



What will we achieve today?

- Understand and appreciate Sanitation Safety Planning. ✓
- Understand the methodology and key steps of Sanitation Safety Planning. **Modules 4 to 6** **Modules 1 to 3**
- Know how to use the WHO Sanitary Inspections for Sanitation Systems. ✓

- Identify which are the requirements for successful implementation of SSP.
- Know how to prepare plans to rollout Sanitation Safety Planning (SSP) in the region.
- Be able to communicate about Sanitation Safety Planning to their target audience.

Tomorrow

Agenda of our workshop

Day 2: Thursday, September 31st 2023

- 8:30 – 10:30 Supporting operator in the development and implementation of an incremental improvement plan
- 10:30 – 11:00 Tea break
- 11:00 – 12:15 Requirements for a successful implementation of SSP
- 12:15 – 13:00 SSP Action plans
- 13:00 – 14:00 Lunch break
- 14:00 – 16:00 Marketplace: Communicating SSP

Supporting operator in the development and implementation of an incremental improvement plan



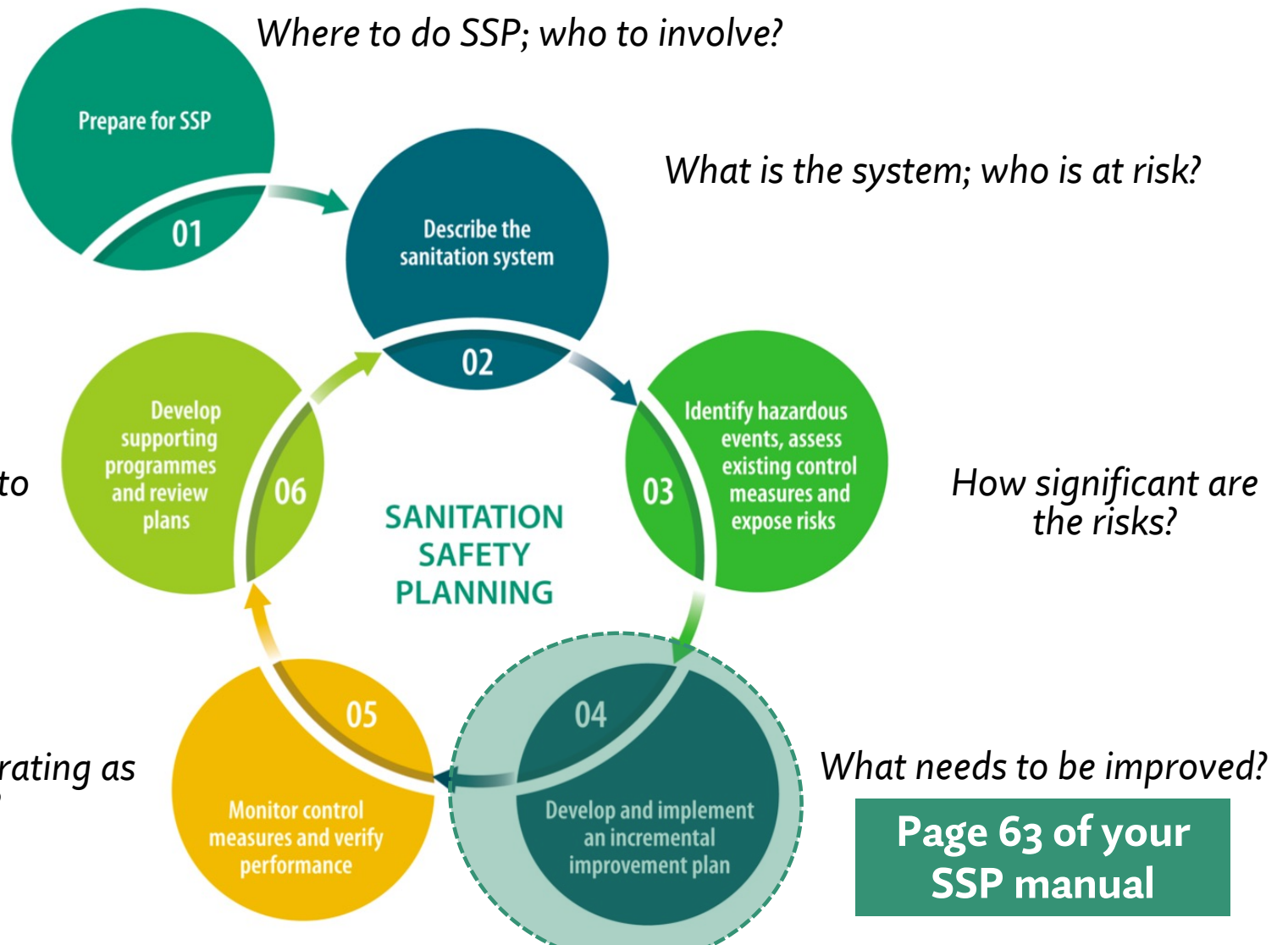
SSP Modules



SANITATION SAFETY PLANNING

How can we adapt to changes?

Is the system operating as planned?



Page 63 of your SSP manual

Module 4: Develop and implement an incremental improvement plan

Selection of new control measures or other improvements that address the highest risks at the most effective places in the system.

Steps

- Consider options to control identified risks.
- Use selected options to develop an incremental improvement plan.
- Implement the improvement plan.

Output

- An implemented plan with incremental improvements which protects all exposure groups along the sanitation chain.

This helps to ensure that funding and efforts target the highest risks with greatest urgency.

Improvement options



Option 1: Regulatory measures



Option 2: Technical control measures



Option 3: Management and operational control measures



Option 4: Behaviour change measures

Improvement options



Option 1: Regulatory measures

- Building and planning codes and standards.
- Local government legislation
- Public utility regulations.
- Occupational Health and Safety Regulations.
- Effluent standards.
- Licensing agreements.

Embedding Safely Managed Sanitation into regulatory instruments (1/3)

The focus of regulating sanitation services should be on safe services

Regulation should be based on health outcomes

Simple, transparent and effective by-laws, codes and standards

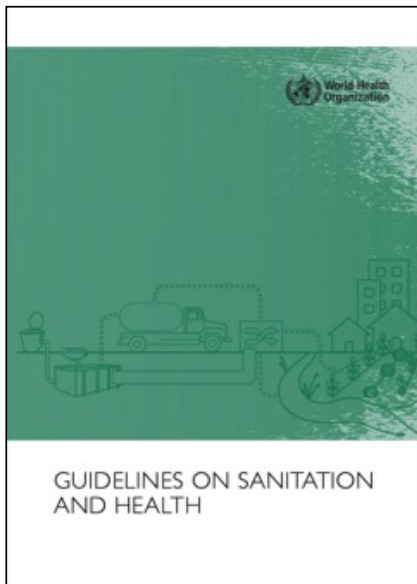
Actionable and funded monitoring and enforcement systems

All these norms and standards should be based on a **health risk assessment** along the full sanitation service chain

