedness and technical capacity to respond to humanitarian emergencies and for ensuring greater predictability and more effective inter-agency responses in their particular sectors or areas of activity.

GUIDING PRINCIPLES: ADHERENCE TO HUMANITARIAN PRINCIPLES:

The partners ascribe to the Humanitarian Charter, including: *"The right to receive humanitarian assistance is a necessary element of the right to life with dignity. This encompasses the right to an adequate standard of living, including adequate food, water, clothing, shelter, and the requirements for good health, which are expressly guaranteed in international law. The Sphere Humanitarian Charter and Minimum Standards in Humanitarian Response reflect these rights and give practical expression to them, specifically concerning providing assistance to those affected by disaster or conflict. Any assistance must be provided according to the principle of impartiality, which requires that it be provided solely based on need and in proportion to need. This reflects the wider principle of non-discrimination: that no one should be discriminated against on any grounds of status, including age, gender, race, colour, ethnicity, sexual orientation, language, religion, disability, health status, political or other opinions, national or social origin"* (Sphere Standard[1]).

INTRODUCTION TO SOF

[1] Annex 1: Sphere Standards

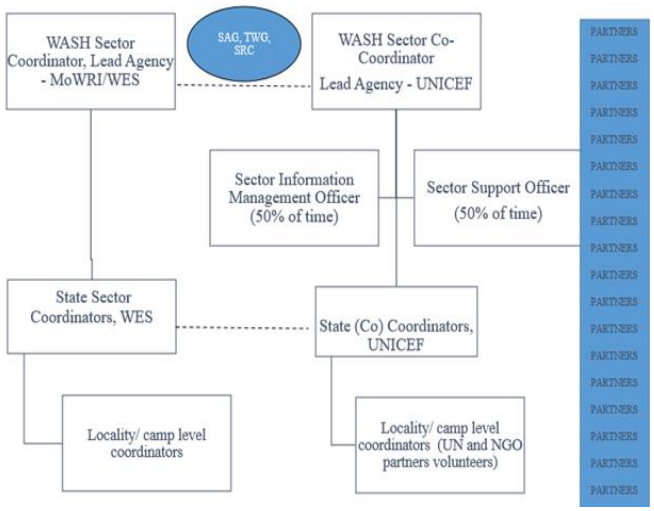
This Strategic Operating Framework (SOF) has been developed to guide WASH Sector partners in responding to humanitarian needs in Sudan in conjunction with the existing and forthcoming humanitarian response plans (2022 and 2023). This SOF is drafted in consultation with the Strategic Advisory Group (SAG) at the national level and will be revised as the humanitarian situation evolves in line with changes made to the WASH Cluster response plan and other guidance received by the SAG and the Technical Working Groups. However, by adhering to the cluster (Sector) approach, the partners agree to:

- Assist the authorities in responding to the WASH needs of the population affected.
- Promote a common understanding of the WASH sector needs and interventions in the response context among the WASH partners.
- Ensure a well-coordinated response and consequently increase the efficiency, effectiveness, and impact of individual agency responses; and
- Align towards common humanitarian principles and operational objectives.
- Partners to conform to the broad operational framework outlined in this document. Agencies that breach these guidelines will be expected to provide clear justification to the WASH Sector and other WASH Sector partners through the SAG[2].

SUDAN CONTEXT

The WASH cluster approach has been active in Sudan since October 2008. The Cluster coordination approach in Sudan is called Sector as it goes beyond. The WASH Sector coordination is led by the Ministry of Water Resources and Irrigation (MoWRI) and co-led by UNICEF since the inception of the sector approach in Sudan. The Federal Ministry of Health, which hosts the Sanitation and Hygiene components of the WASH, is part of the leadership in Sudan. The same arrangement of leadership is respected at Sub-National levels or State levels. The Water Environment and Sanitation (WES) program of MoWRI Co-leads the state WASH Sector coordination with UNICEF and in partnership with the State Ministry of Health. The national and state-level sector coordination is the only regular coordination mechanism in place where both humanitarian and development actors meet.

Organogram- WASH Cluster Coordination Sudan



The Darfur conflict displaced more than a million people in 2006; it has continued to erupt from time to time since then, restricting the IDPs from returning to their original settlements and adding up more displaced people. Now, Sudan has 3.7 million IDPs.

