Before we begin

**Everyone must select a language!**

Click “interpretation” at the bottom of your Zoom window and select your language.

This webinar will be conducted in English with simultaneous interpretation in Arabic, French and Spanish.

Please ask your questions in the chat box, or during the Questions & Answers session after the presentation.
Session content

1. FSM TWiG
2. Aim of Standards
3. Terminology
4. Motivation for Standards
5. Deep Dive in Standards
6. Road-Testing

Session Objective

To present **Sanitation Quality Standards** for emergencies

→ When and where can they can the applied?

→ We need you help in application and testing!
Aim of the Sanitation Quality Standards

To help the humanitarian sector meet the growing challenges of providing effective Faecal Sludge Management in emergency contexts
### STANDARD 1: Environment free from human excreta

**Indicator 1.1** There are no human faeces present in the environment in which people live, learn and work.

### STANDARD 2: Access is provided to safe sanitation systems

*The selection of safe sanitation systems should be context specific, thus respond to local physical, social and institutional conditions. Sanitation systems are considered safe when the below listed actions are taken.*

**Indicator 2.1** People have access to sanitation facilities that are adequately located respecting distances from surface or groundwater sources and with user interfaces based on user-centered designs.

**Indicator 2.2** The health risk of sanitation workers (all staff, including desludging, transport and treatment) is minimized.

**Indicator 2.3** Toilet pits and tanks are safely desludged and the faecal sludge is safely transported.

**Indicator 2.4** Faecal sludge is safely treated and disposed of.
A quick word on terminology

Terminology Factsheet
Sanitation

- Sanitation refers to the provision of facilities and services for the safe disposal of human urine and faeces.

- “Sanitation” can also refer to solid waste management, drainage and vector control.
A sanitation service chain manages human faeces and urine (as wastewater or as faecal sludge) from the time it is generated until it is disposed of safely without harming public health and the environment.
Terminology

Wastewater vs Faecal Sludge
Safe sanitation service chain

- Many different shapes
- **Wastewater**: sewage network with treatment
- **Faecal Sludge**: safe sanitation service chain depends on conditions
A safe sanitation system does not necessarily include the transport and off-site treatment of faecal sludge or wastewater. If the below three points apply, the use of household latrines with a plan in place to safely decommission the system once full, is considered a safe sanitation system. This is generally the case in rural contexts.

- **1.5m**
  The ground water level is 1.5 meter or more deeper than the bottom of the pit or soak pit.

- **30m**
  The latrine or septic tank is 30 meter or more than away from a water source like a well or surface water.

- **Open arrow**
  There is sufficient space to dig a new pit or construct a new septic tank once the used one is full, and material and knowledge are available to safely decommission.

- **Closed arrow**
  Households have access to their private toilet or latrine.
In other contexts, when the above-mentioned conditions do not apply, a sanitation service chain is required for safe sanitation services in emergencies. This can be the case in:

- Crowded refugee camps, with no space for new pits once used pits are full and many people use the same toilet or latrine, resulting in short filling-up times.
- Context where the groundwater table is high or where there is a flood risk.
- Urban contexts.
Safe sanitation service chain

Terminology
Motivation for Issuing Standards
Sanitation Standards Recap

2000
Publication Sphere Handbook
Provision sanitation

2004
First revision Sphere Handbook
User focussed

2011
Second revision Sphere Handbook
Environmental focussed

2018
Third revision Sphere Handbook
Excreta management

2003
February
Begin Darfur crisis
Open defecation

2017
August
Begin Rohingya crisis
Focus on whole sanitation service chain

2010
October
Cholera outbreak Haiti due to poor faecal sludge management

1998
January
Famine in South Sudan

1994
April
Rwandan genocide resulting in Cholera outbreak in Goma

1998
July
Biafran famine in Nigeria

1967
July
Biafran famine in Nigeria

1967
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1994
April
Rwandan genocide resulting in Cholera outbreak in Goma

2010
October
Cholera outbreak Haiti due to poor faecal sludge management

2011
March
Begin armed conflict in Syria, as an example of a complex emergency

2011
March
Begin armed conflict in Syria, as an example of a complex emergency

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Limitations

- Sphere recognizes that the provision of sanitation services requires more than just building latrines, but no clear guidance (or naming) of sanitation service chain is included.
- National treatment standards barely available.
- If available, focus on liquid component/wastewater.
- No mention of sanitation worker safety.
- Lack of local context.
Deep Dive in Standards

To help the humanitarian sector meet the growing challenges of providing effective Faecal Sludge Management in emergency contexts
The Sanitation Quality Standards for Emergencies

<table>
<thead>
<tr>
<th>STANDARD 1: Environment free from human excreta</th>
</tr>
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<tbody>
<tr>
<td>Indicator 1.1 There are no human faeces present in the environment in which people live, learn and work.</td>
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<th>STANDARD 2: Access is provided to safe sanitation systems</th>
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<td>The selection of safe sanitation systems should be context specific, thus respond to local physical, social and institutional conditions. Sanitation systems are considered safe when the below listed actions are taken.</td>
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| Indicator 2.1 People have access to sanitation facilities that are adequately located respecting distances from surface or groundwater sources and with user interfaces based on user-centered designs. |
| Indicator 2.2 The health risk of sanitation workers (all staff, including desludging, transport and treatment) is minimized. |
| Indicator 2.3 Toilet pits and tanks are safely desludged and the faecal sludge is safely transported. |
| Indicator 2.4 Faecal sludge is safely treated and disposed of. |
Sanitation Quality Standards: 1.1

STANDARD 1: Environment free from human excreta

Indicator 1.1 There are no human faeces present in the environment in which people live, learn and work.

