Introducing Indicator 11.6.1: Work Done So Far and Key Issues

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Contents

Waste SDG Indicators

Strong Interlinkages between Indicators

UN-Habitat

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable		
Targets		***Indicator***
11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.	**% of urban solid waste regularly collected and with adequate final discharge with regards to the total waste generated by the city**

UN-Habitat & WHO

Goal 6: Ensure availability and sustainable management of water and sanitation for all		
Targets		***Indicator***
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 environment.	**% of wastewater safely treated (Definition of 'wastewater' include septage and feacal sludge)**

UNEP

Goal 12: Ensure sustainable consumption and production patterns		
Targets		***Indicator***
12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.	**Treatment of waste, generation of hazardous waste, hazardous waste management, by type of treatment**
12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	**National recycling rate, tons of material recycled**

11.6.1 on "Urban Waste"

Progress

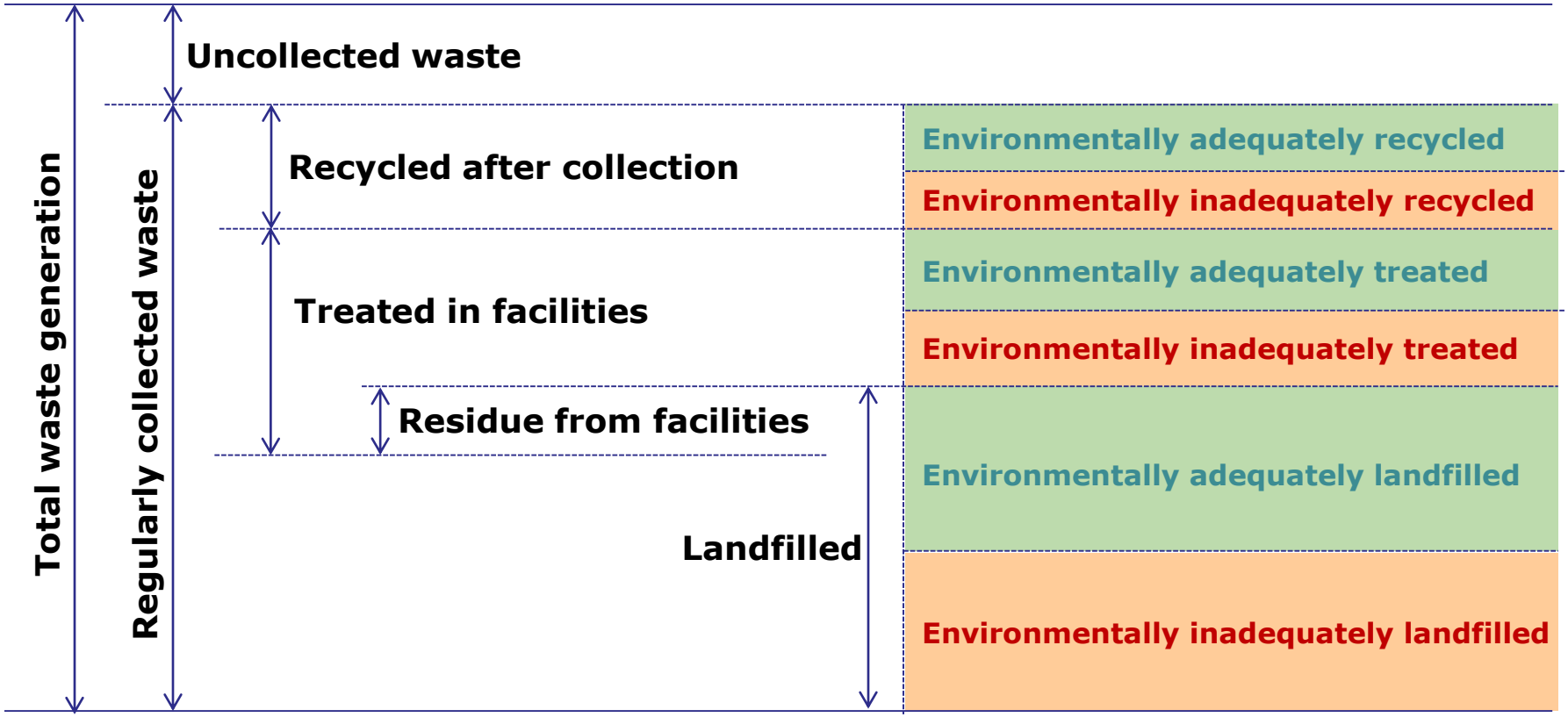
1. First draft metadata developed (Late 2016)
2. First Virtual Expert Group Meeting on 11.6.1 (Jan 2017)
3. Revised metadata submitted (Jun 2017)