[2] The 'SAG' is a small group representing the main stakeholder groups within the WASH Cluster (UNICEF, IOM, National and International NGOs, Donor as an observer, Government Authority, CBOs, and related Clusters)

Water, Sanitation, and Hygiene (WASH) services have been provided to the IDPs, but the situation has deteriorated due to a worsening economic crisis, non-functional or aging WASH infrastructure or conflict-destroyed infrastructure, decreased/insufficient revenue collections, poor budget allocation, and increased operation maintenance costs attributed to an increase in fuel prices, all of these are putting more strain on existing water systems and substantial increase in the cost of water forcing people to resort to unsafe drinking water. IDPs, returnees, and vulnerable residents are the crisis-affected populations at significant risk of epidemics, food insecurity, malnutrition, the COVID-19 pandemic, floods, and new resource-related conflict.

Twenty-seven percent of the Sudanese population (around 11 million people) don't have access to basic water services. Multi-Sector Need Assessment (MSNA) 2020 showed that about 25 percent of the water sources are not functioning. Twenty-five percent of the population reports water quantity is insufficient to meet their basic needs; 50 percent of the people reported that it takes more than 50 minutes to fetch water which also causes insecurity, especially for girls and women. In addition, 54 percent of the schools and half of the health facilities do not have basic water services.

Seventy percent of the population (around 28 million people) don't have access to basic sanitation services. Out of them, 33 percent defecate in the open, 30 percent use unimproved sanitation facilities, and seven percent have access to limited sanitation facilities. In addition, 49 percent of the existing schools do not have improved sanitation facilities. Only 14.26[3]% of the households have access to a handwashing facility with soap and water.

The WASH needs analysis is conducted annually, which is well captured in the yearly Humanitarian Needs Overview (HNO). To address the humanitarian needs, the Humanitarian Response Plan (HRP) is developed annually, of which the WASH sector response plan remains an integral part. In 2022/23, around 64 projects of 53 partners were part of the humanitarian response plan. The total 2023 projected budget of these projects is 164 million USD, out of which 135 million is supposed to be for humanitarian and the remaining for humanitarian resilience programming.

NATIONAL POLICY FRAMEWORK AND TECHNICAL GUIDELINES FOR WASH:

The SOF will respect the national policy framework and technical guidelines. Following are the key documents that could be referred to (Links to these docs are available in the appendices):

- Water Sanitation and Hygiene Sector – Emergency Technical Guidelines for Sudan (November 2017), a manual for Field Staff and Practitioners
- Sudan National Sanitation and Hygiene Strategic Framework, 26 Aug 2016
- 2017_Sudan_FMoH_Protocol for Verification and certification of ODF Communities
- Sudan Drinking Water Safety Strategic Framework (SDWSSF)
- 2017_Sudan_GoS_Chlorination-Protocols
- MoWRI WASH Sector Technical guidelines (for reference) on:
    - Borehole with handpump
    - Drinking water distribution network
    - Drinking water treatment plant
    - Hand-dug wells water yard
    - Handdug well with handpump
    - High-capacity borehole water yard
    - Low-capacity borehole water yard
    - Household latrine
    - Rural health institutional latrines

[3] S3MII

  - School Latrines
  - Improved Hafirs
  - Improved small dams
  - Protected spring and roof water harvesting
  - Slow sand filter
- Sphere standards

STANDARD FOR WATER PROVISION

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

Key indicators

- Average volume of water used for drinking and domestic hygiene per household is atleast 15 litres per person per day.

Note: A minimum of 15 litres per person per day is an established practice. It is never a "maximum" and may not suit all contexts or phases of a response. For example, it is not appropriate that people may be displaced for many years. In the acute phase of drought, 7.5 liters per person per day may be suitable for a short time. Please refer to appendix 1 for minimum water quantities, survival figures, and qualifying water needs.

- Norms for the number of people using the water-based facility:
  - 250 people per tap (based on a flow rate of 7.5 litres/minute)
  - 500 people per hand pump (based on a flow rate of 17 litres/minute)
  - 400 people per open-hand dug well (based on a flow rate of 12.5 litres/minute)
  - 100 people per laundry facility
  - 50 people per bathing facility
- Distance from any household to the nearest water point needs to be less than 500 metres
- Queuing time at water sources to be less than 30 minutes
- Percentage of communal water distribution points free of standing water
- Percentage of water systems/facilities with a functional and accountable management system.

