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United Nations Environment Programme

Future Steps

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UN HABITAT FOR A BETTER URBAN FUTURE

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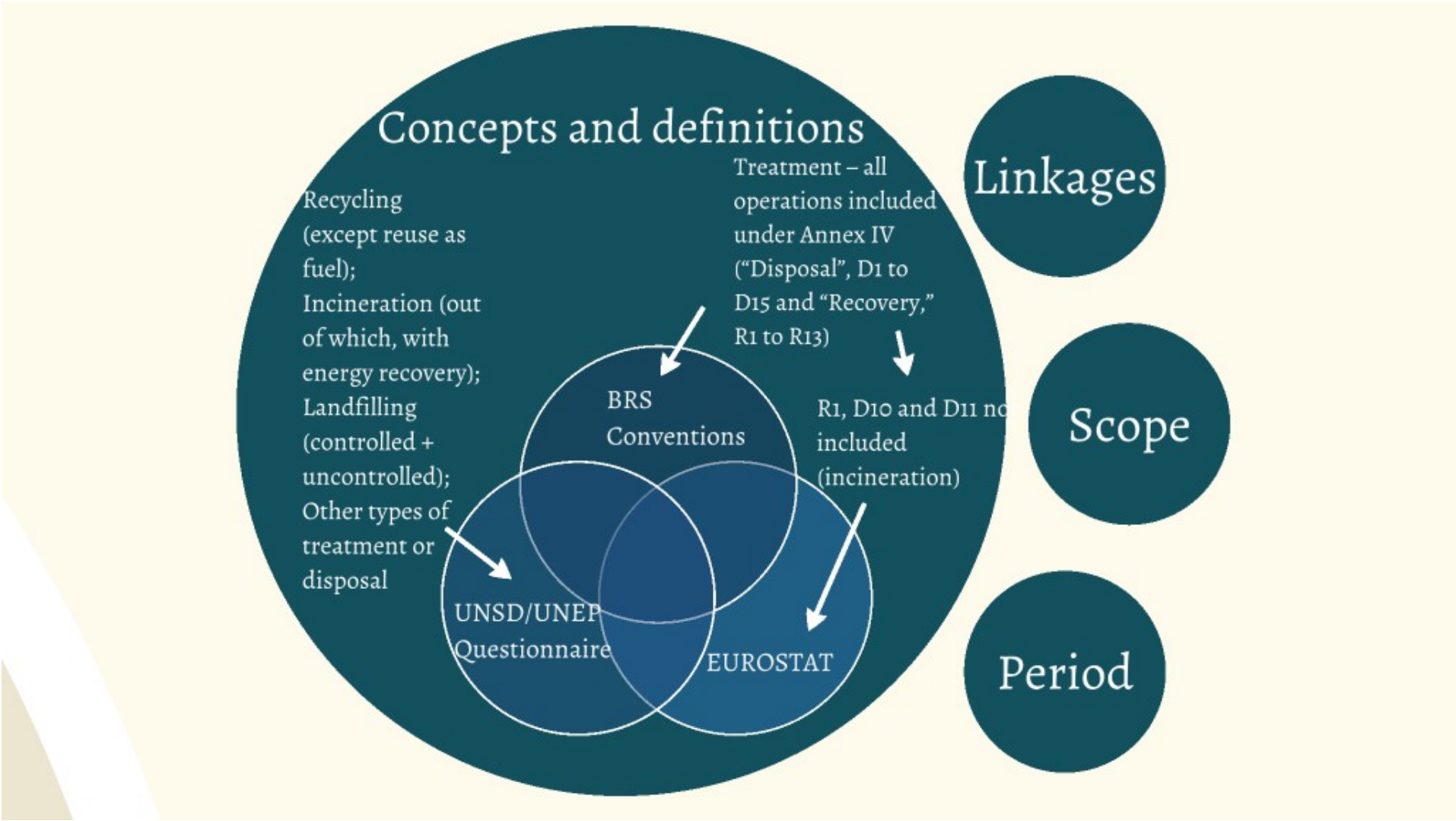
Hazardous waste

