

# SDG Indicator 12.4.2

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**Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.**

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# Introduction

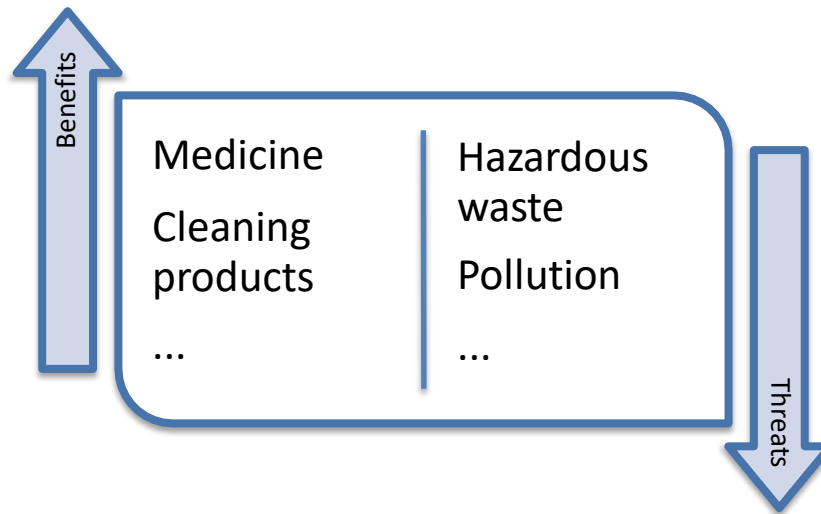
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<b>Goal 12:</b>	<b>Ensure sustainable consumption and production patterns</b>
<b>Target 12.4:</b>	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
<b>Indicator 12.4.2</b>	Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment

# Rationale

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Chemicals are part of everyday life and are used in all economic sectors globally, but their use has both benefits and potential adverse impacts.



- Rapid increase in generation of hazardous waste
- Multiple sources of hazardous waste (industrial, commercial, medical, households, etc.)
- Potential for contamination of air, water, soil, as well as non-hazardous waste streams. => waste separation is crucial

# Hazardous waste data

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## Challenges related to waste management data:

- Lack of internationally agreed and harmonized definitions and methodologies, leading to poor comparability of data among countries
- Difficulty in capturing household-level waste management practices, informal or semi-formal activities, as well as illegal waste related activities
- Hazardous waste is a multi-sector, multi-level and multi-stakeholder subject
- Different life-cycle depending on type and source of hazardous waste
- Data and information demonstrating the linkages and identifying trends to inform policy action are essential, but often non-existent or scattered among different institutions
- Often lack of transparent institutional cooperation between national, regional and local authorities for the production and use of national environment statistics
- Difficulty in linking the use of chemicals with hazardous waste (example: solvent-based paint)

# Concepts and definitions - I

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**Hazardous waste** - waste with properties that make it hazardous or capable of having a harmful effect on human health or the environment, as per Basel Convention.

**Hazardous waste generated** - quantity of hazardous waste that is generated within the country during the reported year, prior to any activity such as collection, preparation for reuse, treatment, recovery, including recycling, or export, no matter the destination of this waste.

**Environmentally sound treatment of hazardous waste** – Waste treated according to technical guidelines adopted by the Conference of Parties to the Basel Convention, or according to nationally defined standards.

# Concepts and definitions - II

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**Treatment of hazardous waste** – ‘Disposal’ (D1-D15) and ‘Recovery’ (R1-R13) operations included in Annex IV of the Basel Convention.

**Recycling** - Any reprocessing of waste material that diverts it from the waste stream, except reuse as fuel. Reprocessing is included. Recycling within industrial plants i.e. at the place of generation should be excluded.