Standard 2. Water quality: Water is palatable and of sufficient quality for drinking, cooking, and personal and domestic hygiene, without causing a risk to health.

Key indicators

- Percentage of affected people who collect drinking water from protected water sources
- Percentage of households observed to store water safely[4] in clean and covered containers at all times
- Percentage of water quality tests meeting minimum water quality standards:
  - <10 CFU/100ml at point of delivery (unchlorinated water)
  - ≥0.2–0.5mg/l FRC at the point of delivery (chlorinated water).
  - Turbidity of less than 5 NTU

Guidance notes: In case of AWD/Cholera outbreak and/or if a well has been contaminated during a flood event, a one-time disinfection may be recommended, provided that the following applies:

  - There are no contamination sources nearby the well that would re-contaminate the well within a few hours. However, if it is the case, the well should be sealed and not be used as it represents a permanent risk to public health.

[4] Appendix 3: Household water treatment and storage decision tree

- After (or before) the emergency chlorination, a plan is in place to rehabilitate the well (casing, headwall, apron, and pump), decommission all sources of microbiological contamination in the vicinity (30m radius) and equip the well with an appropriate pumping installation.
- If there are no other options than re-chlorination of the well: the free residual chlorine must be monitored at least three times per day (to avoid excessive chlorination). The recommended between 0.2 and 0.5 mg/l).

Some devices allow the slow release of chlorine in water reservoirs and could be considered an option in emergencies.

- Water quality and FRC must be tested within households
- Ensure that the population has adequate containers to transport and store water in an adequate manner.
- Water treatment tablets provide a second barrier to ensure the provision of safe water
- Sensitization session activities are conducted in parallel with hygiene promotion to create a demand for chlorination and ensure the population understands the objective of avoiding spreading pathogens.
- All elevated tanks have ladders to allow the chlorination team to access the tank for chlorination and/or routine cleaning.
- Whenever possible, seek support from local authorities (leaders, commissioners, religious leaders, etc.) to enforce water chlorination and comply with the guidelines.
- A sustainable source of safe water is preferred to a temporary system on the condition that this doesn't represent a threat to public health.

STANDARD FOR SANITATION

Standard 3. **An environment free from human excreta**: All excreta is safely contained on-site to avoid contamination of the natural, living, learning, working, and communal environments.

Key Indicators:

- The environment in which the affected population lives is free from human feces.
- All excreta containment measures are at least 30 meters away from any groundwater sources. The bottom of any latrine or soak-away pit is at least 1.5 meters above the water table.
- Toilets are used in the most hygienic way possible, and children's feces are disposed of immediately and hygienically.
- All human excreta are disposed of in a manner safe to public health and the environment.

Note: In Sudan, installation of communal latrines[5] is advisable in the IDP camps, and in any new crisis, communal latrines are generally not a long-term solution as it's not easy to manage them unless the community is committed. Therefore it's good if, after the initial response, shared household and household latrines can be explored. In non-IDP settings, Community Led Total Sanitation could be considered an option, but certainly not the default option. Decontaminate any feces-contaminated living, learning, and working spaces or surface water sources immediately. Design and construct all excreta management facilities based on a risk assessment of potential contamination of any nearby surface water or groundwater source,i.e. by assessing the local topography, ground conditions, and groundwater and surface water (including seasonal variations, say floods) to avoid contaminating water sources and inform technical choices (raised latrine platforms where water table is high, especially in the flood plains). It's important to safely contain and dispose of children's and babies' feces as they are more

[5] refer water sanitation and hygiene – emergency Technical Guidelines for Sudan

harmful than adults. Design and construct all excreta management facilities to minimize access to the excreta by problem vectors.

Standard 4. **Access to and use of toilets**: People have adequate, appropriate and acceptable toilets to allow rapid, safe, and secure access at all times.