Work done so far

4. Joint EGM on Waste SDG indicators (Now)
5. Submission of data to IEAG (Feb 2018)
6. Proposal for refinement of indicator (end of 2018)

Work from now

11.6.1 on "Urban Waste"
Methodology Concept



$$\%\ of\ urban\ solid\ waste\ regularly\ collected\ and\ with\ adequate\ final\ discharge$$

$$= \frac{Amount\ of\ waste\ environmentally\ adequately\ recycled, treated\ \&\ landfilled - Residue}{Total\ waste\ generation}$$

EGM Recommendations

Definition of "Urban Waste"

- There is **no internationally agreed definition** of "urban waste"
- Whether or not include sewage sludge and faecal sludge in the monitoring scope?
- Whether or not include the following?
  - Waste from healthcare facilities
  - Industrial waste
  - Agricultural waste
  - Mining waste
  - Construction and demolition waste
  - End of life vehicles and
  - WEEE (Waste Electrical and Electronic Equipment)
- Should we stick to **"municipal waste" as a monitoring scope as it has internationally agreed definition** theoretically and practically?

EGM Recommendations
Definition of Urban Waste

- Many participants responded that the **faecal sludge and sewage sludge should be excluded** from the monitoring scope by the indicator.
- Likewise many expressed that the **monitoring scope should focus on 'municipal solid waste'** because this has clear and internationally agreed definition both theoretically and practically.
- Although some argued WEEE (Waste Electrical and Electronic Equipment) should be included otherwise cannot be captured and monitored, UNEP Basel Convention Secretariat stated this is already addressed by Basel Convention.

Monitoring scope should be 'municipal solid waste' rather than 'urban solid waste'.

Remained Issue:

→ However, the wording in the target 'municipal and other waste' cannot be changed

→ Countries has different definitions of MSW.

EGM Recommendations
Definition of "Adequate Discharge"

Definition in the First Draft Metadata:

Waste that is recycled **in regulated recycling facilities**, composted or incinerated in **regulated composting and incineration facilities and disposed in sanitary landfills in environmentally adequate ways**. It **excludes** waste handled in recycling, composting, incineration **facilities that do not have necessary pollution control systems and labour safety standards** required by international guidelines or national and local legislations such as waste water treatment and air pollution prevention systems and provision of necessary equipment for workers. It also excludes solid waste that is incinerated and burned openly or disposed to open dump without leachate facility.

