

- Full view -



WASTE_ESQRS_A_SK_2016_0000

National Reference Metadata in ESS Standard for Quality Reports Structure
(ESQRS)

Compiling agency: Statistical Office of the Slovak Republic

Time Dimension: 2016-A0

Data Provider: SK1

Data Flow: WASTE_ESQRS_A

Eurostat metadata

Reference metadata

- [1. Contact](#)
- [2. Statistical presentation](#)
- [3. Statistical processing](#)
- [4. Quality management](#)
- [5. Relevance](#)
- [6. Accuracy and reliability](#)
- [7. Timeliness and punctuality](#)
- [8. Coherence and comparability](#)
- [9. Accessibility and clarity](#)
- [10. Cost and Burden](#)
- [11. Confidentiality](#)
- [12. Comment](#)
- [Related Metadata](#)
- [Annexes](#) (including footnotes)

For any question on data and metadata, please contact: [EUROPEAN STATISTICAL DATA SUPPORT](#)

1. Contact

[Top](#)

1.1. Contact organisation	Statistical Office of the Slovak Republic
1.2. Contact organisation unit	Cross-sectional Statistics Department
1.3. Contact name	Marianna Pobozna, Eva Smelkova
1.4. Contact person function	Senior statisticians specializing in environmental statistics
1.5. Contact mail address	Miletičova 3, SK-824 67, Bratislava, Slovak Republic
1.6. Contact email address	Marianna.Pobozna@statistics.sk Eva.Smelkova@statistics.sk
1.7. Contact phone number	Marianna Pobozna: + 421 2 50236 734 Eva Smelkova: + 421 2 50236 782
1.8. Contact fax number	-

2. Statistical presentation

[Top](#)

2.1. Data description

Data on generation and treatment of waste and information on waste treatment facilities according to the Regulation on waste statistics (EC) No. 2150/2002, amended by Commission Regulation (EU) No. 849/2010. Submitted data sets provide information on generation and treatment of waste and on waste treatment facilities in the Slovak Republic, specifically:

- WASTE_GENER_2: data on waste generation broken down by waste categories (EWC-STAT) and NACE economic activities + households
- WASTE_TREATM_2: data on waste treatment broken down by waste categories (EWC-STAT) and treatment categories (energy recovery, incineration, recovery other than energy recovery, backfilling, deposit onto or into land, land treatment and release into water bodies)
- WASTE_REGIO1_2: number and capacity of recovery and disposal facilities by types of facilities and by NUTS 2 regions
- WASTE_REGIO2_2: number and capacity of landfill sites by NUTS 2 regions

2.2. Classification system

The following classifications are used for compiling datasets on waste:

- European Waste Classification for statistical purposes (EWC-Stat). The classification is linked to the List of Wastes, on which is based the Slovak Catalogue of Wastes.
- NACE rev. 2 classification (18 aggregated NACE categories). In addition to the waste generated by businesses, waste is generated also by households (HH).
- Waste treatment categories based on the treatment operations (R, D codes) defined in the Waste Framework Directive 2008/98/EC (Annex I, Annex II).
- NUTS classification - information on waste treatment facilities are provided at regional level NUTS 2 regions.

All applied classifications are compatible with requirements under the Waste statistics Regulation.

2.3. Coverage - sector

The dataset on waste generation includes waste generated by all economic activities and also by households activities.

The dataset on waste treatment includes only the final treatment operations, pre-treatment activities (like sorting, drying) are excluded.

2.4. Statistical concepts and definitions

Concepts and definitions regarding waste statistics are specified in the Regulation on waste statistics (EC) No. 2150/2002, amended by Commission Regulation (EU) No. 849/2010.

2.5. Statistical unit

Reporting units are: companies (with production over 50 kg of HAZ waste or over 1 ton of NON-HAZ waste per year) and municipalities.

2.6. Statistical population

In dataset on waste generation: waste generated in the Slovak Republic by companies (with production over 50 kg of HAZ waste or over 1 ton of NON-HAZ waste per year) and by households.

In dataset on waste treatment: waste treated by final treatment operations on the territory of the Slovak Republic.

2.7. Reference area

For datasets WASTE_GENER_2 and WASTE_TREATM_2 are data available at national level - Slovak Republic.

For datasets WASTE_REGIO1_2, WASTE_REGIO2_2 are data available per NUTS 2 regions (Bratislavský kraj, Západné Slovensko, Stredné Slovensko, Východné Slovensko).