Key Indicators:

- The ratio of shared latrines is 1:20 people (one latrine per 20 people or three households).
  During the first phases of a rapid-onset crisis, communal toilets are an immediate solution with a minimum ratio of 1 per 50 people(or eight households), which must be improved as soon as possible. A medium-term minimum ratio is 1 per 20 people, with a ratio of 3:1 for a female to male toilets. For planning, figures, and the number of toilets, see Appendix 2. Aim for one latrine per household in stabilized context and if this brings an added value in terms of safety and/or public health. ***Handwashing****: Ensure that the facility allows for handwashing, including water and soap (or an alternative such as ash) after using toilets, cleaning the bottom of a defecated child, and before eating and preparing food.*
- Distance between dwelling and shared toilet is a maximum of 50 meters.
  Considering the safety of women and girls, it's advisable not to have latrines far away from the dwellings. As often as possible, build a separate toilet for males and females. Make sure they are clearly marked in pictorial form for illiterate users and work with the community to ensure the indicated gender uses them. In exceptional circumstances, toilets are provided per group of households in such a way that it reduces the risk of violence against users, especially women and children, and facilitates proper maintenance. This option must be agreed upon in consultation with the community, including after consultation with a group of women.
- Percentage of toilets that have internal locks and adequate lighting Percentage of toilets reported as safe by women and girls.
  Build latrines in a safe location, as agreed with women and girls in the design phase. For example, women may prefer private locations for toilets – away from public view. This may be achieved by a screen or a fence in front of the toilet. The latrine must have a rigid door (wooden or iron sheet), lockable from the inside, and fixed on a solid frame to allow a minimum of privacy and security for the users, particularly women and children.
  Children should be able to use and reach door handles and locks. Install lights near communal facilities. If lighting is not possible, consider coordinating with the NFI sector to provide solar lamps/torches for each household.
- Percentage of women and girls satisfied with the menstrual hygiene management options at toilets they regularly use
  Allow for the disposal of women's menstrual hygiene materials with a separate bin with a cover/lid or any other suitable option accepted by users to reduce flies' density

Standard 5. **Management and maintenance of excreta collection, transport, disposal, and treatment**: Excreta management facilities, infrastructure, and systems are safely managed and maintained to ensure service provision and minimum impact on the surrounding environment

Key Indicator.

All human excreta are disposed of in a manner safe to public health and the environment.

- *Please establish collection, transport, treatment, and disposal systems that align with local systems by working with local authorities responsible for excreta management.*
  - *Apply existing national standards and ensure that any extra load placed on existing systems does not adversely affect the environment or communities.*

  - *Agree with local authorities and landowners about land use for off-site treatment and disposal.*
- *Define systems for toilets' short- and long-term management, especially sub-structures (pits, vaults, septic tanks, soakage pits).*
  - *Design and size sub-structures to ensure that all excreta can be safely contained and the pits desludging.*
  - *Establish clear and accountable roles and responsibilities and define sources of finance for future operation and maintenance.*
- *Desludge the containment facility safely, considering both those doing the collection and those around them.*
- *Ensure that people have the information, means, tools, and materials to construct, clean, repair, and maintain their toilets.*
  - *Conduct hygiene promotion campaigns on the use, cleaning, and maintenance of toilets.*
- *Confirm that any water needed for excreta transport can be met from available water sources without placing undue stress on those sources.*

STANDARDS ON HYGIENE

Standard 6. **Hygiene promotion** - people, are aware of key public health risks related to water, sanitation, and hygiene and can adopt individual, household, and community measures to reduce them.
Indicators:

- Percentage of affected households who correctly describe three measures to prevent WASH-related diseases
- Percentage of the target population who correctly cites two critical times for handwashing
- Percentage of the target population observed to use handwashing stations on leaving communal toilets
- Percentage of affected households where soap and water are available for handwashing
- Percentage of affected population who collect water from improved water sources
- Percentage of households that store drinking water in clean and covered containers
- Percentage of carers who report that they dispose of children's excreta safely
- Percentage of households using incontinence products (pads, urinal bottles, bed pans, commode chairs) who report that they dispose of excreta from adult incontinence safely
- Percentage of affected households who dispose of solid waste appropriately
- Percentage of people who have provided feedback and say that their feedback was used to adapt and improve WASH facilities and services
- The local environment is free of human and animal feces

Standard 7: **Identification, access to, and use of hygiene items** - appropriate items to support hygiene, health, dignity, and well-being are available and used by the affected people

Indicators:

- All affected households have access to the minimum quantity of essential hygiene items:
  - two water containers per household (10–20 liters; one for collection, one for storage);
  - 250 grams of soap for bathing per person per month;
  - 200 grams of soap for laundry per person per month;
  - Soap and water at a handwashing station (one station per shared toilet or one per household); and
  - Potty, scoop, or nappies to dispose of children's feces.
- Percentage of affected people who report/are observed using hygiene items regularly after distribution
- Percentage of household income used to purchase hygiene items for identified priority needs

Standard 8: **Menstrual hygiene management and incontinence -** Women and girls of menstruating age, and males and females with incontinence, have access to hygiene products and WASH facilities that support their dignity and well-being.

