



SANITATION SAFETY PLANNING INTRODUCTION TO SSP

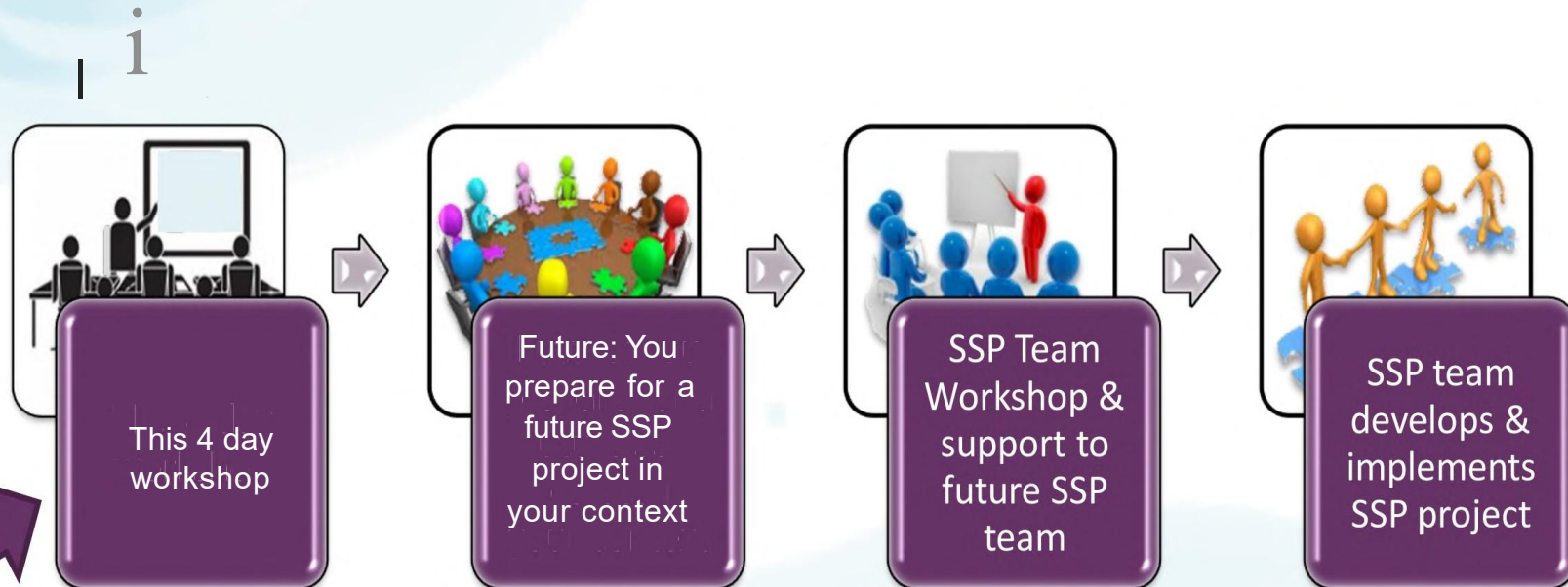
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Health Ministry- Summer 2026

Our objectives :

- Understand the SSP process, outputs and outcomes
- Appreciate how to apply SSP in your locality and context
- Could select future SSP sites, those who should be involved, & and know how to best prepare for SSP



Sanitation and reuse issues



Health risks through wastewater use for food production >> from water consumption

Health is the underlying purpose of sanitation - but actual health risk often plays a small role in planning.

Diarrhea significantly reduces by safe management of "improved sanitation (including sewered facilities)", compared with just "improved sanitation"

Real or perceived health risks often limit upscaling of reuse schemes

SSP

Health risks affect the most vulnerable; need to promote equity.



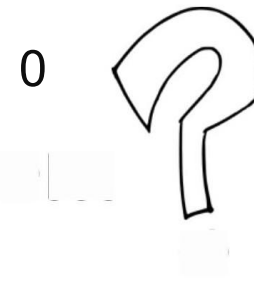
What is SSP?



In the broadest sense:

- SSP is a risk-based management tool for sanitation systems.

What is a sanitation system



What is SSP?



A sanitation system is any intervention to reduce people's exposure to disease by providing a clean environment in which to live, with measures to break the cycle of disease.

What is SSP?



