

Waste management country profile

with a focus on municipal and packaging waste

Hungary

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Key messages

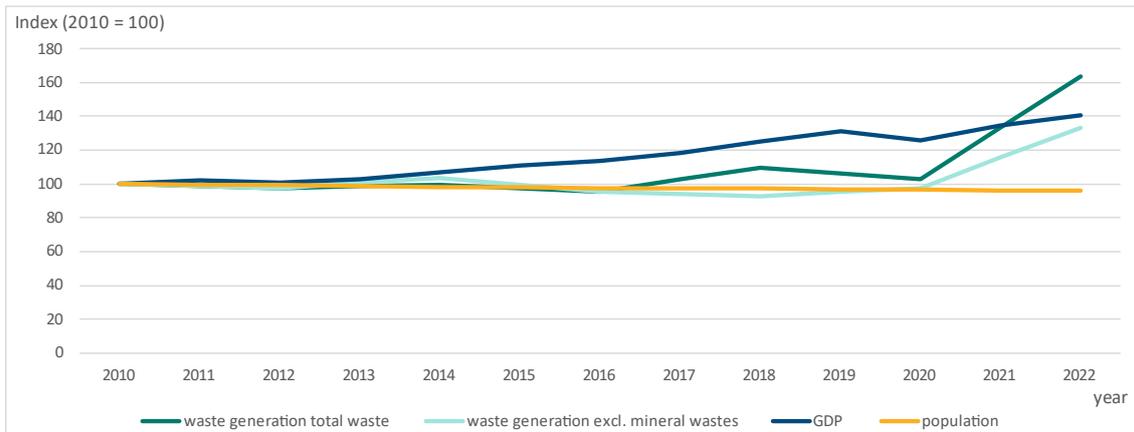
- The total amount of waste generated in Hungary significantly increased over the past 12 years. There appears to be no decoupling of waste generation from economic growth.
- Hungary was considered to be at risk of not meeting the 2025 targets for preparing for reuse and recycling of 55% or more of its municipal waste and for recycling of 65% or more of its total packaging waste. Hungary might also be at risk for not meeting the 2035 target to reduce the amount of municipal waste landfilled to 10% or less of the total amount of municipal waste generated.
- In the past 12 years, Hungary has made small progress in improving its recycling rates of municipal and packaging waste, and a moderate improvement in reducing the landfill rate. However, in the past 5 years, recycling and landfill rates have stagnated and more than half of the municipal waste is still landfilled.
- In order to improve the status of waste management in Hungary, a specific focus is needed on the improvement of the separate collection systems, increasing the public awareness of waste separation and implementing economic instruments to incentivise separate collection at source. Further development of waste treatment infrastructure is needed in response to increasing sorting at source.
- Several measures have been recently implemented and are planned to improve waste management, including improvements in separate collection, the introduction of Extended Producer Responsibility (EPR) fees, and the introduction of a deposit-refund scheme for beverage packaging. These can be expected to increase recycling and reduce landfilling.

Trends in waste generation and treatment

Total waste generation

The total amount of waste generated in Hungary increased significantly in the period 2010-2022 (Figure 1). Total waste generation is mainly driven by the largest waste categories, namely mineral and solidified waste, mixed wastes, and recyclable wastes. A similar trend can be seen when excluding major mineral wastes. Mixed waste generation significantly increased while recyclable waste increased to a lesser extent. Hungary's GDP showed steady growth until 2019, followed by a drop in 2020, most likely due to the Covid-19 outbreak. Overall, there appears to be no decoupling of waste generation from economic growth.

Figure 1 Generation of waste (total and excluding major mineral wastes), population and economic development, 2010-2022