2.8. Coverage - Time

2004 - 2016 (data are available for every second year in the time series)

2.9. Base period

Not applicable

3. Statistical processing

[Top](#)

3.1. Source data

The same data sources were used for compilation of datasets 1 GENER and 2 TREATM:

- statistical survey on municipal waste conducted by the SOSR (for municipal waste data),
- reports on waste submitted by companies to the District Environmental Offices according to Act on Waste (for industrial waste data),
- information on ELV gathered by Automotive Industry Association of the Slovak Republic.

Data compiled in dataset 3 REGIO come from registration lists of waste treatment facilities.

Review of used data sources:

Data source	Responsible organization	Internal/External source
-------------	--------------------------	--------------------------

Statistical survey on municipal waste	Statistical Office of the SR	Internal
Reports on waste submitted by companies	Ministry of Environment of the SR	External/Administrative data
Information on ELV	Automotive Industry Association of the Slovak Republic	External/Administrative data
Registration lists of waste treatment facilities	Ministry of Environment of the SR	External/Administrative data

3.2. Frequency of data collection

Annually

3.3. Data collection

Statistical survey on municipal waste

- annual, exhaustive statistical survey
- reporting units are all municipalities of the SR
- survey is carried out by the Statistical Office of the SR

Data and information required in the statistical survey on municipal waste (ZP 6-01):

- Waste codes (chapter 20) - detailed 6-digit codes specified in the Slovak Catalogue of Wastes (in compliance with European List of Waste)
- Identification of waste - waste name
- Codes of Recovery and Disposal Operations - waste recovery (R), waste disposal (D) and waste temporary storage in place of origin (Z) codes specified in the annex of the statistical form ZP 6-01
- Y Codes - Y codes of hazardous waste specified in the annex of the statistical form ZP 6-01
- Quantity of municipal waste in tonnes

Description of statistical survey on municipal waste

1. Description of reporting unit applied: All municipalities of the SR
2. Description of the reporting system: Annual survey on municipalities
3. Waste types covered: All waste codes under chapter 20
4. a) Total no. of collectors /municipalities (population size): cca 2900, b) No. of collectors/municipalities selected for survey: all municipalities, c) No. of responses used for the calculation of the totals: all municipalities, d) Factor for weighting: Not applicable
5. Method applied for the differentiation between the sources household and commercial activities: available only data on whole municipal waste
6. Percentages of waste from commercial activities by waste types: see 5.
7. Population served by a collection scheme for mixed household and similar waste, in %: cca 98% of the territory is covered by MW collection services

Reports on waste submitted by companies

- obligation of companies to submit reports on waste to respective District Environmental Offices is regulated by the Act on Waste (new Act on Waste No. 79/2015)
- threshold for obligatory reporting is production over 50 kg of HAZ waste or over 1 ton of NON-HAZ waste per year
- content of reports is specified in Annex II of the Regulation of the Ministry of Environment of the SR No. 366/2015 on obligation to keep records and on reporting obligation

Data from reports are gathered into the RISO database (Regional Information System of Waste) that is managed by the Ministry of Environment of the SR

Data and information required in the reports on waste:

- Waste codes (chapters 01- 19) - detailed 6-digit codes specified in the Slovak Catalogue of Wastes (in compliance with European List of Waste)
- Identification of waste - waste name
- Waste Categories - waste category according to the Slovak Catalogue of Wastes (N - hazardous, O - non-hazardous waste)
- Y Codes - Y codes of hazardous waste specified in Annex II of the Regulation of the Ministry of Environment of the SR No. 366/2015 on obligation to keep records and on reporting obligation
- Quantity of waste in tonnes
- Codes of Recovery and Disposal Operations -waste recovery (R), waste disposal (D) and waste temporary storage in place of origin (Z) codes specified in n Annex II of the Regulation of the Ministry of Environment of the SR No. 366/2015 on obligation to keep records and on reporting obligation
- Identification of organizations responsible for waste treatment - identification number and name of the waste recipient

Registration lists of waste treatment facilities

- obligation of waste treatment facilities to keep registration lists and submit them to respective District Environmental Offices is

regulated by the Act on Waste

- reporting is obligatory for all authorized waste treatment facilities
- content of registration list for landfills is specified in Annex VII and registration list for waste recovery/disposal facilities in Annex VI of 366/2015 on obligation to keep records and on reporting obligation
- the registration list contains data on quantities of treated waste (disposed, recovered), parameters monitoring impact of facilities on the environment and also specific information on capacity of facility
- data from registration lists are gathered in the database of waste treatment facilities that is managed by the Ministry of Environment of the SR

