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### **Integrated Monitoring** of Water and Sanitation related SDG Targets

**GEMI** 

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# Sanitation Chain: evidence, action and monitoring

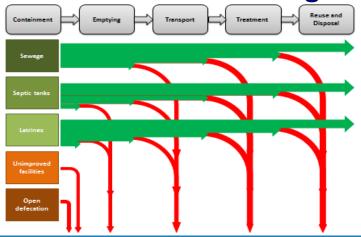
### **Burden of Disease**

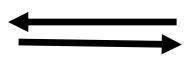






### **SDG-2015 Monitoring**



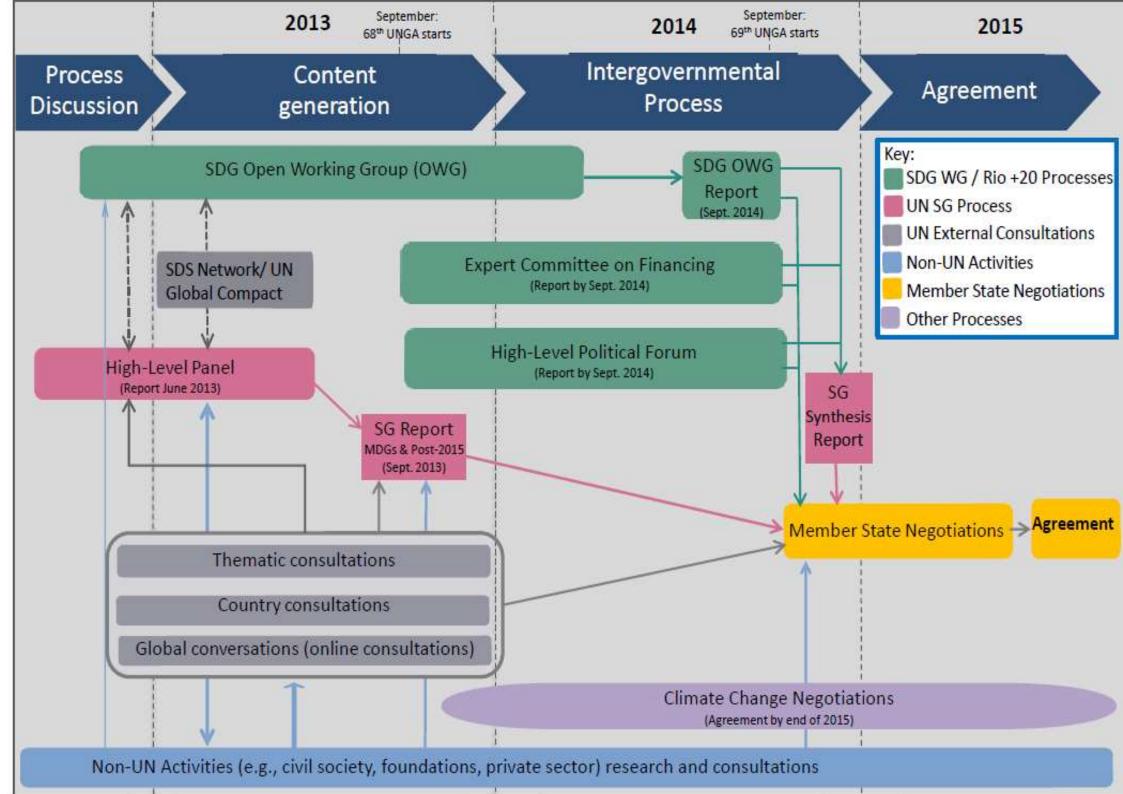


#### **Global Guidelines**



### Goal 6: Ensure availability and sustainable management of water and sanitation for all

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water
- 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
- 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
- 6.4 By 2030, substantially **increase water-use efficiency** across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 6.5 By 2030, implement **integrated water resources management** at all levels, including through transboundary cooperation as appropriate
- 6.6 By 2020, protect and **restore water-related ecosystems**, including mountains, forests, wetlands, rivers, aquifers and lakes



### **Interpreting targets**

Target formulation	Normative interpretation
access	Implies facilities close to home that can be easily reached and used when needed
to adequate	Implies a system which hygienically separates excreta from human contact as well as safe disposal of excreta in situ, or safe transport and treatment off-site
and equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
sanitation	Sanitation is the provision of facilities and services for safe management and disposal of human urine and faeces
and hygiene	Hygiene is the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene
for all	Suitable for use by men, women, girls and boys of all ages including people living with disabilities
end open defecation	Excreta of adults or children are: deposited (directly or after being covered by a layer of earth) in the bush, a field, a beach, or other open area; discharged directly into a drainage channel, river, sea, or other water body; or are wrapped in temporary material and discarded
paying special attention to the needs of women and girls	Implies reducing the burden of water collection and enabling women and girls to manage sanitation and hygiene needs with dignity. Special attention should be given to the needs of women and girls in 'high use' settings such as schools and workplaces, and 'high risk' settings such as health care facilities and detention centres.
and those in vulnerable situations	Implies attention to specific WASH needs found in 'special cases' including refugee camps, detention centres, mass gatherings and pilgrimages