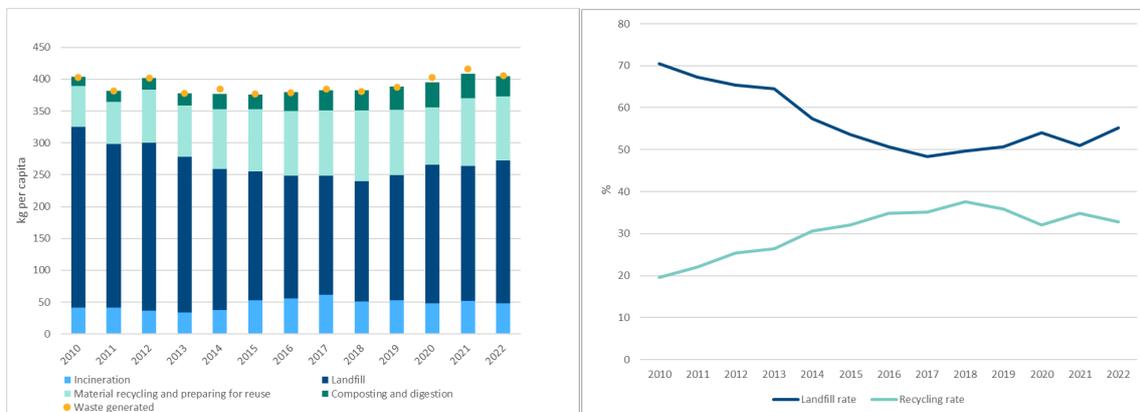
Source: Eurostat (2024b, 2024a, 2024f)

Note: Waste generation data for odd years are interpolated.

Municipal waste

Municipal waste generation in Hungary stagnated between 2010 and 2022 (Figure 2, left). In 2022, the country generated 406 kg/cap of municipal waste, which is significantly below the (estimated) EU-27 average of 513 kg/cap for the same year.

Figure 2 Municipal waste management (left) and rates of recycling (incl. preparing for reuse) and landfill (right), 2010-2022



Source: Eurostat (2024d)

Note: As of the reference year 2020, new reporting rules apply for calculating recycled municipal waste pursuant to the targets laid down in Article 11.2(c-e) of Directive 2008/98/EC.

The rate of preparing for reuse and recycling of municipal waste in Hungary has moderately increased since 2010 but has stagnated since around 2017. In 2022, it reached 33%, which is significantly below the (estimated) EU-27 average of 49% in the same year ⁽¹⁾ (Figure 2, right). The preparing for reuse and recycling rate is mainly driven by material recycling as Hungary's rates of composting and anaerobic digestion remain low, reaching 8% in 2022.

⁽¹⁾ The EU-27 average might be influenced by the situation that not all Member States already fully apply the rules for reporting on municipal waste as defined in the Waste Framework Directive as amended in 2018.

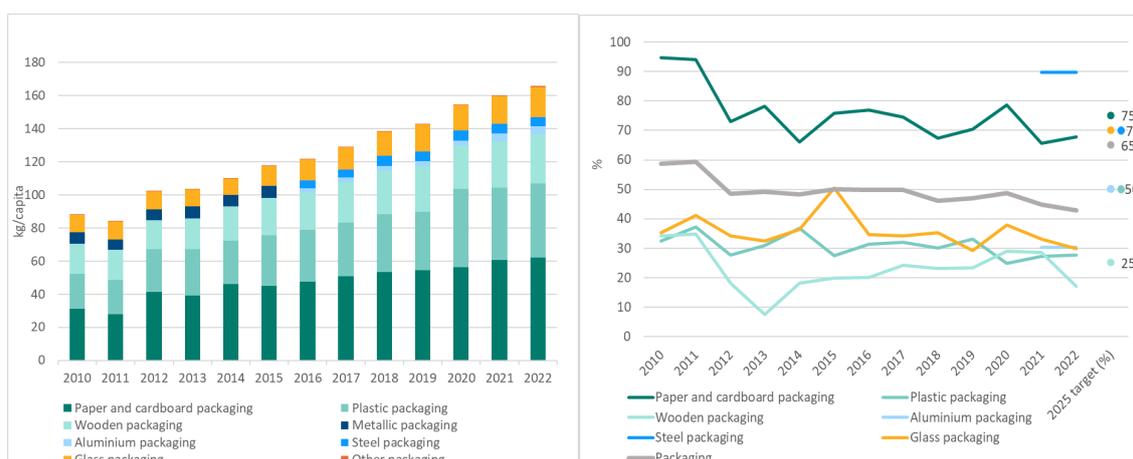
Incineration plays a minor role in Hungary, with only 12% of the generated municipal waste incinerated in 2022. There is still a significant share of municipal waste landfilled in the country, even though the landfill rate decreased moderately to 55% in 2022 (Figure 2, right).

Hungary has also reported data to show compliance with the preparing for reuse and recycling target of 55% for 2025, as laid down in the Waste Framework Directive. The difference between these (provisional) data, following the reporting obligation of the Waste Framework Directive, and the data shown in Figure 2 (voluntary reporting) is below 1 percentage point for the preparing for reuse and recycling rate in 2021. 2022 data according to this reporting obligation are not yet available (Eurostat, 2024c).