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, by type of treatment


Concepts and definitions
Recycling (except reuse as fuel); Incineration (out of which, with energy recovery); Landfilling (controlled + uncontrolled); Other types of treatment or disposal
Treatment – all operations included under Annex IV ("Disposal", D1 to D15 and "Recovery," R1 to R13)
R1, D10 and D11 no included (incineration)
BRS Conventions
UNSD/UNEP Questionnaire
EUROSTAT
Linkages
Scope
Period

Operations in the UNSD Questionnaire	Operations under Basel Convention Annex IV
Recycling	R2 – R12
Incineration with energy recovery	R1
Incineration without energy recovery	D10 and D11
Amounts going to controlled landfills/cells for hazardous waste	D5

Table: *Linkages between operations included in the UNSD Questionnaire and Basel Convention (Annex IV)*

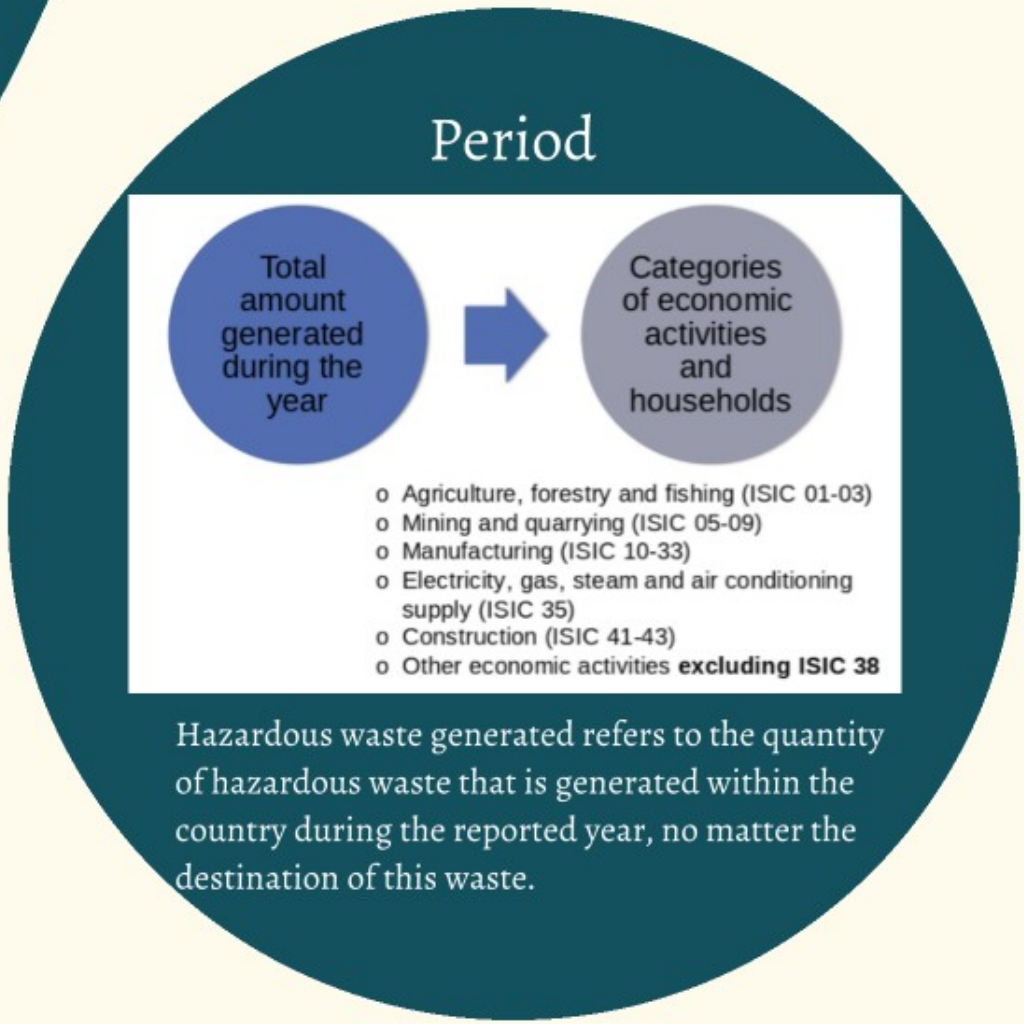
Proposed scope 12.4.2

Hazardous waste refer to the categories of waste to be controlled according to the Basel Convention on the control of transboundary movements of hazardous waste and their disposal (Article 1 and Annex I – further elaborated in Annex VIII and IX).

Categories of wastes to be controlled based on source or sector

- Waste having as constituents hazardous materials
- Hazardous characteristics defined in Annex III
- Excluded: radioactive waste, waste from normal operation of a ship

OUR SUGGESTION FOR COMPARABILITY : Waste defined or considered to be hazardous by domestic legislation of the Party


Period
Total amount generated during the year
Categories of economic activities and households
o Agriculture, forestry and fishing (ISIC 01-03)
o Mining and quarrying (ISIC 05-09)
