

REGIONAL TRAINING ON THE PRODUCTION AND USE OF WASTE AND CIRCULAR ECONOMY STATISTICS AND INDICATORS

SESSION 3: MAIN CONCEPTS, TERMS, DEFINITIONS AND CLASSIFICATIONS USED IN WASTE
STATISTICS

INTERNATIONAL QUESTIONNAIRES - OECD/EUROSTAT JOINT QUESTIONNAIRE - UNSD/UNEP
QUESTIONNAIRE

20-21 June 2024, Vienna International Centre (VIC), Vienna

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INTERNATIONAL QUESTIONNAIRES

In this presentation (25'):

- **Background**
- **The OECD/Eurostat joint questionnaire**
- **The UNSD/UNEP questionnaire**
- **Lessons learned and next steps**

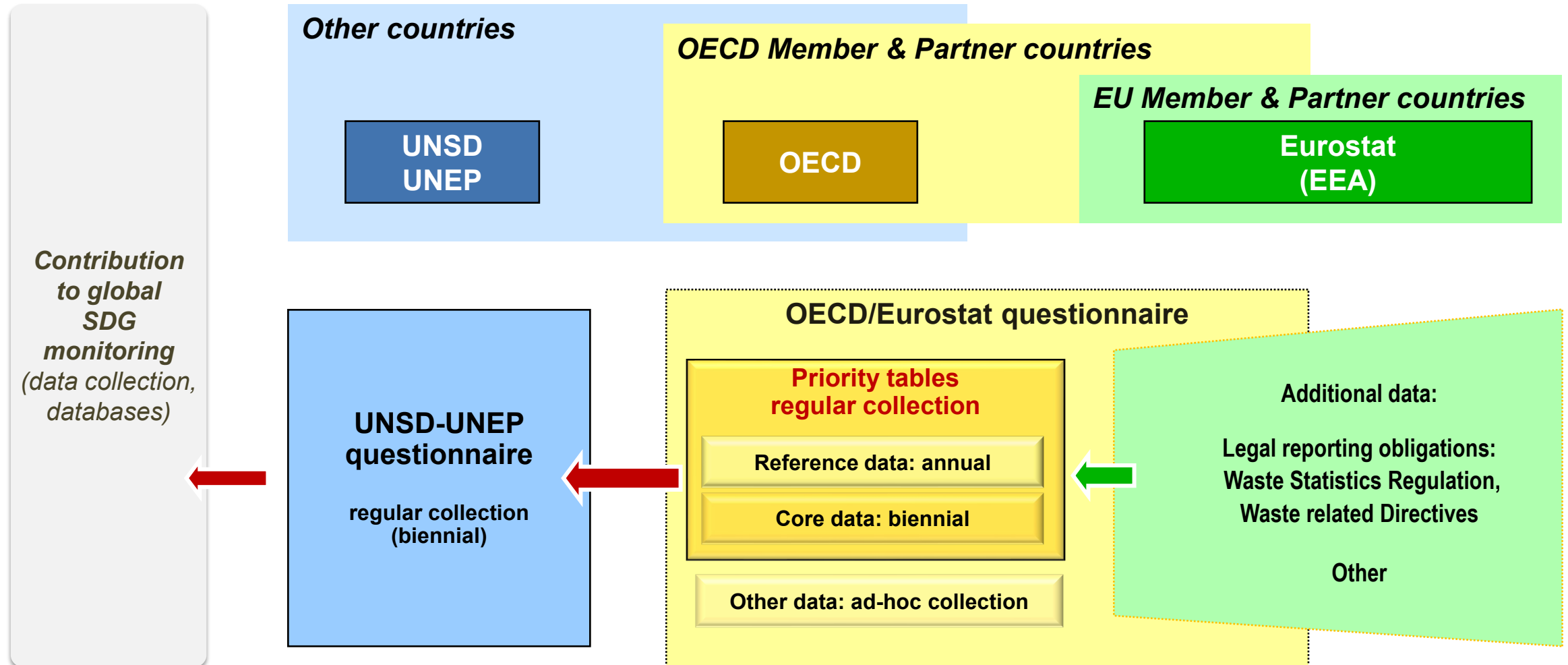
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BACKGROUND

- **Initial version developed by OECD in 1979-81**
- **International cooperation and joint work**
 - Joint work with Eurostat (since 1988/1990)
 - Close cooperation with UNSD and UNEP (since 1998-99)
 - Cooperation with Basel Convention Secretariat
- **Link to data collection for monitoring the SDGs**
 - SDG 11.6.1: Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal waste generated, by cities
 - SDG 12.5.1: National recycling rate
 - SDG 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment
- **Regular revisions**