**Incineration** - the controlled combustion of waste, with or without energy recovery.

**Landfilling** - final placement of waste into or onto the land in a controlled or uncontrolled way.

Controlled landfill - waste disposal site that is authorized and operates under applicable national or international legal requirements

# Proposed sub-indicator levels

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## Indicator 12.4.2 – Hazardous Waste

Level 1 - global dataset which includes modelling of data gaps but is based on national official statistics

Level 2 - reporting of national data and meaningful sub-indicators, such as:

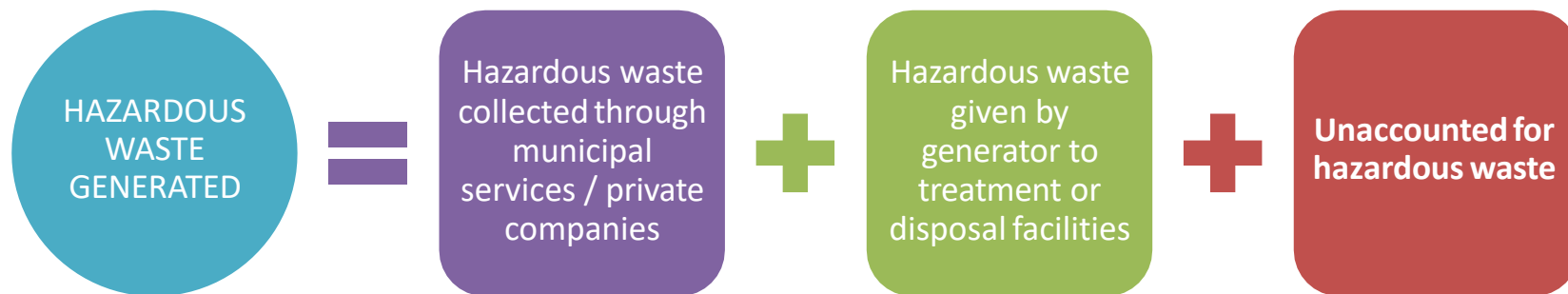
- A. *Country capacity for sound treatment of own hazardous waste within the country.*
- B. *Country capacity for treatment of hazardous waste from other countries*
- C. *Hazardous waste exported in order to be soundly treated*
- D. *Hazardous waste intensity of production*

## 12.4.2 Hazardous Waste sub-indicators

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*Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.*

Level 1 - global dataset which includes modelling of data gaps but is based on national official statistics



**N.B.1** The above includes exports and excludes imports

**N.B.2** In absence of country-specific data, generic rates of hazardous waste generation are suggested as gap-fillers – mostly obtained from EU countries

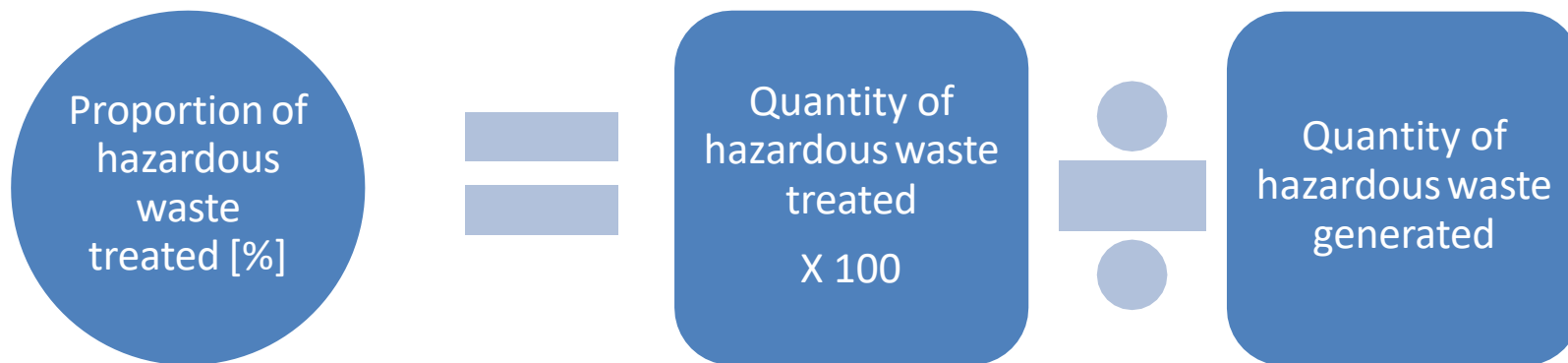


## 12.4.2 Hazardous Waste sub-indicators

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*Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.*

Level 1 - global dataset which includes modelling of data gaps but is based on national official statistics