3.4. Data validation

Process of validation of industrial waste data:

- submitted reports are checked for possible errors and inconsistencies - competent persons from the District Environmental Offices check data provided in report and identify the errors; identified errors / inconsistencies are consulted with concerned reporting unit and are corrected if necessary
- errors that may be input into system by mistake, i.e. substitution of values (ID number, tons) or errors in data recording (second type errors) are handled by the system which automatically alerts users on outlying values
- data from the database are provided to the Statistical Office of the SR (SOSR) as administrative data; SOSR performs additional validation on data (data are compared with data from previous years at aggregated level for regions, for NACE, for waste treatment operations)

Process of validation of municipal waste data:

- completed statistical forms are checked for possible errors and inconsistencies - competent persons from the Regional SOSR Office perform basic checks on completed statistical forms (verification of identification number of municipality, completeness of statistical forms, extreme values)
- data are recorded into the statistical information system, the system automatically checks recorded data by applying programmed check links (algorithms) and identifies formal and significant errors; identified errors are corrected after consultations with concerned reporting units
- additional checks are performed on municipal waste data (data are compared with data from previous years at aggregated level for regions, for waste types, for waste treatment operations and with other relevant information)

The compiled data sets GENER and TREATM for 2016 were compared with data sets from previous reporting for reference year 2014. Data that significantly varied between compared years were verified and no error in data was detected. Increased values for some waste categories for year 2016 in comparison with year 2014 are justified.

3.5. Data compilation

The data sources used for compilation of table for waste generation (GENER) and also table for waste treatment (TREATM) are reports on waste submitted by companies (covered are all significant waste producers, estimates/modeling of data are not necessary) and statistical survey on municipal waste (exhaustive survey, estimates/modeling of data are not necessary). Individual data at the level of companies, municipalities broken down by waste types (6-digit codes) and by waste treatment operations (R, D codes) are available in the waste statistics database.

Exception is the waste category W081 "Discarded vehicles" - sources of data for this category are not above mentioned surveys but they come from the sources of Automotive Industry Association of the Slovak Republic.

Table GENER is compiled as follows:

- **rows:** individual data at the level of 6-digit waste codes are allocated into EWC-Stat categories by applying the Table of equivalence included in Annex III of Regulation No. 849/2010 on waste statistics
- **columns:** data are allocated into NACE categories on the basis of main economic activity of companies; the company identification number is used for assignment of main economic activity (5-digit NACE code) from the SO SR Register of Organisations
- in column EP_HH are reported data on the whole municipal waste (household waste + commercial waste) since the share of household waste within municipal waste is not possible to determine
- the value for discarded vehicles was not possible to break down by NACE categories/HH because only total value is available in the used data source, the value for discarded vehicles is therefore reported in the category NACE G-U_X_G4677 in which is the highest generation of this type of waste among the NACE categories

Table TREATM is compiled as follows:

- **rows:** individual data at the level of 6-digit waste codes are allocated into EWC-Stat categories by applying the Table of equivalence included in Annex III of Regulation No. 849/2010 on waste statistics
- **columns:** individual data at the level of R, D codes are allocated into waste treatment categories by applying the List of Recovery and Disposal Operations included in Section 8 of the Regulation No. 849/2010 on waste statistics
- in the dataset are strictly included waste treatment codes that are listed in the List of Recovery and Disposal Operations, other waste treatment codes that occurs in our waste statistics (D8, D9, D13, D14, D15, R12, R13, DO - Delivering to households for final treatment, Z - Waste temporary storage in place of origin) are not included

Note: Specific national waste code 200308 "Small scale construction and demolition waste" is excluded from datasets.

3.6. Adjustment

Not applicable

4. Quality management[Top](#)**4.1. Quality assurance**

The key documents regarding quality management at national level are the following:

- [Quality Policy of the Statistical Office of the Slovak Republic](#)
- [Quality Declaration of the Statistical Office of the Slovak Republic](#)
- [Quality Objectives of the Statistical Office of the Slovak Republic](#)
- Quality manual (available only in Slovak)

4.2. Quality management - assessment

Final data on waste statistics for reference year 2016 for the Slovak Republic are in general of good quality with sufficient accuracy and completeness. The datasets submitted to Eurostat were compiled in compliance with the Waste statistics Regulation. The national waste statistics (definitions, concepts, classifications) is harmonised with the EU waste statistics.