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STRONG AND EFFICIENT INTERNATIONAL COOPERATION - A LAYERED APPROACH



THE OECD/EUROSTAT JOINT QUESTIONNAIRE SECTION ON WASTE

OECD/EUROSTAT QUESTIONNAIRE ON WASTE

- Embedded in OECD work on environmental information
- “Waste” is part of nine questionnaire sections
 - Developed for harmonised data collection at international level (1979-81)
 - Core set of environmental data: holistic approach → pressure-state-response (PSR) model
 - Regularly revised
 - Experience, coherence with classifications & definitions, policy priorities (national, international)
 - Latest revision: coherence with SDG indicators; better coverage of specific waste streams (e-waste, plastics, food)
 - International cooperation
 - Joint questionnaire with Eurostat (since 1988/1990)
Close cooperation with UNSD and UNEP (since 1998-99)
 - Cooperation with Basel Convention Secretariat
 - Link to data collection for monitoring the SDGs

State of the environment questionnaire – 9 sections

- **Air**
- **Inland waters**
- **Marine environment**
- **Land**
- **Forest**
- **Wildlife**
- **Waste**
- **Noise**
- **Expenditure**

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OECD/EUROSTAT QUESTIONNAIRE ON WASTE

- **What is the aim?**
 - Provide a solid and relevant factual basis for international work
 - Gather best available data on the amounts of waste generated, the composition of these wastes, and the treatment, recovery and disposal methods implemented in countries
 - Harmonise the data collected across countries; ensure coherence in definitions and concepts across countries
 - Identify trends over time: monitor policy outcomes and performance, track progress made

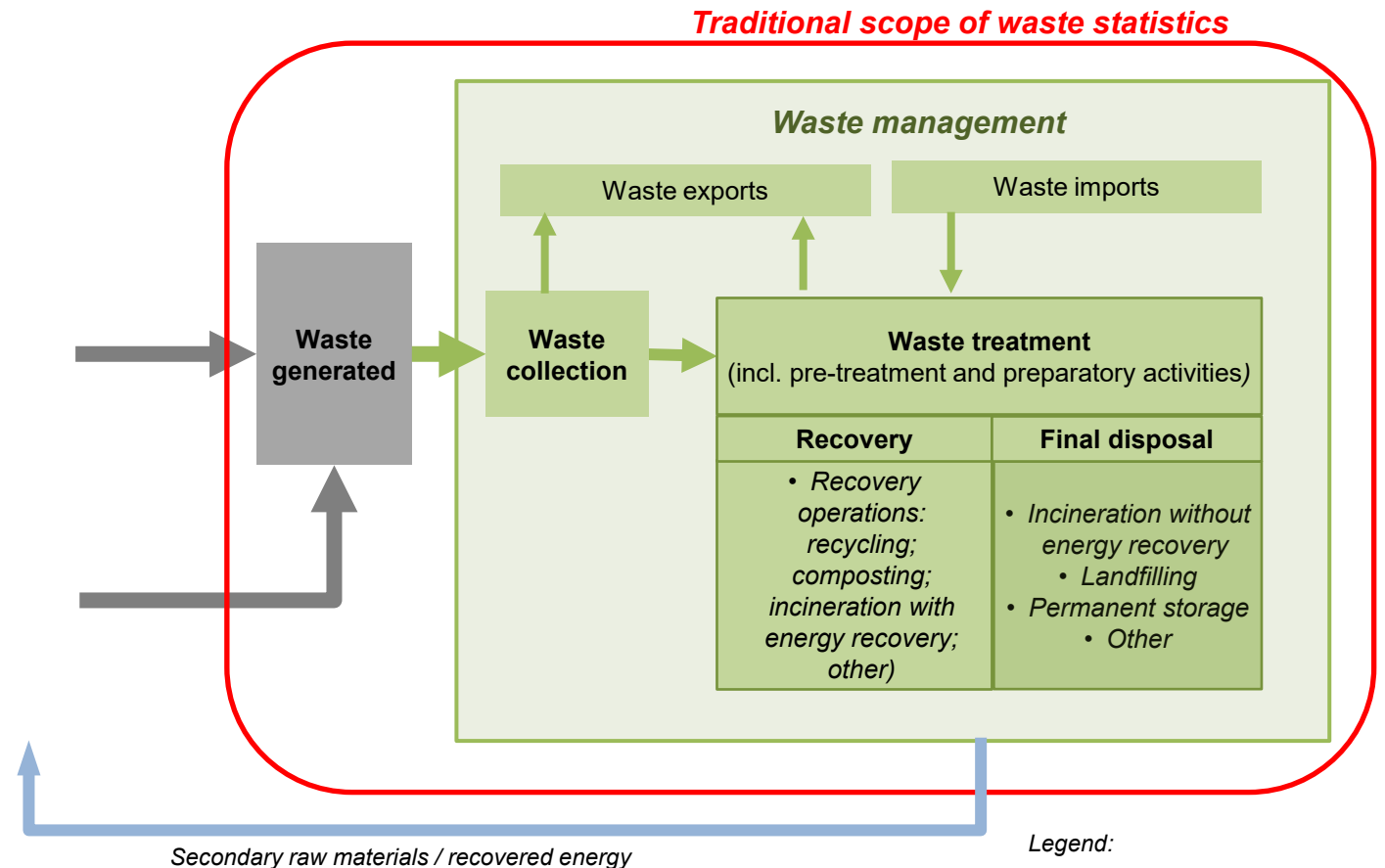
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OECD/EUROSTAT QUESTIONNAIRE SECTION ON WASTE - SCOPE



