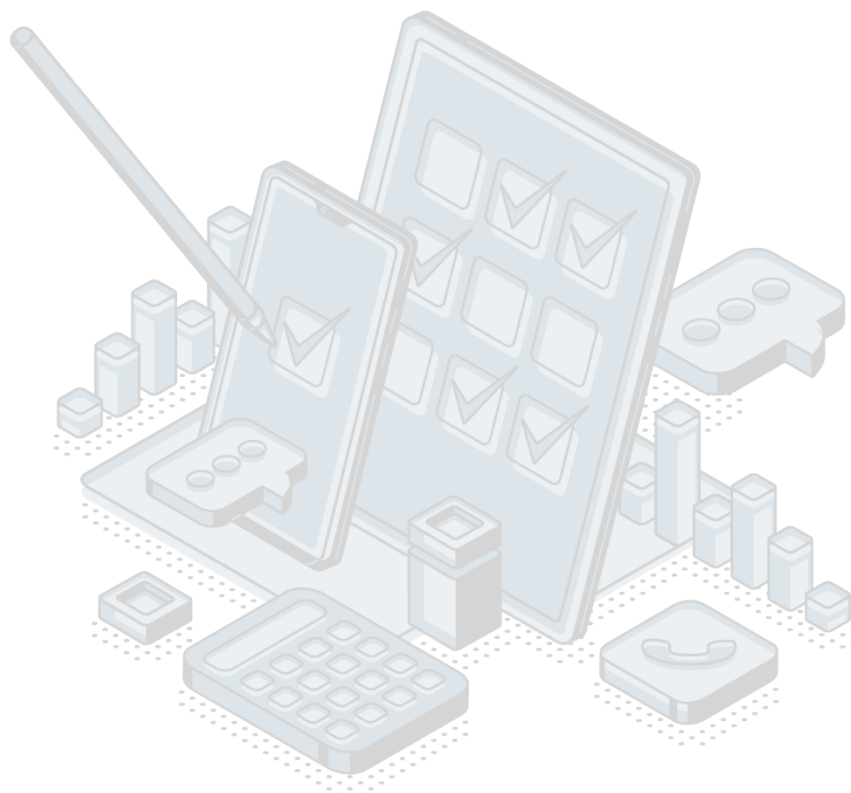


QUALITY REPORT

Generated and treated waste 2021



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1. Introduction – Basic information on survey

1.1 Purpose, goal, and subject of survey

The purpose of the Waste statistics surveys is collecting, processing, and disseminating data on types and quantities of waste that are generated by legal companies - enterprises in production and service activities and further treatment of waste, data on collected of municipal waste, source of collected municipal waste and treatment of municipal waste. Data are collected through following surveys: Survey on municipal waste, Survey on waste collection and processing and Survey on generated waste.

1.2 Legal basis

The Law on Official Statistics and Official Statistical System ("Official Gazette of Montenegro" No 18/12 and 47/19) defines provisions for collection, processing, and dissemination of data. The Law provides to the Statistical Office clear and wide legal powers to collect and access the data necessary for the implementation of Programme and Annual Plan. The Law gives a priority to the use of administrative data and right of access to individual data that are a result of survey of other official statistical producers. As an annex to legal provisions, Statistical Office has signed several memoranda on cooperation with administrative data providers.

During the developing of instruments for survey were used Regulation 2150/2002 of the European parliament and of the council of 25 November 2002 and Regulation 849/2010 amending Regulation (EC) No 2150/2002 of the European Parliament and of the Council on waste statistics of 27 September 2010.

1.3 Statistical units

The reporting units for the Survey on municipal waste are public utility enterprises, with the permit issued by Secretariat for Local Government for performing public service of municipal waste collection and transportation; for the Survey on waste collection and processing, reporting units are all enterprises that have permits for waste collection, treatment and export/import issued by Environmental Protection Agency, as well as enterprises that manage landfill sites. The reporting units for Survey on generated waste are business entities with 10 and more employees whose main activity is defined in sectors: A – Agriculture, forestry and fishing, B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, F – Construction, G - Wholesale and retail trade; repair of motor vehicles and motorcycles - group 45.2 Maintenance and repair of motor vehicles, M - Professional, scientific and technical activities - division 75 Veterinary activities, Q - Human health and social work activities - classes: 86.10 Hospital activities, 86.21 General medical practice activities, 86.23 Dental practice activities and 86. 90 Other human health activities according to Classification of activities 2010.

