



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

**COMMITTEE ON ENVIRONMENTAL POLICY
CONFERENCE OF EUROPEAN STATISTICIANS**

Joint Intersectoral Task Force on Environmental Indicators

Fourth session

18-20 October 2011, Geneva

NATIONAL REVIEW OF THE APPLICATION OF ENVIRONMENTAL INDICATORS

Submitted by [Serbia]

Prepared by [Milijana Čeranić, Statistical Office of the republic of Serbia - SORS].

For assistance in filling in the following tables please contact vladislav.bizek@gmail.com.

EVALUATION OF FURTHER SIX INDICATORS FROM THE *UNECE INDICATOR GUIDELINES*

Indicator	A. Effective inter-agency cooperation mechanisms to produce the indicator	B. Data quality assurance and control procedures for the production of the indicator including international experience	C. Publication of the indicator in statistical compendiums and state-of-the-environment reports and other regular publications
Waste generation	Statistical Office of the Republic of Serbia (SORS)	Statistical Office of the Republic of Serbia is responsible for reporting in accordance with Regulation 2150/2002 on waste statistics. Since 2008, SORS is carried out annual statistical survey Industrial waste which cover NACE sectors Mining and quarrying, Manufacturing and Electricity, gas, steam and air conditioning supply;	Statistical office of the Republic of Serbia results from statistical surveys published : Statistical release ZS60 - Industrial waste in the Republic of Serbia, 2010 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/37/01/ZS602010e.pdf) ¹ Statistical release ZS60 -Industrial waste in the Republic of Serbia, 2009 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/27/80/zs60122009e.pdf) ¹ Statistical release ZS60 -Industrial waste 2008 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/30/32/zs60122008e.pdf) ¹ Statistical Yearbook of Serbia, 2011 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/47/46/11_Zivotna_sredina.pdf) ² Eco-bulletin 2010 (http://webrzs.stat.gov.rs/WebSite/repository/documents/
Final waste disposal	Statistical Office of Republic of Serbia (SORS)	SORS produced data in line with Regulation 2150/2002	Statistical release ZS60 -Industrial waste in the Republic of Serbia, 2010 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/37/01/ZS602010e.pdf) ¹ Statistical release ZS60 -Industrial waste in the Republic of Serbia, 2009 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/27/80/zs60122009e.pdf) ¹ Statistical release ZS60 -Industrial waste 2008 (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/30/32/zs60122008e.pdf) ¹ Eco-bulletin (http://webrzs.stat.gov.rs/WebSite/repository/documents/00/00/52/89/EKOBILITEN-2010.pdf) ²
Transboundary movements of hazardous waste	***	***	***

Ambient air quality in urban areas
Threatened and protected species
Trends in the number and distribution of selected species

Question A.	Effective inter-agency cooperation mechanisms to produce the indicator
<p>Please describe cooperation arrangements, if any, which have been established in your country to collect the necessary data for the indicator. These may involve statistical agencies, ministries of water management, agriculture, transport, interior, environment, economic development and energy, hydro-meteorological services and agencies on geology, as appropriate. The description should cover problems met, solutions found and possible further steps envisaged or needed.</p>	

Question B.	Data quality assurance and control procedures for the production of the indicator
<p>Please describe data quality assurance and control procedures for the production of the indicator. The description should cover problems met, solutions found and possible further steps envisaged or needed. References should be made to any international methodologies and guidelines that are followed to ensure data quality and control.</p>	

Question C.	Publication of the indicator in statistical compendiums and state-of-the-environment reports
<p>Please present the evidence of the indicator publication in statistical compendiums and state-of-the-environment reports and other regular publications (titles, names of the publishing houses, cities and years of the publications, languages, number of copies published, Internet addresses, and whether time-series data was published on the indicator).</p>	

The description of the indicators is available online at: www.unecce.org/env/documents/2007/ece/ece.belgrade.conf.2007.inf.6.e.pdf

¹ Data in Statistical Release are preliminary data

² Data in Eco-bulletin and Statistical yearbook of Serbia are finally data

Data source for table t1 and t2b is SORS (<http://www.stat.gov.rs/>)

Notes:

Data produced by SORS (Statistical Office of the Republic of Serbia) in line with Waste Statistics Regulation 2150/2002 (EC) 1) Total hazardous waste from Mining and quarrying, Manufacturing and Electricity, gas stream and conditioning supply - This table asks for data on the total amount of waste (both non-hazardous and hazardous), generated by various economic activities and by households. The breakdown follows the International Standard Industrial Classification of all Economic Activities (ISIC Rev.4).
(URL: <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=27>).

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. Waste from secondary sources should be excluded.

The amount reported under 'Total waste generation' should be equal to the sum of the waste amounts reported under the various economic activities and household waste. Waste generated by an economic activity includes all kinds of waste generated by economic units within this activity. If data are not collected according to ISIC, please provide data for household waste generation (line 13) and total waste generation (line 14). If data do not cover all waste sources, please leave the total waste generation cell blank (line14). Waste generated by ISIC 38 (waste collection) is reported separately. Separately, the table describes the total amount of hazardous waste generated during the individual year.

If the requested data are not available, please leave the cell blank. If the requested variable is not applicable (the phenomenon is not relevant) to the country or the value is less than half the un

List of definitions

Waste: Materials that are not prime products (i.e., products produced for the market) for which the generator has no further use for his own purpose of production, transformation or consumption, and which he discards, or intends or is required to discard.
It excludes material directly recycled or reused at the place of generation (i.e., establishment) and waste materials that are directly discharged into ambient water or air as wastewater or air pollution.

(Waste from) **Agriculture, forestry and fishing:** All waste from agricultural, forestry and fishing activities. Manure used as fertilizer is excluded (i.e., only excess manure which is disposed of should be included). This category refers to ISIC divisions 01 to 03.