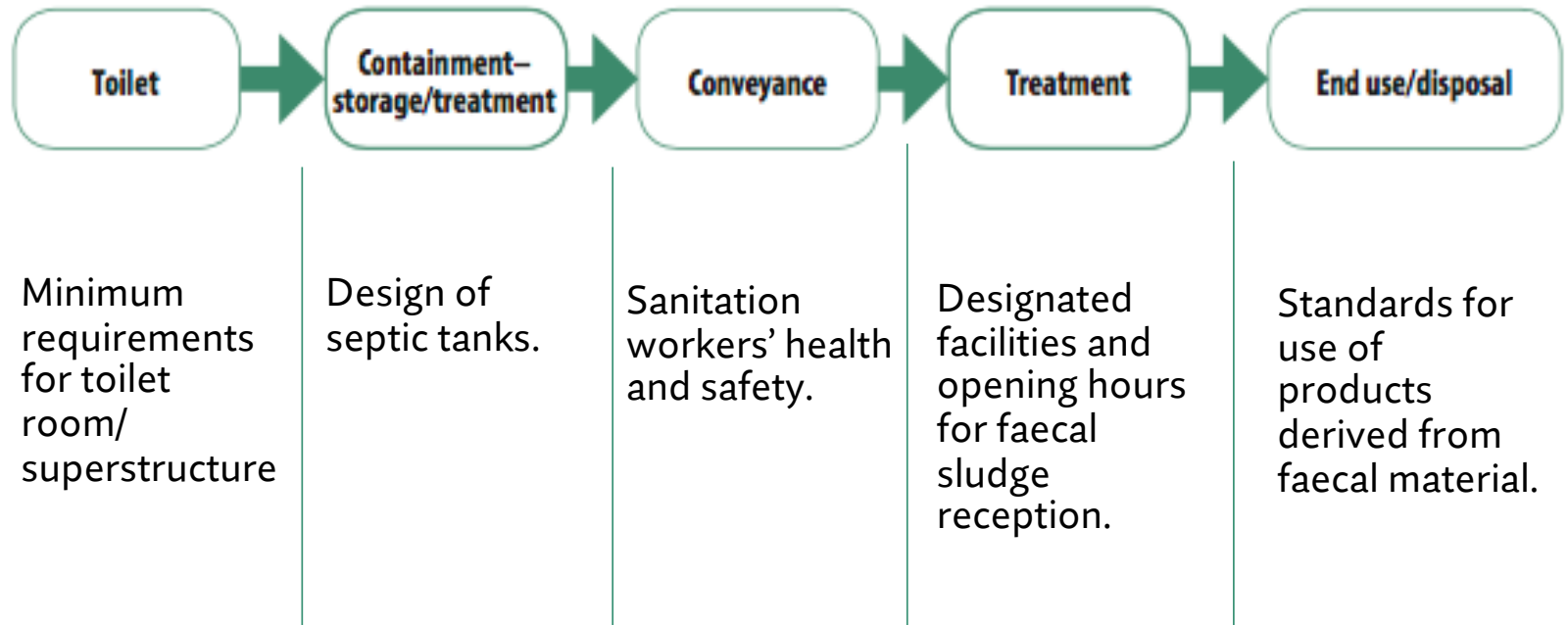


Embedding Safely Managed Sanitation into regulatory instruments (2/3)

Examples of sanitation attributes that should be covered by legislation and regulation according to public health criteria

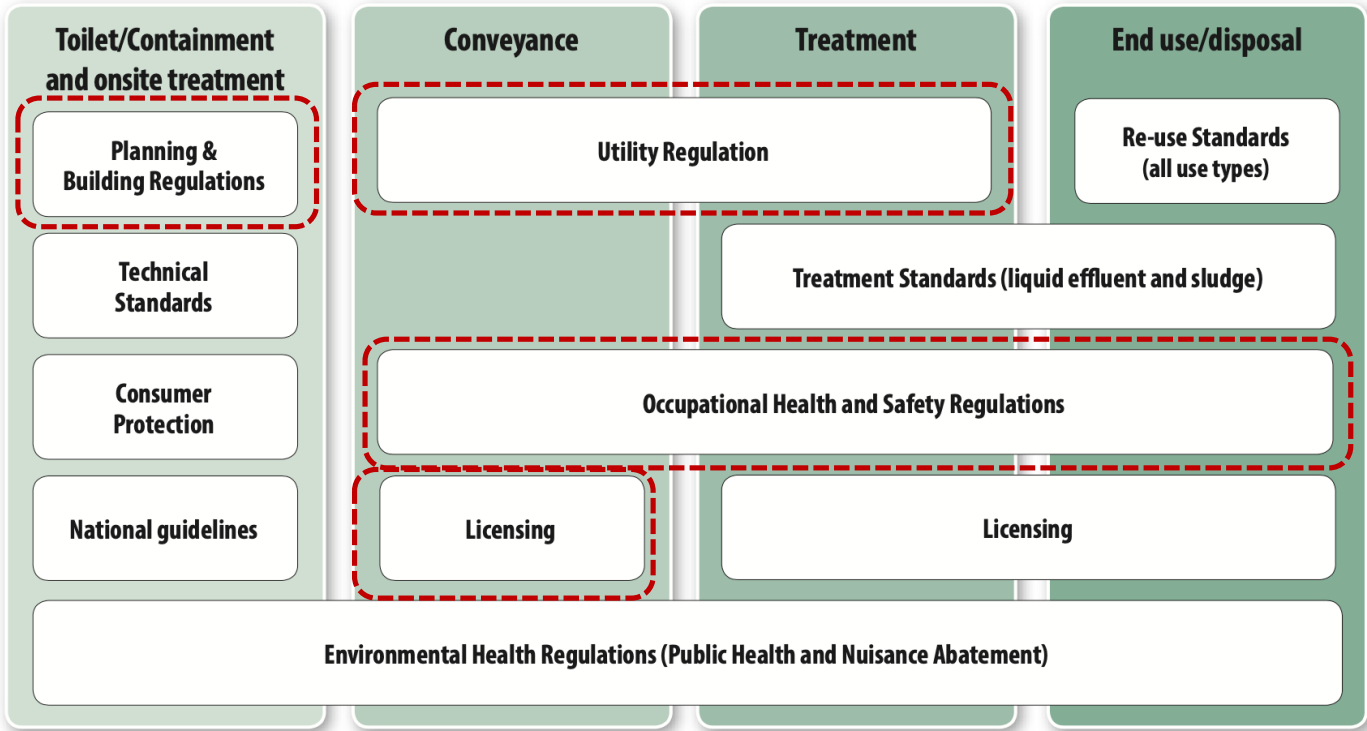
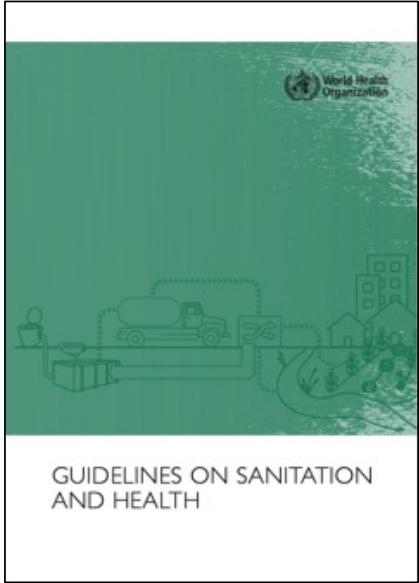