1.4 Coverage and scope of survey

1.4.1 Sectors

A - Agriculture, forestry and fishery, B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, G - Wholesale and retail trade; repair of motor vehicles and motorcycles - group 45.2 Maintenance and repair of motor vehicles, M - Professional, scientific and technical activities - division 75 Veterinary activities, Q - Human health and social work activities - classes: 86.10 Hospital activities, 86.21 General medical practice activities, 86.23 Dental practice activities and 86. 90 Other human health activities.

1.4.2 Statistical population

Legal companies (enterprises) with 10 or more employees, whose basic activity is defined in sectors A - Agriculture, forestry and fishery, B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, G - Wholesale and retail trade; repair of motor vehicles and motorcycles - group 45.2 Maintenance and repair of motor vehicles, M - Professional, scientific and technical activities - division 75 Veterinary activities, Q - Human health and social work activities - classes: 86.10 Hospital activities, 86.21 General medical practice activities, 86.23 Dental practice activities and 86.90 Other human health activities of Classification of Activities 2010, all public utility enterprises, enterprises that manage landfill sites, enterprises that have permits for waste collection, treatment and export/import issued by Environmental Protection Agency.

1.5 Reference geographical area

Montenegro

1.6 Concepts and definitions

Marriage is a living community between woman and man, and regulated by law.

Marital status - for classifying by this characteristic only legal marital status is considered. It means that only persons married in accordance with the legal provisions during the observed phenomena are considered to be married persons.

Waste is any substance or object which the holder has discarded or intends to discard or is obliged to discard in accordance with the law.

Non-hazardous waste is waste whose composition and properties do not have any of the characteristics of hazardous waste.

Hazardous waste is waste containing elements or compounds having one or more of the following hazardous properties: explosiveness, reactivity, flammability, irritability, harmful, toxic, infectious, carcinogenic, corrosiveness, mutagenicity, teratogenicity, eco-toxicity, the property of abrasion and the property of release of toxic gases by chemical or biological reaction and sensitivity / irritability, as well as waste from which, after a delay, other matter may arise that has any of the hazardous properties.

Municipal waste is waste from households or when performing activities whose properties are similar to waste from households.

Mixed municipal waste is the waste from the household left after separation of some municipal waste fractions for which the possibility of selective collection is envisaged including communal waste packaging.

The original waste producer is any person whose activities produce waste.

Waste treatment is the procedure for removal of and/or disposal of waste, including preparation prior to removal and/or disposal.

1.7 Classifications

- ✚ NACE Rev 2.
- ✚ Rulebook on waste classification and waste catalogue ("Official Gazette of Montenegro" No 59/13 from 26.12.2013)
- ✚ European List of Waste – LoW

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:253:0002:0041:EN:PD>

✚ Statistical classification of waste: <http://www.monstat.org/eng/page.php?id=473&pageid=104>

1.8 Frequency of data collection

Data are collected annually.

1.9 Frequency of data dissemination

Data are published annually, in October of the current year for the previous year. Data are submitted to Eurostat every second year. Deadline for submission of data to Eurostat is 30 June of the current year.

1.10 Methodology

Not available.

1.11 Base period

Not relevant.

1.12 Unit of measure

kg, t

1.13 Data source

Data source are: public utility enterprises with the permit issued by Secretariat for Local Government for performing public service of municipal waste collection and transportation; enterprises that have permits for waste collection, treatment and export/import issued by Environmental Protection Agency; enterprises that manage landfill sites; enterprises with 10 or more employees, whose basic activity is defined in sectors A - Agriculture, forestry and fishery, B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, G - Wholesale and retail trade; repair of motor vehicles and motorcycles - group 45.2 Maintenance and repair of motor vehicles, M - Professional, scientific and technical activities - division 75 Veterinary activities, Q - Human health and social work activities - classes: 86.10 Hospital activities, 86.21 General medical practice activities, 86.23 Dental practice activities and 86.90 Other human health activities of Classification of Activities 2010. Data on generated amounts of waste in Service activities are obtained by compiling data from different surveys: data on waste generated from Survey on generated waste, data on amounts of waste collected by original waste producers from Survey on waste collection and processing and data on collected waste in production and service activities from Survey on municipal waste.

1.14 Method of data collection

Reporting method is used for data collection for the Survey on municipal waste and Survey on waste collection and processing, while the data on generated waste are collected through interview method.

2. Relevance – data users

2.1 User needs

International users:

- ✚ Eurostat;
- ✚ World Bank;
- ✚ UN organizations;
- ✚ International Monetary Fund.

National users:

- ✚ Ministries and other public administration bodies;
- ✚ Local government and other local government bodies;
- ✚ Central bank;
- ✚ non-governmental organizations;
- ✚ students;
- ✚ researchers;
- ✚ media.