(Waste from) **Manufacturing:** All waste from manufacturing activities. This category refers to ISIC divisions 10 to 33.

(Waste from) **Electricity, gas, steam and air conditioning supply:** All waste from electricity, gas, steam and air conditioning supply. Waste from the production of nuclear energy should be excluded. This category refers to ISIC division 35. **Radioactive waste is not included in this category.**

(Waste from) **Construction:** All waste from construction activities. This category refers to waste generated in ISIC division 41 to 43.

(Waste from) **Other economic activities excluding ISIC 38:** All waste from all other economic activities not specified before and excluding ISIC division 38. This category refers to waste generated in ISIC divisions 36, 37, 39, and ISIC 45 to 99.

Municipal waste: Municipal waste, collected by or on behalf of municipalities, by public or private enterprises, includes waste originating from: households, commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings). It also includes bulky waste (e.g., white goods, old furniture, mattresses) and waste from selected municipal services, e.g., waste from park and garden maintenance, waste from street cleaning services (street sweepings, the content of litter containers, market cleansing waste), if managed as waste. The definition excludes waste from municipal sewage network and treatment, municipal construction and demolition waste.

(Waste from) **Households:** Waste material usually generated in the normal functioning of households.

Hazardous waste: Hazardous waste 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).

Management of waste: Collection, transport, treatment and disposal of waste, including after-care of disposal sites.

Recycling: 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: A biological process that submits biodegradable waste to anaerobic or aerobic decomposition, and that results in a product that is recovered and can be used to increase soil fertility.

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. The definition covers both landfilling 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.

Controlled landfilling: Final placement of waste into or onto the land in a controlled landfill site.

Other waste treatment: Any final treatment or disposal different from recycling, incineration and landfilling. Physical/chemical treatment, biological treatment, releasing into water bodies and permanent storage are included here.

Non hazardous industrial waste: Manufacturing waste (ISIC 10 - 33) excluding hazardous waste

Time series data on the indicators for 1990-2010, Table 2a. Final waste disposal: Management of municipal waste: (country name)

	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Municipal waste													
4	Municipal waste collected	1000 t/ year												
5	Municipal waste managed	1000 t/ year												
6	Of which recycling	1000 t/ year												
7	Of which composting	1000 t/ year												
8	Of which incineration without energy recovery	1000 t/ year												
9	Of which incineration with energy recovery	1000 t/ year												
10	Of which landfilling on a controlled site	1000 t/ year												
11	Of which landfilling on a non- controlled site	1000 t/ year												
12	Of which other disposal (specify in the footnote, please)	1000 t/ year												
13	Of which hazardous waste	1000 t/ year												

Note: Definitions are presented in sheet t1a. In case different definitions are applied in the country, specify, please. Please explain the category "Other disposal". Please insert any additional information necessary for explanation of figures presented. **In line 13, fill in figures from t1, row 12, if such data is available. In the case that data on municipal waste collection is available in cubic meters rather than in tons, fill this table in terms of 1000 cubic meters per year.**

Time series data on the indicators for 1990-2010, Table 2b. Final waste disposal: Management of non-hazardous industrial waste: Republic of Serbia

	Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
4	Total amount generated	1000 t/year										1827.41	1257.22	1179.19
5	Of which recycling	1000 t/year										467.48	463.13	384.67
6	Of which composting	1000 t/year												
7	Of which incineration-without energy recovery	1000 t/year										0.42	0.06	0.09
8	Of which incineration with energy recovery	1000 t/year										31.46	17.60	25.71
9	Of which landfilling on a controlled site	1000 t/year										179.81	21.66	40.77
10	Of which landfilling on a non-controlled site	1000 t/year												
11	Of which other disposal (specify in the footnote, please)	1000 t/year												

Note: Definitions are presented in sheet t1a. In case different definitions are applied in the country, specify, please. Please explain the category "Other disposal". Please insert any additional information necessary for explanation of figures presented. **Non-hazardous industrial waste is calculated using the data from Table 1: Row 14 - row 15 - row 11 + row 12. In the case that the data on the hazardous part of municipal waste is not available, use formula Row 14 - row 15 - row 11 with comment that hazardous part of municipal waste is "double-counted".**

Data produced by SORS (Statistical Office of the Republic of Serbia) in line with Waste Statistics Regulation 2150/2002 (EC) Hazardous waste survey covers: Mining and quarrying, Manufacturing and Electricity, gas stream and conditioning supply sectors in line with ISIC Rev.4 (NACE, Rev.2)

Time series data on the indicators for 1990-2010, Table 3. Transboundary movements of hazardous waste : (country name)

		Unit	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
5	Import of hazardous waste	1000 t/ year													
6	Export of hazardous waste	1000 t/ year													
7	Import - export	1000 t/ year													
8	Total hazardous waste treated in the country	1000 t/ year													
9	Of which recycling	1000 t/ year													
10	Of which incineration	1000 t/ year													
11	Of which landfilling	1000 t/ year													
12	Of which other disposal (specify in footnote, please)	1000 t/year													

Notes:

Please use the definition of hazardous waste in accordance with the Basel Convention **on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**. If data according to the Basel Convention are not available, amounts can be given according to national or any other international definition, but should be labelled accordingly. Other definitions are presented in sheet t1a. In the case that different definitions are applied in the country, specify, please. Please explain the category "Other disposal". Please insert any additional information necessary for explanation of figures presented. **When filling this table, data from national reports of your country to the secretariat of Basel Convention could be used; see <http://www.basel.int/countries>. Row 8 is calculated according to the following formula: Row 15 from table t1 + row 5 from this table - row 6 from this table.**