

Municipal waste generated during 2021 decreased by 4.4 per cent over the previous year to a total of 316,603 tonnes.

Municipal Waste: 2021

Municipal waste generation

In 2021, the generation of municipal waste amounted to 316,603 tonnes, declining by 14,539 tonnes or 4.4 per cent over 2020. The main decreases in absolute terms were registered for bulky waste (11,539 tonnes), bio-waste from kitchens and canteens (3,303 tonnes), and mixed packaging (1,111 tonnes). These decreases were partly offset by increases in other waste categories, of which the main one was for mixed municipal waste amounting to 1,916 tonnes (Table 1).

Data on municipal waste generation by waste collection source shows that decreases were registered across all categories except for civic amenity sites and the black bag collection from other sources, where waste amounts went up by 272 tonnes and 10,656 tonnes, respectively. The largest decrease was in the category for other waste collection (10,943 tonnes), followed by the black bag collection from local councils (8,740 tonnes) and the organic waste collection (3,312 tonnes). Figures for the municipal waste generation in 2021 by both the national population and the net tourist equivalent population, reveal a decrease of 6.3 per cent to a level of 590 kilograms per capita (Table 2).

Municipal waste treatment

During 2021, the total amount of treated municipal waste increased by 14,712 tonnes or 4.7 per cent over that recorded in 2020, reaching 324,571 tonnes. The share that went to landfilling from the total treated municipal waste stood at 82.9 per cent, declining from 88.3 per cent registered in the previous year. In absolute terms, landfilled municipal waste decreased by 4,562 tonnes, with the main contributors to this decrease being mixed municipal waste (21,072 tonnes), bulky waste (10,194 tonnes) and wood waste (4,838 tonnes). In contrast, the landfilling of rejects that resulted from the mechanical treatment of waste increased by 33,716 tonnes (Table 3).

When compared to 2020, municipal waste that was recycled increased by 6,572 tonnes or 18.2 per cent reaching a total of 42,627 tonnes. Paper and cardboard was the most recycled material at 51.3 per cent of the total recycled waste. The most significant increases in recycling were achieved for metals (68.0 per cent), clothes/textiles (55.4 per cent) and plastic (52.5 per cent). On the other hand, the recycling of glass and bio-waste from kitchens and canteens decreased by 7.7 and 3.6 per cent respectively. In 2021, 12,742 tonnes of municipal waste underwent energy recovery treatment (Table 3) ■

Chart 1. Municipal waste generation per capita (including net tourist equivalent population)

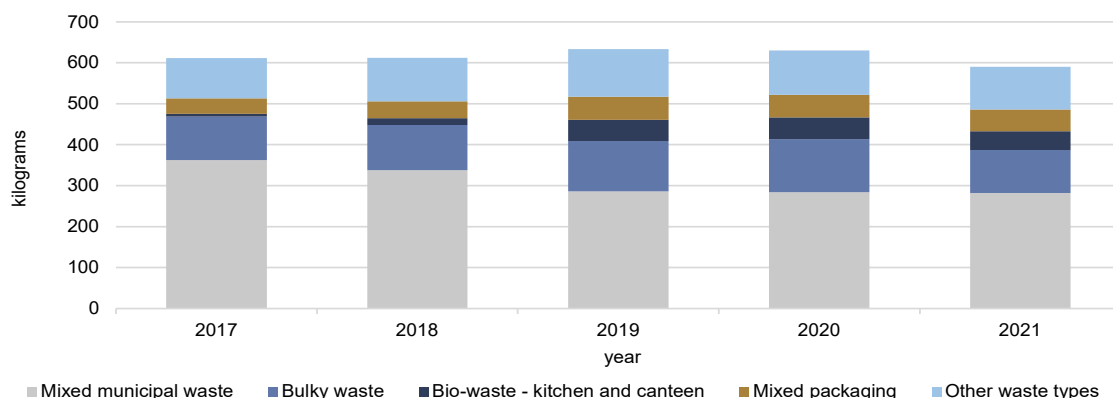


Table 1. Municipal waste generation by year and waste type

	tonnes				
Municipal waste type	2017	2018	2019	2020¹	2021
Paper and cardboard	17,699	20,273	20,920	19,536	19,629
Plastic	3,830	2,525	3,737	2,726	3,093
Metals	1,655	1,489	1,493	2,061	1,482
Glass	4,850	8,008	8,709	7,096	7,412
Wood	6,902	8,575	8,985	8,884	9,079
Waste electrical and electronic equipment ²	3,716	3,939	3,907	3,052	3,274
Mixed packaging	19,156	21,750	31,152	29,367	28,256
Mixed municipal waste	184,952	179,847	158,686	149,219	151,135
Bulky waste	53,962	58,909	68,084	68,067	56,528
Bio-waste - garden and park	5,002	4,228	5,562	4,737	4,175
Bio-waste - kitchen and canteen	3,625	8,664	28,892 ³	27,859	24,556
Clothes/textiles	977	1,194	1,813	1,475	1,835
Other ²	5,332	6,352	9,413	7,063	6,146
Total	311,659	325,751	351,353	331,142	316,603

¹ Revised (see methodological note 3).