Address **public health criteria** in sanitation regulation



Embedding Safely Managed Sanitation into regulatory instruments (3/3)

Sanitation service chain regulatory mechanism options



Improvement options



Option 2: Technical control measures

- Upgrading of toilets and containment technologies
- Repairing existing system
- Transfer stations and sewer discharge stations
- Additional or new treatment plant or process element
- Fencing of plant for access restriction

Improvement options



Option 3: Management and operational control measures

- Development and adherence to SOP
- Training of key actors in service delivery
- Vector control programs

Improvement options



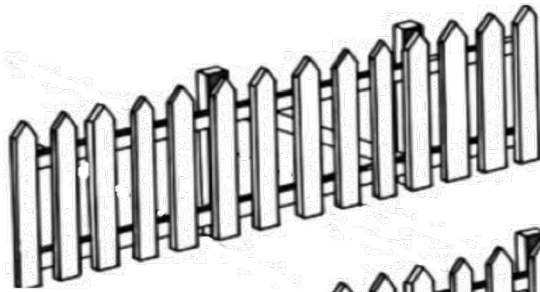
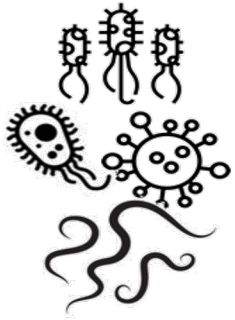
Option 4: Behaviour change measures

Depending on the specific situation, desired user behaviours include:

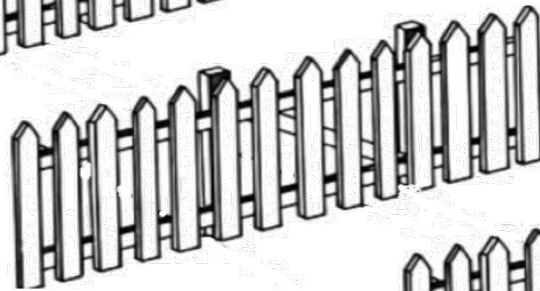
- Abandoning open defecation and adopting safe sanitation facilities.
- Ensuring the regular desludging of such facilities.
- Connecting to a sewerage system where available and paying the service charges.

Multi barrier approach

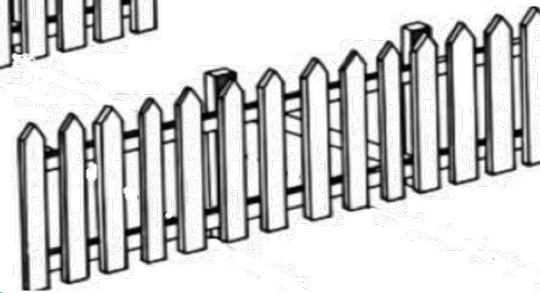
Sanitation systems should provide more than one barrier against the different types of pathogens (multiple barriers)



Technical measure



Operational measure

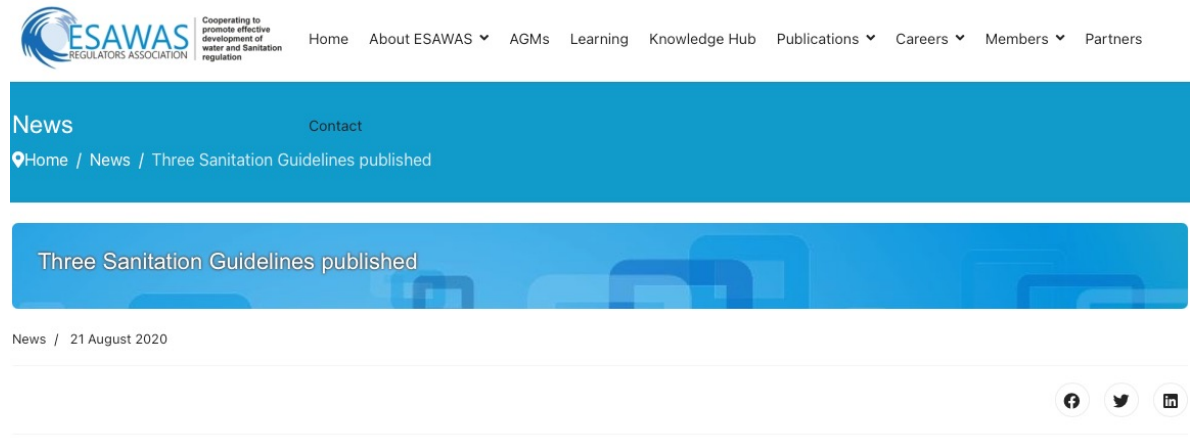


Behaviour change measure

Regulatory measure



<https://www.esawas.org/index.php/news/52-three-sanitation-guidelines-published>



The ESAWAS Regulators Association has published three inclusive sanitation guidelines developed through a harmonised regional approach.

The guidelines developed through a stakeholder consultative process are as follows:

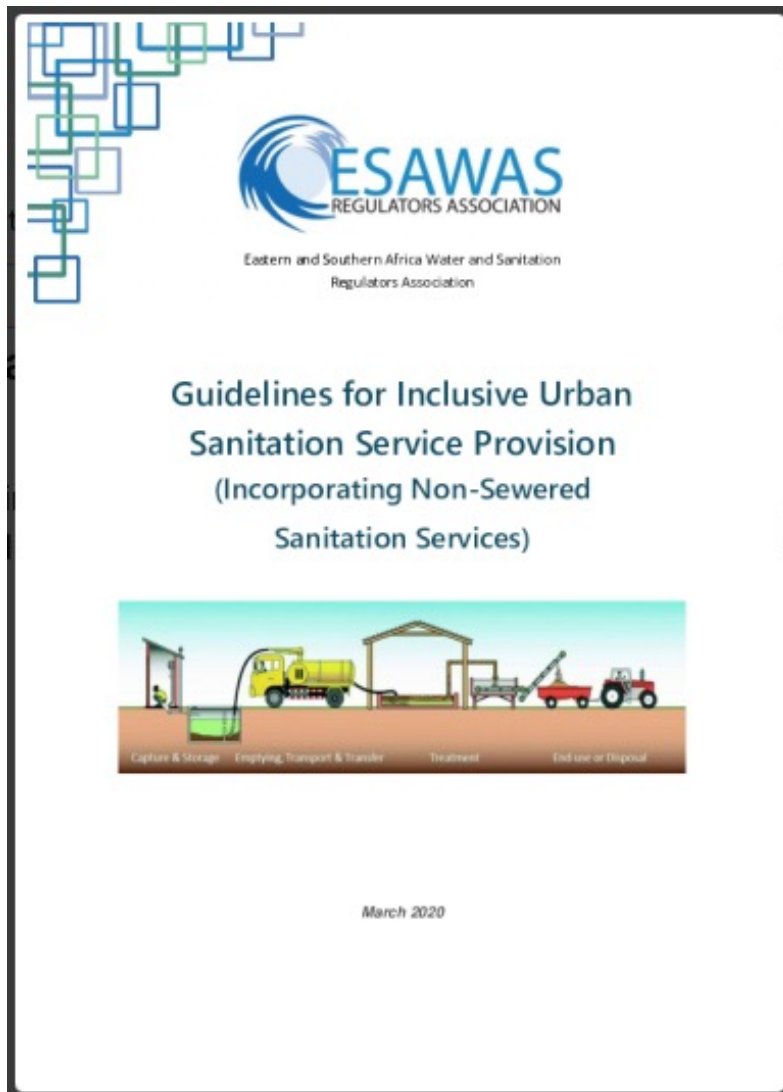
- **Inclusive Urban Sanitation Service Provision Guidelines** - Provides guidance on service provision requirements from containment, emptying, transportation, storage and treatment facilities as well as disposal/reuse mechanisms. The guidelines promote safe and sustainable service delivery with consideration for technology, cost-effectiveness, appropriateness and progressive realisation.
- **Sanitation Services Tariff Setting Guidelines** - Provides guidance to regulators in the determination of cost reflective tariffs for sewered and non-sewered services in line with the tariff setting principles. The guidelines provide a set of sound, well-specified methodology that can be used by regulators to improve predictability, objectivity and transparency of the tariff-setting for sanitation services as well as inputs for development of tariff setting models.