o Manufacturing (ISIC 10-33)
o Electricity, gas, steam and air conditioning supply (ISIC 35)
o Construction (ISIC 41-43)
o Other economic activities excluding ISIC 38
Hazardous waste generated refers to the quantity of hazardous waste that is generated within the country during the reported year, no matter the destination of this waste.

Indicator

HEADLINE INDICATOR:
Hazardous waste generated = hazardous waste collected + hazardous waste directly given to disposal facility directly + unaccounted for waste

Sub-indicators under development

*Generated hazardous waste includes exported hazardous waste and excludes imports of hazardous waste.


DISAGGREGATION
Disaggregation
ISIC codes
••Agriculture, forestry and fishing (ISIC 01-03)
••Mining and quarrying (ISIC 05-09)
••Manufacturing (ISIC 10-33)
••Electricity, gas, steam and air conditioning supply (ISIC 35)
••Construction (ISIC 41-43)
••Other economic activities excluding ISIC 38
Type of treatment
••Type of treatment per each generating sector
••Landfilling
••Recycling operation (R2 to R12 from Annex IV Basel Convention)

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Recycling

Goal 12: Ensure sustainable consumption and production patterns

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

Concepts and definitions

UNSD/OECD definition

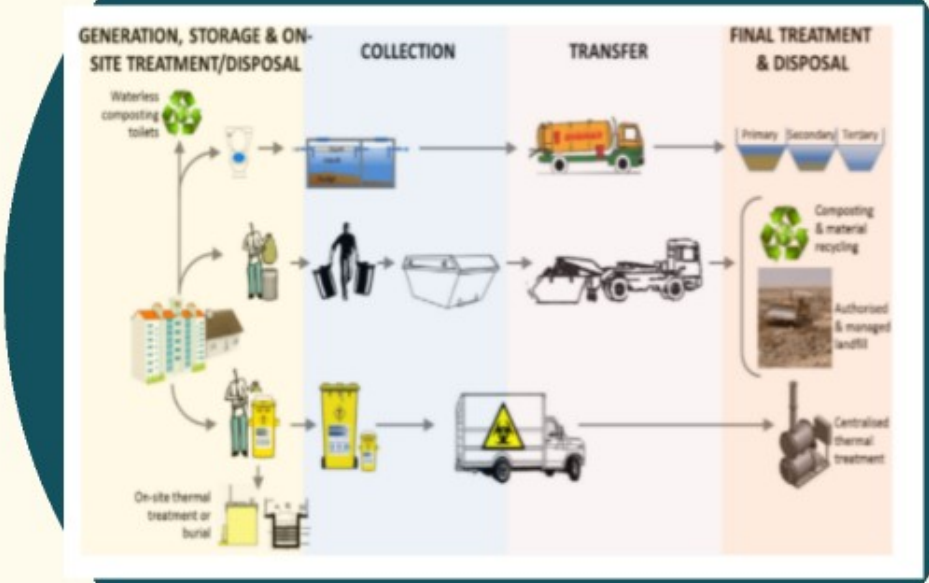
Any reprocessing of waste material in a production process that diverts it from the waste stream, except reuse as fuel. Both reprocessing as the same type of product, and for different purposes should be included. Recycling within industrial plants, i.e. at the place of generation should be excluded.