Information on data sources, collection, validation and compilation of data are available in item 3 of the QR. Data accuracy and reliability are described in more detail in item 6 of the QR.

5. Relevance[Top](#)**5.1. Relevance - User Needs**

Key users of waste statistics are:

- at international level - Eurostat, OECD, EEA
- at national level - Ministry of Environment of the SR and its organizations (Slovak Environmental Agency, Slovak Environmental Inspection etc.)

So far, we have managed to meet needs and requirements of the key users of our waste statistics.

5.2. Relevance - User Satisfaction

Not monitored

5.3. Completeness

The submitted datasets are in full compliance with requirements under the Waste statistics Regulation.

- Dataset GENER is complete. Data for all EWC-Stat categories (separately for HAZ, NHAZ) and economic activities (NACE) + HH are reported. Only data for waste category W081 "Discarded vehicles" are not available broken down by NACE.
- Dataset TREATM is complete. Data for all EWC-Stat categories (separately for HAZ, NHAZ) and waste treatment categories are reported.
- Datasets REGIO1, REGIO2 are complete. Data for all waste treatment facilities and NUTS 2 regions are reported.

5.3.1. Data completeness - rate

Not measured

6. Accuracy and reliability[Top](#)**6.1. Accuracy - overall**

In general, the accuracy of submitted data on waste is sufficient. Data were checked and validated before their submission to the Eurostat. The data validation process is described in detail in item 3.4.

6.2. Sampling error

Not applicable

6.2.1. Sampling error - indicators

Not applicable

6.3. Non-sampling error

Non-sampling errors are described in detail in items 6.3.1 - 6.3.5.
6.3.1. Coverage error
No divergence between reporting units and the target population. <ul style="list-style-type: none"> • Reporting units for the statistics survey on municipal waste are all municipalities in te SR. • Reporting units in data collection on industrial waste are all companies that produce over 50 kg of HAZ waste or over 1 ton of NON-HAZ waste per year (according the Act on Waste they are obliged provide reports on waste).
6.3.1.1. Over-coverage - rate
Not measured
6.3.1.2. Common units - proportion
All data on municipal waste are from one data source - statistical survey on municipal waste. All data on industrial waste are from one data source - reports on waste submitted by companies.
6.3.2. Measurement error
Data are provided by reporting units in tonnes. Error may occur when reporting unit reports data in incorrect unit of measure for example in kilograms. Possible errors are identified within data checking process and corrected. Waste treatment facilities report capacity data either in tonnes or in litres. Data which are reported in litres are afterwards converted into tonnes.
6.3.3. Non response error
The response rate in statistical survey on municipal waste and also in data collection on industrial waste is very high, since the obligation of reporting units to provide data is regulated by national legislation: <ul style="list-style-type: none"> • the obligation of municipalities to submit completed statistical form on municipal waste is regulated by the Act No. 540/2001 on State Statistics • the obligation of companies to submit reports on waste is regulated by Act on Waste All municipalities provided data on municipal waste for year 2016 to the Statistical Office of the SR. About 11,5 thousands waste producers (companies) submitted reports on waste for year 2016 to the respective District Environmental Office.
6.3.3.1. Unit non-response - rate
Not measured
6.3.3.2. Item non-response - rate
Not measured
6.3.4. Processing error
Estimates/modeling of data are not necessary since the data collection for industrial waste covers all significant waste producers (companies) and statistical survey on municipal waste is an exhaustive survey. No significant errors occurred in process of collection, processing and editing data on waste for reference year 2016.
6.3.4.1. Imputation - rate
Not applicable
6.3.5. Model assumption error
Not applicable
6.4. Seasonal adjustment
Not applicable
6.5. Data revision - policy
Final/definitive, validated data on waste for year 2016 were submitted to Eurostat. Preliminary data are not provided.
6.6. Data revision - practice
Possible errors identified in data sets within validation process are verified. If they are confirmed, then we perform revisions on concerned data.
6.6.1. Data revision - average size
Not applicable

7. Timeliness and punctuality Top
7.1. Timeliness
Time lag between the end of reference period and the availability of the final results is circa 11 months.
7.1.1. Time lag - first result
Preliminary results/outputs are not available.
7.1.2. Time lag - final result
Final data are available circa 11 months after the end of the reference year.
7.2. Punctuality
The deadline for data transmission that is specified in the Waste statistics Regulation was met.
7.2.1. Punctuality - delivery and publication
Data on waste statistics for the Slovak Republic for reference year 2016 were delivered to Eurostat on <u>27/06/2018</u> .