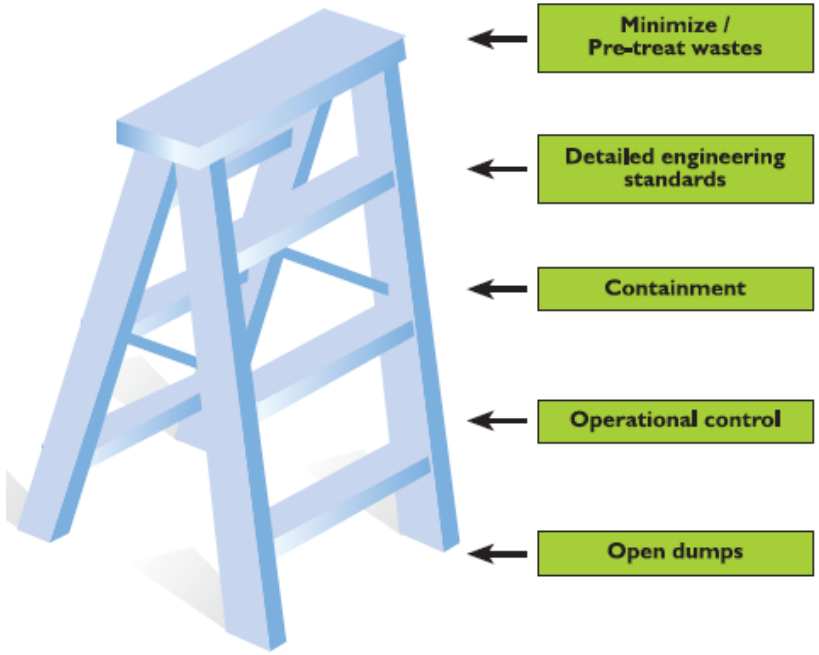
EGM Recommendations

Definition of "Adequate Discharge"

- Most of the participants agreed that **current definition cannot capture the gradual improvement that usually occur in the solid waste management system**. With the current definition, the values in most of the developing countries will be **0%**. This discourages the decision makers to put efforts in achieving SDG 11.6.
- Also many agreed **'discharge' is a terminology in the waste water treatment area,** hence should be changed to **'adequate treatment and disposal'**.
- Some indicated e**nvironmental adequateness should be looked at from the perspective of 'environmental effect'** rather than focusing on specific technology.

- **Terminology should be 'adequate treatment and disposal'**
- **Definition should be changed to be able to capture the gradual improvement of solid waste management.**
- **'Environmental adequacy' should be defined by the effect to the environment**

EGM Recommendations
Example of Gradual Improvement



Stepwise progression controlling disposal

EGM Recommendations
Sub-Indicators (WASTEAWARE Indicators)

WASTEAWARE Indicators (Wilson et al, 2015)

Using wasteaware indicators as sub-indicators would help visualise gradual improvement of SWM

	Physical component	*Indicator name and definition*	*Extract from guidance notes in User Manual*
1	Public health - waste collection	**Waste Collection Coverage:** % households who have access to a reliable waste collection service	Waste collection coverage represents **the access that the population of a city have to a waste collection service,** including both formal municipal and informal sector services. A 'collection service' may be 'door to door' or by deposit into a community container. 'Collection' includes collection for recycling as well as for treatment and disposal (so includes e.g. collection of recyclables by itinerant waste buyers). 'Reliable' means regular - frequency will depend on local conditions and on any pre-separation of the waste.
2	Environmental control - disposal	**Controlled treatment or disposal:** % of the total municipal solid waste destined for treatment or disposal which goes to either a state-of-the-art, engineered or 'controlled' treatment / disposal site	**The 'numerator' in this calculation is the total waste that is dealt with in a 'controlled' facility** (e.g for land disposal, composting or waste to energy). **The 'denominator' is the total solid waste destined for treatment or disposal** - that is the total waste generated less waste recycled or reused. Waste being accepted at a facility 'counts' towards this quantitative indicator if the facility has reached at least an intermediate level of control. To use land disposal as an example, and referring to the stepwise improvement of sites, both uncontrolled and semi-controlled sites would fall below the threshold, while controlled, engineered and full sanitary landfills would all count towards this indicator.
3	Resource value - '3Rs' - Reduce, reuse, recycle	**Recycling rate:** % of total municipal solid waste generated that is recycled. Includes materials recycling and organics valorisation (composting, animal feed, anaerobic digestion).	Includes materials recycling and organics valorisation (composting, animal feed, anaerobic digestion). Includes the contribution from the 'informal' recycling sector as well as formal recycling as part of the solid waste management system. The total quantity collected for recycling should be adjusted downwards to allow for any materials that are subsequently rejected and sent for treatment or disposal.

