

# Municipal waste management



Kosovo\*



November 2021

\* Under United Nations Security Council Resolution 1244/99.

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# Municipal waste management in Western Balkan countries — Country profile

**Kosovo\***

\*This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.



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## Acknowledgements

This country profile has been prepared by the European Topic Centre on Waste Materials in a Green Economy (ETC/WMGE) under guidance of the EEA. It builds to a large extent on the answers to a questionnaire provided by the Kosovo Environmental Protection Agency (KEPA) and a follow-up interview. The EEA and ETC/WMGE would like to thank KEPA for the information provided and its kind review of the draft version of this country profile.



## Executive summary

In Kosovo <sup>(1)</sup>, the amount of municipal solid waste (MSW) reported as generated corresponds to the quantities collected, which equals the waste quantities considered treated. There are no official estimates of uncollected quantities of MSW. Kosovo reported an increase of over 40 % in total MSW treatment from 2015 to 2019, which can be mainly attributed to an increase in the share of the population connected to waste collection services.

In Kosovo, the Law on waste aims to transpose the EU waste legislation, providing a comprehensive framework for the development of waste management. The 10-year integrated waste management strategy includes a 3-year action plan and sets strategic objectives, specific objectives, targets and indicators for waste management and recycling. The current 2013-2022 strategy is only partly reflected in local planning documents, as not all municipalities have adopted waste management plans. While the first strategy for 2013-2022 is still in place, the new integrated waste management strategy for 2021-2030 and the new action plan for integrated waste management for 2020-2023 were adopted in May 2021. The targets set in EU directives are widely transposed into national law, but the implementation is lacking. The Law on waste still has to be further aligned with the Waste Framework Directive. Extended producer responsibility (EPR) and the 'polluter pays' principle need to be included. As waste can still be disposed of in landfills not compliant with the EU Landfill Directive at low cost, it is hard for other waste management options to compete.

The waste management system in Kosovo is underfinanced. Only few landfills request gate fees, which only cover the basic cost of managing the landfill, without making provisions for any aftercare. For waste collection, no 'pay as you throw' system is in place; households pay a fixed monthly fee for the waste collection and disposal service. There are also fees for waste collection services for businesses and institutions. These revenues usually cover only the collection service, while the remaining disposal costs have to be obtained from other funding sources.

Municipalities and licensed companies are responsible for organising municipal waste collection. In urban areas the waste is collected through common collection points, while in rural areas the collection is done door to door. Significant progress has been made on expanding the coverage of collection services, which is reported to be over 80 % of the population since 2019, thus meeting the proposed target for 2021, but not yet 100 %.

There is no official system for separate collection in place. Informal waste pickers play an important role in the collection of recyclable waste throughout Kosovo, but there are no data on or official measurements of the waste quantities collected in this way. They collect certain types of plastics, metals, paper and cardboard, batteries and waste electrical and electronic equipment (WEEE), and sell them to licensed companies, usually for export. Investments in separate collection and recycling are hampered, inter alia, by these very active informal waste pickers, undermining the financial viability of recycling projects.

According to the new integrated waste management strategy, EPR mechanisms are to be applied to four product categories/waste streams by 2022, namely packaging, WEEE, batteries and end-of-life vehicles. However, to date, there are no official dedicated separate collection or EPR schemes in place for any of these waste streams. Planning work has been carried out for the implementation of a deposit refund scheme for beverage containers, planned to start in 2022. It is considered likely that neither the interim target of one EPR system being rolled out by the end of 2021 nor the target of having four EPR systems in place by 2022 will be met.

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<sup>(1)</sup> Under United Nations Security Council Resolution 1244/99.



Currently, almost all MSW collected in Kosovo is landfilled, either at one of the growing number of illegal dumpsites (about 10 %) or at officially designated non-sanitary sites (50 %). The rest goes to one of the seven sanitary landfills. These are, however, reaching the limits of their capacity and are also not completely operating according to the conditions defined in the EU Landfill Directive. Less than 40 % of all waste collected is disposed of in managed facilities, missing Kosovo's 2020 target of 60 %. Inspections are not sufficient because of a lack of financial resources and trained staff. However, Kosovo has built up an inventory of illegally deposited waste. In the future, this will help remove or rehabilitate illegal and uncontrolled dumpsites, as stipulated by the new strategy.