### **Interpreting targets**

Target language	Normative definitions of target elements
Improve water quality	Implies adequate quality of receiving water bodies so that they do not present risk to the environment or human health.
Reducing pollution	Pollution reduction implies both minimizing production of pollutants at source and reducing the discharge of polluting substances. Both point and non-point of pollution need to be considered .Point sources are frequently associated with discharges of domestic/municipal wastewater and a large proportion of non-point sources come from run off from both rural and urban areas. These sources constitute both agricultural runoff in rural areas and contaminated surface water from urban areas.
Eliminating dumping	Dumping of wastes refers to the inadequate disposal of both liquid and solid wastes. It relates to the disposal of solid wastes and associated liquid components that are leached into water resources A good example would be the leachates produced by poorly managed solid waste disposal sites. These constitute a risk from both the possibility of hazardous substances present and their oxygen-depleting capacity
minimizing release of	This relates to the discharges of certain hazardous substances, which are currently defined in the conventions of Basel,
hazardous chemicals and materials	Rotterdam and Stockholm. Management is related to waste minimization strategies, however there is a component that relates to the impact of treatment on such components, and illegal dumping
Untreated wastewater	Refers to: a) Domestic wastewater (sewage and faecal sludge) where treatment is defined by ladders ranging from no treatment, primary, secondary, tertiary to advanced treatment for on-site and off-site facilities.
	b) hazardous (as defined by ISIC) industrial wastewater discharges not meeting national standards as verified by monitoring against discharge permits.
increasing recycling	Implies industrial process wastewaters recycled on-site or to another industrial use
and safe reuse	Implies direct use of effluent from municipal wastewater treatment plants for all uses. The term 'Safe reuse' may be defined using a combination of treatment level and use type as a proxy for 2006 WHO Guidelines for safe use of wastewater.

### **Emerging Indicators**

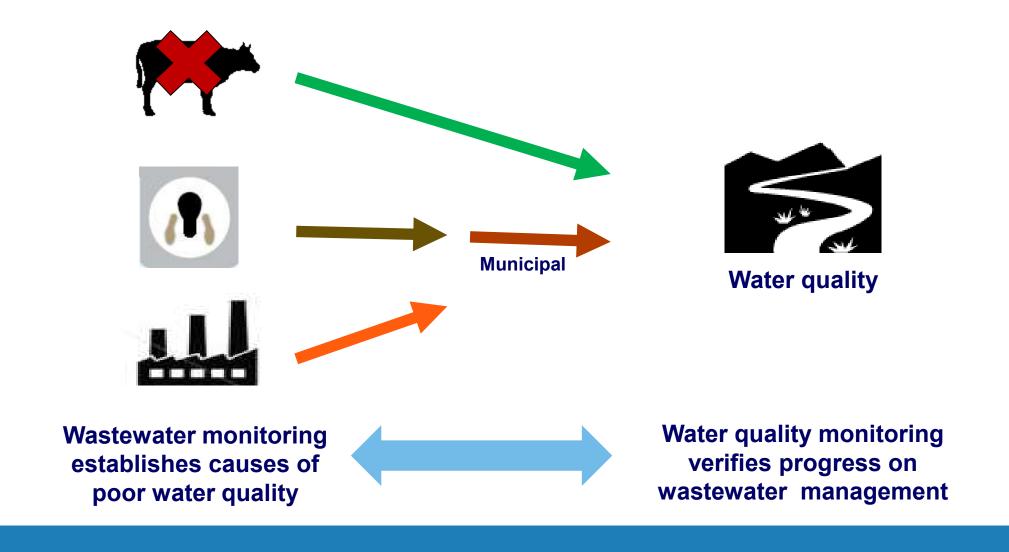
Indicator 6.2.1 Percentage of population using safely managed sanitation services

Percentage of Wastewater safely treated disaggregated by economic activity (domestic and industrial)

