

RELEASE 134/2023

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Generated and treated waste

2022

During 2022, generated waste in Montenegro was 1 411 673.7 t, out of which 638 630.3 t (45.2%) was in sectors of manufacturing, mining and quarrying, and other industries. Out of the total waste generated during 2022, there are 294 466.0 t of hazardous waste (20.9%).

Compared to 2021, there was a decrease of 4.5% in the total waste generated. Agriculture, forestry, and fishery sector indicates an increase of 9.1%; manufacturing, mining and quarrying, and other industries show a decrease of 6.5%; while the construction sector records a decrease of 12.2%; service activities sector – a decrease of 14.8%; and households an increase of 5.1%.

Municipal waste generated in 2022 was 335 797.6 t or 3.1% more when compared to 2021. Public utility enterprises collected 314 612.4 t of waste, which makes 93.7% of total collected quantities. Generated municipal waste per capita amounted 544.1 kg, which is for 3.4% more than in 2021.

Total treated waste including export in 2022 was 1 174 745.7 t, which is 7.1% less than in 2021. Out of total treated waste, there are 645 715.3 t landfilled/disposed waste (55.0%). Recycled waste quantity records an increase of 35.2%, compared to 2021.

Total treated municipal waste including export was 313 155.2 t in 2022, which is 1.9% less than in 2021. Out of total treated waste, there are 300 049.8 t of landfilled/disposed waste (95.5%). The amount of recovered municipal waste in 2022 was 1 028.3 t, which is 81.9% less than the previous year, because in accordance with the Manual for the Implementation of Regulation No 2150/2002 on Waste Statistics, landfill cover is no longer included in waste recovery, but in disposal operations, i.e. landfill.

Table 1. Generated and treated waste, in tonnes

	2021	2022
Agriculture, forestry and fishery (A)	11 921.1	13 008.7
Manufacturing, mining and quarrying and other industries (B, C, D and E)	682 773.0	638 630.3
Construction (F)	427 147.6	375 029.9
Service activities (G - U)	112 468.0	129 126.1
Households	243 556.1	255 878.7
Generated - total	1 477 865.8	1 411 673.7
of which municipal waste	325 707.5	335 797.6
Waste treatment including export - total	1 265 155.6	1 174 745.7
of which treatment of municipal waste including export, total	319 371.6	313 155.2
Index treatment/generated waste	85.6	83.2

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

	2021		2022	
	Hazardous	Non-hazardous	Hazardous	Non-hazardous
Agriculture, forestry and fishery (A)	8.1	11 913.0	4.9	13 003.8
Manufacturing, mining and quarrying and other industries (B, C, D and E)	292 496.3	390 276.7	266 643.1	371 987.2
Construction (F)	123.0	427 024.6	44.4	374 985.5
Service activities (G - U)	11 860.2	100 607.8	27 772.8	101 353.2
Households	0.8	243 555.3	0.8	255 878.0
Generation - total	304 488.4	1 173 377.4	294 466.0	1 117 207.7

Table 3. Municipal waste collection and generation, in tonnes

	2021	2022
Municipal waste collected by Public utility enterprises	293 294.3	314 612.4
Municipal waste collected by waste collectors, waste brought to landfill sites by natural persons and directly exported from original producers	15 609.9	6 527.1
Total amounts of collected municipal waste	308 904.2	321 139.5
Amounts of waste from citizens that are not included in the system of public collection of municipal waste	16 803.3	14 658.1
Total	325 707.5	335 797.6

Table 4. Municipal waste per capita

	2021	2022
Estimated number of population by middle of year	619 211	617 213
Number of days during the year	365	365
Total amounts of collected municipal waste, t	308 904.2	321 139.5
Total collected municipal waste per capita per year, kg	498.9	520.3
Total collected municipal waste per capita per day, kg	1.4	1.4
Total generated amounts of municipal waste, t	325 707.5	335 797.6
Total generated municipal waste per capita per year, kg	526	544.1
Total generated municipal waste per capita per day, kg	1.4	1.5
Percentage of population coverage by municipal waste collection services	87.6	87.7

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

	2021	2022
Waste recovery (R1-R11)	114 141.9	152 889.9
of which waste recycling (R2-R11)	112 537.0	152 094.6
Waste disposal (D1-D7, D10-D12)	1 049 277.4	935 540.5
of which incineration (D10)	0.4	-
of which landfilling (D1)	733 132.4	645 715.3
Waste export	101 736.3	86 315.3
(R) + (D), total	1 163 419.3	1 088 430.4
(R) + (D) + export, total	1 265 155.6	1 174 745.7

Table 6. Treatment of municipal waste, in tonnes

	2021	2022
Municipal waste recovery (R1-R11)	5 676.0	1 028.3
of which waste recycling (R2-R11)	5 667.2	1 021.6
Municipal waste disposal (D1-D7, D10-D12)	297 365.5	299 021.5
of which landfilling (D1)	279 970.0	299 021.5
Municipal waste export	16 330.1	13 105.4
(R) + (D) - total	303 041.5	300 049.8
(R) + (D) + export - total	319 371.6	313 155.2

METHODOLOGICAL NOTES

Data on waste are collected through these surveys: Survey on Municipal Waste; Survey on Waste Collection and Processing; and Survey on 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"