Packaging waste

Hungary’s packaging waste generation increased significantly since 2010 (Figure 3, left). In 2022, the country generated 166 kg/cap of packaging waste, which is significantly below the (estimated) EU-27 average of 186 kg/cap in the same year ⁽²⁾.

Figure 2: Packaging waste generation (left) and recycling rates (right), 2010-2022



Source: Eurostat (2024e)

Note: As of the reference year 2020, the rules for calculating recycled packaging waste have changed, pursuant to Article 6a of Directive 94/62/EC. Hungary has applied the new reporting rules since the reference year 2020 (Ministry of Energy, 2024).

Hungary’s overall packaging waste recycling rate has stagnated since around 2012 and declined in 2020 when the new reporting rules were implemented (Figure 3, right). In 2022, the overall packaging waste recycling rate was 45%. The recycling rate is mainly driven by paper and cardboard and plastic packaging waste as these constitute the largest material fractions in the generated packaging waste. In 2022, the recycling rate for paper and cardboard packaging was 69% and for plastic packaging 28%. Due to the high share of plastics in total packaging and its low recycling rate, special focus will be needed on increasing plastics recycling to meet the targets for both plastic and overall packaging. Since the reference year 2021, Hungary reported steel and aluminium packaging separately. Steel packaging waste had

⁽²⁾ The EU-27 average might be influenced by the situation that not all Member States already fully apply the reporting rules for packaging waste as defined in the Commission Implementing Decision 2019/665.

the highest recycling rate of all materials in 2022, i.e. 90%, however, this fraction is one of the smallest in total amount and therefore has a very minor influence on the overall packaging waste recycling rate. The recycling rate for aluminium was below the 2025 target in 2022.

Policies in place to encourage waste prevention measures and to increase recycling

Legislative framework and waste management plans

The Hungarian waste legislation mostly follows the EU waste legislation. The legislative framework regulating public waste management services in Hungary is very broad. The main legislation related to municipal solid waste and packaging waste consists of two main Acts, i.e. the Act on Waste (amended in 2021) and the Act on Environmental Product Fee. In addition, there are several relevant Governmental Decrees, e.g. the Decree on packaging and waste management activities related to packaging waste (amended in 2021) and the Decree on the conditions for the provision of public waste management services. The National Waste Management Plan (NWMP) 2021-2027 was adopted in October 2021. The NWMP refers to the entire territory of the Republic of Hungary and no regional plans are available for the period 2021-2027. (ETC/CE, 2022)

Waste prevention policies

Hungary's National Waste Prevention Programme (NWPP) is integrated into the National Waste Management Plan (NWMP) 2021-2027 (EEA, 2023). Waste prevention measures and initiatives are defined in a separate section, Chapter 9. The prioritised waste streams for prevention are municipal waste, industrial waste, non-hazardous agricultural waste, food waste, construction-demolition waste, hazardous waste, and biodegradable waste. Hungary uses EU and international funds for financing the implementation of the programme, next to domestic financing from the landfill tax and product charges. (EEA, 2023)

The overall objective of the NWPP is to introduce measures to reduce food waste, promote the decoupling of resource use, reduce material use and waste, contribute to more efficient management of resources, contribute to increasing the life cycle of products, promote waste prevention solutions based on life cycle assessment, and promote the circular economy. (Government of Hungary, 2018)

One focus area for the NWPP is to promote reuse practices. The goals of establishing a reuse system are to identify products that may be reused and to provide guidelines for product repair (Government of Hungary, 2018). All products designated for reuse will carry a trademark guaranteeing functionality, safety, expected lifespan, and quality. The aim is to encourage reuse among the population and to establish a domestic reuse system based on certified centres. (EEA, 2023)

Examples of waste prevention actions include initiatives such as local municipality support for second-hand shops, the high environmental product fee on plastic bags, and the ban of bags with a wall thickness of 15-50 microns since July 2021. No quantitative waste prevention targets are established (EEA, 2023).

The NWPP addresses measures for food waste prevention, for example increasing food donation efforts involving the food supply chain, implementing regulations to prevent edible food from becoming waste, and establishing local food banks and storage facilities (EEA, 2023).

