SDG Indicators 12.4.2 & 12.5.1
Methodologies and Pilot Results

Chemicals and Waste Statistics in the 2030 Agenda: A Joint Programme for Methodology Development and Capacity Building for the Follow-up and Review of Waste SDGs

David Marquis – SDGs and Environment Statistics Unit, Science Division, UN Environment (UNEP)
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By 2050, the world’s population is expected to rise from 7 to nearly 10 billion people, resulting in a significant increase in waste generation, especially in cities.

However, many countries and cities do not yet have the capacity to properly collect, transport, treat, and dispose of their waste, which can lead to:

- Spread of disease
- Flooding from blocked drainage
- Environmental pollution
- Emission of Greenhouse Gases
- Unwanted sights and odours
Collecting environmental statistics on chemicals and waste is critical to identify and quantify these issues, design interventions, improve management practices, and inform decision-making and policies.

Capacity-building is urgently needed in this area as many countries do not presently collect statistics on waste.

The African Clean Cities Platform will be a key mechanism for capacity development on statistics.
The Sustainable Development Goals (SDG)

Adopted by the United Nations General Assembly in 2015

17 goals with 169 targets and 232 indicators covering the social and environmental dimensions of sustainable development

Indicators were entrusted to Custodian Agencies for the development of methodologies and data collection
UN Environment is the custodian agency for 26 SDG indicators

Many are still ‘Tier III’, meaning they have no internationally-agreed, conceptually clear methodologies for how the data should be collected

Establishing methodologies for these Tier III indicators is a priority
Partnership to develop the methodologies

Joint Programme on Waste SDG Indicator Monitoring and Capacity Development

Established in 2017 to share expertise and coordinate work

Joint Expert Group Meeting held in January 2018

Joint resource mobilization
SDG indicators directly related to waste

Indicator 6.3.1: Wastewater management

Indicator 11.6.1: Municipal solid waste

Indicator 12.3.1: Food loss and waste

Indicator 12.4.2: Hazardous waste

Indicator 12.5.1: Recycling rate
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Indicator 12.5.1: Recycling rate
Other SDGs on waste management

**Target 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.

**Indicator 11.6.1:** Proportion of municipal solid waste collected and managed in controlled facilities with regards to the total waste generated by the city

**Target 12.3**

By 2030, halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains including post-harvest losses

**Indicator 12.3.1:** Global food loss and waste indexes
SDGs on chemicals and waste under UN Environment custodianship

**Goal 12:** Ensure sustainable consumption and production patterns

**Target 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.

*Indicator 12.4.2:* Hazardous waste generated per capita and proportion of hazardous waste treated, per type.

**Target 12.5**
By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

*Indicator 12.5.1:* National recycling rate, tons of material recycled
SDGs on chemicals and waste under UN Environment custodianship

Goal 12: Ensure sustainable consumption and production patterns

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By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Indicator 12.5.1: National recycling rate, tons of material recycled

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Indicator 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, per type.
Indicator 12.4.2
Hazardous waste generated per capita and proportion of hazardous waste treated, per type

Hazardous waste generated per capita = \frac{\text{Quantity of hazardous waste generated (kg)}}{\text{Population}}

Proportion of hazardous waste treated (%) = \frac{\text{Quantity of hazardous waste treated (kg), per type of treatment} \ast}{\text{Quantity of hazardous waste generated (kg)}}

*Disaggregated by treatment type: recycling (1), incineration with (2) and without (3) energy recovery, landfilling (4), and other (5).
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Computation Method: 12.4.2 Hazardous Waste

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Key issues:
12.4.2 Hazardous Waste

- Data on hazardous waste generation often comes from the Basel Convention, but only 57% of parties report and the trend is heading downward.

- Hazardous waste can be expensive to treat, creating incentive for illegal and unreported dumping or export.

- Unreported waste is difficult to accurately estimate.

- Financial or technical capacity for the sound treatment of hazardous waste is often lacking, requiring exportation.
Methodology Development:
12.5.1 Recycling Rate

**Indicator 12.5.1**
National recycling rate, tons of material recycled

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\text{National recycling rate (\%)} = \frac{\text{Quantity of material recycled (kg)} + \text{quantity exported for recycling (kg)}}{\text{Total waste generated (kg)}}
\]

**Key issues:**

- **End-of-waste status:** at what stage in the recovery process does waste stop being waste, and qualify as a resource again?
- Prevention, reduction, reuse, repair are difficult to measure
- Data on generation often collected at municipal level, but recycling rate aims to be national: rural gap
- The informal sector plays a key role, but difficult to measure
E-waste component

Waste Electric and Electronic Equipment (WEEE), also known as e-waste, is a rapidly growing waste stream of particular interest and concern as it contains both valuable and potentially hazardous materials.

The United Nations University’s Sustainable Cycles Programme (UNU-VIE SCYCLE) is partnering with UN Environment to design and propose a dedicated SDG sub-indicator on e-waste in 12.5.1.
Pilot Testing of Draft Methodologies

May 2018
Bosnia and Herzegovina

July 2018
Costa Rica

August 2018
Mauritius

September to December 2018
3 more countries in African region
Pilot Testing: Bosnia and Herzegovina

8 – 11 May 2018
Sarajevo, Bosnia and Herzegovina

1) Bilateral meetings with key Government Agencies and Ministries to collect assess state of statistics

2) Workshop with policy-makers (20 participants) to seek top-down feedback on methodologies and highlight issues

3) Workshop with field staff (50 participants) to seek bottom-up feedback on draft methodologies and assess feasibility

4) Revision of methodologies based on feedback received
Pilot testing workshops have two important objectives:

a) pilot test the draft SDG methodologies

b) capacity development of national staff to increase and ensure understanding of data collection needs, calculation methods, and reporting requirements for SDG indicators

This is done through dedicated Question & Answer periods, bilateral discussions, breakout groups, and follow-up consultations over email and in-person
Key Lessons from Bosnia

• Intragovernmental communication gaps (between Agencies, Ministries) are a major challenge

• Human and financial resources are lacking to fully monitor and report on waste SDG indicators

• Data from national censuses play a critical role in waste statistics, including the agricultural census

• Compositional analyses of waste serve an essential purpose to multiple indicators

• Proxy indicators may need to be developed
Data Assessment Tool under development

Excel model designed to collect key country data on waste statistics

Allows the rapid identification of data gaps

Creates a comprehensive summary of the state of waste statistics in the target country

Currently used for preliminary assessment of the state of chemicals and waste statistics in a country

A final version will be made available for any country to download and perform self-assessments
The Road to the Agenda 2030

2019
Q1: Second Joint Expert Group Meeting on Waste SDGs

Q2: Submit final methodologies to Inter-Agency Expert Group (IAEG-SDGs) to request for reclassification from Tier III to Tier II

2020
A global baseline is set for these indicators

2020–2030
Data is collected by a growing number of Member States
• Further pilot testing of waste SDG methodologies in ACCP member cities in countries

• Capacity building workshops for SDG monitoring

• Knowledge sharing of best practices in data collection from these methodologies

• Project development and resource mobilization between UN Environment, ACCP members, and financial institutions (GEF, UNDA, EC, etc.)
In summary

UN Environment is the custodian agency to 2 SDG indicators on waste, which both lack internationally-agreed and conceptually clear data collection methodologies.

These methodologies are now under development and pilot testing is under way.

A roadmap exists towards Tier upgrading, baseline setting, and regular data collection to meet the Agenda 2030.

The African Clean Cities Platform is a key ally.
Thank you.