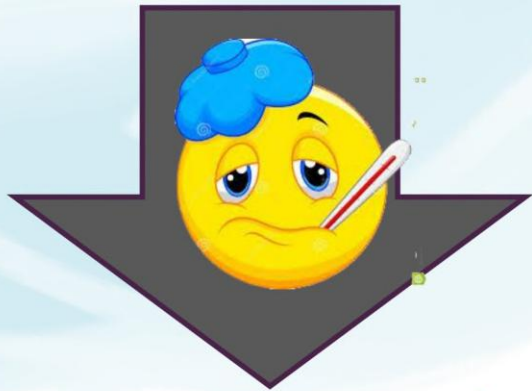
The SSP manual focus on safe use of human waste.

So, for our purposes,

SSP is a risk-based management tool for safe sanitation product use/re-use.

What is SSP?

SSP is a tool to help



reduce adverse **health impact** from the use of wastewater, excreta and greywater, while ...



maximizing the **benefits** of their use in productive agriculture and aquaculture.



How do SSPs Work?



Identify disease
pathways and
affected people

Risk-based
assessment

Management
Operational
monitoring &
management

phas

System assessment phase

WHO 2006 *Guidelines for the safe use of wastewater, excreta and greywater*

A code of good practice for the **safest possible use of wastes** in agriculture and aquaculture, so that **nutritional and household food security benefits** can be shared widely.



The most **effective** way to consistently ensure safety in using wastewater, excreta and greywater is by a **comprehensive risk assessment and risk management approach.**



For example ...



If irrigating with wastewater, SSP could encompass all steps from

- waste generation,
- treatment and use, to
- product use and consumption



TOILET



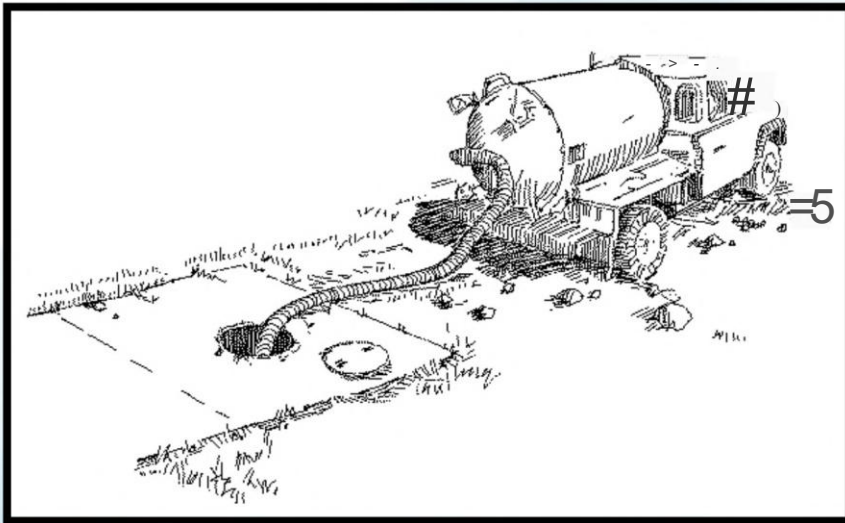
TABLE







Emptying a septic tank with vacuum tanker



SSP protects public health



Better public health!

Brings health perspective to agriculture, sanitation engineering

Assures authorities & the public of sanitation safety

Actions based on actual (not perceived) risks

Control measures target greatest risks, lead to incremental improvement

Emphasises leadership role of health sector in water re-use



SSP helps sanitation operators and the health sector to:



target limited resources to the highest risks through progressive improvements



develop a multi-sector team approach to identify and manage health of at-risk people



focus on simple operational monitoring corrections



SSP and the SDGs

Links between SSP and the
Sustainable Development Goals

[Click here bypass
these slides to SSP
Module intro \(other
wise automatically
goes to SSP/SDG
slides\)](#)



Safe reuse at a glance

- Most wastewater and sludge is untreated
- Demand for reuse will grow
- Public health risks need to be managed

SDG 6: Sustainable Water and Sanitation



SDG Target 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"

Indicator:

Proportion of population using **safely managed sanitation services**, including a handwashing facility with soap and water



SDG Target 6.3

"By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally"