The NWPP 2021-2027 contains brief information about the evaluation of previous waste prevention measures and their effectiveness. It mentions that previous measures initiated progress towards achieving the goals of the programme. However, it also highlights the need for additional measures to fully implement sustainable production and consumption on a larger scale. (Government of Hungary, 2018)

Based on the 2021 data submitted to the EEA in compliance with Commission Implementing Decision (EU) 2021/19 (EEA, 2024), Hungary reused:

- 4270 tonnes of textiles,
- 2608 tonnes of electrical and electronic devices, and
- 14631 tonnes of furniture.

It should be noted that these data have been reported for the first time. As the reporting process matures, it is expected that these data will strengthen but for now, caution is advised in drawing insights from the dataset. More information about the interpretation and limitations of the dataset is available (EEA, 2024) .

Policies and instruments to encourage separate collection and recycling

Door-to-door separate collection is the dominant system for collecting paper and cardboard waste, plastic waste, garden waste, and mixed municipal waste from households. Food waste has been collected separately since 31 December 2023. Textiles can be delivered to bring points and at civic amenity sites. Bring point collection is the dominant system for most of the packaging waste fractions. Household metal packaging waste is usually collected co-mingled with plastic packaging, mostly door-to-door. Hungary achieves only modest capture rates for all waste fractions, which clearly shows that the separate collection is not efficient enough. (ETC/CE, 2022)

The separate collection of recyclables originating from non-household sources is mandatory for paper and cardboard, metal, glass, plastic, wood, and garden/horticultural waste. (ETC/CE, 2022)

Hungary applies a pay-as-you-throw system based on container size and collection frequency. (ETC/CE, 2022)

Extended Producer Responsibility (EPR) schemes cover packaging waste from both household and non-household sources for all packaging materials. There is no advanced fee modulation in place, i.e. fee modulation within the broad material categories such as higher fees for difficult-to-recycle plastic types or combinations of materials.

On 1 January 2024, a nationwide deposit-return system started with an introduction phase and has been fully operating since 1 July 2024. The system covers single-use plastic beverage bottles, glass beverage bottles, and metal beverage cans, also including the return of refillable beverage packaging. Hungary levies product fees on certain packaging materials. These fees can be seen as a packaging tax. (ETC/CE, 2022). Until 1 July 2023, no separate EPR fees existed

for most waste streams, and the environmental product fee was a sort of EPR fee. Since July 2023, separate EPR fees have existed based on collection and treatment costs (no modulation). The environmental product fee remained as a green tax levied on some products. It aims to reduce demand, where EPR fees exist, additional to the EPR fee (for example ca. 4.20 EUR/kg for plastic bags).

Policies and instruments to discourage landfilling or incineration

Hungary has a landfill levy since 2014 of HUF 6000 per tonne (EUR 15.13 per tonne in June 2022) (ETC/CE, 2022). The levy is lower than the average EU-27 landfill tax. There are certain exemptions from the levy described in the Waste Act (ETC/CE, 2022). One of the priority actions recommended by the European Commission in the Environmental Implementation Review 2022, is to gradually increase landfill taxes in order to phase out landfilling of recyclable and recoverable waste. The revenue is recommended to be used for measures that improve waste management, in line with the waste hierarchy (EC, 2022). Since 2022, there has been a ban on landfilling untreated municipal waste, and a partial ban on landfilling organic wastes since 2003. (ETC/CE, 2022)

Hungary has no incineration tax in place and there is no tax on waste exported for incineration. To be able to drastically decrease the landfill rate and achieve the landfill target, Hungary plans to increase the energy recovery of residual municipal waste. (ETC/CE, 2022)

Prospects for meeting the targets on recycling and landfilling

According to the EEA's early warning assessment (ETC/CE, 2022), Hungary is at risk of not meeting the 2025 targets for preparing for reuse and recycling 55% or more of its municipal waste and for recycling 65% or more of its total packaging waste. Hungary might also be at risk for not meeting the 2035 target to reduce the amount of municipal waste landfilled to 10% or less of the total amount of municipal waste generated (ETC/CE, 2022). Consequently, the European Commission issued a number of policy recommendations to improve waste management performance in Hungary (EC, 2023). Key recommendations include:

- Support preparing for reuse of municipal waste and reuse systems for packaging.
- Ensure that the planned transition to a new, single, and nationwide concession for waste management is conducted in an efficient and transparent manner. The transition should ensure the support of key local stakeholders and follow a pace that makes it possible to overcome any potential pitfalls in the process.
- Extend separate collection of waste at the source across the country (especially the separate collection of bio-waste). Increase public awareness of waste separation and waste prevention. Implement economic instruments such as pay-as-you-throw schemes and increase the landfill tax to both incentivise separate collection at source and minimise landfilled waste.
- Further develop waste treatment infrastructure associated with the higher steps of the waste hierarchy. In particular, increase the efficiency of – and treatment capacity for – bio-waste, and support home composting.