models.

- **Citywide Inclusive Sanitation Planning Guidelines** - Provides guidance for citywide inclusive sanitation planning that encompasses long-term planning, technical innovation and financial mobilisation. The guidelines include Business Models, Business Planning, Investment planning, Financing options, Private Sector Participation, appropriate technology, stakeholder engagement, gender and social inclusion considerations and planning tools.

The guidelines will support the implementation of the Regulation Framework and Strategy for Inclusive Urban Sanitation Service Provision earlier developed.





3 MINIMUM STANDARDS FOR DESIGN AND OPERATION OF SANITATION SYSTEMS

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Evaluation of improvement options

When evaluation improvement options, one must think about:

- **Potential** for improving existing control(s).
- **Cost** relative to its effectiveness.
- Technical **effectiveness**.
- **Acceptability** to workers or exposure groups and **reliability**.
- **Responsibility** for managing new measure.
- Extent to which the control measure will provide benefits under expected **changes to the climate**.
- Potential for the control measure to **fail if the climate changes** in unexpected ways.



Step of the sanitation service chain: Disposal of faecal sludge in open drains.

Description of the hazardous event: Ingestion after contact with fecal sludge discharged without treatment to open drains. Exposure group: 50,000 pp

Improvement options

Option	Effectiveness	Level of resources	Comments/ discussion	Priority for improvement plan
Issuing a municipal decree/by-law for fecal sludge mgmt.	Low	Low	The Municipal Council agreed to write and pass a by-law. This will only be effective with proper enforcement.	Immediate
Licensing of emptying service providers	Medium	Medium	There were heavy discussions about who should take the responsibility. Finally, the City Service “Traffic Law enforcement and licenses” and the Environmental Protection- Department of Environmental Affairs (DEA) decided to work together.	Short term
Issuing a DEA regulation to bring all the fecal sludge to the WWTP	High	Low	There were heavy discussions about this issue. The WWTP Operation Manager strongly opposed, but at the end no other solution was possible in the immediate time.	Immediate
Associating the vacuum truck operators	Medium	Low	Nobody had any idea of how to form the association. At the end, the SSP team leader took this responsibility.	Immediate
Training of vacuum truck operators about health and safety	High	Medium	The Department of Environmental Affairs (DEA) and the Regional Health Department (RHD) agreed on collaborating on this	Short term
GPS system to monitor vacuum truck operators	High	High	This was considered a great idea by all but not for now. The DEA would like to develop this in the long term	Long term
Strengthening enforcement authorities	High	Medium	City Service “Traffic Law enforcement and licenses” agreed to train the traffic policy to identify irregular practices	Medium term
Construct a Fecal Sludge Treatment Plant (FSTP)	High	High	All participants agreed that a FSTP should be constructed.	Long term

Preparation of incremental improvement plan

- Prioritize plan, based on hazards with **highest risks**.
- Identify **who** (institution and individual) takes action.
- May choose **more affordable interim control measures** until sufficient funds for more expensive options are available.
- The incremental improvement plan should allow for adaptive management processes suitable to respond to emergent and unforeseen conditions, such as **climate-related hazards**.



Example: incremental improvement plan

Improvement measure	Cost	Source of funds	Lead organization	Year 1												Year 2				Year 3						
				1	2	3	4	5	6	7	8	9	10	11	12	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8			
Disposal of fecal sludge in open drains																										
Issuing a municipal decree/by-law for fecal sludge mgmt.	100	MC	Municipal Council, and Newtown Sanitation Department (NSD)																							
Issuing a DEA regulation to bring all the fecal sludge to the WWTP	100	DEA	Environmental Protection-Department of Environmental Affairs DEA																							
Associating the vacuum truck operators	1000	NSD	Newtown Sanitation Department (NSD)																							
Licensing of emptying service providers	1000	DEA	City Service “Traffic Law enforcement and licenses” and the DEA																							
Training of vacuum truck operators about health and safety	1000	RHD	DEA and RHD																							
Strengthening enforcement authorities	1000	CS Traffic	City Service “Traffic Law enforcement and licenses”																							
Construct a Fecal Sludge Treatment Plant (FSTP) (dewatering, drying and composting)	50000	SDN	Sanitation Department of the Newtown’s Municipality-																							