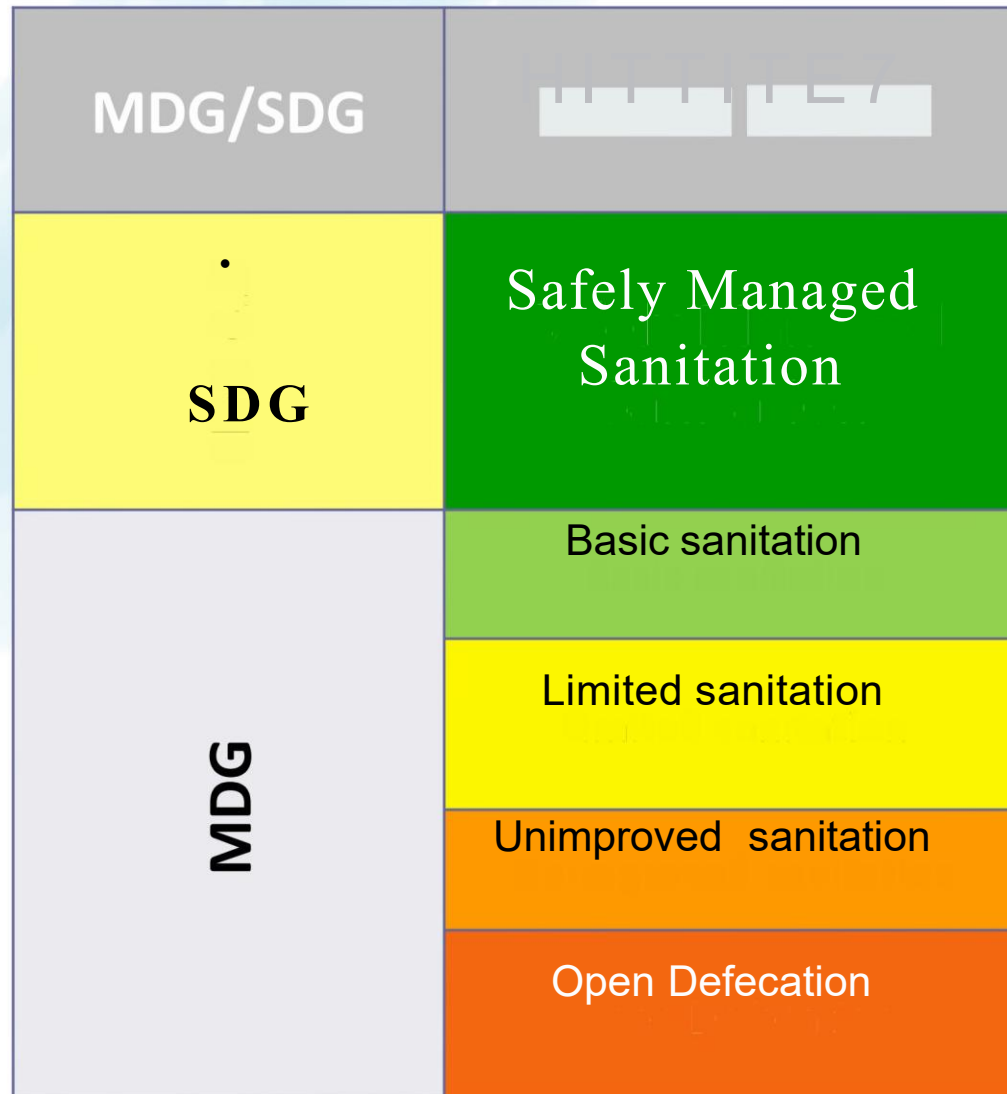


Indicators:

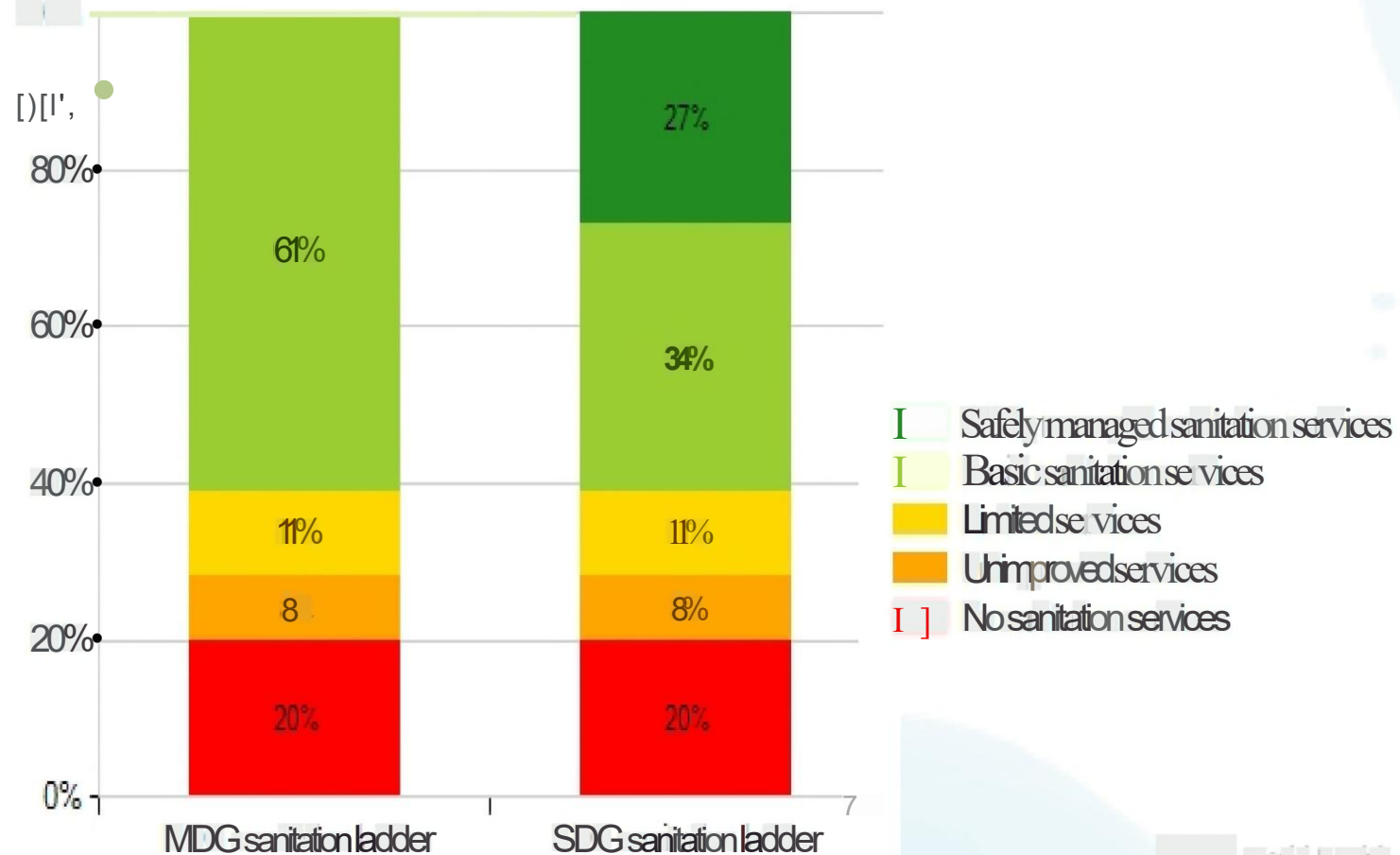
1. Proportion of wastewater safely treated
2. Proportion of bodies of water with good ambient water quality