² Includes hazardous waste.

³ First full calendar year during which nationwide organic waste collection took place.

Note: Totals may not add up due to rounding.

Table 2. Municipal waste generation by year and waste collection source

	tonnes				
Municipal waste collection source	2017	2018	2019	2020¹	2021
Bring-in sites	3,852	4,218	4,093	3,814	3,605
Civic amenity sites ²	16,559	19,415	23,283	22,574	22,846
Green/Grey bag collection	19,183	22,925	30,622	29,074	28,051
Glass collection	1,553	1,962	3,295	3,538	3,252
Black bag collection - local councils	139,246	140,740	115,274	118,329	109,589
Black bag collection - other	45,707	39,107	43,411	30,890	41,546
Street cleaning	5,302	6,247	9,265	6,904	5,951
Organic waste collection	3,054	7,381	27,356 ³	26,600	23,288
Other ²	77,205	83,756	94,752	89,419	78,476
Total	311,659	325,751	351,353	331,142	316,603
Municipal waste generation per capita - kilograms ⁴	655	660	683	642	608
Municipal waste generation per capita (including net tourist equivalent population) - kilograms ⁴	611	612	633	630	590

¹ Revised (see methodological note 3).

² Includes hazardous waste.

³ First full calendar year during which nationwide organic waste collection took place.

⁴ See methodological notes 4 and 5.

Note: Totals may not add up due to rounding.

Table 3. Municipal waste treatment by year, treatment category and waste type

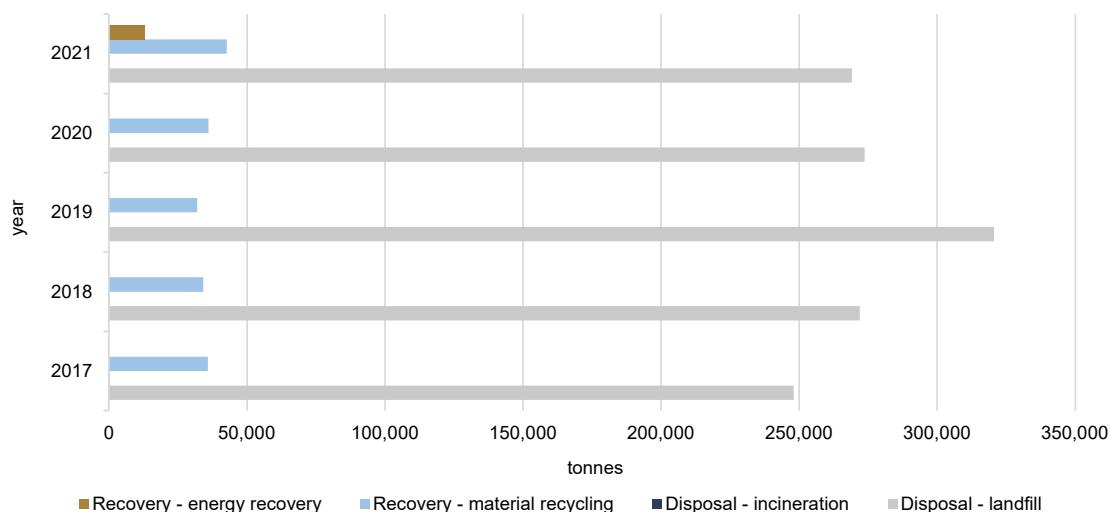
	tonnes				
Waste treatment by waste type	2017	2018	2019	2020 ¹	2021
Disposal - landfill	248,006	272,032	320,631	273,729	269,167
Wood	5,593	8,575	8,632	8,884	4,046
Mixed municipal waste	83,957	74,038	92,300	139,812	118,740
Bulky waste	53,727	58,732	68,084	68,060	57,866
Bio-waste - garden and park	3,584	4,178	5,007	4,582	4,173
Street cleaning residues	5,302	6,119	8,537	6,450	5,552
Digestate from anaerobic digestion	9,516	9,931	11,402	3,898	3,001
Rejects from mechanical treatment of waste ²	85,774	110,089	126,206	41,975	75,691
Other	554	369	463	68	97
Disposal - incineration	20	16	17	75	35
Solvents, paints, inks, adhesives and resins ²	17	16	13	9	16
Paper and cardboard	3	-	4	61	16
Other	1	-	-	5	4
Recovery - material recycling	35,826	34,099	31,997	36,055	42,627
Paper and cardboard	21,109	21,055	19,714	18,118	21,868
Plastic	2,994	2,125	3,069	2,576	3,929
Metals	5,076	2,825	2,000	2,401	4,033
Glass	3,878	5,231	3,452	9,254	8,542
Waste electrical and electronic equipment ²	1,413	1,443	2,170	1,570	1,644
Bio-waste - kitchen and canteen	505	1,236	1,554	1,200	1,157
Clothes/textiles	851	86	37	936	1,455
Other	-	98	-	-	-
Recovery - energy recovery	-	-	-	-	12,742
Rejects from mechanical treatment of waste	-	-	-	-	12,742
Municipal waste treatment - Total	283,852	306,147	352,645	309,859	324,571

¹ Revised (see methodological note 3).

