



ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON ENVIRONMENTAL POLICY

Ad Hoc Working Group on Environmental Monitoring

(Second session, 28 February-1 March 2002)

(Item 3 (b) of the provisional agenda)

DATA COLLECTION FOR THE KIEV REPORT

Addendum 2

QUESTIONNAIRE ON WASTE

Submitted by the European Environment Agency (EEA)¹

The data collection for producing the indicators in the Kiev report is executed by the European Topic Centres under contract by EEA. In Newly Independent States (NIS) the data collection will be supported by consultants of the TACIS programme, in Balkan countries by consultants of the EEA financed by the European Union stability pact fund.

Introduction

The chapter on waste and material flows in the Kiev report will be based on data already available from international institutions such the UN, the OECD, the Basel secretariat Eurostat and General Directorate on the environment of the EU Commission. As not all UNECE countries are obliged to report to those institutions there is a need to complete the data collected in international organizations with the information available in countries.

The questions in this questionnaire on waste concern a further specification of the general UN Statistical Division (USD) questionnaire on environmental statistics (submitted to UN countries summer 2001). For the Kiev report a further specification is needed and (for several countries) possible.

The questionnaire is sent to all countries covered by the Kiev report that are not EEA members. If some of the tables in the questionnaire have already been submitted to the UNSD or to the

¹ This document was not formally edited.

Basel secretariat, please send us a copy of the reported tables.

Please return your answers to:

ETC Waste and Material Flows
 Jens Brodersen
 Overgaden Oven Vandet 48E
 DK-1415 Copenhagen K
 Denmark
 Tel: +45 32640163
 Fax: +45 32640160
 E-mail: etcw-jb@mst.dk

DATA REQUEST

This questionnaire contains seven tables, as follows:

R1:	Generation and treatment of waste	UNSD-Questionnaire July 2001
R1.1a	Table 1: Generation of waste by sector	ISIC
R1.2a	Generation of hazardous waste by category	Basel convention
R2:	Waste treatment facilities	UNSD-Questionnaire July 2001
R2a	Specification of capacities	EEA
R3:	Supplementary information sheet on the waste section	UNSD-Questionnaire July 2001
R3a	Generation, recovery and recycling of selected waste streams	OECD-Questionnaire

The tables themselves will be send to country focal points in English only.

I. GENERAL COMMENTS

In addition to the data requested here, countries are asked to provide any information and documentation which might help harmonizing and interpreting the data (i.e. information on definitions and surveying methods, waste collection methods, waste minimization measures, relevant national laws and regulations, etc.)

Introduction

The generation of waste accompanies any kind of production and consumption. The amount of waste generated is an indication of resource efficiency and also of the pressure exerted on the environment by using it as a sink to absorb waste and the related pollution. Waste disposal facilities use a lot of space, and inappropriate waste management causes releases of pollutants contributing directly or indirectly to various environmental problems. Imports and exports of waste contribute to environmental pollution in recipient countries. Therefore, reducing the volume of waste generated in the different production and consumption processes, increasing the

share of recycled, reused and recovered waste materials and the environmentally sound management of waste that has to be disposed of to the environment are key concerns of the sustainable management of natural resources and the environment.

Waste statistics can be obtained from different points in the waste management system. The quantity and quality of data on waste depends very much on the countries' waste regulations. Data on waste generation and management are usually compiled through a) surveys to economic operators and municipalities, b) permit compliancy reporting and c) estimations based on specific human activities. National practices may differ considerably regarding the institutions and bodies involved. Municipalities and private enterprises acting on behalf of municipalities usually compile data on municipal waste collection, while, depending on national practices and legislation, waste treatment facilities and industrial establishments may be obliged to report to authorities on waste generation and treatment. The national data compilation on waste may take place in the national statistical office, the environment protection agency, the ministry of the environment and natural resources and/or research institutions.

The most developed areas of national waste statistics usually cover hazardous wastes, where most countries have to comply with national and international regulations; municipal wastes, where the sources of data are usually the municipalities or the enterprises acting on their behalf, and certain types of industrial wastes, where industrial establishments report on their waste generation. The UN Questionnaire therefore focuses on the generation of these categories of wastes and on the availability of waste treatment services and facilities in the country. Two separate tables for supplementary information are provided. They have been designed to collect additional information, quantitative and/or qualitative in nature that may be available on issues relevant to the environment with respect to waste.

II. SPECIFIC COMMENTS ON TABLES

TABLE R1: GENERATION AND TREATMENT OF WASTE (UNSD)

The table asks for information on the generation and management of core waste categories and total waste generated in the country. In this questionnaire, waste is defined as substances or objects, which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law. Countries are asked to provide the national definition of waste and various waste categories in the Supplementary Information Sheet.