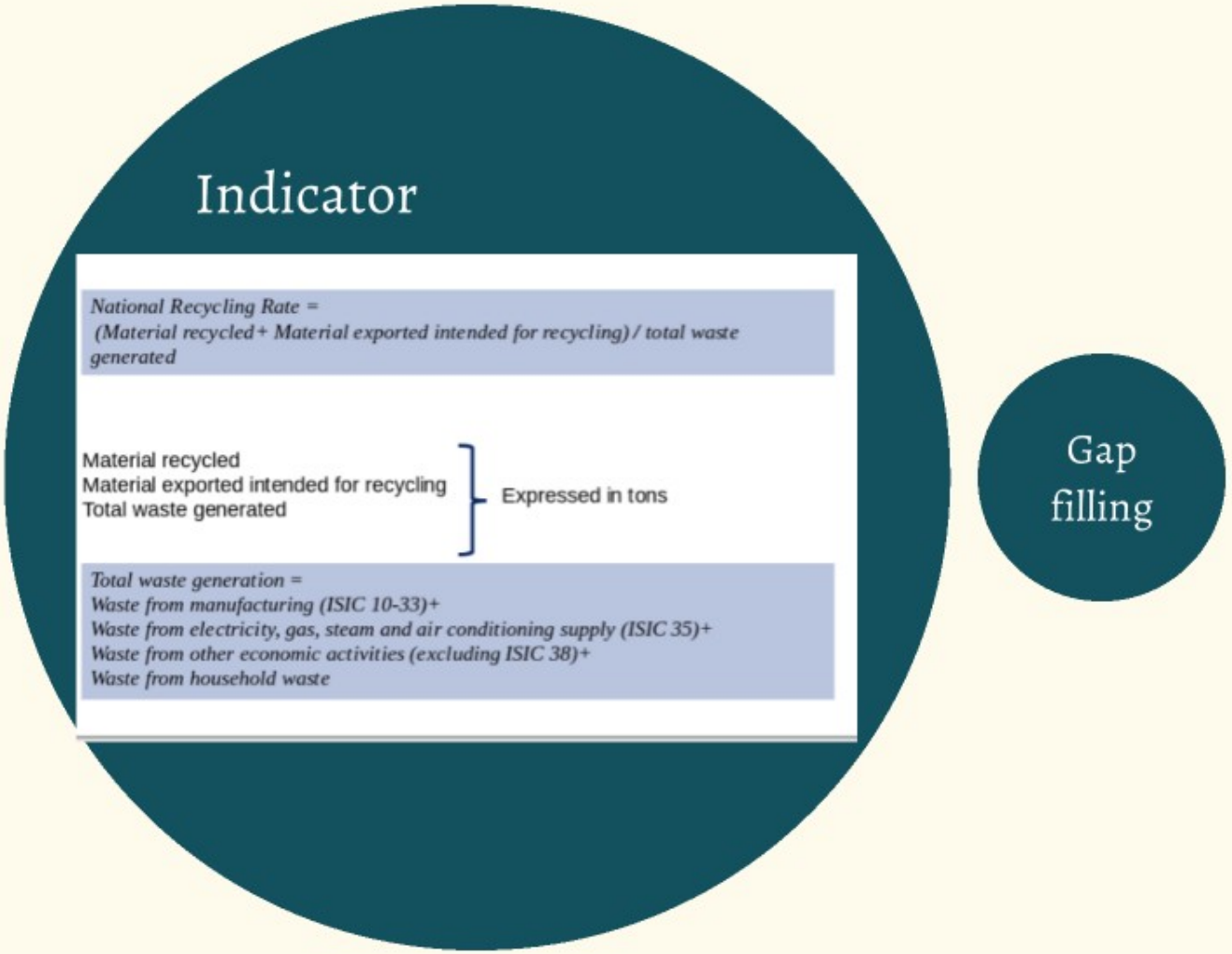
- Composting not included

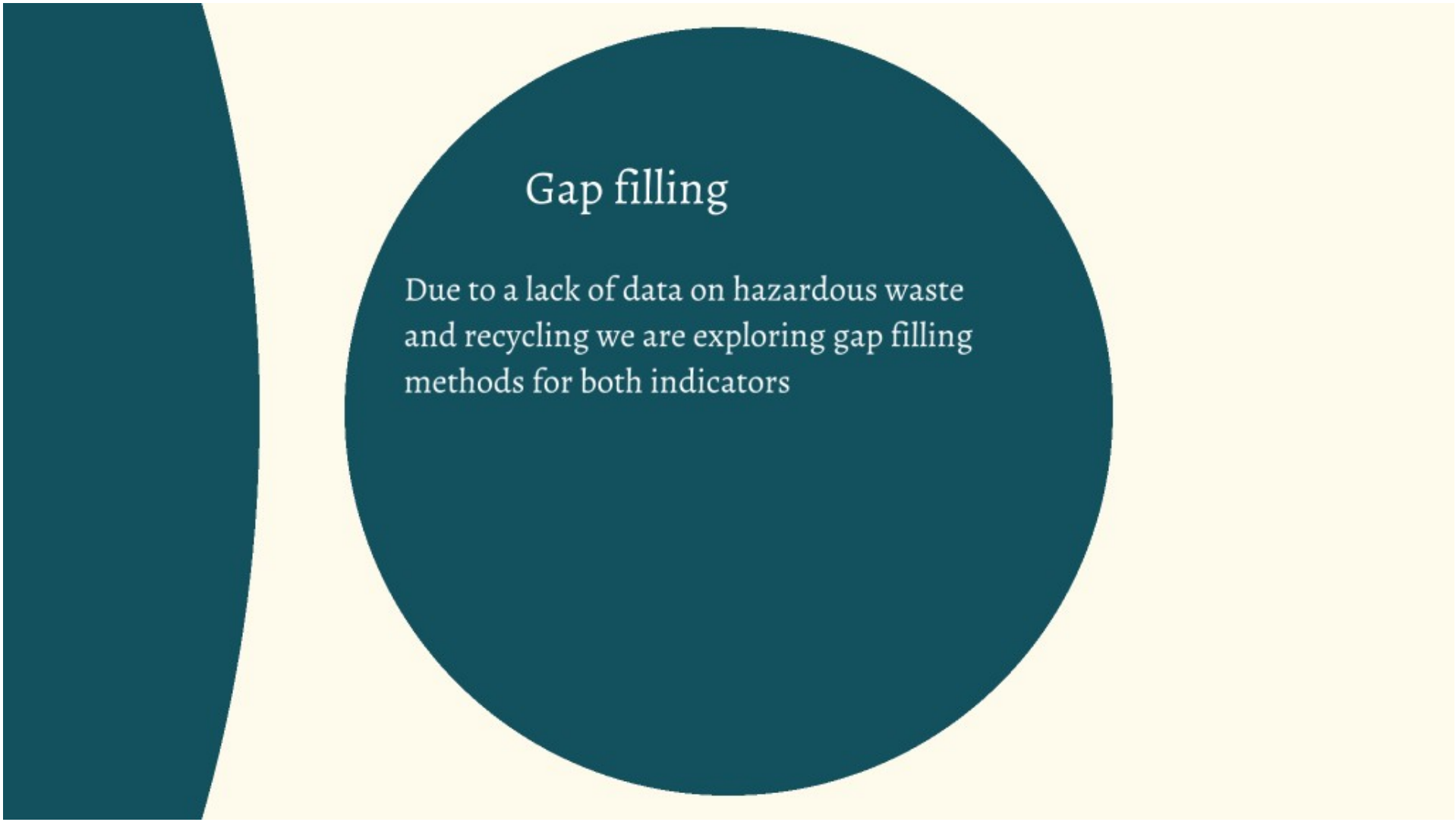
Recycling rate

Proportion of material recycled in the country plus quantities exported for recycling out of total waste generated in the country

OUR SUGGESTION:
INCLUDE COMPOSTING


GENERATION, STORAGE & ON-SITE TREATMENT/DISPOSAL
COLLECTION
TRANSFER
FINAL TREATMENT & DISPOSAL
Waterless composting toilets
Primary
Secondary
Tertiary
Composting & material recycling
Authorised & managed landfill
Centralised thermal treatment
On-site thermal treatment or burial


Indicator
National Recycling Rate =
(Material recycled + Material exported intended for recycling) / total waste generated
Material recycled
Material exported intended for recycling
Total waste generated
Expressed in tons
Total waste generation =
Waste from manufacturing (ISIC 10-33)+
Waste from electricity, gas, steam and air conditioning supply (ISIC 35)+
Waste from other economic activities (excluding ISIC 38)+
Waste from household waste
Gap filling


Gap filling
Due to a lack of data on hazardous waste and recycling we are exploring gap filling methods for both indicators