Indicators

- Percentage of women and girls of menstruating age provided with access to appropriate materials for menstrual hygiene management
- Percentage of recipients who are satisfied with menstrual hygiene management materials and facilities
- Percentage of people with incontinence that uses appropriate incontinence materials and facilities
- Percentage of recipients that are satisfied with incontinence management materials and facilities

STANDARDS FOR VECTOR CONTROL AND SOLID WASTE MANAGEMENT

Standard 9: **Vector control at the settlement level**: People live in an environment where vector breeding and feeding sites are targeted to reduce the risks of vector-related problems.

Indicator:

- Percentage of identified breeding sites where the vector's life cycle is disrupted

Standard 10: Household and personal actions to control vectors: All affected people have the knowledge and means to protect themselves and their families from vectors that can cause a significant risk to health or well-being.

Indicators:

- Percentage of affected people who can correctly describe modes of transmission and effective vector control measures at the household level.
- Percentage of people who have taken appropriate action to protect themselves from relevant vector-borne diseases.
- Percentage of households with adequate protection for stored food.

Standard 11: Environment free from solid waste: Solid waste is safely contained to avoid pollution of the natural, living, learning, working, and communal environments

Indicator: There is no solid waste accumulating around the designated neighborhood or communal public collection points

Standard 12: Household and personal actions to safely manage solid waste

Indicators

- Percentage of households with access to a designated neighborhood or communal solid waste collection point at an acceptable distance from their dwelling
- Percentage of households reporting appropriate and adequate waste storage at the household level

Standard 13: **Solid waste management systems at the community level**: Designated public collection points do not overflow with waste, and waste's final treatment or disposal is safe and secure.

Indicator:

- Percentage of schools and learning centers with appropriate and adequate waste storage
- Percentage of public markets with appropriate and adequate waste storage

- Percentage of solid waste pits or incinerators at schools, learning centers, public markets, and other public institutions that are managed safely

STANDARDS FOR WASH IN HEALTH CARE SETTINGS

Standard 14: **WASH in healthcare settings**: All healthcare settings maintain minimum WASH infection prevention and control standards, including in disease outbreaks