Content

- Traditional scope
- Waste generation and treatment
 - All waste except nuclear
- Entire management chain and infrastructure



Legend:

Controlled flows and activities:
Waste management

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WASTE SECTION – OVERVIEW TABLE

WASTE AND MATERIALS Reference data	Total Generation and recovery of waste Production et récupération des déchets totaux										DÉCHETS ET MATIÈRES Données de référence
	Unit	1990	2000	2005	2010	2015	2020	2021	2022	Unité	
TOTAL WASTE GENERATED	1000 t.									1000 t.	DÉCHETS TOTAUX PRODUITS
• of which recovered	1000 t.									1000 t.	• Dont récupérés
• of which recycled	1000 t.									1000 t.	• Dont recyclés
HAZARDOUS WASTE GENERATED	1000 t.									1000 t.	DÉCHETS DANGEREUX PRODUITS
• of which recovered	1000 t.									1000 t.	• Dont récupérés
• of which recycled	1000 t.									1000 t.	• Dont recyclés
INERT MINERAL WASTE GENERATED	1000 t.									1000 t.	DÉCHETS MINÉRAUX INERTES PRODUITS
• of which recovered	1000 t.									1000 t.	• Dont récupérés
• of which recycled	1000 t.									1000 t.	• Dont recyclés

B: Break / Rupture
E: Estimated value / Valeur estimée
N: National estimate / Estimation nationale
I: Incomplete data/ Donnée incomplète

For terms and definitions, please refer to the sheet *DEF*. / Pour les termes et définitions, veuillez vous référer à la feuille *DEF*.
For your country's footnotes, metadata and additional information, please see the sheet *SW-Notes*. / Pour les notes, métadonnées, et informations supplémentaires, voir feuille *SW-Notes*.

[Link to SDG 12.5.1: National recycling rate](#)

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WASTE SECTION – TABLE 1: GENERATION OF WASTE BY SECTOR

WASTE Tab. 1 [SW-1]		Generation of waste, by sector Production de déchets par secteur							
Country/pays:		Contact:		<i>Lines in bold and cells with grey/yellow background indicate priority data Les lignes en gras et les cellules sur fond gris/jaune indiquent des données prioritaires</i>					
<i>N.B. the table includes hidden columns.</i>									
Sector (a)	ISIC/ NACE (a)	Unit	1980	1990	2000	2010	2015	2020	Latest year of which/dont. Total
• Agriculture, forestry and fishing	01-03	1000 t.							
<i>of which: Agriculture (b)</i>	01	1000 t.							
• Mining and Quarrying	05-09	1000 t.							
• Manufacturing industries: Total	10-33	1000 t.							
<i>of which:</i>									
Food, Beverages, Tobacco ind	10-12	1000 t.							
Textile & leather industries	13-15	1000 t.							
Wood and Wood Products	16	1000 t.							
Paper and Paper Products	17	1000 t.							
Printing and Publishing	18	1000 t.							
Refineries, etc.	19	1000 t.							
Chemical industries	20-21	1000 t.							
Rubber and Plastics	22	1000 t.							
Non-metallic Mineral Products	23	1000 t.							
Basic Metal Industries	24	1000 t.							
Fabricated Metal Products, Machinery	25-28	1000 t.							
Other Manufacturing Industries (e)	29-33	1000 t.							
• Energy Production (c)	35	1000 t.							
	36-39	1000 t.							
• Water supply, sewerage, waste management, etc.(d)									
• Construction	41-43	1000 t.							
• Other Sectors n.e.s. please specify (e) :	45-96	1000 t.							
.....		1000 t.							
• Waste from households (f):	97-98	1000 t.							
TOTAL AMOUNTS OF PRIMARY WASTE GENERATED		1000 t.							
<i>Memorandum item:</i>									
SECONDARY WASTE GENERATED		1000 t.							
<i>of which: Recycling industries</i>	38	1000 t.							
<i>of which: Sewage and refuse disposal</i>	37	1000 t.							

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WASTE SECTION – TABLE 2A: GENERATION, RECOVERY AND RECYCLING OF SELECTED WASTE STREAMS

WASTE Tab. 2A [SW-2A]		Generation, recovery and recycling of selected waste streams (a) Production recuperation et recyclage de déchets par flux de déchets sélectionnés (a)														
Country/pays:		Contact:		<i>Lines in bold and cells with grey/yellow background indicate priority data. Les lignes en gras et les cellules sur fond gris/jaune indiquent des données prioritaires.</i>												
Type of material/ waste stream (a)			Unit	1980	1985	1990	1995	2000	2005	2010	2015	2020	2021	2022		
PAPER, PAPERBOARD, & PAPER PRODUCTS	A	Waste generated	1000 t.													
	B	Waste collected for recycling	1000 t.													
	C	Imports of w. for recycling	1000 t.													
	D	Exports of w. for recycling	1000 t.													
	E	Waste recycled in country (b)	1000 t.													
	F	Apparent consumption of related material (d)	1000 t.													
	G	Actual use of secondary raw materials in production processes (d)	1000 t.													
GLASS (excl. refillable bottles in circulation)	A	Waste generated	1000 t.													
	B	Waste collected for recycling	1000 t.													
	C	Imports of w. for recycling	1000 t.													
	D	Exports of w. for recycling	1000 t.													
	E	Waste recycled in country (b)	1000 t.													
	F	Apparent consumption of related material (d)	1000 t.													
	G	Actual use of secondary raw materials in production processes (d)	1000 t.													
ALUMINIUM	A	Waste generated	1000 t.													
	B	Waste collected for recycling	1000 t.													
	C	Imports of w. for recycling	1000 t.													
	D	Exports of w. for recycling	1000 t.													
	E	Waste recycled in country (b)	1000 t.													
	F	Apparent consumption of related material (d)	1000 t.													
	G	Actual use of secondary raw materials in production processes (d)	1000 t.													