Due to practical constraints present in many countries, only the most common waste categories and the most common types of waste management are specified in the table. Please note that the waste categories specified in the table do not cover all types of wastes, therefore their sum does not equal to the total amount of waste generated in the country. As countries may use different definitions of waste as well as different methods for the compilation of data on waste, it is likely that the data on the core categories overlap with each other. If this is the case, please provide the data available and explain the methodologies applied, possible overlaps between waste categories, etc., in the Supplementary Information Sheet. Should more disaggregated data be available for certain waste categories or waste flows, please also provide them in the Supplementary Information Sheet.

TABLE 51.1a: GENERATION OF WASTE BY SECTOR

This table aims at showing total amounts of waste generated in a country by the various sectors of economic activity and by households. It describes changes over time.

The table refers to all primary waste originating from the mentioned sectors including waste for recovery and recycling, but excluding direct internal recycling and re-use (see definitions). Waste from secondary sources should be excluded, but can be reported as a memorandum item.

The general sectoral breakdown used is taken from the International Standard Industrial Classification (ISIC.Rev.3). This allows for consistency with National Accounts and related economic data. Please observe that the requested table includes the question raised under R1.4 “Industrial waste generation”.

N.B.: Waste generated by sector should be clearly distinguished from waste generated by waste stream. Waste from the construction sector (ISIC 45) thus includes all waste generated by enterprises with the economic activity “construction”, whereas “construction and demolition waste”, covered in table R3 refers to all construction and demolition waste generated in any economic activity sector.

TABLE R1.2a: HAZARDOUS WASTE

Hazardous waste here refers 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) (and the list of hazardous Characteristics Annex III of Basel Convention). If data are not available according to the Basel Convention, amounts can be given according to national or any other international definition (e.g. the hazardous waste part of the European Waste Catalogue), but should be labeled accordingly.

This table collects data on the amounts of hazardous waste by the various waste streams.

TABLE R2: WASTE TREATMENT FACILITIES (UNSD)

The table focuses on the waste treatment facilities in place in the country and the share of the total urban and rural population that is served by waste management services. The treatment facilities are specified according to recycling/reuse/recovery, incineration, landfills and other treatment facilities, which allows drawing conclusions on national waste treatment practices. If more detailed data are available, e.g. on the size and capacity of the waste treatment facilities, countries are invited to provide them in the Supplementary Information Sheet.

TABLE R2a: CAPACITY OF WASTE TREATMENT FACILITIES

Please give information on capacities if available. For landfill sites: remaining capacity in 1000 tonnes for the other facilities in annual capacity in 1000 tonnes. If information on capacities is available in other terms please label the information accordingly.

TABLE R3a: GENERATION, RECOVERY AND RECYCLING OF SELECTED WASTE STREAMS (from OECD table 2a)

The table evaluates the amounts of waste disaggregated according to their material characteristics. This information is complementary to table R1.1 (Breakdown according to economic activity sectors). The table focuses on selected waste streams considered to be important from an environmental point of view and from the point of view of national waste management strategies.

The table refers to all waste generated, i.e. household and other municipal waste, waste handled

by the scrapping industry and other waste from economic activities. Material that is collected for recycling by private sources (e.g. waste paper collected by private parties, etc.) should be included (see Terms and Definitions).

Waste material undergoing internal recycling, i.e. directly at the place of generation, is excluded.

Table R3a aims at evaluating amounts of recycled waste compared to total amounts of waste generated and to apparent consumption (national production + imports - exports) of the respective raw material. For selected waste streams, additional information on the amounts incinerated with energy recovery is requested.

III. TERMS AND DEFINITIONS

Terms and definitions used in this section of the questionnaire are based on existing and ongoing work on waste definitions and classification at international level (e.g. OECD Working Group on Waste Management Policies, Secretariat of the Basel Convention).

The following list is not exhaustive nor final, and may evolve as international work progresses. Countries' replies should be as consistent as possible with the proposed definitions. Remaining differences should be explained and documented as necessary.

WASTE

Substances or objects, which are disposed of, or are intended to be disposed of, or are required to be disposed of by the provisions of national law. Waste may arise from a wide variety of economic activities and households.

Excluded are:

- Residuals directly recycled or reused at the place of generation (i.e. establishment);
- Waste materials that are directly discharged into ambient water or air.

BIODEGRADABLE WASTE

Any waste that is capable of undergoing anaerobic or aerobic decomposition. Examples are food waste or garden waste.

BULKY WASTE

Waste that due to its bulky character needs special considerations for its management. Examples are white goods, old furniture, mattresses, etc.

Excludes construction and demolition waste.

COMPOSTING

Biological process that submits biodegradable waste to anaerobic or aerobic decomposition, and that results in a product that is recovered.

CONSTRUCTION AND DEMOLITION WASTE

Construction and demolition waste: rubble and other waste material arising from the construction, demolition, renovation or reconstruction of buildings or parts thereof, whether on the surface or underground. Consists mainly of building material and soil, including excavated soil. Includes waste from all origins and from all economic activity sectors.