With respect to bio-waste, a new composting plant will start operations in 2021, treating mainly garden and park waste. No separate collection for food waste is planned to date. A pilot project to promote home composting was initiated. While these are relevant steps, more needs to be done to achieve the target of reducing the amount of biodegradable waste disposed of with MSW from 95 % to 40 %.

The targets on reducing the share of landfilling to 60 % by 2020 and the share of biodegradable waste disposed of with MSW to 40 % by 2020, and on increasing separate collection for recycling to 50 % of MWS by 2020, were not met by far. In general, it is difficult to measure performance against the set targets because of a lack of data, poor data quality or non-standardised reporting. To address these data issues, a performance grant was introduced incentivising municipalities to improve their reporting on waste-related data.

To conclude, Kosovo did not meet most of the targets related to waste management set for 2020 and is not on track to meet draft targets set for 2021/2022. The key challenges of waste management in Kosovo are related to insufficient cross-institutional cooperation, budget deficiencies, a lack of (trained) staff, extensive informal sector activities, the poor financial viability of waste management operations, lack of investment in infrastructure, low levels of public awareness and poor enforcement of laws. These challenges are all to some extent interlinked.

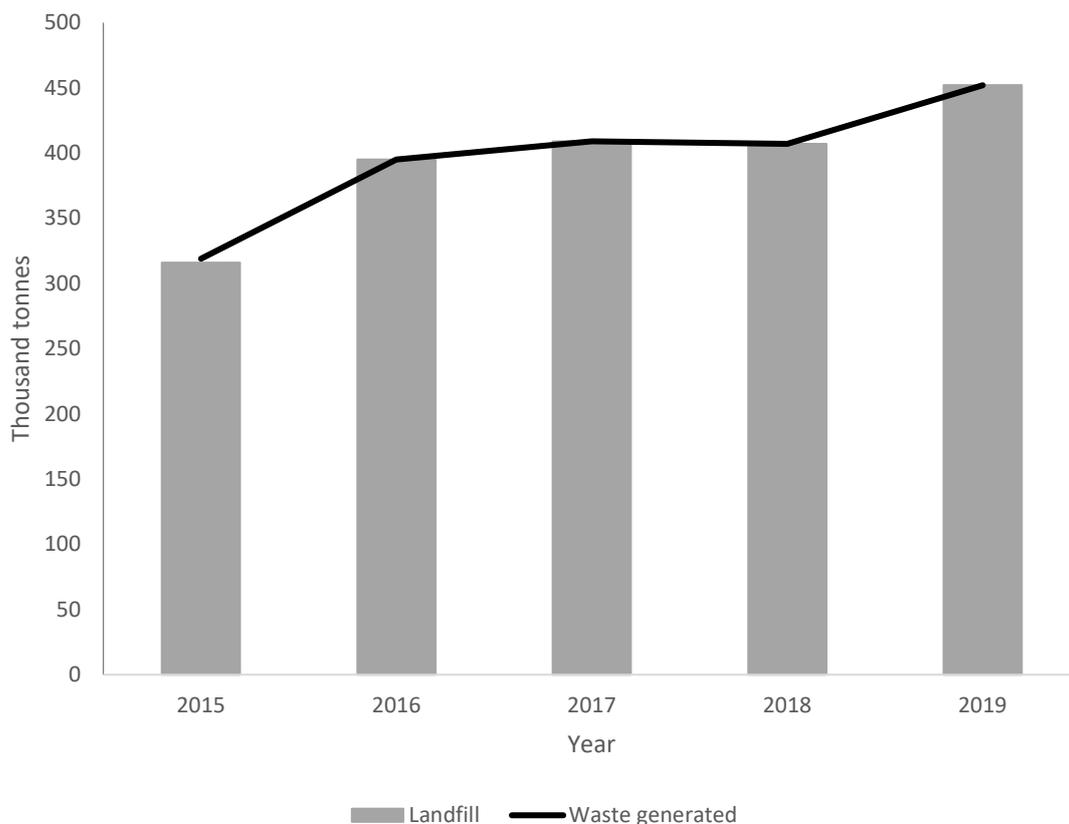
Good progress has been made with respect to increased collection coverage. Furthermore, small steps in the right direction have been taken by improving data reporting through awarding a performance grant, establishing an inventory of illegal dumpsites, reducing biodegradable waste disposed of with MSW by promoting home composting and setting up a new composting plant, increasing the share of recyclables extracted from MSW by setting up a new sorting plant, and planning for a deposit refund scheme for beverage containers.