Indicator 6.3.2 Percentage of water bodies with ambient water

quality not presenting risk to the environment or human health

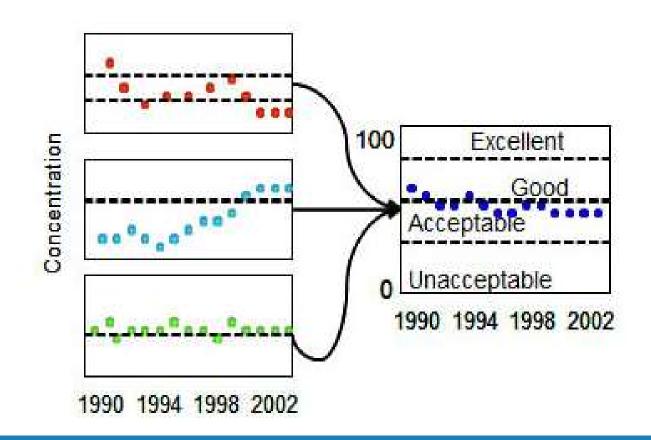
### **Wastewater Management and Water Quality**





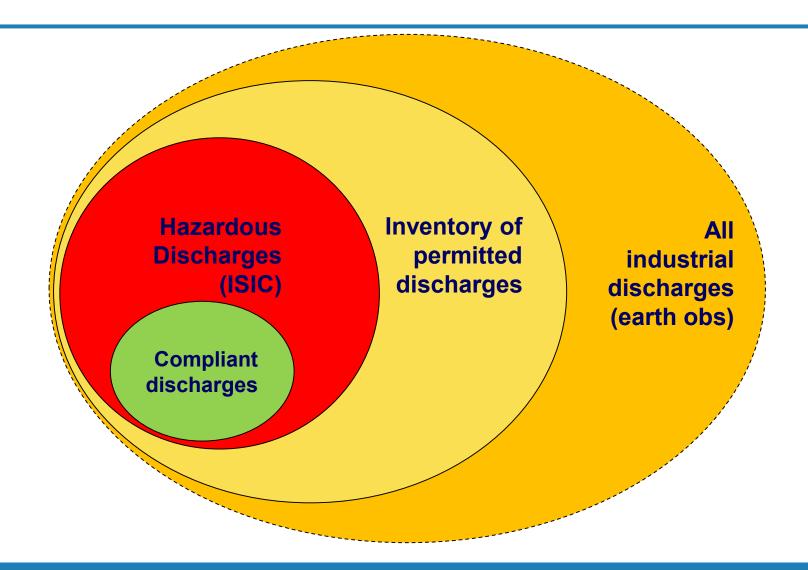
### **6.3.2** Ambient Water Quality

### **WQ** Index



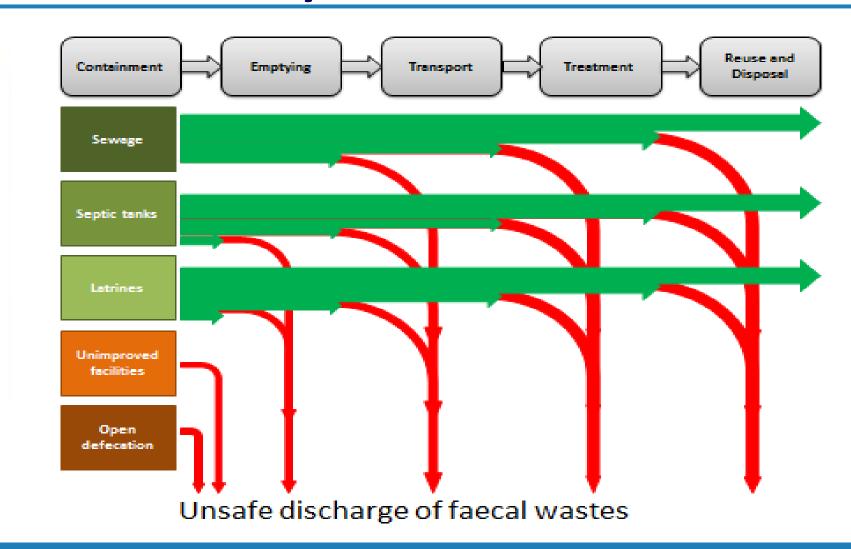


### 6.3.1 Industrial Wastewater treated





# 6.2.1 Safely managed sanitation and6.3.1 safely treated wastewater



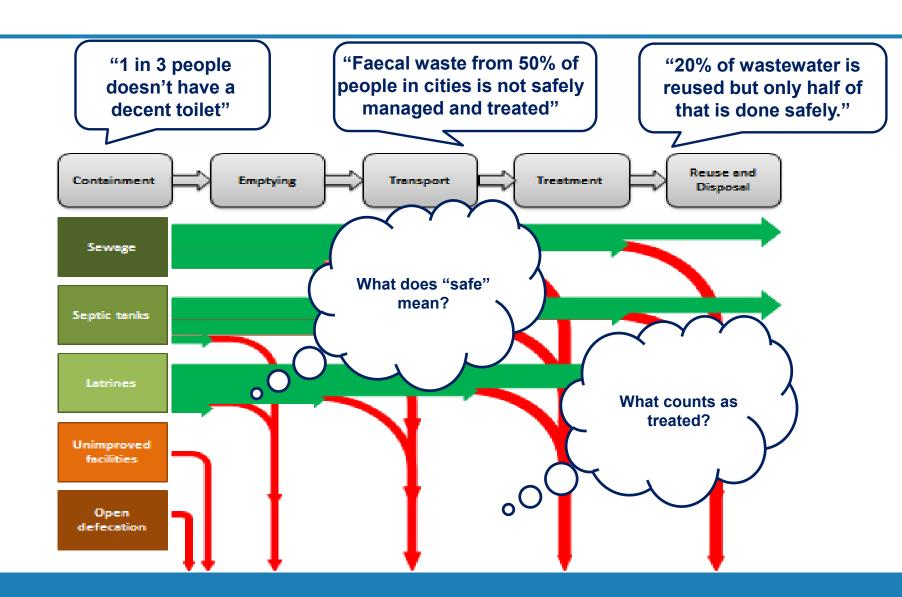
### Mass balance framework

#### **Indicators:**

Political, simple, peoplecentered

# Definitions and methods:

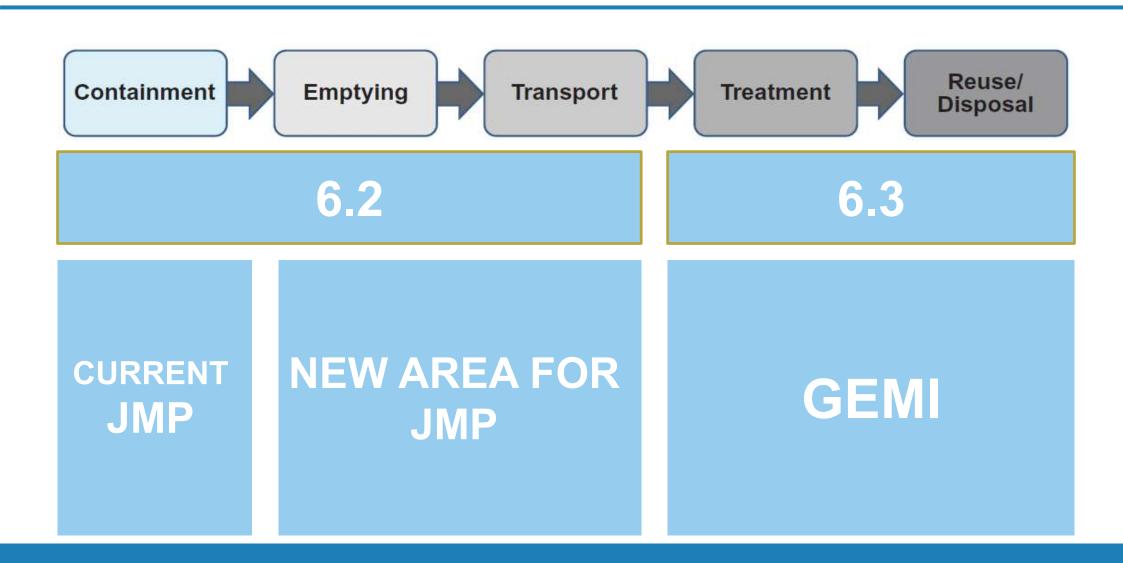
Technical, comprehensive, comparable robust



### A mass balance framework

- Provides an simple graphical overview of the sources and safe and unsafe sinks of waste
- Allows flexibility for decision makers on how to transition from unsafe to safe depending on the context, priorities and resources.
- Avoids creating perverse incentives for poor investment
- Builds on existing MDG monitoring (JMP)

### **Building on existing monitoring**



### Challenges

- Complementing and supporting national systems
- Aligning city to national and global level approach
- Statistical validity
- Data availability
- Cost and complexity