N.B. 1 Excluding exports but including imports

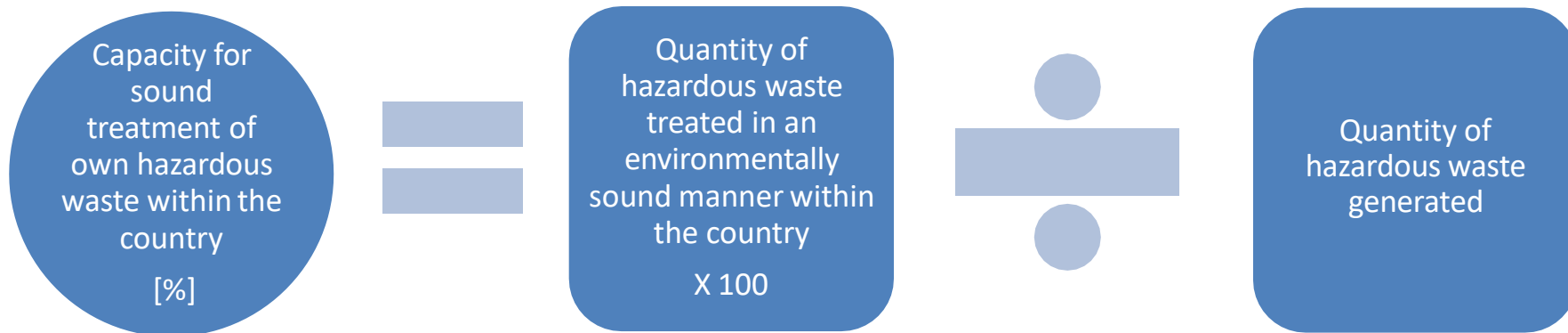
N.B. 2 All quantities for the reference reporting year

## 12.4.2 Hazardous Waste sub-indicators

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Level 2 - reporting of national data and meaningful sub-indicators, such as:

- A) Country capacity for sound treatment of own hazardous waste within the country  
*Purpose: to acknowledge countries who treat hazardous waste within their country*



*( expressed as a % for the reference year )*

N.B. Excluding exports,  
excluding imports

## 12.4.2 Hazardous Waste sub-indicators

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*Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment.*

Level 2 - reporting of national data and meaningful sub-indicators, such as:

B) Country capacity for treatment of hazardous waste from other countries

*Purpose: to acknowledge countries which have developed their capacity to import and treat hazardous waste from other countries*

C) Hazardous waste exported in order to be soundly treated

*Purpose: to acknowledge countries which have taken the initiative to export their hazardous waste for sound treatment, rather than dispose of it inadequately*

## 12.4.2 Hazardous Waste sub-indicators

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Level 2 - reporting of national data and meaningful sub-indicators, such as:

### D) Hazardous Waste Intensity of Production

*Purpose: to characterize how 'clean' a country's production processes are by linking hazardous waste generation to the Domestic Material Consumption*



*( expressed as a number for year Y )*

N.B. A lower score is better → less hazardous waste generated per unit of DMC

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# Disaggregation

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Indicators could be further disaggregated depending on the country's policy information needs:

- By generating sector / by ISIC codes;
- By type of landfilling: controlled vs. uncontrolled, specialized hazardous waste landfills, etc.
- By type of treatment per each generating sector;
- By type of recycling operation;
- By territorial division;
- Etc.

# Data sources and collection process

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## Data sources:

- Hazardous waste generators;
- Hazardous waste collectors/operators;
- Hazardous waste treatment facilities;
- Environmental protection authorities;
- Basel Convention focal points;
- Statistics office.

## Data collection process:

- Official reports at national/entity/generator level;
  - Questionnaires
  - Sample studies extrapolated at sector/national level.
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# Data Sources – data reporting flow pyramid

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Data reporting

UN/BRS Focal Point

Data verification,  
aggregation

Line Ministries

National Statistics

Data providers

Municipal Waste  
Management Dept.

Chamber of  
Commerce/ Customs  
office

City Sanitation  
Departments

Waste Collection,  
Waste Treatment  
Facility Managers

Industrial  
Waste  
Producers

Private Waste  
Management  
Companies

Waste Water  
Treatment  
Facilities

Environmental  
Enforcement  
Officers