# 1 Municipal waste management performance

Kosovo is landlocked, has a population of 1.9 million (2021), occupies an area of 10 887 km<sup>2</sup> and consists of 38 municipalities (CIA, 2021). Most of Kosovo’s population lives in small towns outside the capital city Pristina. Kosovo’s gross domestic product (GDP) per capita is the second lowest in Europe, with a per capita GDP of USD 10 400 in 2017. The total unemployment rate is 33 %, and the youth unemployment rate is close to 60 %. This fuels a considerable informal economy (CIA, 2021).

Municipal waste generation in Kosovo has increased from 319 000 tonnes of waste generated in 2015 to 452 000 tonnes of waste generated in 2019 (Figure 1.1). This corresponds to 178 kg per capita in 2015 and 253 kg per capita in 2019, roughly half of the EU average of 502 kg per capita in 2019. The reported amount of municipal waste generated corresponds to the quantities that are collected. These numbers are estimated based on the amount of waste produced per household per year multiplied by the number of households covered by regular collection services. The increase of 42 % in total waste treatment between 2015 and 2019 can therefore be mainly attributed to an increase in the share of the population connected to waste collection services (Chapter 4).

**Figure 1.1 Municipal waste generation and treatment in thousand tonnes in Kosovo, 2015-2019**



Sources: Eurostat (2021) for 2015-2018; KEPA (2021) for 2019.



The share of waste coming from households is estimated at 82 %, with the remainder originating from commerce and trade, small businesses, office buildings, institutions and municipal services, such as street and market cleaning, garden waste and litter containers (OECD and Eurostat, 2019).

The data reported to Eurostat do not include estimates of waste generated by households not covered by waste collection services. The data on the amount collected and on the coverage of the collection system are not considered reliable enough to serve as the basis for an estimate of the quantities of uncollected municipal waste (OECD and Eurostat, 2019).

Although there are no official estimates of uncollected waste, it is estimated that currently 70 % of the total waste generated is actually collected (EC, 2020).

As no other treatment infrastructure exists yet (see Chapter 6), all collected waste ends up in landfills (Ministry of Environment and Spatial Planning, 2019).

In general, it is difficult to measure performance against the set targets, as the reporting of waste data is not standardised and because the quality of data is poor or data are not available at all. There are no data for the collection efficiency, the actual amount of waste generated and the quantities of waste collected by informal waste pickers. Poor data quality is an issue for the amounts of waste treated. Because of the absence of weighing equipment at non-sanitary landfills, dumpsites and the sanitary landfill of the municipality of Dragash, amounts delivered there are estimated visually (KEPA, 2021). Moreover, in some cases there are different, slightly inconsistent data sources, as is the case for the share of the population covered by collection services. Data on waste collection are based on estimates and are provided by waste management companies and municipalities independently to the Kosovo Environmental Protection Agency (KEPA) and the Ministry of Environment, Spatial Planning and Infrastructure.

In 2017, performance grants were introduced to stimulate municipalities with financial incentives to provide better data. This was a relatively successful joint initiative between the Ministry of Economy and Environment and German development agency GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit). Organised as an intermunicipal competition, municipalities could receive high scores linked to financial grants by providing data and information related to waste management. For example, in the framework of this grant, an inventory of existing illegal dumpsites in Kosovo was made (see Chapter 6) (KEPA, 2021).

The lack of accurate data makes the process of planning for waste management at local and central levels, as well as planning relevant investments in new treatment plants, a rather difficult task. Better data would improve local plans, cost calculation and tariff setting and would especially illustrate the real need for waste treatment facilities and collection infrastructure.

## 2 Legal framework, strategies and targets

In Kosovo, the Law on waste aims to transpose the EU waste legislation, providing a comprehensive framework for the development of waste management.

The targets set in EU directives are widely transposed into national law, but the implementation is lacking. The legal framework in Kosovo still needs to include the 'polluter pays' principle and extended producer responsibility (EPR); the Law on waste needs to be further aligned with the EU Waste Framework Directive (EC, 2020). Moreover, it is still allowed to dispose of waste in landfills that are not compliant with the EU Landfill Directive (KEPA, 2021). The integrated waste management strategy (IWMS) for 2013-2022 and action plan are only partly reflected in local



planning documents. Not all municipalities have adopted waste management plans (Ministry of Environment and Spatial Planning, 2019).