² Includes hazardous waste.

Note: Totals may not add up due to rounding.

Chart 2. Municipal waste treatment by treatment category



Note: The bars for Disposal - incineration are not visible due to low amounts in comparison to other categories.

Methodological Notes

1. Data for this news release is sourced from WasteServ Malta Ltd. and the Environment and Resources Authority. Data for 2021 should be considered as provisional.
2. Data presented in this news release is based on the methodology that is applied for the municipal waste data reporting which the NSO submits annually to Eurostat. This methodology follows the provisions as laid down in the document 'Guidance for the compilation and reporting of data on municipal waste according to Commission Implementing Decisions 2019/1004/EC and 2019/1885/EC, and the Joint Questionnaire of Eurostat and OECD' version of 12/08/2021 that may be accessed at: <https://ec.europa.eu/eurostat/documents/342366/351811/Guidance+on+municipal+waste+data+collection/>
3. Revisions on 2020 data have been carried out following data updates in the National Waste Inventory that is sourced from the Environment and Resources Authority.
4. Eurostat data on municipal waste generation and treatment, which is expressed in kilograms per capita, is based on data regarding the total population as at 1 January. In this news release, the municipal waste generation per capita is calculated according to the total population as at 31 December.
5. Municipal waste generation per capita (including net tourist equivalent population) is a national indicator that has been included in this news release since all the waste that is generated by tourists forms part of municipal waste. It is calculated by the following formula:

$$\frac{\text{Municipal waste generation - kilograms}}{(\text{total population} + \text{inbound tourist equivalent population} - \text{outbound tourist equivalent population})}$$

The inbound tourist equivalent population is calculated by dividing the total nights spent in Malta by tourists by the number of nights in the year. The outbound tourist equivalent population is calculated by dividing the total nights spent by Maltese residents abroad by the number of nights in the year.

6. Table 3 presents data for the four final treatment categories under which municipal waste that was treated from 2017 to 2021 can be classified. Data is inclusive of waste exports to overseas final treatment facilities occurring due to the limited waste treatment capacity in Malta.
7. The difference between municipal waste generation and municipal waste treatment occurs mainly as a result of moisture gains and losses in organic waste, variations in stocks of waste that are held in storage prior to the final treatment operation and waste that is exported for pre-treatment operations (consequently the final treatment operation is not known).
8. Definitions:
 - **Municipal waste:** Waste that is generated from households as well as waste that is similar in nature and composition to household waste that is generated by businesses and institutions. This waste is collected by or on behalf of municipal authorities and disposed of through the waste management system.
 - **Bring-in sites:** Collection depots for clean source segregated recyclable materials. Four types of materials are collected: glass, metals, plastic and paper/cardboard.
 - **Civic amenity sites:** Collection depots for the separate disposal of household bulky waste and recyclables. Up to 2021 there were six sites operated by WasteServ Malta Ltd.
 - **Green/Grey bag collection:** Door-to-door collection of mixed paper, metals and plastics from households on pre-determined weekdays. This service commenced in 2011.
 - **Glass collection:** Door-to-door collection of glass from households on pre-determined weekdays, usually taking place once a month. This service commenced in 2014.
 - **Black bag collection:** Door-to-door collection of mixed waste primarily from households but also including waste from businesses and institutions on pre-determined weekdays. As from the 31 October 2018 households are expected to refrain from disposing of organic waste in this bag.
 - **Organic waste collection:** Door-to-door collection of organic waste from households on pre-determined weekdays. This collection started as a pilot project covering a limited number of localities in 2015 and was extended nationally from the 31 October 2018 onwards.
 - **Disposal - landfill:** Disposal of waste into or onto land, including specially engineered landfill, covered by Disposal codes D1, D5 and D12.
 - **Disposal - incineration:** Incineration without energy recovery refers to the thermal treatment of waste and is considered as a disposal operation classified under code D10.

- **Recovery - material recycling:** Any waste recovery operations by which disposed materials are reprocessed into products, materials or substances whether for the original or other purposes, except for use as fuel. These recovery operations are classified under codes R2 to R9 and R11.
- **Recovery - energy recovery:** Incineration with energy recovery is considered as a recovery operation whenever both the conditions and energy efficiency thresholds which are provided in the 'Guidelines on the energy efficiency formula for incineration facilities' related to the Waste Framework Directive are met. This treatment operation is classified under code R1.

9. More information relating to this news release may be accessed at:

Statistical concepts: <https://metadata.nso.gov.mt/concepts.aspx>

Metadata: <https://metadata.nso.gov.mt/reports.aspx?id=23>

Classification: [List of recovery and disposal operations](#) (Annex I and Annex II of Directive 2008/98/EC)

10. Statistics in this news release should be interpreted in the context of the COVID-19 situation.

11. References to this news release are to be cited appropriately.

12. A detailed news release calendar is available at:

https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx

European statistics comparable to data in this news release are available at:

[EUROSTAT Website/Homepage/Statistics Database](#)

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