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WASTE SECTION – ANNUAL QUALITY ASSURANCE OF REFERENCE DATA – MUNICIPAL WASTE

WASTE AND MATERIALS Reference data	Generation, treatment and disposal of municipal waste Production, traitement et élimination de déchets municipaux	DÉCHETS ET MATIÈRES Données de référence	
<p>Indicator(s):</p> <p>Definition & presentation</p> <p>Use & publication</p> <p>Reference data</p> <p>Data sources</p> <ul style="list-style-type: none"> ◆ SoE Questionnaire ◆ Other references 	<p>Waste generation intensities (municipal) Waste recycling and disposal rates (municipal)</p> <ul style="list-style-type: none"> ◆ Generation intensities (expressed as amounts of waste per capita, and per unit of GDP or private final consumption expenditure) ◆ Recovery and disposal rates (share of waste amounts generated or managed in a country that are designated for recovery and for final disposal) ◆ State and trends <p>KEI, CEI, EPRs, GGI; SDG indicator 11.6.1</p> <p>Generation, treatment and disposal of municipal waste</p> <p>Section on waste, tables 1, 5a and 5c Data reported under the EU waste statistics regulation; update of EU structural indicator on municipal waste</p>	<p>Intensités de production de déchets (municipaux) Taux de recyclage et d'élimination (municipaux)</p> <ul style="list-style-type: none"> ◆ Intensités de production (exprimées en quantités de déchets par habitant, et par unité de PIB ou de dépenses de consommation finale privée) ◆ Taux de récupération et d'élimination (part des déchets produits ou gérés dans un pays qui est destinée à la récupération ou à l'élimination finale) ◆ Etat et tendances <p>KEI, CEI, EPRs, GGI; indicateur ODD 11.6.1</p> <p>Production, traitement et élimination des déchets municipaux</p> <p>Section sur les déchets, tableaux 1, 5a et 5c Données rapportées sous la réglementation sur les statistiques des déchets de l'UE; mise à jour de l'indicateur structurel sur les déchets municipaux de l'UE.</p>	<p>Indicateur(s)</p> <p>Définition & présentation</p> <p>Utilisation & publication</p> <p>Données de référence</p> <p>Source des données</p> <ul style="list-style-type: none"> ◆ Questionnaire SoE ◆ Autres références

N.B. This table includes hidden columns. Please unhide them to view, edit or add data for intermediate years. / Ce tableau contient des colonnes cachées. Veuillez les décacher pour visualiser, éditer ou ajouter les données pour les années intermédiaires.

Country/Pays: Contact:

	Unit	1980	1981	1982	1983	1984	1985
MUNICIPAL WASTE GENERATED	10 ³ t	_____	_____	_____	_____	_____	_____
BY ORIGIN :							
• Waste from households	10 ³ t	_____	_____	_____	_____	_____	_____
• Other municipal waste	10 ³ t	_____	_____	_____	_____	_____	_____
BY TYPE OF WASTE:							
• Household and similar waste	10 ³ t	_____	_____	_____	_____	_____	_____
• Bulky waste	10 ³ t	_____	_____	_____	_____	_____	_____
AMOUNT DESIGNATED FOR TREATMENT AND DISPOSAL OPERATIONS IN THE COUNTRY	10 ³ t	_____	_____	_____	_____	_____	_____
Amounts designated for recovery operations	10 ³ t	_____	_____	_____	_____	_____	_____
• Recycling	10 ³ t	_____	_____	_____	_____	_____	_____
• Composting	10 ³ t	_____	_____	_____	_____	_____	_____
• Incineration with energy recovery	10 ³ t	_____	_____	_____	_____	_____	_____
• Other recovery	10 ³ t	_____	_____	_____	_____	_____	_____
Amounts designated for disposal operations	10 ³ t	_____	_____	_____	_____	_____	_____
• Incineration without energy recovery	10 ³ t	_____	_____	_____	_____	_____	_____
• Landfill	10 ³ t	_____	_____	_____	_____	_____	_____
• Other disposal	10 ³ t	_____	_____	_____	_____	_____	_____
Memorandum item							
Incineration: total amount	10 ³ t	_____	_____	_____	_____	_____	_____
Electric and electronic equipment waste (if included in municipal waste generated)	10 ³ t	_____	_____	_____	_____	_____	_____