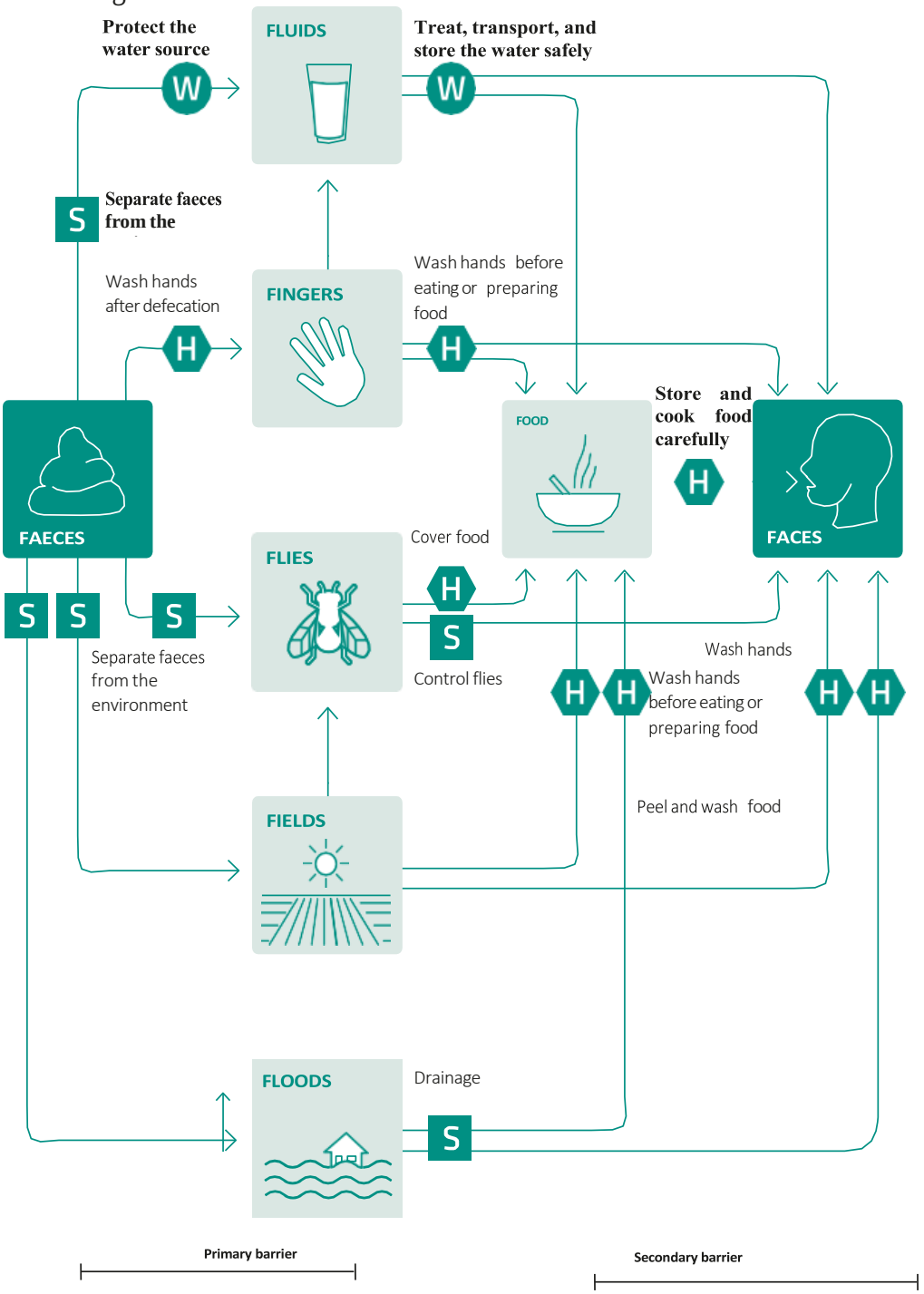
Indicators:

- All healthcare workers clean their hands, using soap or alcohol rub, before and after every patient contact
- All patients and caretakers wash their hands before handling or eating food and after going to the toilet
- All handwashing stations have soap or alcohol rub (or 0.05 percent chlorine solution in outbreaks)
- Number of handwashing stations, minimum one station for every ten inpatients
- Drinking water quality at the point of delivery: minimum: 0.5–1mg/l FRC
- Quantity of safe water available
    - Minimum: 5 litres per outpatient per day
    - Minimum: 60 litres per patient per day in the cholera treatment centre
    - Minimum: 300–400 litres per patient per day in a viral hemorrhagic fever treatment center
- Number of accessible toilets
    - Minimum: four in outpatient facilities (separated for men, women, children, and healthcare workers)
    - Minimum: 1 per 20 inpatients (separated for men, women, children, and healthcare workers)

APPENDICES

I. F diagram
II. Minimum water quantities: survival figures and quantifying water needs
III. Minimum numbers of toilets: community, public places and institutions
IV. Household water treatment and storage decision tree
V. TOR WASH Cluster
VI. TOR for Partners
VII. TOR State Focal Point
VIII. TOR SAG
IX. Terms of reference – TWGs
    a. Draft Terms of Reference - Accountability to Affected Populations (AAP) TWIG.
    b. Draft Terms of Reference for WASH M&E TWG
X. WASH Nutrition Guidance notes
XI. Guidance on Cholera response
XII. Technical Guidelines for the Construction and Management of Borehole Hand Pumps
XIII. Technical Guidelines for the Construction and Management of Borehole Water Yards
XIV. Technical Guidelines for the Construction and Management of Hand dug well Hand Pump
XV. Technical Guidelines for the Construction and Management of Hand dug well Water yard
XVI. Technical Guidelines for the Construction and Management of Health Institution Latrines
XVII. Technical Guidelines for the Construction and Management of Household Latrines
XVIII. Technical Guidelines for the Construction and Management of Improved Hafir
XIX. Technical Guidelines for the Construction and Management of Mini Water yards
XX. Technical Guidelines for the Construction and Management of Protected springs and Roof catchment
XXI. Technical Guidelines for the Construction and Management of School Latrines
XXII. Technical Guidelines for the Construction and Management of Slow Sand Filter
XXIII. Technical Guidelines for the Construction and Management of Small Dams
XXIV. Sudan National WASH Plan 2012-2016
XXV. Sudan WASH Technical Guidelines Final
XXVI. Technical Guidelines for the Construction and Management of Water Distribution Network
XXVII. Technical Guidelines for the Construction and Management of Water Treatment Plants
XXVIII. WASH SECTOR Hygiene Kit Standard
XXIX. WASH - Gender Programming Checklist
XXX. COVID 19 WASH Guidance for Sudan
XXXI. 2017_Sudan_WASH_Emergency technical guidelines
XXXII. 2017_Sudan_FMoH_Protocol for Verification and certification of ODF Communities
XXXIII. Sudan National Sanitation and Hygiene Strategic Framework
XXXIV. Sudan Drinking Water Safety Strategic Framework (SDWSSF)
XXXV. 2017_Sudan_GoS_Chlorination-Protocols