CONTROLLED LANDFILL

Landfill whose operation is submitted to a permit system and to technical control procedures in

compliance with the national legislation in force.
Includes specially engineered landfill.

DISPOSAL

Disposal is defined as any waste management operation serving or carrying out the final treatment and disposal of waste. It covers the following main operations:

FINAL TREATMENT:

- Incineration without energy recovery (on land; at sea)
- Biological, physical, chemical treatment resulting in products or residues that are discarded, i.e. going to final disposal.

FINAL DISPOSAL:

- Deposit into or onto land (e.g. landfill), including specially engineered landfill
- Deep injection
- Surface impoundment
- Release into water bodies
- Permanent storage

FINAL TREATMENT

The physical, thermal, chemical or biological processes that change the characteristics of the waste in order to reduce its volume or hazardous nature, and that result in a product that goes to final disposal.

HAZARDOUS WASTE

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) or wastes which due to their toxic, poisonous, explosive, corrosive, flammable, radioactive, eco-toxic and infectious character, pose a substantial, actual, or potential hazard to human health and/or the environment. For the purposes of this questionnaire, "hazardous wastes" comprise all those materials and products, which are considered to be hazardous in accordance with practices in each country. Please label accordingly.

INCINERATION:

The combustion of waste on land or at sea.

INCINERATION PLANTS:

Plants for waste combustion with or without thermal energy recovery.

INDUSTRIAL WASTE

Industrial waste refers to waste from mining and quarrying, manufacturing, energy production as well as construction and demolition. Industrial waste may contain some hazardous waste and waste similar to household waste.

LANDFILL:

The final placement of waste in or on the land in a controlled or uncontrolled way according to

national sanitary, environmental protection and other security requirements. This includes waste kept in permanent storage.

The definition covers both landfill in internal sites (i.e. where a generator of waste is carrying out its own waste disposal at the place of generation) and in external sites.

LANDFILL SITES:

Sites which manage the final placement of waste in or on the land in a controlled or uncontrolled way according to national sanitary, environment protection and other security requirements, including permanent storage facilities.

MUNICIPAL WASTE:

Waste similar to household waste and arising from various activities. Generally, municipal waste is managed by a local government or by private enterprises acting on behalf of the municipality. Municipal waste may contain hazardous and industrial waste.

MECHANICAL SORTING

Preparatory operation (or treatment) applied to collected mixed waste in order to separate those fractions that may be recovered and to minimize the amounts going to final disposal.

Other treatment plants:

Plants for other waste treatment than recycling/reuse/recovery, incineration or landfills.

Other waste treatment:

This includes physico-chemical and biological waste treatment as well as waste dumping on land, in the sea and inland waters.

PREPARATORY OPERATIONS (OR ACTIVITIES)

Includes preparatory activities prior to any recovery or disposal operation, such as blending, mixing, repackaging, temporary storage, etc. that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

PRIMARY WASTE

Waste from primary sources, i.e. waste generated during the extraction of raw materials during the processing of raw materials to intermediate and final products, during the consumption of final products (products discarded after use), and during a cleaning operation.

RECOVERY

Recovery is defined as any waste management operation that diverts a waste material from the waste stream and which results in a certain product with a potential economic or ecological benefit. Recovery mainly refers to the following operations:

- material recovery, i.e. recycling (see below);
- energy recovery, i.e. reuse of fuel;
- biological recovery, e.g. composting;
- re-use.

Direct recycling or reuse within industrial plants at the place of generation is excluded.

RECYCLING

Recycling is defined as any reprocessing of material in a production process that diverts it from the waste stream, except reuse of fuel. Reprocessing both as the same type of product and for different purposes should be included. Direct recycling within industrial plants at the place of generation should be excluded.

RE-USE

Re-use shall mean any operation by which end of life products and equipment (e.g. electrical and electronic equipment) or its components are used for the same purpose for which they were conceived. Direct reuse at the place of generation (i.e. establishment) is excluded.

SECONDARY WASTE (OR TREATMENT RESIDUES)

Waste from secondary sources, i.e. waste generated in a process that is known as a waste treatment operation. Includes residual materials originating from recovery and disposal operations, such as incineration and composting residues.

N.B.: In accordance with the definition of waste, waste from sewage treatment (i.e. sewage sludge) is considered as primary waste.

SEWAGE SLUDGE

Sludge from wastewater treatment. This includes sludge generated by municipal wastewater treatment plants as well as by private treatment plants, e.g. within the manufacturing industries.

SPECIALLY ENGINEERED LANDFILL

Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment).

TRANSBOUNDARY MOVEMENT

Transboundary movement means any movement of waste from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State, or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.

TREATMENT

Treatment means the physical, thermal, chemical or biological processes that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.

WASTE MANAGEMENT

Waste management means the collection, transport, treatment and disposal of waste, including after-care of disposal sites.