2.2 User satisfaction

The Statistical Office has adopted the Quality Management Strategy, the Guidebook to the Implementation of the Quality Management Strategy, as well as the Plan for the Implementation of the Quality Policy. In order to measure the degree to which fulfills obligations towards users and within the new quality policy, the Statistical Office conducted User satisfaction survey. The results of the survey are available on the Statistical <https://www.monstat.org/eng/page.php?id=1502&pageid=1> .

3. Accuracy and reliability

3.1 Accuracy – overall

Data are obtained by reporting and interview method, so they are subject to the usual types of errors - mistakes in processing and non-response. In order to prevent the occurrence of errors, appropriate actions are taken to identify and eliminate potential sources of error.

3.2 Sampling error

Sampling error cannot be calculated because the surveys were not conducted on the basis of a random sample.

Sampling error indicators

Not relevant.

3.3 Non-sampling error

Non-sampling errors include: coverage error, error of measurement, response error and processing error.

3.3.1 Coverage error

Not available

Indicators of coverage error

Not available

3.3.2 Measurement error

Measurement errors are corrected based on logic-numeric controls, comparison of data with previous years, other survey and contacting of reporting units in order to check the data.

3.3.3 Non-response error

Not available

Unit nonresponse rate

Not available

Item nonresponse rate

Not available

3.3.4 Data processing error

Not available

Imputation rate

Not available

3.4 Seasonal adjustment

Not relevant.

3.5 Data revision

3.5.1 Data revision policy

Statistical Office has adopted the revision policy and it is available on the website:
<http://www.monstat.org/eng/page.php?id=1411&pageid=3>

3.5.2 Data revision practice

Not available.

3.5.3 Data revision - average size

Not available.

4. Timeliness and punctuality

4.1 Timeliness

According to the Annual Plan of Official Statistics and Statistical Release Calendar, the deadline for the publication of the Release is October 27 of the current year. Data relate to the previous year.

Time lag of preliminary results

Not relevant

Time lag of final data

Time lag of the final results is the number of months from the last day of the reference period to the day of publication of complete and final results. It is expressed as number of months since the last date of the reference period until the date of dissemination of final results (in the form $T + n$, where n is a number of days or months). $T1 = d_{finl} - d_{refp} = 10$ ($T+10$). The final data are published 10 months after completed reference period.

4.2 Punctuality

Data were published in accordance with the Annual Plan of Official Statistics and Statistical Release Calendar of Statistical Office for 2022.

5. Availability and clarity

5.1 Statistical Release Calendar

The Law on Official Statistics and Official Statistical System ("Official Gazette of Montenegro" No 18/12 and 47/19) stipulates that official statistical producers prepare, update, and publish Statistical Release Calendar. It is published on the website of Statistical Office not later than 20 December for the next year, for all official statistical producers that includes date of releasing statistical data. Any change in date of releasing in the Calendar is published in advance in accordance with the Procedure on Unplanned Revisions.

5.2 Access to Statistical Release Calendar

<http://www.monstat.org/eng/page.php?id=1179&pageid=12>.

5.3 Releases

The release on generated and treated waste is available on the website:

<https://www.monstat.org/eng/page.php?id=1011&pageid=64>

5.4 Publications

Not available.

5.5 Online database

Not available.

5.6 Access to microdata

The Law on Official Statistics and Official Statistical System ("Official Gazette of Montenegro" No 18/12 and 47/19) regulates rules under which external users can obtain an access to individual data for needs of research. Article 58 defines types of scientific and research organizations that can obtain such data. Providing individual data without identifier is possible only upon a written request of scientific and research institutions, with purpose of performing scientific and research activities as well as international statistical organizations and statistical producers from other countries. Research entity signs the agreement with Statistical Office, and it signs the statement on respecting the confidentiality principle. Official statistical producers keeps a separate records on users and purpose of using the statistical data given to these users.

5.7 Metadata occupancy

Not available.

6. Comparability

6.1 Spatial comparability

The methodologies of surveys are harmonized with EU Regulations, which enables comparability between countries.

6.2 Time comparability

The data are fully comparable. In order to obtain quality and comparable data in accordance with international standards, ie. Regulations on Waste Statistics 2150/2002, for the period from 2011 to 2019 the data were recalculated through project National IPA 2017.

Data were published on 29 December 2020 and are available on website of MONSTAT in section data, link: <https://www.monstat.org/eng/page.php?id=1009&pageid=64>

Time comparability indicator

The length of comparable time series is calculated by the following formula: $CC1 = J_{last} - J_{first} + 1$ (J_{last} - number of the last reference period with disseminated statistics; J_{first} - number of the first reference period with comparable statistics). According to the above formula, the length of the comparable time series for this survey is 11 years.