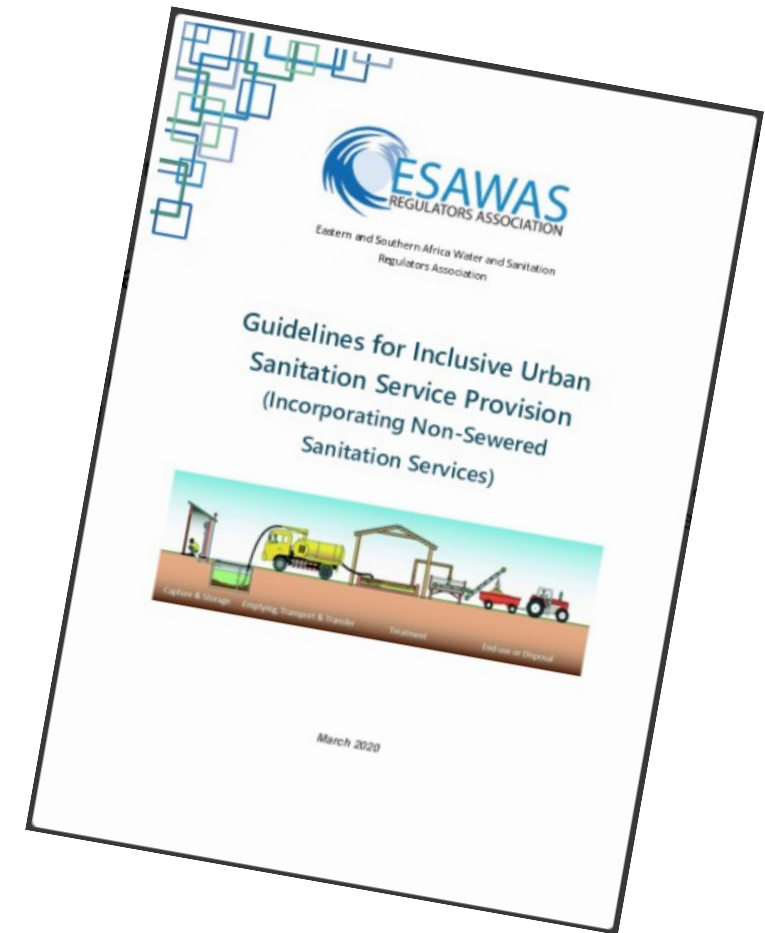


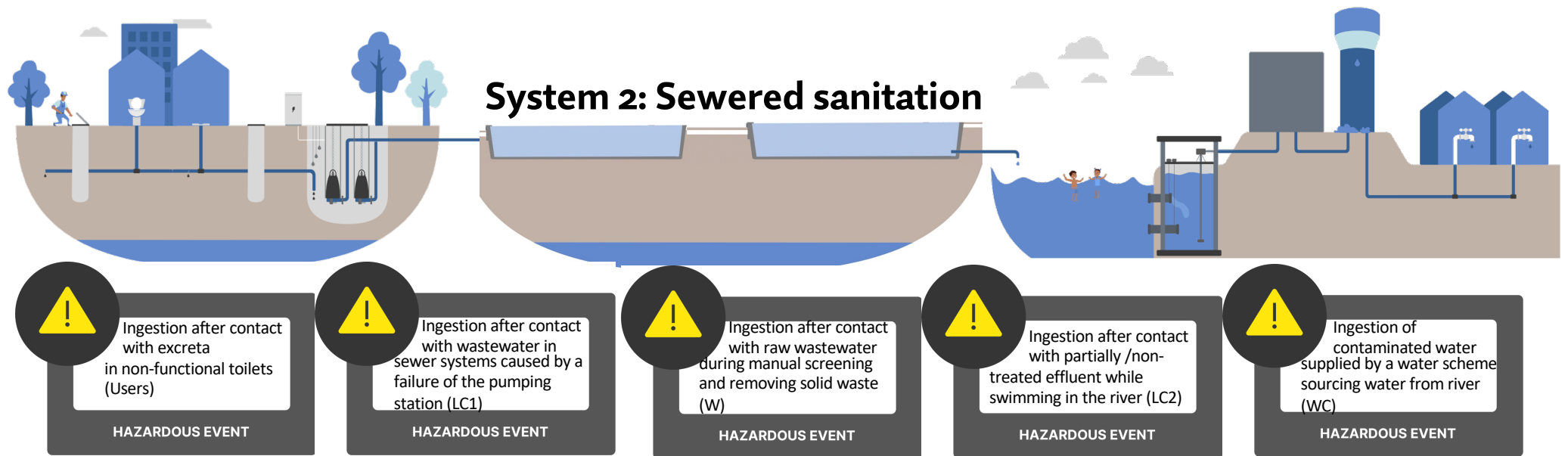
Any question up to this point?

Group Exercise 7

Work with your colleagues sitting at your table:

- Choose one hazardous event.
- Open your ESAWAS' Guidelines for Inclusive Urban Sanitation Service Provision.
- Identify control measures for the selected hazardous event.





Back to plenary

Let's discuss:

- What can I find in the ESAWAS's "Guidelines for inclusive urban sanitation service provision"?

SSP Modules

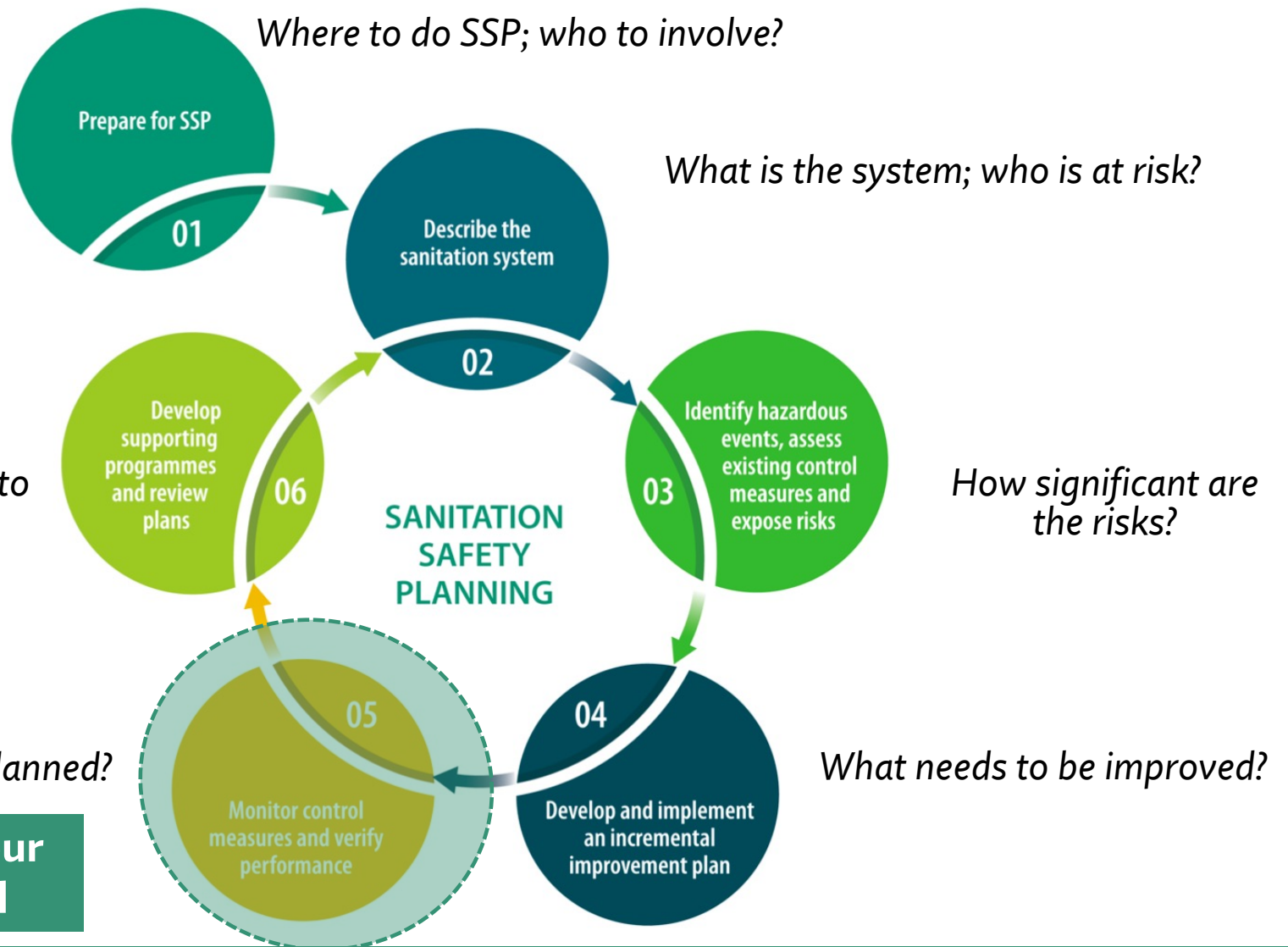


SANITATION SAFETY PLANNING

How can we adapt to changes?