The IWMS, including the action plan, is an integral component of the legal framework and a key planning document for waste management in Kosovo. It sets strategic objectives, specific objectives, targets and indicators for waste management, including recycling. The strategy has a validity of 10 years and has to be updated every 5 years under the Law on waste. Kosovo's first IWMS applied for the period 2013-2022 and includes an action plan (Ministry of Environment and Spatial Planning, 2013). The new IWMS 2021-2030 was delayed and was approved in May 2021; it includes an action plan for the period 2020-2023 (Republic of Kosovo, 2021).

The four key objectives of the IWMS 2021-2030 include:

1. the extension of integrated waste management services and infrastructure focusing on collection coverage, new waste management facilities and inclusion of non-municipal wastes;
2. the professionalisation of the waste management and recycling sector, focusing on capacity building in the public and private sectors, establishing an industry code for the waste management and recycling sector in national statistics and promoting research and development in universities;
3. strengthening regulation and control in the waste management sector, developing a waste management information system, better coverage of licensing and permitting systems, and strengthening enforcement mechanisms involving municipalities and inspectorates;
4. moving from a linear to a circular economy with a specific focus on awareness raising, innovations for waste prevention and introducing EPR schemes.

Some of the quantified targets regarding municipal waste set in the 2013-2022 strategy included:

- reduce the share of waste being landfilled from 90 % to 60 % by 2020;
- reduce the share of biodegradable waste disposed of with municipal waste from 95 % to 40 % by 2020;
- increase the share of waste being separately collected for recycling from 0 % to 50 % by 2020.

The IWMS 2021-2030 specifies, inter alia, the following quantified targets regarding municipal waste:

- increase the percentage of total generated municipal solid waste (MSW) being managed in controlled facilities (i.e. including sanitary landfill and/or thermal and/or biological and materials recovery/recycling facilities) from 40 % (2018) to 60 % in 2020, to 80 % in 2025 and to 100 % by 2028;
- increase the MSW collection coverage from 74 % (2018) of the population to 80 % in 2021 and to 100 % in 2028;
- apply EPR mechanisms to four product categories/waste streams (packaging, waste electrical and electronic equipment (WEEE), batteries and end-of-life vehicles (ELVs)) by 2022.

With respect to responsibilities, the Ministry of Economy and Environment (MEE) is responsible for drafting laws, strategies and national plans and for defining targets and objectives. While the MEE is responsible for policies, KEPA is in charge of implementing regulations. The municipalities are responsible for planning, managing and operating waste collection and management services. The MEE is usually not directly involved in MSW management, with the new sorting plant being an exception (see Chapter 6) (KEPA, 2021).



Municipalities and licensed companies are responsible for issuing local waste management plans and organising municipal waste collection and waste treatment under the supervision of the MEE. Companies collecting waste must be licensed to do this activity based on the criteria of Law No 04/L-060 on Waste and of Administrative Instruction No 09/2014 on Waste Management Licenses (KEPA, 2021).

The MEE and KEPA are also responsible for collecting waste data and reporting them to the government and the Assembly. The reporting capacities of the municipalities have been strengthened to some extent, but there are still difficulties in collecting data regarding specific waste streams (KEPA, 2021). The Kosovo Agency of Statistics (KAS) reports waste-related data to Eurostat by collecting data directly through a survey from the municipal waste collection companies, which are supervised by the MEE. Data quality control is performed by the employees of the KAS environmental statistics division. Data reported by the municipalities are validated by a non-governmental organisation engaged as a consultant. The validation covers the per capita amounts for each municipality, consistency checks concerning the shares collected from households and other sources and the relation between the amounts collected and treated (landfilled) (OECD and Eurostat, 2019).

Kosovo has made very little progress towards its 2020 targets on landfilling, on biodegradable waste disposed of with MSW, and on separate collection as specified in the 2013-2022 strategy. Significant progress has been made on expanding the coverage of collection services, which is reported to be over 80 % since 2019, thus meeting the proposed target for 2021, but still not 100 % (KEPA, 2021). However, Kosovo is also not on track to meet the other targets for 2021 and 2022 set out in the IWMS 2021-2030, except for the target to expand collection coverage. The quality of waste treatment and disposal services still needs to be improved, as currently only 40 % of all waste generated is disposed of in managed facilities instead of 60 %, as targeted for 2020. Currently only a very small share of waste is recycled, and as this is mainly done by informal waste pickers there are no official data on the quantities. To date, no EPR scheme has been implemented.