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OECD/EUROSTAT QUESTIONNAIRE ON WASTE : DATA COLLECTION

- **Regular data collection and treatment since early 1980s**
- **Data collected from**
 - Ministries, NSOs, other government agencies responsible for official data
 - Coordinated by national questionnaire coordinator
 - Overseen by OECD Working Party on Environmental Information (WPEI)
- **Since 2006: OECD data collection limited to non-EU countries**
 - Data from EU-WSR for EU countries
- **Since 2010: streamlined and simplified process**
 - Reduced collection frequency: Annual Quality Assurance (AQA) for reference series
 - Total waste, municipal waste
 - Reduced scope of data requested from countries to avoid duplication of efforts
 - Greater use of other international sources
 - Prefilling to help countries ensure coherence of replies over time and fill gaps

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OECD/EUROSTAT QUESTIONNAIRE ON WASTE: DATA TREATMENT AND QUALITY ASSURANCE



Treatment and validation in close cooperation with countries



Internal quality assurance (OECD Secretariat)

Review of country replies: identification of gaps, inconsistencies, missing documentation

Drafting of questions for clarification

Exchange and coordination with Eurostat



External quality assurance (with countries: NSO, Ministry)

Mailing of questions for clarification to countries

Treatment of country responses and comments



Finalisation of data sets and public release

WASTE-RELATED DATA – SEVERAL DATA SOURCES AND COMPILATION CHANNELS

Questionnaire on the State of the Environment (SoE)

Section on Waste

Annual Quality Assurance of reference series
→ Data on: total waste generation & recycling,
municipal waste generation & management

Request for data and information on E-waste
(with UNU, UNSD)

- Products put on the market
- E-waste generated, collected, recycled, reused & remanufactured
- Information on legislation, institutions involved, management approaches

Regional questionnaire on municipal waste

→ Data on municipal waste generated, recovered,
landfilled, by region

Questionnaire on the State of the Environment (SoE)

Section on Environmental Protection Expenditure (SEEA accounts)

→ Data on waste management expenditure

OECD database on Policy Instruments for the Environment (PINE)

Questionnaire on environmentally-related tax revenue (ERTR) (SEEA accounts)

→ Data on waste-related taxes and tax revenue

OECD database on Transboundary Movements of Waste

→ Qualitative information: Lists of competent authorities and authorised firms, lists of waste handled, contacts, description

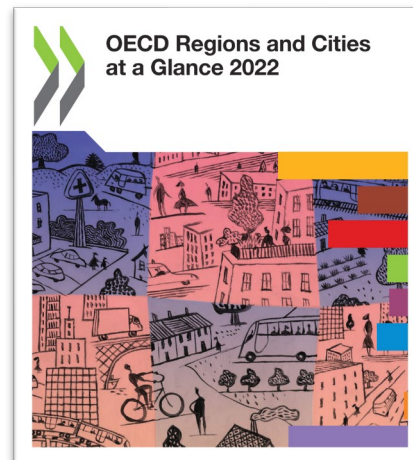
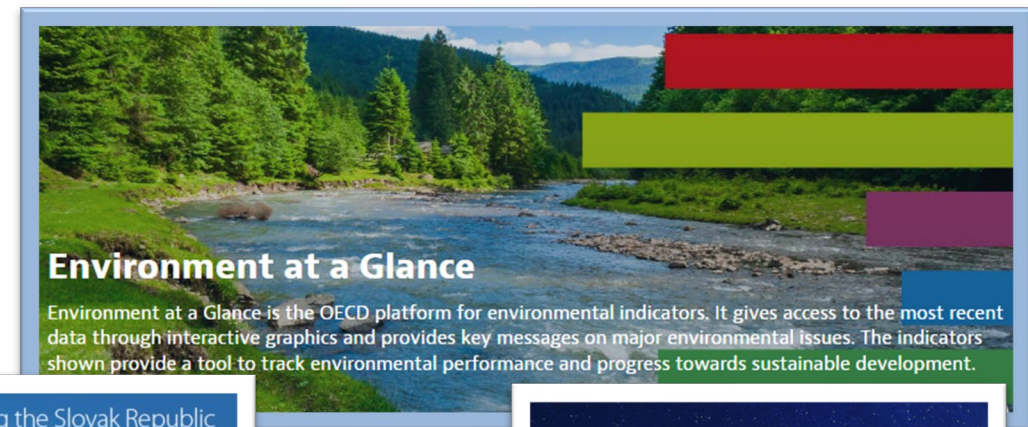
- Other international data sources
- National data sources

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OECD/EUROSTAT QUESTIONNAIRE ON WASTE : HOW ARE THE DATA USED?

