RELEASE *139/2024*

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# Generated and treated waste

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## *2023*

During 2023, generated waste in Montenegro was 1 314 292.4 t, out of which 722 966.8 t (55.0%) was in sectors of manufacturing, mining and quarrying, and other industries. Out of the total waste generated during 2023, there are 312 036.0 t of hazardous waste (23.7%).

Compared to 2022, there was a decrease of 6.9% in the total waste generated. Agriculture, forestry, and fishery sector indicates a decrease of 11.7%; manufacturing, mining and quarrying, and other industries show an increase of 13.2%; while the construction sector records a decrease of 43.3%; service activities sector – a decrease of 26.8%; and households an increase of 6.6%.

Municipal waste generated in 2023 was 360 136.8 t or 7.2% more when compared to 2022. Public utility enterprises collected 330 844,2 t of waste, which makes 96.7% of total collected quantities. Generated municipal waste per capita amounted 577.5kg, which is for 6.1% more than in 2022.

Total treated waste including export in 2023 was 1 293 286.9 t, which is 10.1% more than in 2022. Out of total treated waste, there are 699 872.1 t landfilled/disposed waste (54.1%). Recycled waste quantity records an increase of 22.1%, compared to 2022.

Total treated municipal waste including export was 350 094.9 t in 2023, which is 11.8% more than in 2022. Out of total treated waste, there are 318 772.6 t of landfilled/disposed waste (91.1%).

**Table 1.** Generated and treated waste, in tonnes

| | 2022 | 2023 |
|---|---|---|
| Agriculture, forestry and fishery (A) | 13 008.7 | 11 483.0 |
| Manufacturing, mining and quarrying and other industries (B, C, D and E) | 638 630.3 | 722 966.8 |
| Construction (F) | 375 029.9 | 212 719.5 |
| Service activities (G - U) | 129 126.1 | 94 464.6 |
| Households | 255 878.7 | 272 658.5 |
| **Generated - total** | **1 411 673.7** | **1 314 292.4** |
| of which municipal waste | 335 797.6 | 360 136.8 |
| **Waste treatment including export - total** | **1 174 745.7** | **1 293 286.9** |
| of which treatment of municipal waste including export, total | 313 155.2 | 350 094.9 |
| **Index treatment/generated waste** | **83.2** | **98.4** |

**Table 2.** Hazardous and non-hazardous waste generated, in tonnes

|  | 2022 | | 2023 | |
|---|---|---|---|---|
|  | hazardous | non hazardous | hazardous | non hazardous |
| Agriculture, forestry and fishery (A) | 4.9 | 13 003.8 | 6.5 | 11 476.5 |
| Manufacturing, mining and quarrying and other industries (B, C, D and E) | 266 643.1 | 371 987.2 | 309 011.6 | 413 955.2 |
| Construction (F) | 44.4 | 374 985.5 | 145.0 | 212 574.5 |
| Service activities (G - U) | 27 772.8 | 101 353.2 | 2 872.1 | 91 592.5 |
| Households | 0.8 | 255 878.0 | 0.8 | 272 657.7 |
| **Generated - total** | **294 466.0** | **1 117 207.7** | **312 036.0** | **1 002 256.4** |

**Table 3.** Municipal waste collection and generation, in tonnes

|  | 2022 | 2023 |
|---|---|---|
| Municipal waste collected by Public utility enterprises | 314 612.4 | 330 844.2 |
| Municipal waste collected by waste collectors, waste brought to landfill sites by natural persons and directly exported from original producers | 6 527.1 | 11 386.7 |
| **Total amounts of collected municipal waste** | **321 139.5** | **342 230.9** |
| Amounts of waste from citizens that are not included in the system of public collection of municipal waste | 14 658.1 | 17 905.9 |
| **Total** | **335 797.6** | **360 136.8** |

**Table 4.** Municipal waste per capita

|  | 2022 | 2023 |
|---|---|---|
| Estimated number of population by middle of year | 617 213 | 623 633[1] |
| Number of days during the year | 365 | 365 |
| Total amounts of collected municipal waste, t | 321 139.5 | 342 230.9 |
| Total collected municipal waste per capita per year, kg | 520.3 | 548.8 |
| **Total collected municipal waste per capita per day, kg** | **1.4** | **1.5** |
| Total generated amounts of municipal waste, t | 335 797.6 | 360 136.8 |
| Total generated municipal waste per capita per year, kg | 544.1 | 577.5 |
| **Total generated municipal waste per capita per day, kg** | **1.5** | **1.6** |
| **Percentage of population coverage by municipal waste collection services** | **87.7** | **88.1** |

**Table 5.** Treated amounts of waste by treatment procedures, in tonnes

|  | 2022 | 2023 |
|---|---|---|
| **Waste recovery (R1-R11)** | **152 889.9** | **186 396.9** |
| of which waste recycling (R2-R11) | 152 094.6 | 185 719.8 |
| **Waste disposal (D1-D7, D10-D12)** | **935 540.5** | **1 028 506.1** |
| of which incineration (D10) | - | 0.4 |
| of which landfilling (D1) | 645 715.3 | 699 872.1 |
| **Waste export** | **86 315.3** | **78 383.9** |
| (R) + (D), total | 1 088 430.4 | 1 214 903.1 |
| **(R) + (D) + export, total** | **1 174 745.7** | **1 293 286.9** |

**Table 6.** Treatment of municipal waste, in tonnes

|  | 2022 | 2023 |
|---|---|---|
| **Municipal waste recovery (R1-R11)** | **1 028.3** | **1 097.4** |
| of which waste recycling (R2-R11) | 1 021.6 | 1 088.9 |
| **Municipal waste disposal (D1-D7, D10-D12)** | **299 021.5** | **337 246.0** |
| of which landfilling (D1) | 299 021.5 | 318 772.6 |
| **Municipal waste export** | **13 105.4** | **11 751.5** |
| (R) + (D) - total | 300 049.8 | 338 343.4 |
| **(R) + (D) + export - total** | **313 155.2** | **350 094.9** |

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[1] Data from the 2023 Census of Population, Households and Dwellings

## METHODOLOGICAL NOTES

Data on waste are collected through these surveys: Municipal Waste; Waste Collection and Processing; and Generated Waste. Reporting method is used for data collection in Survey on Municipal Waste and Survey on Waste Collection and Processing, while the data on generated waste are collected by interview method.

The reporting units for Survey on Municipal Waste are public utility enterprises, with the permit issued by the Local Government Secretariat for performing public service of municipal waste collection and transport. Reporting units in the Survey on Waste Collection and Processing are all enterprises with the permit for waste collection, treatment, and export/import issued by Nature and Environmental Protection Agency, as well as enterprises that manage landfill sites.

The Survey on Generated Waste covers all business entities with 10 and more employees with the main activity defined in sectors: B - Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air conditioning supply, E - Water supply; sewerage, waste management and remediation activities, A – Agriculture, forestry and fishing, 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, in line with the Activity Classification 2010.

Data on waste generation were processed using statistical methods in order to obtain greater coverage and international data comparability. Data on generated amounts of waste in Service activities are obtained by compiling data from different surveys: data on waste generated in service 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), data on amounts of waste collected by

original waste producers from Survey on waste collection and processing and data on collected waste in manufacturing and service activities from Survey on Municipal Waste.

**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 household waste.

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

**Original waste producer** is any person whose activities produce waste.

When using the data, state:
"Data source: Statistical Office - MONSTAT"

*More data, as well as detailed methodological notes can be found under section: **Waste statistics***