A new rung on the sanitation ladders

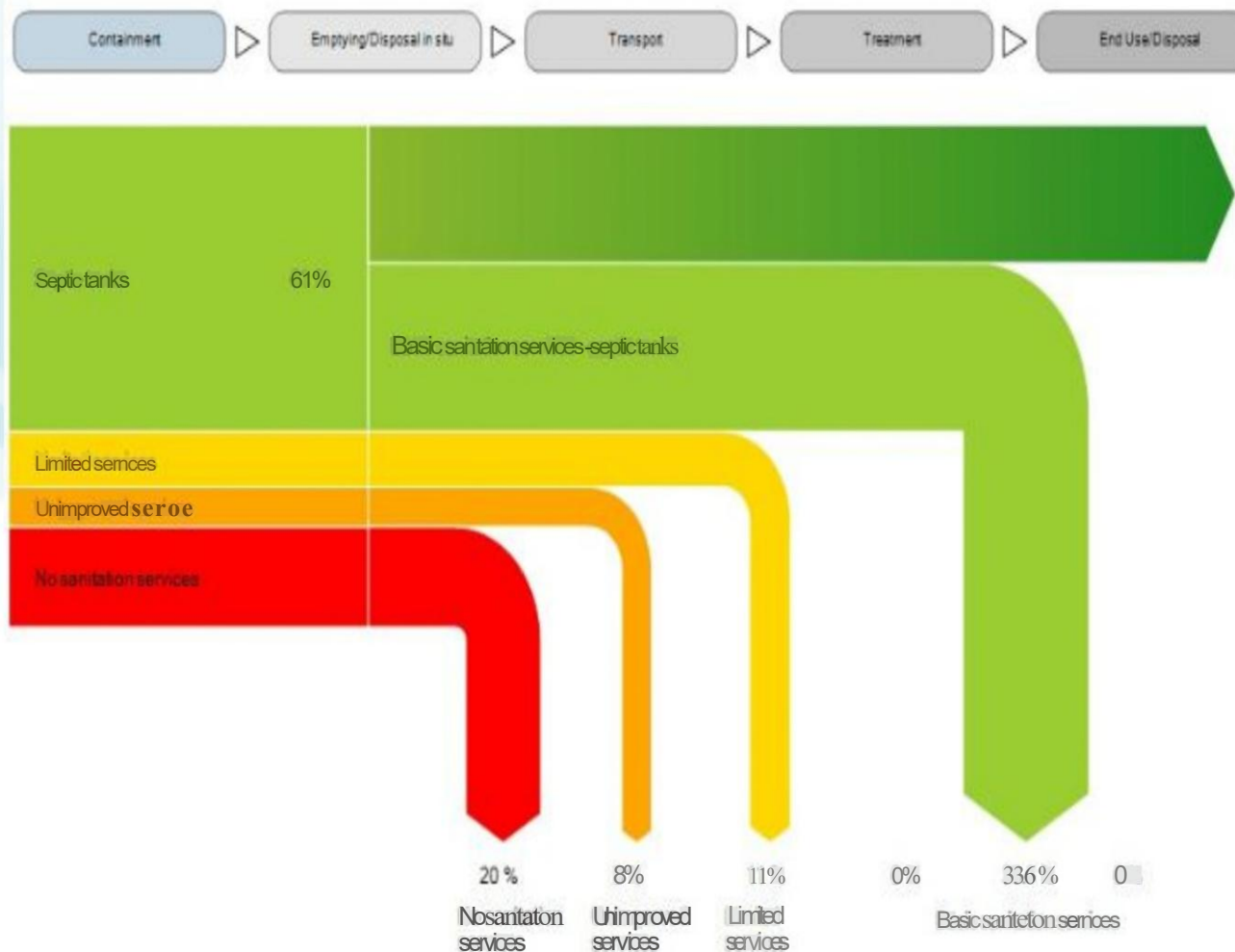


How will "safely managed" change national estimates?