The F diagram: faecal–oral transmission of diarrhoeal diseases



NOTE: The diagram is a summary of pathways; other associated routes may be important. Drinking water may be contaminated by a dirty water container, for example, or food may be infected by dirty cooking utensils. © WEDC

The 5 Fs: faeces, fluids, fingers, flies, food (Figure 6)

Appendix 1: Minimum water quantities: survival figures and quantifying water needs

Surviving needs: water intake (drinking and food)	2.5–3 litres per person per day (depends on climate and individual physiology)
Basic hygiene practices	2–6 litres per person per day (depends on social and cultural norms)
Basic cooking needs	3–6 litres per person per day (depends on food type, social and cultural norms)
Health centres and hospitals	5 litres per outpatient 40–60 litres per inpatient per day 100 litres per surgical intervention and delivery Additional quantities may be needed for laundry equipment, flushing toilets and so on
Cholera centres	60 litres per patient per day 15 litres per carer per day
Viral haemorrhagic fever centre	300–400 litres per patient per day
Therapeutic feeding centres	30 litres per inpatient per day 15 litres per carer per day
Mobile clinic with infrequent visits	1 litre per patient per day
Mobile clinic with frequent visits	5 litres per patient per day
Oral rehydration points (ORPs)	10 litres per patient per day
Reception/transit centres	15 litres per person per day if stay is more than one day 3 litres per person per day if stay is limited to day-time
Schools	3 litres per pupil per day for drinking and hand washing (Use for toilets not included: see Public toilets below)
Mosques	2–5 litres per person per day for washing and drinking
Public toilets	1–2 litres per user per day for hand washing 2–8 litres per cubicle per day for toilet cleaning
All flushing toilets	20–40 litres per user per day for conventional flushing toilets connected to a sewer 3–5 litres per user per day for pour-flush toilets
Anal washing	1–2 litres per person per day
Livestock	20–30 litres per large or medium animal per day 5 litres per small animal per day

Appendix 2: Minimum numbers of toilets: community, public places and institutions

Location	Short term	Medium and long term
Community	1 toilet for 50 persons (communal)	1 toilet for 20 persons (shared family) 1 toilet for 5 persons or 1 family
Market areas	1 toilet for 50 stalls	1 toilet for 20 stalls
Hospitals/medical centres	1 toilet for 20 beds or 50 outpatients	1 toilet for 10 beds or 20 outpatients
Feeding centres	1 toilet for 50 adults 1 toilet for 20 children	1 toilet for 20 adults 1 toilet for 10 children
Reception/transit centres	1 toilet for 50 individuals 3:1 female for male	
Schools	1 toilet for 30 girls 1 toilet for 60 boys	1 toilet for 30 girls 1 toilet for 60 boys
Offices		1 toilet for 20 staff

Source: Adapted from Harvey, Baghri and Reed (2002)

Note: Where the context allows, aim for shared family toilets or, even better, household toilets from the onset in order to build acceptance, ownership and culturally appropriate sanitation interventions. Also, the community, the same number of bathing facilities as toilets per 50 persons (short-term) or 20 persons (long-term) should be provided.

Appendix 3: Household water treatment and storage decision tree