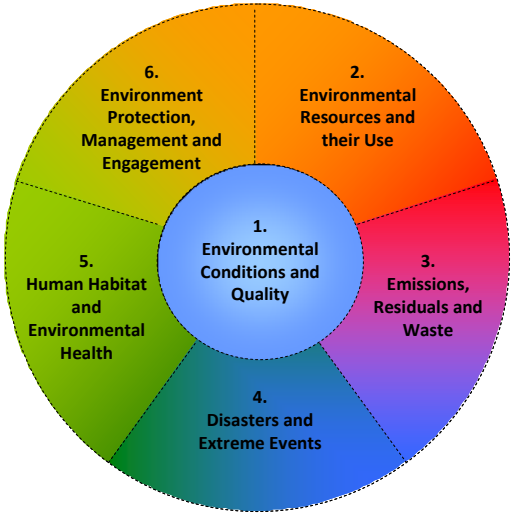

MANUAL ON THE BSES: GENERATION AND MANAGEMENT OF WASTE STATISTICS

Session One: Environment Statistics Toolbox
Wednesday, 3rd May 2017

Component 3: Residuals				
Sub-component 3.3: Generation and Management of Waste				
Statistics and Related Information (**Bold Text - Core Set/Tier 1**; Regular Text - Tier 2; *Italicized Text - Tier 3*)		Category of Measurement	Potential Aggregations and Scales	Methodological Guidance
Topic 3.3.1: Generation of waste				
a.	Amount of waste generated by source	Mass	▪ By ISIC economic activity ▪ By households ▪ By tourists ▪ National ▪ Sub-national	▪ European Commission: European List of Waste, pursuant to European Waste Framework Directive ▪ Eurostat: Environmental Data Centre on Waste ▪ Eurostat: European Waste Classification for Statistics (EWC-Stat), version 4 (Waste categories) ▪ Basel Convention: Waste categories and hazardous characteristics ▪ Eurostat: Manual on Waste Statistics ▪ Eurostat: Guidance on classification of waste according to EWC-Stat categories ▪ SEEA Central Framework (2012) ▪ UNSD: Environment Statistics Section-Waste Questionnaire
b.	Amount of waste generated by waste category	Mass	▪ By waste category (e.g., chemical waste, municipal waste, food waste, combustion waste) ▪ National ▪ Sub-national	
c.	Amount of hazardous waste generated	Mass	▪ By ISIC economic activity ▪ National ▪ Sub-national	

Topic 3.3.2: Management of waste				
a.	Municipal waste		▪ By type of treatment and disposal (e.g., reuse, recycling, composting, incineration, landfilling, other) ▪ By type of waste, when possible ▪ National ▪ Sub-national	▪ Eurostat: Environmental Data Centre on Waste ▪ Eurostat metadata: Organisation for Economic Co-operation and Development (OECD)/Eurostat definition of municipal waste ▪ UNSD: Environment Statistics Section-Waste Questionnaire ▪ Basel Convention: Waste categories and hazardous characteristics ▪ Eurostat: EWC-Stat, version 4 (Waste categories) ▪ European Commission: European Waste Framework Directive (Waste treatment operations) ▪ Eurostat: Manual on Waste Statistics ▪ Eurostat: Guidance on classification of waste according to EWC-Stat categories ▪ Rotterdam Convention
	1. Total municipal waste collected	Mass		
	2. Amount of municipal waste treated by type of treatment and disposal	Mass		
	3. Number of municipal waste treatment and disposal facilities	Number		
	4. Capacity of municipal waste treatment and disposal facilities	Volume		
b.	Hazardous waste			
	1. Total hazardous waste collected	Mass		
	2. Amount of hazardous waste treated by type of treatment and disposal	Mass		
	3. Number of hazardous waste treatment and disposal facilities	Number		
	4. Capacity of hazardous waste treatment and disposal facilities	Volume		
c.	Other/industrial waste			
	1. Total other/industrial waste collected	Mass		
	2. Amount of other/industrial waste treated by type of treatment and disposal	Mass		
	3. Number of other/industrial treatment and disposal facilities	Number		
	4. Capacity of other/industrial waste treatment and disposal facilities	Volume		

d.	Amount of recycled waste	Mass	▪ By specific waste streams (e.g., e-waste, packaging waste, end of life vehicles) ▪ By waste category ▪ National ▪ Sub-national	
e.	Imports of waste	Mass	▪ By waste category	