World Health Organization
UNEP

Changing the conversation: from infrastructure to services



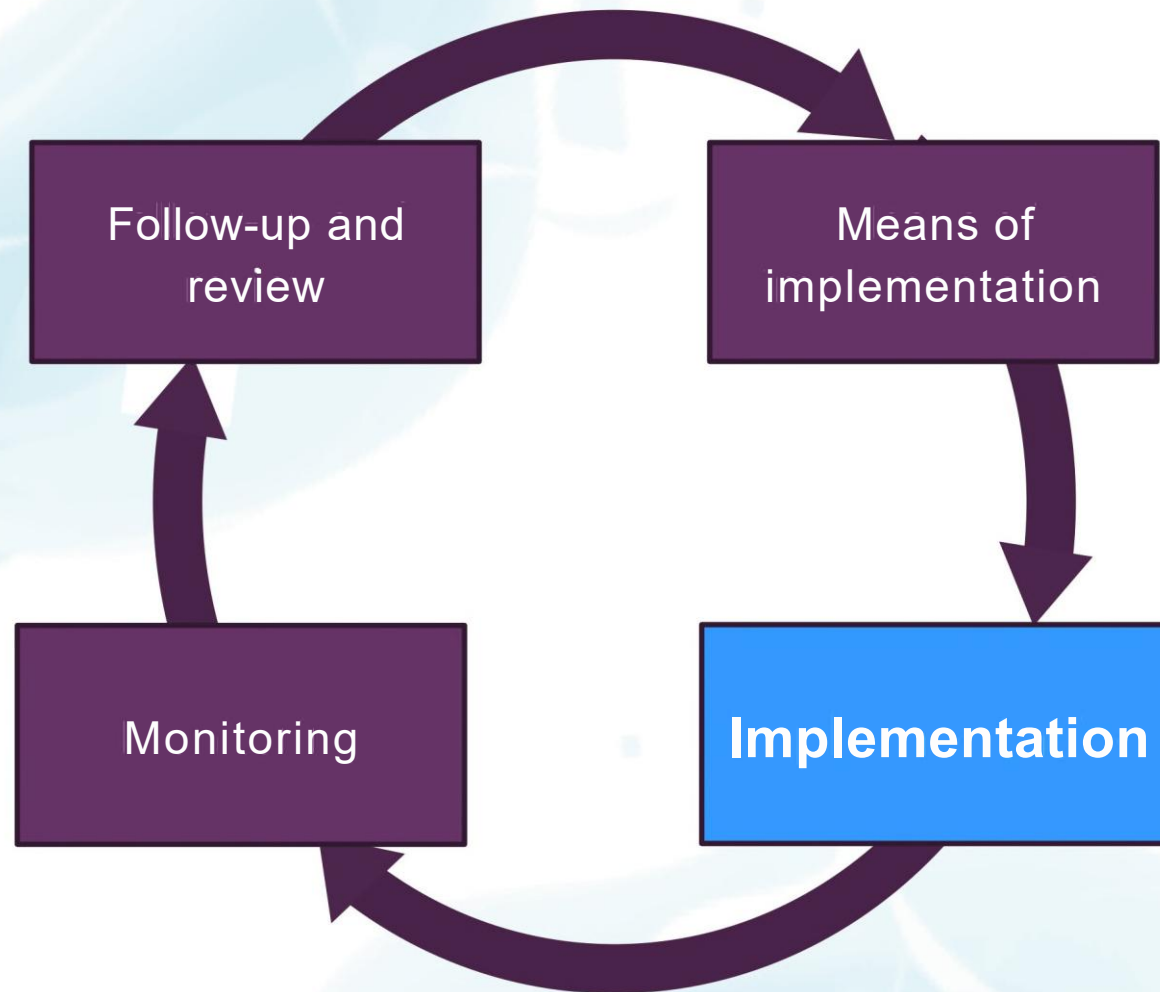
Safely managed sanitation services

0% Piped sewers treated on site

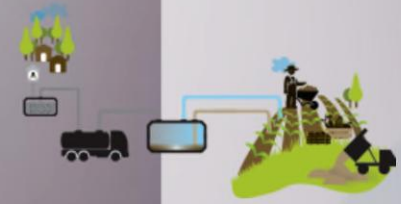
274% Septic tanks
12.1% tested & of fre
15.2% safely disposed in situ

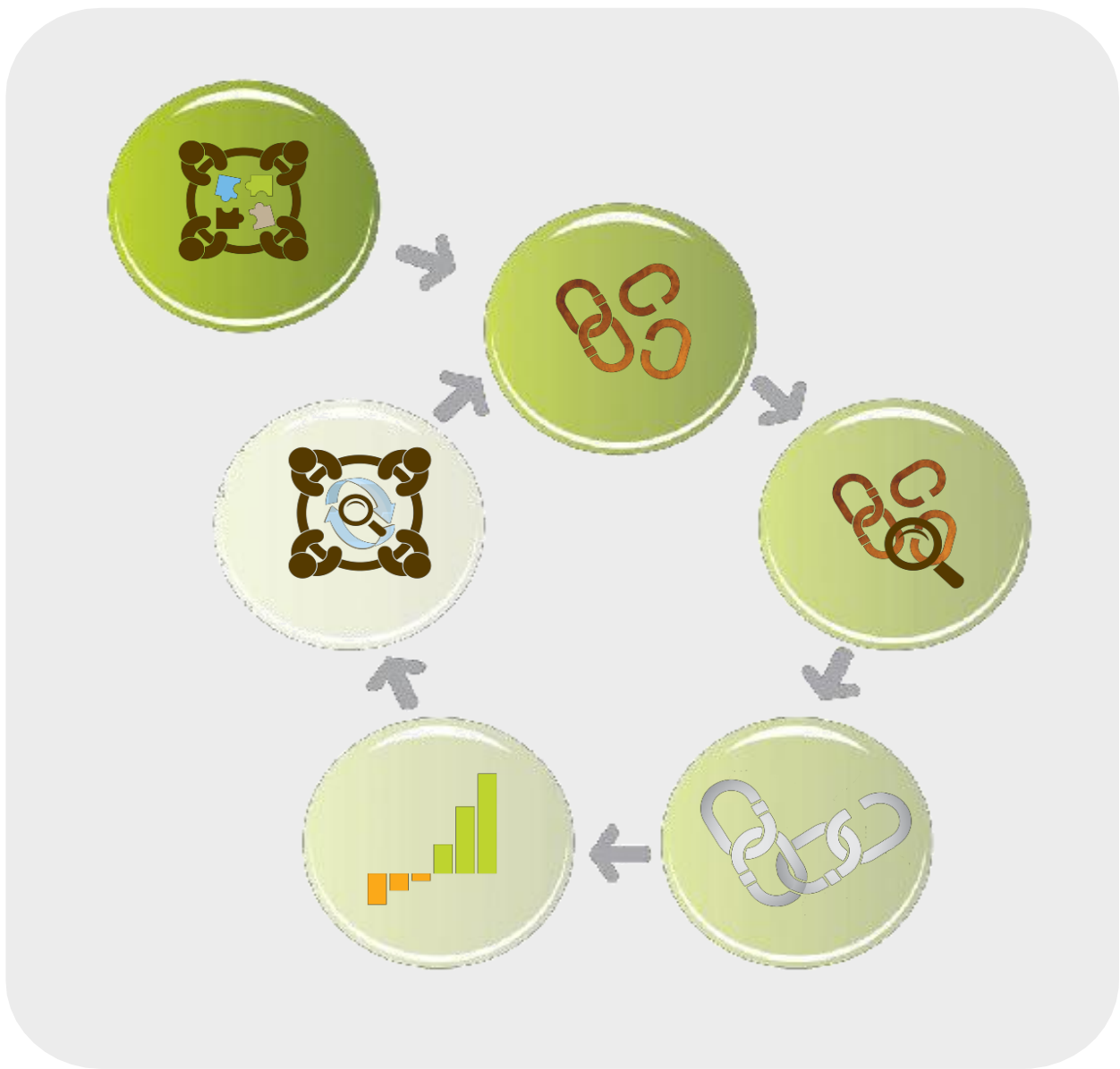
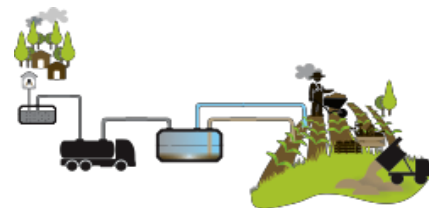
0% Pits latrines & other improved treated on site
0% safely disposed in situ