- **Used to calculate environmental, green growth and SD indicators**
 - OECD Environment at a Glance platform
 - Publication on OECD statistical platform (Data Explorer)
- **Used in policy analysis and in country reviews**
 - OECD Environmental Performance Reviews (EPR)
 - OECD Economic surveys
 - Environmental outlooks, country projects
 - Regions at a Glance

[Environment at a Glance - OECD Indicators - OECD](#)



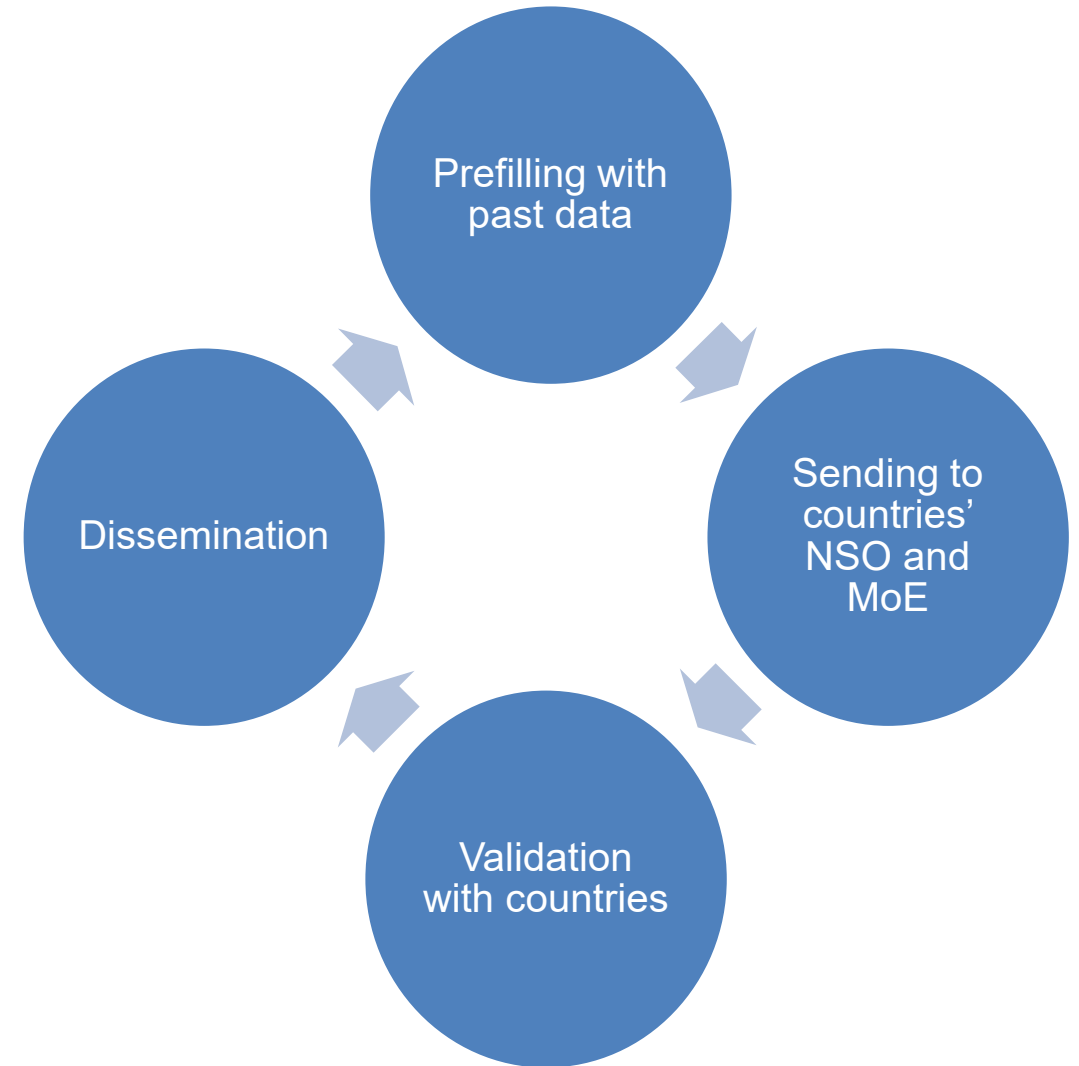
Provides feedback on data quality and policy relevance

THE UNSD/UNEP QUESTIONNAIRE ON ENVIRONMENT STATISTICS –WASTE

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1 UNSD/UNEP QUESTIONNAIRE ON ENVIRONMENT STATISTICS

- Since 1999, UNSD has completed 11 data collections on water and waste data (usually biennially) from about 160-170 UN member states. Mandated by UN Statistical Commission 28th session (1995); reinforced at 34th session (2003).
- [Questionnaires](#) are sent to National Statistical Offices and Ministries of Environment.
- Questionnaires are not sent to Eurostat and OECD members and candidate members. 170+ member states in previous years; about 163 member states in the 2022 collection cycle.
- Response rate typically hovers around 50% (2018: 52%; 2020: 46%; 2022: approx. 47%).
- No imputation, no estimation. No change in variables collected in 2022 compared to 2020. Instead, focus is more on boosting response rates, especially to those variables related to SDG indicators.
- The next data collection (2024) will be the 12th one. Looking forward to your collaboration once again!