## GEMI

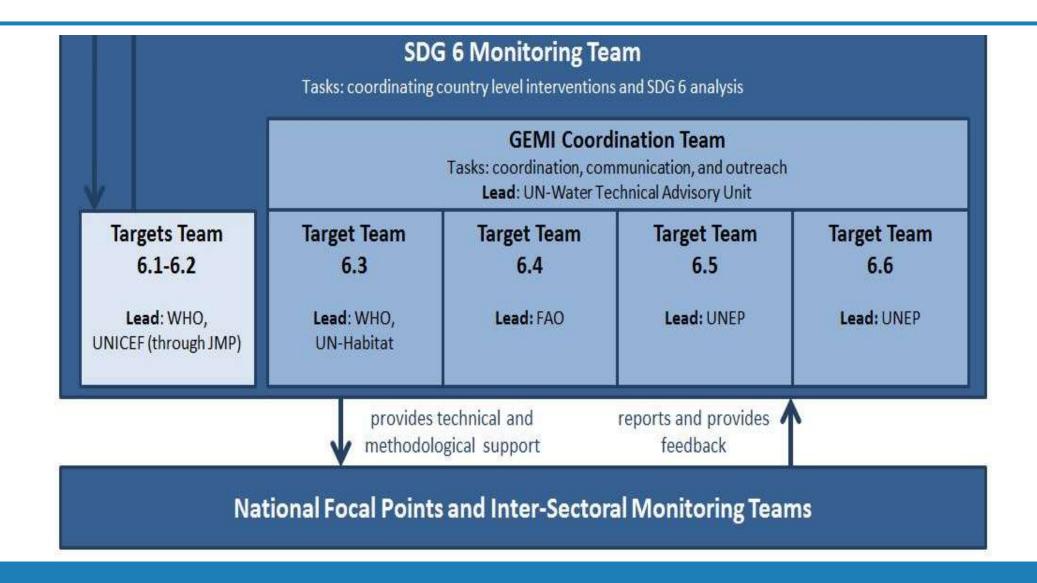
Integrated monitoring of water and sanitation related SDG targets



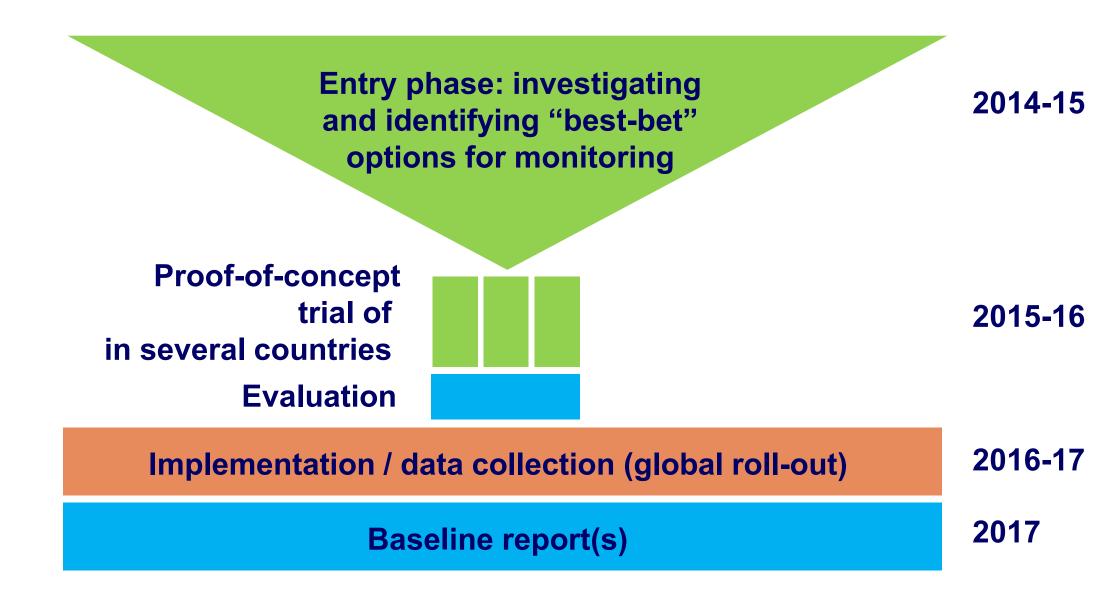
### **GEMI** main objectives

- Integrate existing monitoring efforts, to ensure harmonized monitoring of the entire water cycle
- Report on global progress towards SDG targets 6.3-6.6 provide policy- and decision-makers with a basis to make informed decisions
- Provide Member States with a monitoring guide for SDG targets 6.3-6.6, enabling Member States to monitor according to their capacity, starting modestly and progressing to more advanced levels
- Engage Member States and enhance their capacity in water sector monitoring - global monitoring to build on national monitoring

### **Coordinated water monitoring**



### **GEMI** process and milestones



### Thank you

www.unwater.org/gemi/en