The main challenges in implementing the legal framework for municipal waste are related to a lack of staff and insufficient training of officials dealing with waste management, insufficient cross-institutional cooperation, budget deficiencies, extensive informal sector activities, the poor financial viability of the waste collection system, low levels of public awareness and generally poor enforcement of laws. Poor data quality and the unwillingness of many stakeholders to report data hamper monitoring and enforcement (KEPA, 2021).

The environmental inspection services are inadequately staffed and resourced. Moreover, inspections are also split between the MEE and the municipalities' own inspectors. Very few municipalities have dedicated waste management staff. Roles and responsibilities for central and local government have been set out in law, but better coordination between the local and central government is needed. In addition, communication with other ministries needs improvement, for instance between the MEE and the Ministry of Local Government Administration. Some responsibilities are not clearly allocated or do not even overlap (KEPA, 2021).

Taking steps towards improving implementation, municipal waste management plans include plans for investments in waste infrastructure, such as increasing the number of containers and the number of collection vehicles and establishing new waste treatment centres (KEPA, 2021). The new IWMS 2021-2030 envisages investments in composting plants in Pristina, Prizren, Peja and Gjilan and in material recycling facilities in the same four cities, plus Mitrovica and Gjakove (Ministry of Environment and Spatial Planning, 2019). In addition, a new law is planned on the establishment of a deposit refund system for certain packaging types and an administrative instruction on packaging and packaging waste (KEPA, 2021).



To address data quality and the unwillingness to report waste data, some progress has been made thanks to the performance grant, which provides financial incentives to municipalities that participate in the reporting of waste data (KEPA, 2021).

### 3 Waste fee and taxation system

In some municipalities the collection and service fees are collected directly by the public municipal waste collection companies, while in others the fees are collected by the municipalities for municipal services. In addition to the household fees, there are fees for waste collection services for businesses and institutions.

There is no 'pay as you throw' system in place, so households pay a fixed monthly fee for the waste collection and disposal service. This flat rate varies across the municipalities, but usually lies, on average, at EUR 60 per household per year. These revenues cover only the collection service and the remaining disposal costs have to be obtained from other funding sources. Half of the funds come from the MEE and the other half is received from project grants, mainly from GIZ-supported projects funded by the European Commission (KEPA, 2021).

The number of households paying the waste collection fee has increased, while the fee itself has remained constant. The additional funds are used to increase the number of containers and waste collection vehicles and for cleaning up dumpsites. Part of the additional funds also go into the intermunicipal performance grant scheme (KEPA, 2021).

Some landfills request gate fees, usually around EUR 7 per tonne of waste. This covers only the basic cost of managing the landfill, without making any provisions for upgrading or aftercare.

Law No 06/2018 on Waste and the Administrative Instruction MESP (Ministry of Environment and Spatial Planning) No. 06/2018 on mandatory penalties define penalties for non-compliance with the waste legislation, budget sanctions for entities failing to meet targets and illegal activities such as fly-tipping. However, the implementation still needs to be improved (KEPA, 2021).

In general it can be stated that waste management operations in Kosovo lack financial viability, which is one of the main reasons why investment in waste infrastructure is low.

### 4 Collection coverage and separate collection

Municipalities and licensed companies are responsible for organising municipal waste collection. Companies that deal with waste collection must be licensed to do this based on the criteria of Law No 04/L-060 on Waste and of Administrative Instruction No 09/2014 on Waste Management Licenses (KEPA, 2021).

For 2018, the total collection coverage was estimated at 76 % of the population (OECD and Eurostat, 2019) and increased to 80.5 % in 2019 as reported to KAS (KEPA, 2021). The collection coverage is determined on the basis of the number of households as reported by municipal waste collection companies. In 2018, 74.5 % of the urban population and over 41.3 % of the rural population were covered by waste collection services (KEPA, 2021).

In urban areas the waste is collected through common collection points (containers), while in rural areas the collection is done door to door. The frequency of waste collection varies by city, region and by urban and rural area, ranging from several times per day in some urban



neighbourhoods to once a week in rural areas. This system has not changed in the past few years (KEPA, 2021).