UNSD/UNEP QUESTIONNAIRE ON ENVIRONMENT STATISTICS: DISSEMINATED OUTPUTS

- UNSD environmental indicators: <https://unstats.un.org/unsd/envstats/qindicators> Time series, or most recently available data for selected variables provided by countries. Disseminated after completion of collection cycle.
- Country files: https://unstats.un.org/unsd/envstats/country_files Individual country data on water and waste. Disseminated periodically during collection cycle. Demand from key users to view Country files as soon as possible.
- Country snapshots: <https://unstats.un.org/unsd/envstats/snapshots/> Individual country data spanning many environmental themes.
- Tailored queries: Per solicitation from key users (often World Health Organization, UN Environment Programme, UN-HABITAT, academia).
- United Nations Sustainable Development Goals Database: <https://unstats.un.org/sdgs/dataportal> Country data sourced from the Questionnaire published alongside country data from other sources.

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UNSD/UNEP WASTE SECTION - CONTENT



United Nations Statistics Division (UNSD) and United Nations Environment Programme QUESTIONNAIRE 2022 ON ENVIRONMENT STATISTICS

Section: WASTE

TABLE OF CONTENTS

Guidance	Introduction, Steps to Follow, Description of Tables
Definitions	List of Definitions
Table R1	Generation of Waste by Source
Table R2	Management of Hazardous Waste
Table R3	Management of Municipal Waste
Table R4	Composition of Municipal Waste
Table R5	Management of Municipal Waste — City Data
Table R6	Electronic Waste Generation and Collection
Table R7	Supplementary Information Sheet

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UNSD/UNEP WASTE SECTION – MANY USES – SDG INDICATORS

Country:

Table R1: Generation of Waste by Source

Line	Category	Unit
1	Agriculture, forestry and fishing (ISIC 01-03)	1000 t
2	Mining and quarrying (ISIC 05-09)	1000 t
3	Manufacturing (ISIC 10-33)	1000 t
4	Electricity, gas, steam and air conditioning supply (ISIC 35)	1000 t
5	Construction (ISIC 41-43)	1000 t
6	Other economic activities excluding ISIC 38	1000 t
7	Households	1000 t
8	Total waste generation (=1+2+3+4+5+6+7)	1000 t

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.5.1: National recycling rate, tons of material recycled.**
- Custodian agencies: UNEP, UNSD
- Metadata [[link](#)]



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UNSD/UNEP WASTE SECTION – MANY USES – SDG INDICATORS

Country:

Table R2: Management of Hazardous Waste

Line	Category	Unit	2021
1	Stock of hazardous waste at the beginning of the year		
2	Hazardous waste generated during the year		
3	Hazardous waste imported during the year		
4	Hazardous waste exported during the year		
5	Hazardous waste treated or disposed of during the year (=6+7+9+10)	tonnes	
6	<i>Amounts going to:</i> Recycling		
7	Incineration		
8	<i>of which: with energy recovery</i>		
9	Landfilling		
10	Other, please specify in the footnote		
11	Stock of hazardous waste at the end of the year (=1+2+3-4-5)		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment**
- Custodian agencies: UNEP, UNSD
- Metadata [\[link\]](#)



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UNSD/UNEP WASTE SECTION – MANY USES – SDG INDICATORS

Table R3: Management of Municipal Waste			
Line	Category	Unit	2021
1	Total amount of municipal waste generated		
2	Municipal waste collected from households		
3	Municipal waste collected from other origins		
4	Total amount of municipal waste collected (=2+3)		
5	Municipal waste imported for treatment/disposal		
6	Municipal waste exported for treatment/disposal		
7	Municipal waste managed in the country (=4+5-6)	1000 t	
8	Amounts going to: Recycling		
9	Composting		
10	Incineration		
11	of which: with energy recovery		
12	Landfilling		
13	of which: controlled landfilling		
14	Other, please specify in the footnote		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **12.5.1: National recycling rate, tons of material recycled.**
- Custodian agencies: UNEP, UNSD
- Metadata [\[link\]](#)



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UNSD/UNEP WASTE SECTION – MUNICIPAL WASTE COMPOSITION

Section: WASTE												
Country:												
Table R4: Composition of Municipal Waste												
Line	Category	Unit	2013	2014	2015	2016	2017	2018	2019	2020	2021	
1	Paper, paperboard	%										
2	Textiles	%										
3	Plastics	%										
4	Glass	%										
5	Metals	%										
6	Other inorganic material	%										
7	Organic material	%										
8	<i>of which</i> : food waste and garden waste	%										
9	TOTAL	%	100	100	100	100	100	100	100	100	100	

- Municipal waste is composed of a mix of different materials. Usually, the composition of municipal waste is determined from the physical analysis of waste samples. The table asks for the percentages of the mass of the main material groups in mixed municipal waste. If only the composition of household waste is available, provide the information in a footnote.