4

f.	Exports of waste	Mass	(e.g., chemical waste, municipal waste, combustion waste)	
g.	Imports of hazardous waste	Mass		
h.	Exports of hazardous waste	Mass		

FDES Statistics

Comments

- Potential aggregations and scales: should follow by ISIC economic activity, government and households
- Why are tourists, hotels and restaurants separate from the ISIC economic activities
  - Why include these? May be difficult to collect/estimate waste by tourists.
- Medical waste is preferred term to clinical waste
- Household waste is mentioned – some countries only collect municipal waste

FDES Statistics

Comments

- National level only may be possible
  - e.g. waste fractions, industry level and treatment of waste
- Sub-regional level– may be suitable only for household waste
- Data on waste treatment facilities difficult to obtain
- Difficult to group treatment by origin: municipal, industrial etc.

2.0 Introduction Relevance

Comments

- Include reuse: Waste as a resource when recycling, reusing components or fuel
- Amend diagram to include informal waste management/dumping

3.0 Definitions and Descriptions

Chapter overview

- Sets out main issues with waste statistics
  - Data collection challenges
- What is waste?
  - Groupings of waste: sources, types, management or characteristics of waste
- Waste category
- Waste stream
- Composition of waste: UNSD/UNEP questionnaire, OECD/Eurostat
- Aggregates of waste
- Waste treatment and disposal: UNSD/UNEP questionnaire, OECD/Eurostat
  - Waste treatment methods
- Hazardous waste treatment

3.0 Definitions and Descriptions

Comments

- Clarify that waste generated does not equal waste collected/treated
  - Informal collection/dumping needs to be mentioned
- Clarify what is meant by the lack of data affecting policy areas
  - Particularly for food waste which is high on the agenda but lacks data

3.0 Definitions and Descriptions (II)

Comments

- 3.3.1 Generation of waste: needs mention of estimates using consumption data
- 3.3.1.a Amount of waste generated by source
  - In addition to mineral wastes, other wastes can differ between countries: share of services, tourism etc
- 3.3.1.c Amount of hazardous waste
  - Include households as hazardous waste includes batteries etc.
- 3.3.2.d Amount of recycled waste
  - Definition of recycling – incineration for energy recovery is not recycling but recovery.
  - EU waste hierarchy is one level below recovery

4.0 International Sources and Classifications

Chapter overview

4A Classifications

- Classification of Waste – European Waste Catalogue
- Hazardous waste - as defined by Basel Convention

4B International recommendations, frameworks and standards

- UNSD/UNEP Waste Questionnaire
- OECD/Eurostat State of the Environment
- European Union and Eurostat Regulations 2150/2002, 574/2004, 783/2005. Directive 2008/98/EC
- UNECE Workshop on Waste Statistics
- UN Basel Convention

4.0 International Sources and Classifications

Chapter overview

4C Sources of global and regional statistics

- UNSD Environmental Statistics and Indicators
- European Union
- OECD Environment Directorate

5.0 Data collection and sources of data

Comments

- Set out examples of the main data collection methods in countries
  - Different waste streams
  - Municipal waste
- Elaborate with comparison of administrative data and survey data. Some questions may be: When is admin data used and when are surveys used? What variables are they each collecting? If a country does a survey does it also use admin data, in which countries is a survey used as a primary data set or is a survey mainly a secondary data set to supplement the admin data .
- Issues specific to administrative data are: give concrete examples of units used, are different definitions used by waste treatment operators? etc

5.0 Data collection and sources of data

Comments

- Waste generated: include examples of methods for estimating waste generated
  - e.g. WEEE generated using 'apparent consumption method'. Method in the EU WEEE Directive.
- Periodicity – usually annual
- Validation – some countries include checks on specific waste streams that are waste statistics but not considered waste by discarder, e.g., food pulp or peelings used for bio gas, animal feed

6.0 Dissemination and Indicators

Chapter overview

- SDGs 11.6.1, 12.4.2, 12.5.1
- Other indicators
- OECD Environmental and Green Growth Indicators: waste generation intensity and recovery ratios
- Eurostat Waste Management indicators
- EU Efficiency Scoreboard indicators
- EU Sustainable Development Indicators

6B Use in SEEA

Comments

- Section should include Section 3.6.5 of the SEEA-Central Framework on "Solid Waste Accounts“,
- "Physical supply table for solid waste" and "Physical use table for solid waste“
- Section 3.2.4 of the SEEA-CF, "Definition and classification of residuals “ on "Solid waste".
- Include a concordance table in this section (6B) to allocate the FDES waste with the solid waste accounts