8. Coherence and comparability Top
8.1. Comparability - geographical
Data submitted to Eurostat were compiled in compliance with the Waste statistics Regulation, thus comparability with other countries should be ensured. The Slovak Catalogue of Waste is harmonized with European List of Waste and national classification of waste treatment operations is harmonized with R and D codes (since 2001). Exception are data in table GENER in column EP_HH (waste generated by households) - data on whole municipal waste are reported in this column (household waste + commercial waste) because it is not possible to determine the share of household waste within municipal waste. Therefore these data are not comparable with countries that report required household waste.
8.1.1. Asymmetry for mirror flow statistics - coefficient
Not applicable
8.2. Comparability - over time
Data for period 2004 - 2016 are comparable since there were none significant changes in methodology of collection and processing waste data during this period. There is no discontinuity in the time series.
8.2.1. Length of comparable time series
2004 - 2016 (data available for every second year in the time series)
8.3. Coherence - cross domain
Not applicable
8.4. Coherence - sub annual and annual statistics
Not applicable
8.5. Coherence - National Accounts
Not applicable
8.6. Coherence - internal
Waste data published at the national level are coherent with data reported under Waste statistics Regulation except for total amount of municipal waste - figure published at the national level is higher than figure reported to Eurostat because "Small scale construction and demolition waste " (code 200308) is excluded from reporting to Eurostat.

9. Accessibility and clarity Top
9.1. Dissemination format - News release
Not available

9.2. Dissemination format - Publications

Detail data on waste are published in publication "Waste in the Slovak Republic" - [link](#)

Waste statistics is also published as a part of comprehensive publications - "Environment in the SR", "Statistical Yearbook of the SR" and also "Report on State of the Environment of the SR" (published by Ministry of Environment of the SR).

9.3. Dissemination format - online database

Data on municipal waste are available in DATAcube. database on the SOSR website - [link](#) (in folder 5. Environment)

9.3.1. Data tables - consultations

-

9.4. Dissemination format - microdata access

Microdata are not available for public.

9.5. Dissemination format - other

Data on waste are also available for public on the informational environmental portal of the Ministry of Environment - [link](#) (folder Indicators).

9.6. Documentation on methodology

Definitions regarding waste statistics are included in the Glossary of terms which is available on SOSR website - [link](#).
Methodological notes are included in all publications and public databases.

9.7. Quality management - documentation

Not available

9.7.1. Metadata completeness - rate

Not available

9.7.2. Metadata - consultations

Not available

10. Cost and Burden
[Top](#)

Statistical survey on municipal waste is optimized, its costs and burden on respondents are reasonable, respondents/municipalities keep records from which they can fill in data into statistical forms rather easily. It is possible for reporting units to submit data via electronic data collection.

The obligation of companies to report waste data to the respective District Environmental Office on yearly basis is established by the Act on Waste and poses a relatively heavy burden for companies that have to fulfill also many other reporting obligations (air pollution, water consumption etc.)

Burden on respondents:

Survey /Source	Type and total number of respondents	Actual no. of respondents	Time required for response	Measures taken to minimise the burden
Statistical survey on municipal waste	all municipalities	all municipalities	not available	survey is optimized
Reports on waste	all waste producer that produce over 50 kg of haz. waste or over 1 ton of non-haz. waste per year	cca 11,5 thousands	not available	none

11. Confidentiality
[Top](#)
11.1. Confidentiality - policy

Dissemination of statistical information in the SR is defined in the Act No 540/2001 on state statistics (part five). Articles 29 and 30 of this Act specify the obligation to maintain confidentiality regarding confidential data. This obligation shall adhere all authorities or bodies executing state statistics in the SR.

11.2. Confidentiality - data treatment

Data on waste are submitted to Eurostat at aggregated level. Individual data considered as confidential are not provided. No data are labeled as confidential in submitted datasets.

12. Comment

[Top](#)

No comments

Related metadata

[Top](#)

Annexes

[Top](#)