Is the system operating as planned?

Page 78 of your SSP manual



Module 5: Monitor control measures and verify performance

Module 5 develops a monitoring plan that regularly checks that the system is operating as intended and defines what to do if it is not.

Steps

- Define and implement operational monitoring.
- Verify system performance.
- Audit the system.

Outputs

- An operational monitoring plan.
- A verification monitoring plan.
- Independent assessment.

Operational monitoring **by service providers** and verification **by oversight authorities** provide assurances to the public of adequate system performance.

Operational vs. Verification Monitoring

Operational Monitoring

Routine monitoring to inform management decisions.

- Frequent.
- Many monitoring points throughout the system.
- Simple observations and tests.
- Used to manage risks before they occur.

Implemented by service providers.

Verification

It checks the effectiveness of the implemented control measures.

- Periodic.
- Few points, but focused on the system-end points (such as quality of the effluents).
- More complicated tests (e.g. E.coli, Helminth eggs).
- Used to prove the system works.

Implemented by oversight agencies.

Let's see some examples:

Hazardous event: Ingestion after contact with faecal sludge discharged without treatment to the open.

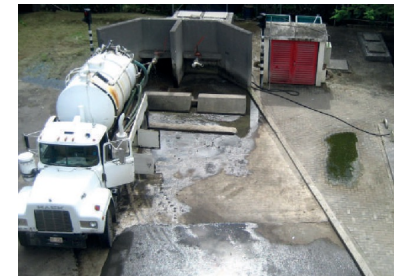
Control measure: Licensing private operators and training them to bring the faecal sludge to a legal discharging point.



Monitoring parameter: Number of licensed and trained operators.



Verification parameter: Number of operators bringing the sludge to the legal discharging point.



Let's see some examples:

Hazardous event: Consumption of contaminated agricultural products grown with faecal sludge

Control measure: Co-composting of de-watered faecal sludge with organic solid waste



Photo by S. Kramer

Monitoring parameter: Temperature reached in co-composting piles



Verification parameter:
Parasitic helminth eggs (HELarval/gTS)
Pathogen indicator of faecal Coliforms (MPN/g TS)



Photos by S. Kramer



Any question up to this point?



SSP Modules

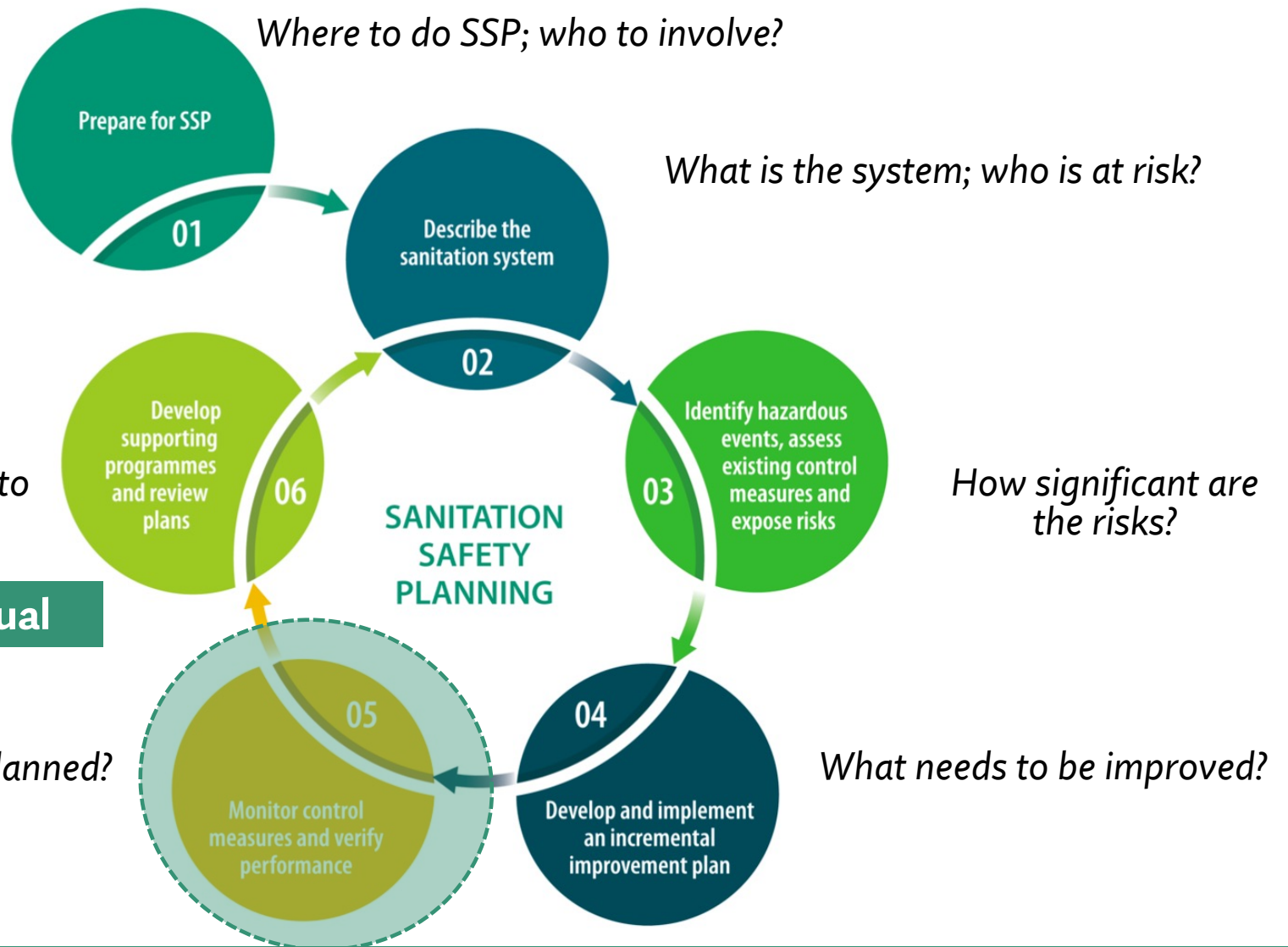


SANITATION SAFETY PLANNING

How can we adapt to changes?