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UNSD/UNEP WASTE SECTION – MANY USES – SDG INDICATORS

Country: _____

City name: _____

Table R5: Management of Municipal Waste – City Data

Line	Category	Unit	2021
1	Total population of the city	1000 inh.	
2	Total amount of municipal waste generated	1000 t	
3	Percentage of city population served by municipal waste collection	%	
4	Municipal waste collected from households		
5	Municipal waste collected from other origins		
6	Total amount of municipal waste collected (=4+5)		
7	Amounts going to: Recycling		
8	Composting	1000 t	
9	Incineration		
10	of which: with energy recovery		
11	Landfilling		
12	of which: controlled landfilling		
13	Other, please specify in the footnote		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicator **11.6.1: Proportion of municipal solid waste collected and managed in controlled facilities out of total municipal solid waste generated by cities**
- Custodian agencies: UN-HABITAT, UNSD
- Metadata [[link](#)]



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UNSD/UNEP WASTE SECTION – MANY USES – SDG INDICATORS

Country:

Table R6: E-Waste Generation and Collection			
Line	Category	Unit	2021
1	Total E-waste Generated		
<i>Amounts going to:</i>			
2	Large equipment		
3	Screens, monitors, and equipment containing screens		
4	Temperature exchange equipment (cooling and freezing equipment)		
5	Small E-waste (=6+7+8)		
6	<i>of which: lamps</i>		
7	<i>of which: small equipment</i>		
8	<i>of which: small IT and telecommunication equipment</i>		
9	Total E-waste collected	1000 t	
<i>Amounts going to:</i>			
10	Large equipment		
11	Screens, monitors, and equipment containing screens		
12	Temperature exchange equipment (cooling and freezing equipment)		
13	Small E-waste (=14+15+16)		
14	<i>of which: lamps</i>		
15	<i>of which: small equipment</i>		
16	<i>of which: small IT and telecommunication equipment</i>		

- Variables highlighted in yellow directly feed into Sustainable Development Goal indicators
 - 12.4.2: Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment;**
 - 12.5.1: National recycling rate, tons of material recycled**
- Custodian agencies for both: UNEP, UNSD
- Metadata for 12.4.2: [\[link\]](#)
- Metadata for 12.5.1: [\[link\]](#)



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USE OF QUESTIONNAIRE DATA TO INFORM POLICY INTERESTS SUCH AS RESOURCE CIRCULARITY

- Policy analysis, research papers by those analysing waste, flows of waste, material flows, etc. frequently reference the UNSD/UNEP Questionnaire and value the country-owned data within it.
- This is credit to the countries providing data and their collaboration with the United Nations.



[Published by UNITAR, 2024.](#)



[Published by UNEP,
February 2024.](#)



[Published by UNEP, 2024.](#)

LESSONS LEARNED AND NEXT STEPS

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LESSONS LEARNED – OECD/EUROSTAT

- **Response rate increased over time**
 - Best for municipal waste, though data quality issues remain
 - Generally improved convergence among EU countries (mandatory reporting)
- **Many gaps remain**
 - Business sector/non-hazardous industrial waste; categories of hazardous waste
 - Waste from economic activities such as agriculture, forestry, fishing; mining and quarrying (not regularly monitored in all countries); incomplete coverage (ISIC/NACE)
 - Recovery and recycling: particular waste streams and related recovery/recycling rates
- **Data quality is low for important variables**
 - Coherence among countries: reported amounts of waste generated and treated vary; divergent national definitions or surveying methods
 - MW: different estimates of the population served by waste collection; different coverage of collection channels and types of waste, ; inclusion or exclusion of exports and imports, double counts of waste undergoing two or more treatment steps
 - Coherence over time: time series not available or not coherent; breaks when definitions/monitoring change
 - Data completeness: partial data coverage; scattered sources
 - Transparency and interpretability: incomplete or missing metadata and documentation
- **Hampers monitoring of progress and use in policy analysis and evaluation**

LESSONS LEARNED – UNSD/UNEP

- Key international stakeholders value a more frequent yet piecemeal dissemination of data, hence UNSD, updates Country Files (individual country data) on a rolling basis (prior to mass dissemination of data at the end of a collection cycle).
- As expected, any newly collected variables take multiple collection cycles for response rates to improve, and for countries' supply of data to start to meet policy and other demand. This is the case for e-waste data (first collected in 2018).
- Demand for waste data continues to grow and this is a hot topic. Key users value that the data from the UNSD/UNEP Questionnaire are 'country-owned' and not an estimation by a third party.
- UNSD tries to emphasise the 'burden once, use many' approach to the data collection. Once data are collected from a country, they may be used for: circular economy policy analysis; Sustainable Development Goal policy demands; the Global Set of Climate Change Statistics and Indicators, the Framework for the Development of Environment Statistics; the System of Environmental-Economic Accounting (esp. Waste Accounts).
- Data quality and sporadicity of data both remain as issues. UNSD always advocates an inter-institutional approach to countries.

Regional Training - Session 3: International questionnaires

NEXT STEPS

The questionnaires are kept under regular review

- SDG monitoring
- Definitions, guidance
- Inter-Agency coordination

Timelines for next data collection

• OECD data collection

- OECD/Eurostat questionnaire section on waste
 - Mailing to countries: early October 2024 → end-December 2024
→ end-November 2024 for reference data and E-waste
- OECD data collection: Regional questionnaire on municipal waste
 - Mailing to countries early 2025 → end March 2025

• UNSD/UNEP data collection

- Mailing to countries: September 2024 → November 2024