Disaggregation

- By economic actibity and type of waste

- Ideally, would like to be able to have a recycling rate for packaging material

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Food waste

Goal 12: Ensure sustainable consumption and production patterns

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: Food waste and loss

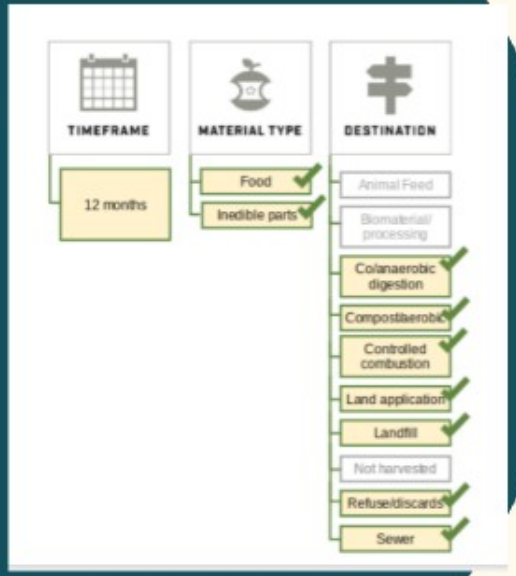
Concepts

Methods

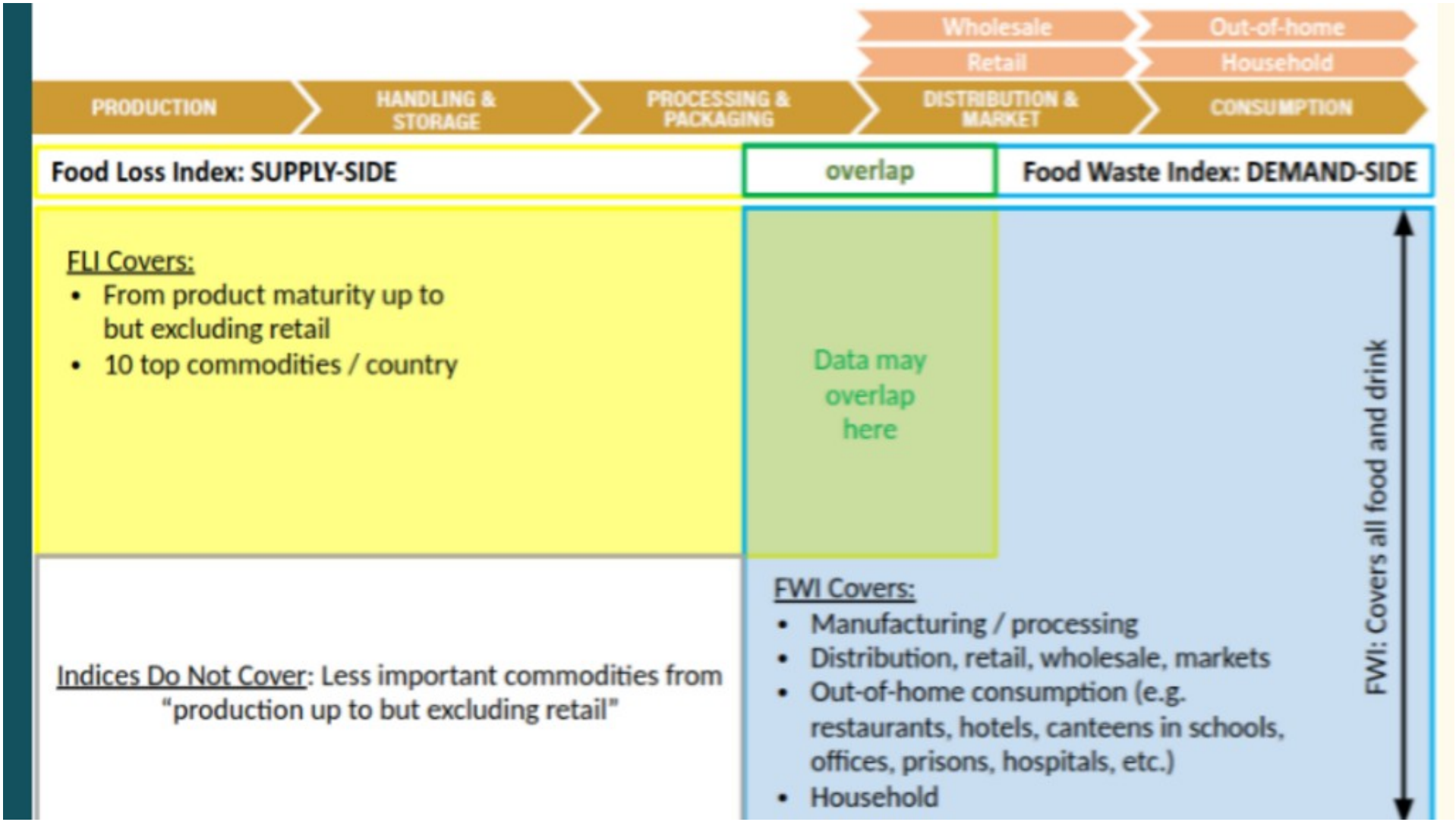
Concepts

Based on the Food Loss and Waste Accounting Standard (FLWS)

Just getting started on fleshing out a method



Scope


Wholesale
Out-of-home
Retail
Household
PRODUCTION
HANDLING & STORAGE
PROCESSING & PACKAGING
DISTRIBUTION & MARKET
CONSUMPTION
Food Loss Index: SUPPLY-SIDE
overlap
Food Waste Index: DEMAND-SIDE
FLI Covers:
• From product maturity up to but excluding retail
• 10 top commodities / country
Data may overlap here
FWI: Covers all food and drink
Indices Do Not Cover: Less important commodities from "production up to but excluding retail"
FWI Covers:
• Manufacturing / processing
• Distribution, retail, wholesale, markets
• Out-of-home consumption (e.g. restaurants, hotels, canteens in schools, offices, prisons, hospitals, etc.)
• Household