KEY ACTIONS:

- Prioritize elimination of open defecation, followed by a rapid upscaling of access to safe sanitation systems universally implemented covering the full target population.
- Decontaminate/disinfect any faeces-contaminated living, learning and working spaces or surface water sources immediately.
STANDARD 2: Access is provided to safe sanitation systems

The selection of safe sanitation systems should be context specific, thus respond to local physical, social and institutional conditions. Sanitation systems are considered safe when the below listed actions are taken.

Indicator 2.1 People have access to sanitation facilities that are adequately located respecting distances from surface or groundwater sources and with user interfaces based on user-centered designs.

KEY ACTIONS:

- Involve users before, during and after the design to ensure a user-centered approach i.e. the SaniTweaks or a similar approach.
- Incorporate the following specifications in the toilet design:
  - Minimum 1 toilet per 20 people.
  - Distance between dwelling and shared toilet is maximum 50 meters.
  - Distance between toilets and water sources is at least 10 meters.
Sanitation quality standards: 2.2 & 2.3

**Indicator 2.2** The health risk of sanitation workers (all staff, including desludging, transport and treatment) is minimized.

**Indicator 2.3** Toilet pits and tanks are safely desludged and the faecal sludge is safely transported.
Indicator 2.4 Faecal sludge is safely treated and disposed of.

**Key Actions:**

- Design and operate the treatment plant according to the local disposal possibilities and specific end use/disposal objectives as described in table 2.4.
- Use a risk assessment and risk management approach to identify, manage and monitor risk throughout the system.
- Ensure that regardless of the source (i.e., wastewater from sewer-based technologies or faecal sludge from on-site sanitation facilities) both the liquid and solid fractions are treated before end use/disposal.
- A process control and monitoring system needs to be in-place, based on most suitable disposal route (see table 2.4).
### Table 2.4 Solid Fraction

<table>
<thead>
<tr>
<th>Treated solid fraction</th>
<th>Are conditions in place for safe reuse?</th>
<th>Are conditions in place for safe burying of treated solid fraction?</th>
<th>Are conditions in place for safe burning of treated solid fraction?</th>
<th>Impact is minimal on environmental and public health, so no monitoring of the to be treated treated solid fraction is required.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Implement conform national legislation or standards on reuse. If not available, comply with WHO guidelines for the safe use of wastewater, excreta and greywater.</td>
<td>If the groundwater level is at least 1.5 m deeper than the bottom of the pit, increase this distance for fissured rocks and limestone.</td>
<td>If burning is only possible if the treated solid fraction is extensively dried, treatment plant technology selection and sizing need to allow for this.</td>
<td>Impact is minimal on environmental and public health, so no monitoring of the to be burned treated solid fraction is required.</td>
</tr>
<tr>
<td></td>
<td>The implementing agency is required to prove that the reuse practice is safe for the serviced communities, sanitation workers and users of the end product, using efficient quality data and safe management plans in place.</td>
<td>The closest water course is more than 30 meter away from the infiltration point.</td>
<td>A chimney is used to mitigate risks of particulate emissions (minimum chimney length of 2 m above roofs).</td>
<td>For most types of reuse of the treated solid fraction, extensive drying is required. Treatment technology selection and design should allow for this.</td>
</tr>
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<td></td>
<td>For most types of reuse of the treated solid fraction, extensive drying is required. Treatment technology selection and design should allow for this.</td>
<td>The burying site is trenched (considering long term risks buried helminth, up to 10 years).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### The Sanitation Quality Standards for Emergencies

#### Table 2.4 Liquid Fraction

<table>
<thead>
<tr>
<th>Condition</th>
<th>Treated liquid effluent fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are conditions in place for safe reuse?</td>
<td>Implement current national legislation or standards on reuse. If not available, comply with WHO guidelines for the safe use of wastewater, excreta and greywater. The implementing agency is required to prove that the reuse practice is safe for the serviced communities, sanitation workers and users of end products, using effluent quality data and safe management plans in place.</td>
</tr>
<tr>
<td>Are conditions in place for safe infiltration?</td>
<td>Impact is minimal on environmental and public health, no monitoring of liquid effluent is required. Proper separation of solids and liquids before infiltration is essential for sustainable long-term operations.</td>
</tr>
</tbody>
</table>
| Are conditions in place for safe discharge to a surface water body? | To protect public health and environment below effluent quality standards should be met:
- E. coli ≤1000 mL
- Salmonella ≤100 mL
- Total Solids ≤100 mg/L
- COD ≤150 mg/L
- Ammonia-N ≤150 mg/L
- pH = 6.5 - 8.5 |

- Information, means, tools and materials for safe handling and monitoring of treated effluent are available, for the full duration of the implementation. Monitoring can be done through a simple field test or a professional lab can be contracted if available.

- In cases where the receiving water body has a very large flow relative to the discharged effluent flow, less stringent effluent standards can be discussed and agreed with local government.
Road Test

- Are The Standards useful?
- How could they be improved?
- Take **The Standards** into the field
- Provide Feedback
- Planned revision for end of 2023
Where To Find the Standards

Sanitation Standards for Emergencies

Sanitation Quality Standards (emersan-compendium.org)
The Sanitation Quality Standards for Emergencies
FSM TWiG is available for remote support!

Are you looking for practical guidance (BoQs, designs, SoPs)?
Could your cluster use support in defining if FSM is required?
Could your cluster use support in the creation of a sanitation chain strategy?
Could you use expert support in reviewing technical designs?

REACH OUT TO THE FSM TWiG!
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Thank you!

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