From indicators to action



SSP modules



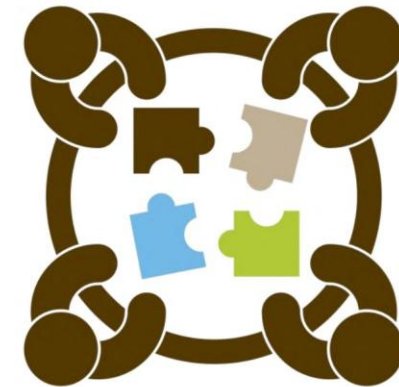


Module 1: Prepare for SSP

(Where to do SSP; who to involve)

Outputs:

- Agreed priority areas, purpose, scope, boundaries and leadership for SSP
- A multi-disciplinary team representing the sanitation chain for development and implementation of SSP



SSP Manual pp 7 - 20



Module 2: Describe the sanitation system

(What is the system; who's at risk?)

Outputs

- A map and description of the system
- Potential exposure groups
- An understanding of the waste stream constituents and waste related health hazards
- An understanding of the factors affecting the performance and vulnerability of the system
- A compilation of all other relevant technical, legal and regulatory information



SSP Manual
pp 21 - 38

Module 3: Identify hazardous events, assess existing control measures and exposure risks (*How significant are the risks?*)

Outputs

- A risk assessment table
- Exposure groups and routes, existing control measures and their effectiveness
- A prioritized list of hazardous events to guide system improvements



SSP Manual pp 39 - 56



Module 4: Develop and implement an incremental improvement plan {*What needs to be improved?*}



output

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



SSP Manual pp 57 - 68



Module 5: Monitor control measures and verify performance {Is the system operating as planned?}

Outputs

- Monitoring plans
- Independent assessment of performance



SSP Manual pages 69 - 84



Module 6: Develop supporting programmes and review plans (*How can we adapt to changes?*)

Outputs:

- Supporting programmes and management procedures that improve implementation of the **SSP outputs**
- **Up to date SSP outputs responding to internal and external changes**



SSP Manual pages 85 - 90



The 2 key SSP outputs are:



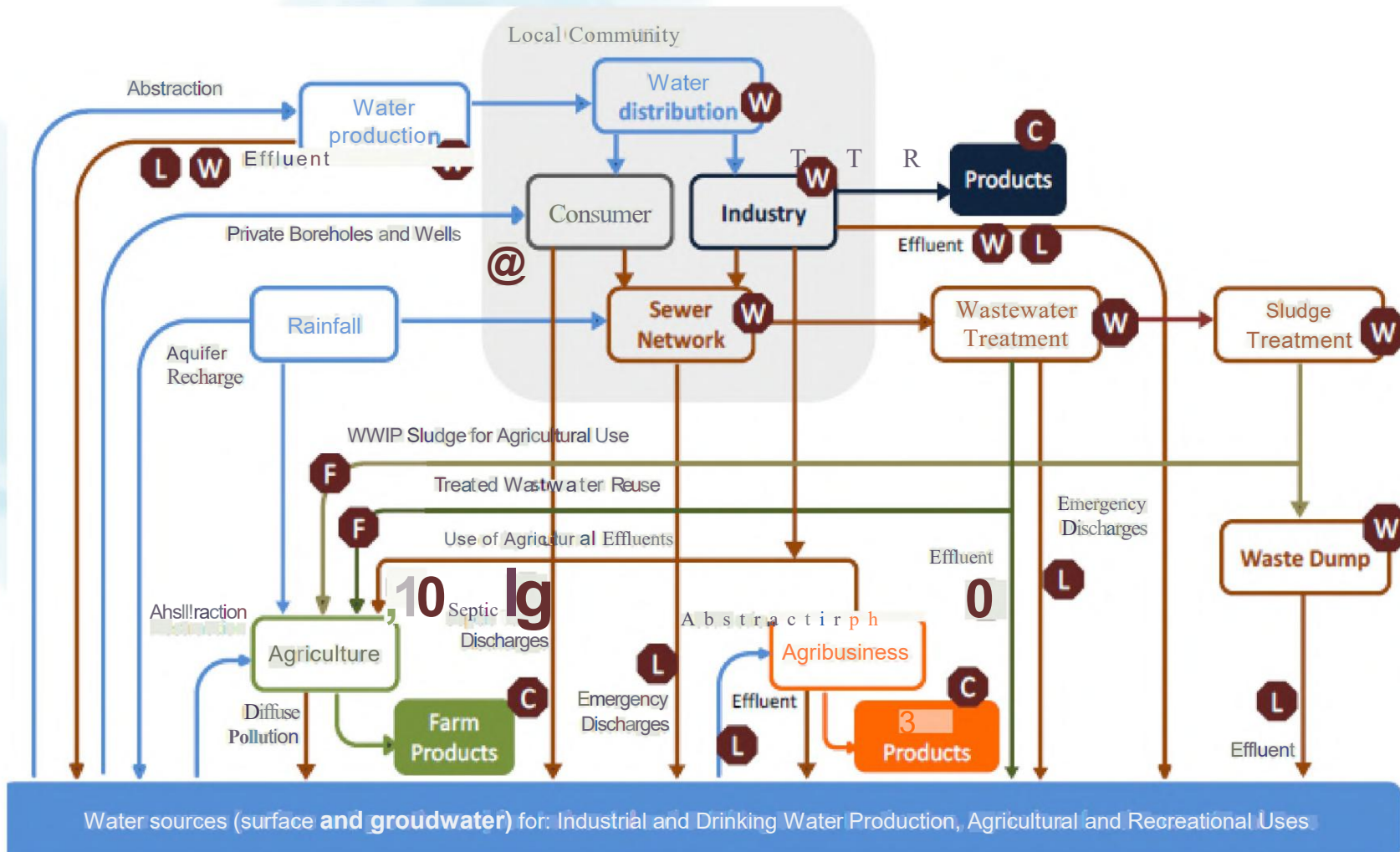
1. **Prioritized, incremental improvement plan**
2. Operational monitoring plan for regular monitoring and periodic **verification**

SSP examples

[Click here to bypass all
example slides](#)



Portugal: flow diagrams



Exposure groups: W- Waste Handlers or Utility Workers [F -- Farmers] L-- Local Community [C -- Consumers

Exposure Routes: Ingestion after contact with wastewater /sludge / slurry or manure, vector bore with flies/mosquitoes, inhalation of aerosols and particles, dermal contact with overflowing / leaking contents / contaminated stormwater drains / wastewater /sludge / slurry or manure / contaminated groundwater or surface water, and ingestion of contaminated water or crops/food..

Thank you