Indicator

The FW Index tracks progress as kg / capita / year.

$$\text{Food waste per capita} = \frac{\text{Total food waste}}{\text{Population}}$$

Where total food waste is the sum of that in the four sectors:

$$\text{Total food waste} = FW_{\text{Household}} + FW_{\text{Out of home consumption}} + FW_{\text{Retail}} + FW_{\text{Manufacture}}$$

The **Food Waste Index** compares food waste per capita in year t with a baseline year:

$$Food\ Waste\ Index = \frac{Food\ waste\ per\ capita\ in\ year\ \text{t}}{Food\ waste\ per\ capita\ in\ base\ year} \times 100$$

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Urban waste

- Suggestion to use Municipal Solid Waste

- UN Environment is not the custodian, but we are collaborating with UN Habitat

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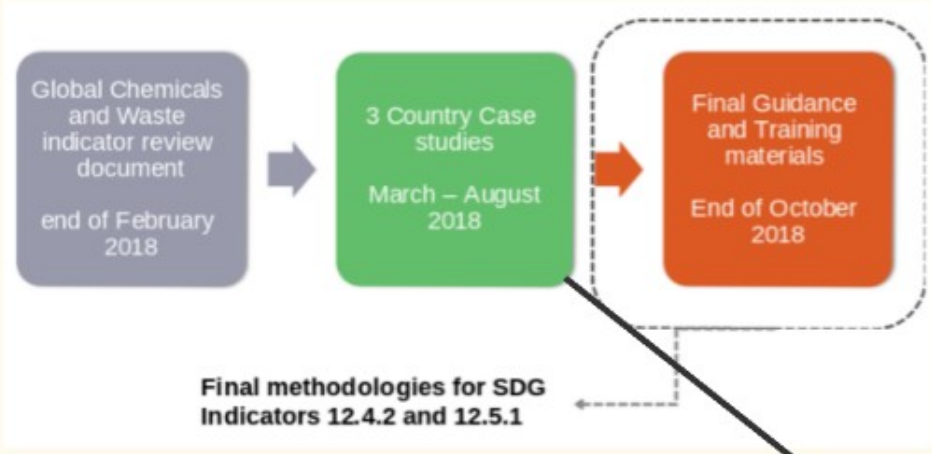
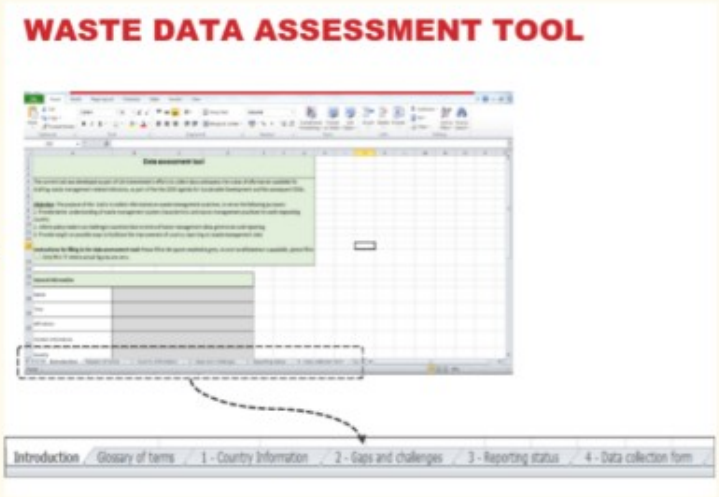
Way Forward


Global Chemicals and Waste indicator review document
end of February 2018
3 Country Case studies
March – August 2018
Final Guidance and Training materials
End of October 2018
Final methodologies for SDG Indicators 12.4.2 and 12.5.1


WASTE DATA ASSESSMENT TOOL
Introduction
Glossary of terms
1 - Country Information
2 - Gaps and challenges
3 - Reporting status
4 - Data collection form

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