11.6.1 scope

12.5 scope

Reference: Wilson, D.C., Rodic, L., Cowing, M.J., Velis, C.A., Whiteman, A.D., Scheinberg, A., Vilches, R., Masterson, D., Stretz, J., Oelz, B., 2015. 'Wasteaware' benchmark indicators for integrated sustainable waste management in cities. Waste Management, 35 (1), 329-343.

Wasteaware Indicator Criteria

1) **Degree of control over waste reception and handling at each site**. (This criterion should be applied to all treatment and disposal sites, whatever the specific process being used.)

2) **Degree of control over both the waste treatment and disposal process in use at each site and over any potential emissions.** (This criterion covers both the presence of the necessary technologies, and the operating procedures for their proper use.)

3) **Degree of monitoring and verification of environmental controls** (Includes the existence and regular implementation of: robust environmental permitting/ licensing procedures; regular record keeping, monitoring and verification carried out by the facility itself; AND monitoring, inspection and verification by an independent regulatory body)

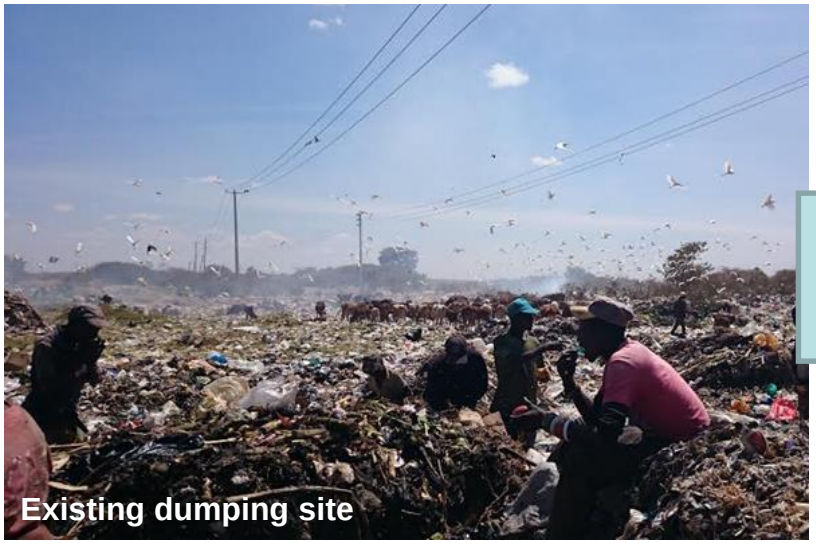
Current Methodology

Reporting and Monitoring Format

Treatment facility name	Degree of control score	Process employed	Type of waste	Amount of solid waste received	Amount of sewage sludge	Amount of residue	Where residue is exported
	(1) (2) (3)			(t)	(t)	(t)	
	(1) (2) (3)			(t)	(t)	(t)	

Landfill sites name	Landfill type	Operation start year	Degree of control score	Amount of MSW received	Amount of swage sludge received
			(1) (2) (3)	(t)	(t)
			(1) (2) (3)	(t)	(t)

Influence on Improved SWM
Data Usage


Existing dumping site


New pilot landfill site

0% → **Could be improve to 60%**

Influence on Improved SWM
Data Usage

For formalization of informal sector

0%

Could be improve to 70%

Joint EGM

Expectation on Feedback from Experts

Terminology

- What is the most globally accepted definition of 'Municipal Solid Waste'?
- 'Adequate treatment and disposal' vs 'environmental sound management'?
- How to measure only 'municipal solid waste' in developing countries?

Scope of Monitoring

- Is it okay to just monitor 'municipal solid waste'? How about construction waste?
- Can we include other waste? If so what waste?

Other feedback

- Feasibility and reasonability of monitoring methodology
- Any other suggestion is welcome ☺

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Thank you!