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Is the system operating as planned?



Module 6: Develop supporting programs and review plans

Module 6 supports embedding SSP in the day-to-day operations of a utility, ensuring the engagement of stakeholders such as local authority, decision makers and academics.

Steps

- Identify and implement supporting programmes.
- Periodically review and update the SSP outputs.

Outputs

- Supporting programmes procedures.
- Up to date SSP outputs responding to internal and external changes.

Supporting programs

Range of activities and partnerships that enable the successful implementation of the incremental improvements indicated in the SSP

Sanitation business's support: formalization, equity contribution or grants, assistance in obtaining equipment and capital, advance purchase agreements and training in business as well as technical skills to promote efficiency.

Use of SSP results as evidence to revise national policies, plans and regulations:

- to demonstrate which aspects are relevant for review and adaptation of sanitation policies and plans.
- to inform decisions at the local level.

Research programs: Support the adaptation of technologies and service models to the local context.

SSP Reviews and updates

Updates are necessary because SSP can quickly become out of date through changes in the sanitation system, changes in the SSP team or changes within key institutions, such as local authorities.



Remember:

Sanitation Safety Planning is not linear!

It's is a continuous process!



Any question up to this point?





Tea Break

Group Exercise 9

Discuss with your colleagues

1. How can you (the regulator) use the developed SSPs to regulate sanitation systems?
2. What is needed internally, so the regulator can use SSP as a tool to regulate sanitation systems?

Back to plenary

Let's discuss



**SANITATION SAFETY
PLANNING**

- How can you (the regulator) use the developed SSPs to regulate sanitation systems?
- What is needed internally, so the regulator can use SSP as a tool to regulate sanitation systems?

Requirements to develop and implement successful SSP processes



What is it required to implement successfully SSP?



SANITATION SAFETY PLANNING



Leadership



Coordination



Capacities



Data - Info



Resources

What are the requirements?

Enabling Environment

- Leadership
- Coordination
- Information and data
- Financial resources

Utility level

- Knowledge, skills and aptitudes to:
- Define SSP area and priorities
 - Assemble the team
 - Conduct a health risk assessment
 - Consider all control measures
 - Develop an incremental improvement plan
 - Implement an incremental improvement plan
 - Monitor the system
 - Review, learn and adopt SSP as a managerial tool

Regulator level

- Knowledge, skills and aptitudes to:
- Communicate about SSP
 - Train on SPP
 - Guide W&S utilities while implementing SSP.
 - Use SSP as a tool to regulate sanitation systems.
- Adapted mechanism to regulate SSP

Action plan detailed plan with specified actions that are needed to achieve a goal.

Aim

- a statement of intent, usually written in broad terms
- it explain the greater why
- this is the long-term goal that this particular intervention, together with other interventions, contributes to its achievements.
- this responds to the question: *why are we rolling-out SSP in our country?*

Objectives

- short- or medium-term effects expected from the intervention.
- desired results of the project, written as specific statements that define measurable outcomes.
- SMART: specific, measurable, achievable, relevant and time-bound
- This responds to the question: *what do we plan to achieve in the next 12 months?*

Activities – work plan

- Actions.
- They should be defined using an action verb in a present tense, for instance: design, draw up, search, construct, organize, train, etc.
- To facilitate the management of the intervention, you should group the activities in “**Work Packages**”.
- A work package is a group of related tasks, which is often considered as a sub-project within a larger project.
- Usually, work packages are determined by the objectives. They could be for instance: Promotion of SSP at the national level, Training of Water Utilities, Pilot Project with Utility X, Internal Capacity Building Program, etc.
- Our work plan responds to the question: *what will we do to achieve our objectives?*)

Example: a WHO - SSP training program

Aim: contribute to the achievement of safely managed sanitation services in East and Southern Africa.

Objective 1

By Dec 2025, at least 5 ESAWAS members have rolled-out and implemented a Sanitation Safety Planning Action Plan in their country.

Work Package 1

WP1: Building capacity at the regulators level

- Coordinate with ESAWAS the design of the training
- Prepare the communication of the training
- Announce the training
- Preparation of the virtual platform....

Objective 2

By December 2025, at least 5 W&S utilities in ESA will safely manage their sanitation systems by means of a SSP.

Work Package 2

WP2: Building capacity at the utility level

- Coordinate with ESAWAS the candidates for participation
- Interviews with W&S utilities
- Preparation of tailor-made training
- Implementation of training...

Gantt Chart

Work package /	2022											
Key activity	J	F	M	A	M	J	J	A	S	O	N	D
Work package 1:												
Coordinate with ESAWAS the design of the training	x											
Prepare the communication of the training		x										
Announce the training and communication with participants		x										
Preparation of the virtual platform and training material			x									
Implementation of training				x								
Coaching participants in the preparation of their action plans				x								
Coaching participants in implementing their action plans					x	x	x	x	x	x	x	
Evaluation of the SSP roll-out intervention												x
Communication and reporting					x	x	x	x	x	x	x	x

Recommendations:

- Link all the activities to specific results.
- List the resources required (including budget).
- Assign the activity to an individual (according to skills, expertise and resources)

Group Exercise 8

Work with your colleagues from your regulator:

- Prepare an action plan to roll-out SSP in your country in 2024
 - Define the aim
 - The objectives
 - Activities
 - Gantt Chart

Logo of your organization

Promoting and Implementing Sanitation Safety Planning SSP roll-out Action Plan 2024

Country

Name of the Regulator

Place and Date

All these grey boxes are only explanations; the participant should erase them after writing the content of each section.

Your contact details

Author 1:

Name and Surname

Position within the regulator

Email

Author 2:

Name and Surname

Position within the regulator

Email

Author 3:

Name and Surname

Position within the regulator

Email

COUNTRY NAME - REGULATOR'S NAME - SANITATION SAFETY PLANNING, ACTION PLAN 2024

Plenary

Let's discuss



**SANITATION SAFETY
PLANNING**

- What will you propose in your regulator, when you come back home from this training?



Lunch Break

Market place: Communicating SSP



Target audiences

Enabling Environment

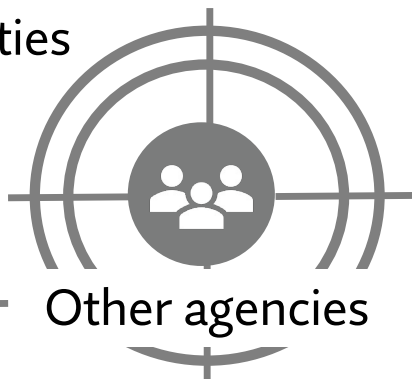
- Leadership
- Coordination
- Information and data
- Financial resources



National authorities



Local authorities



Other agencies

Utility level

Knowledge, skills and aptitudes to:

- Define SSP area and priorities
- Assemble the team
- Conduct a health risk assessment
- Consider all control measures
- Develop an incremental improvement plan
- Implement an incremental improvement plan
- Monitor the system
- Review, learn and adopt SSP as a managerial tool



W&S utilities

Regulator level

Knowledge, skills and aptitudes to:

- Communicate about SSP
- Train on SPP
- Guide W&S utilities while implementing SSP.
- Use SSP as a tool to regulate sanitation systems.

