

RELEASE 140/2022

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Generated and treated waste

2021

During 2021, generated waste in Montenegro was 1 477 865.8 t, out of which 682 773.0 t (46.2%) was in sector of manufacturing, mining and quarrying, and other industries. Out of total waste generated during 2021, there are 304 488.4 t of hazardous waste (20.6%).

Compared to 2020, there was an increase of 12.4% in the total waste generated. Agriculture, forestry, and fishery sector indicates a decrease of 5.9%; manufacturing, mining and quarrying, and other industries show a decrease of 10.5%; while construction sector records an increase of 127.3%; service activities sector – a decrease of 6.2%; and households an increase of 5.6%.

Municipal waste generated in 2021 was 325 707.5 t or 7.1% more when compared to 2020. Public utility enterprises collected 293 294.3 t of waste, which makes 94.9% of total collected quantities. Generated municipal waste per capita amounted 526.0 kg, which is for 7.5% more than in 2020.

Total treated municipal waste including export in 2021 was 1 265 155.6 t, which is 11.9% more than in 2020. Out of total treated waste, there are 733 132.4 t landfilled/disposed waste (57.9%). Recycled waste quantity records an increase of 42.2%, compared to 2020.

Total treated municipal waste including export was 319 371.6 t in 2021, which is 11.4% more than in 2020. Out of total treated waste, there are 303 041.5 t of landfilled/disposed waste (87.7%).

Table 1. Generated and treated waste, in tonnes

	2020	2021
Agriculture, forestry and fishery (A)	12 664.3	11 921.1
Manufacturing, mining and quarrying and other industries (B, C, D i E)	763 270.9	682 773.0
Construction (F)	187 893.2	427 147.6
Service activities (G - U)	119 881.3	112 468.0
Households	230 683.9	243 556.1
Generated - total	1 314 393.6	1 477 865.8
of which municipal waste	304 062.7	325 707.5
Waste treatment including export - total	1 131 102.6	1 265 155.6
of which treatment of municipal waste including export, total	286 705.2	319 371.6
Index treatment/generated waste	86.1	85.6

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

	2020		2021	
	Hazardous	Non-hazardous	Hazardous	Non-hazardous
Agriculture, forestry and fishery (A)	6.1	12 658.2	8.1	11 913.0
Manufacturing, mining and quarrying and other industries (B, C, D i E)	317 136.6	446 134.3	292 496.3	390 276.7
Construction (F)	37.5	187 855.7	123.0	427 024.6
Service activities (G -U)	26 713.3	93 168.0	11 860.2	100 607.8
Households	0	230 683.9	0.8	243 555.3
Generation - total	343 893.5	970 500.1	304 488.4	1 173 377.4

Table 3. Municipal waste collection and generation, in tonnes

	2020	2021
Municipal waste collected by public utility enterprises	273 742.5	293 294.3
Municipal waste collected by waste collectors; waste brought to landfill sites by natural persons, and directly exported from original producers	13 573.4	15 609.9
Total municipal waste collected	287 315.9	308 904.2
Amounts of waste from citizens that are not included in the system of public collection of municipal waste	16 746.8	16 803.3
Total	304 062.7	325 707.5

Table 4. Municipal waste per capita

	2020	2021
Estimated number of population by middle of year	621 306	619 211
Number of days during the year	366	365
Total amounts of collected municipal waste, t	287 315.9	308 904.2
Total collected municipal waste per capita per year, kg	462.4	498.9
Total collected municipal waste per capita per day, kg	1.3	1.4
Total municipal waste generated, t	304 062.7	325 707.5
Total generated municipal waste per capita per year, kg	489.4	526.0
Total generated municipal waste per capita per day, kg	1.3	1.4
Percentage of population coverage by municipal waste collection services	87.0	87.6

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

	2020	2021
Waste removal (R1-R11)	80 775.5	114 141.9
of which waste recycling (R2-R11)	79 166.3	112 537.0
Waste disposal (D1-D7, D10-D12)	994 628.5	1 049 277.4
of which incineration (D10)	0.8	0.4
of which landfill (D1)	654 886.5	733 132.4
Waste export	55 698.5	101 736.3
(R) + (D), total	1 075 404.0	1 163 419.3
(R) + (D) + export, total	1 131 102.5	1 265 155.6

Table 6. Treatment of municipal waste, in tonnes

	2020	2021
Municipal waste removal (R1-R11)	3 566.5	5 676.0
of which waste recycling (R2-R11)	3 557.4	5 667.2
Municipal waste disposal (D1-D7, D10-D12)	268 415.3	297 365.5
of which landfill (D1)	250 796.9	279 970.0
Municipal waste export	14 723.4	16 330.1
(R) + (D) - total	271 981.8	303 041.5
(R) + (D) + export - total	286 705.2	319 371.6

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"