Priority actions recommended by the European Commission in the Environmental Implementation Review 2022 highlight the improvement of the separate collection of waste, including bio-waste, to increase the recycling rates and to improve the Extended Producer Responsibility (EPR) systems, in line with the general EU minimum requirements. (EC, 2022)

Meanwhile, Hungary has decided to postpone the deadlines for meeting the 2025 targets for municipal waste, glass packaging and plastic packaging by 5 years, making use of the postponement options in the Waste Framework Directive and Packaging and Packaging Waste Directive. (EC, 2024)

No improvement in municipal waste recycling has occurred during the past 5 years and significantly more efforts are required to meet the 2025 targets. A significant share of municipal waste is still landfilled. Since the early warning assessment was conducted, Hungary has shown a small improvement in the recycling of packaging waste. However, several measures have been implemented recently, including improvements in separate collection, amendments to the EPR system and packaging taxes fees, and the introduction of a deposit-refund scheme for beverage packaging. In addition, it is planned to develop sorting and treatment capacities. These measures can be expected to reduce landfilling and increase recycling.

References

EC, 2022, *Environmental Implementation Review 2022 Country Report - HUNGARY*, COMMISSION STAFF WORKING DOCUMENT No SWD(2022) 259 final, Directorate-General for Environment (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=comnat%3ASWD_2022_0259_FIN) accessed 20 March 2024.

EC, 2023, *The early warning report for Hungary*, COMMISSION STAFF WORKING DOCUMENT No SWD(2023) 189 final, EC (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2023%3A189%3AFIN>) accessed 20 March 2024.

EC, 2024, Postponement of the recycling targets of Directive 2008/98/EC and 94/62/EC as notified by EU Member States, information provided by the European Commission to the EEA by email dated 16 May 2024.

EEA, 2023, *Waste Prevention Country Profile - Hungary*, EEA (https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/hungary_waste_prevention_2023) accessed 25 March 2024.

EEA, 2024, *Reuse flows according to the implementing decision (EU) 2021/19 Information on the database structure and use*, No Database version 1, European Environment Agency (EEA) (<https://sdi.eea.europa.eu/catalogue/srv/api/records/50b2430b-8218-471c-86ea-65236a870a28/attachments/Reuse%20metadata%20annex%20Version%201.pdf>) accessed 5 March 2024.

ETC/CE, 2022, *Hungary - Early Warning Assessment Related to the 2025 Targets for Municipal and Packaging Waste*, European Environment Agency (EEA) (<https://www.eea.europa.eu/publications/many-eu-member-states/hungary/view>) accessed 20 March 2024.

Eurostat, 2024a, 'GDP and main components (output, expenditure and income) [nama_10_gdp]' (https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp__custom_9301905/default/table) accessed 15 October 2024.

Eurostat, 2024b, 'Generation of waste by waste category, hazardousness and NACE Rev. 2 activity (env_wasgen)' (https://ec.europa.eu/eurostat/databrowser/view/env_wasgen/default/table?lang=en) accessed 22 October 2024.

Eurostat, 2024c, Information provided by Eurostat on provisional data in response to the reporting obligation in Art. 37(1) Waste Framework Directive related to the target on the preparing for reuse and recycling for municipal waste (Art. 11(2c)).

Eurostat, 2024d, 'Municipal waste by waste operations [env_wasmun]' (https://ec.europa.eu/eurostat/databrowser/view/ENV_WASMUN/default/table) accessed 22 October 2024.

Eurostat, 2024e, 'Packaging waste by waste management operations (env_waspac)' (https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en) accessed 28 October 2024.

Eurostat, 2024f, 'Population change - Demographic balance and crude rates at national level [demo_grind]' (https://ec.europa.eu/eurostat/databrowser/view/demo_gind__custom_9301558/default/table) accessed 15 October 2024.

Government of Hungary, 2018, *National Waste Management Plan 2021-2027 (Országos Hulladékgazdálkodási Terv 2021-2027)* (<https://cdn.kormany.hu/uploads/document/9/92/921/921c2f798773d4336ee3f45884a662d3018bb3d7.pdf>) accessed 15 March 2024.

Ministry of Energy, 2024, Information provided during the Eionet review of the draft EEA country profile on waste management for Hungary.