Adapted mechanism to regulate SSP



Regulators' staff



Management board

Where to start?

Choose your target(s) audience(s) for the next 12 months!



- Their interest
- Their capacity
- Their importance
- Willingness to collaborate

Your capacity to influence



Your relationship



You: the regulator

- Your mandate
- Your human resources
- Financial resources
- Your skills

Select entry points!

What better way to understand your target audience...



... than putting yourself in their shoes?



How do we communicate about SSP to our target audiences?

Who is our target audience?

What do we want them to do?




Message

Problem/Need/Interest:

SSP as a solution:

Benefits:

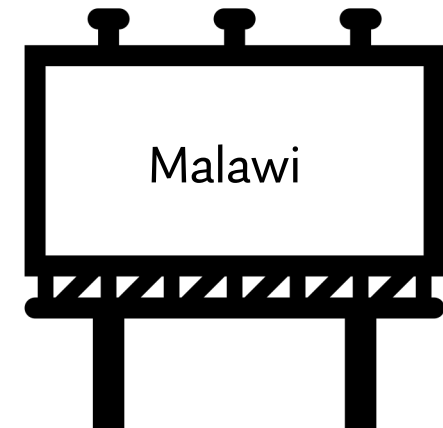
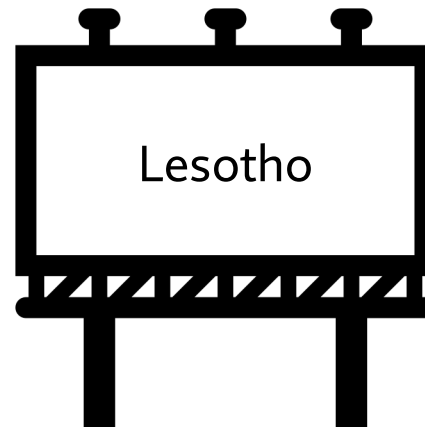
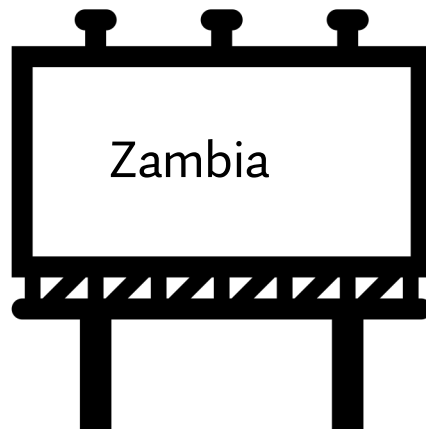
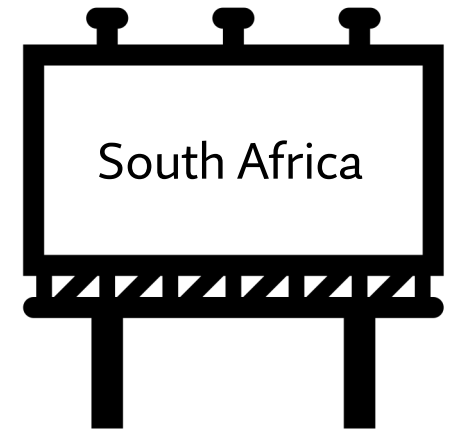
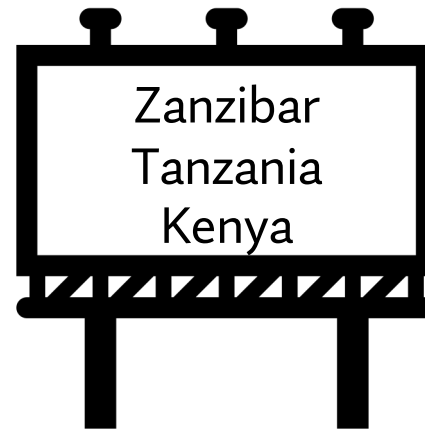
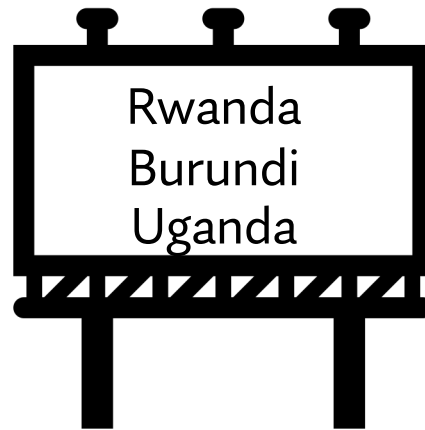
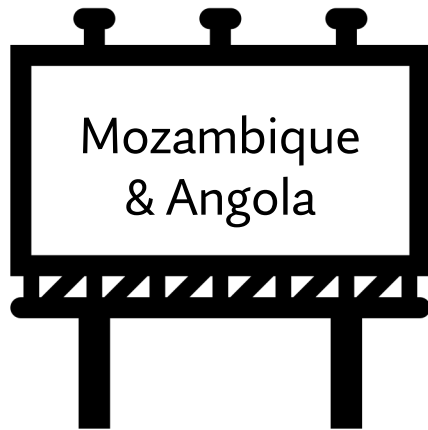
How to get in action:



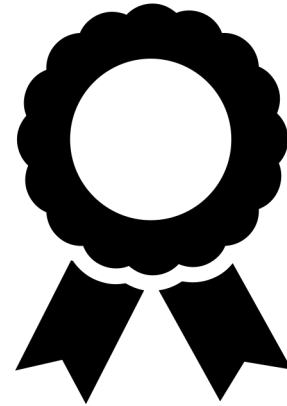
Final Group Exercise

1. Decide who is your target audience
2. Prepare a flipchart with key information about SSP and benefits for the selected target audience. This will be your booth.
3. Prepare a pitch to engage the target audience.
4. We will start the market place in 45 minutes.
5. Each one of you will receive 1 SSP coin.
6. One of your team stays at your booth, and the other goes around the other booths. The one who stays pitches and “engages” other participants.
7. When it is half of the time, the person who went around comes back to the booth and pitches SSP to other participants. The other can go around.
8. Each participant should give the SSP coin to the booth (s)he likes the best.
9. The country booth with more coins wins a SSP prize.

Marketplace



And the winner is...



What did we achieve during our workshop?

- Understand and appreciate Sanitation Safety Planning. ✓
- Understand the methodology and key steps of Sanitation Safety Planning. ✓
- Know how to use the WHO Sanitary Inspections for Sanitation Systems. ✓
- Identify which are the requirements for successful implementation of SSP. ✓
- Know how to prepare plans to rollout Sanitation Safety Planning (SSP) in the region. ✓
- Be able to communicate about Sanitation Safety Planning to their target audience. ✓

Please, evaluate our training!





Thank you very
much!

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