There is no official system for separate collection in place. The informal sector collects mainly WEEE, batteries, metals, paper and cardboard, and some types of plastics. These materials are mainly exported abroad for recycling, through licensed dealers. There are no data available on the waste quantities collected by the informal sector (KEPA, 2021).

Financed by the government, a waste separation and classification plant has been built in the municipality of Mitrovica, which will serve the Mitrovica region. It is expected to start operating later in 2021. This plant is designed to separate and classify paper waste, plastic, metals, glass and organic waste from mixed municipal waste. Most of the valuable recyclables are taken out by the informal sector before the waste reaches the plant, which is likely to undermine the financial viability of the plant (KEPA, 2021).

Supported by German development agency GIZ, several pilot projects have been initiated in different municipalities, city areas, villages and in some schools to promote source segregation of waste. However, there is no adequate recycling infrastructure for further treatment and processing, other than a network of licensed dealers who export recyclables (KEPA, 2021).

To conclude, it can be stated that the collection coverage has increased significantly. Separate collection of recyclables is only performed by informal waste pickers and through pilot projects. The financial viability of sorting and recycling plants is undermined by informal sector activities.

## 5 Extended producer responsibility schemes

EPR is not mentioned in the IWMS 2013-2022 (Ministry of Environment and Spatial Planning, 2013) and currently there are reportedly no EPR schemes in place in Kosovo. There is also no dedicated collection scheme for packaging, ELVs, tyres, WEEE or batteries (KEPA, 2021).

The IWMS 2021-2030 states that 'Kosovo intends to progress towards implementing Extended Producer Responsibility (EPR)' (Republic of Kosovo, 2021). It focuses on four priority product categories, namely packaging materials, WEEE, batteries and ELVs, in the lead-up to 2022. Different schemes are planned to be implemented for each of these. Motor oils and vehicle tyres are planned to be included at a later stage. Decisions on the specific type and scope of responsibilities of the EPR schemes will be taken based on consultations with the industries concerned and other stakeholders (Ministry of Environment and Spatial Planning, 2019). This is reported to be still in the planning phase (KEPA, 2021).

In line with the new strategy, at the end of 2020, an international company was contracted to start the development of a deposit refund scheme (DRS) for beverage containers, which aims to increase the quantity and quality of recycled materials, and to encourage more sustainable consumption and disposal of products to enable the transition to a circular economy (KEPA, 2021). GIZ is supporting the MEE in analysing the current situation, identifying gaps and other issues related to the DRS, and developing a comprehensive plan that will involve all stakeholders (public and private sector organisations, civil society groups and the media). An implementation plan will also be developed, establishing the legal and institutional framework and aspects related to the practical implementation of the DRS (KEPA, 2021).

The DRS is considered to be a complex system and process requiring proper analysis and adequate incentive instruments before being put into operation. The preparations are therefore expected to continue throughout the year 2021. Implementation is planned to start in 2022 (KEPA, 2021). Although the DRS is envisaged as being developed in accordance with the IWMS 2021-2030, there is no budget set aside for the year 2021.



To conclude, it can be stated that, to date, there are no official dedicated separate collection or EPR schemes in place for any of the four product categories/waste streams, namely packaging, WEEE, batteries and ELVs, for which the IWMS 2021-2030 envisages EPR mechanisms being in place by 2022. Planning work has been carried out for the implementation of a DRS for beverage containers, planned to start in 2022. It is unlikely that the interim target of one EPR system rolled out by 2021 will be met. It is even more unlikely that the target of four EPR systems implemented in 2022 will be achieved.

## 6 Treatment infrastructure

There are seven sanitary landfills in Kosovo, which receive an estimated share of less than 40 % of the municipal waste (Ministry of Environment and Spatial Planning, 2019). They were supposed to be operated in accordance with EU standards; they were funded between 2003 and 2007 by the European Agency for Reconstruction, but today the infrastructure is in a poor state, and there is no major investment to improve the landfills' operation. Infrastructure to contain landfill leachate and collect landfill gas is lacking, and their operation is not in line with the conditions set out in the EU Landfill Directive. Some of them request gate fees, usually around EUR 7 per tonne, which cover only the basic cost of managing the landfill, without making any provisions for maintenance, upgrading or aftercare. The low level of disposal costs is insufficient to drive activity further up the waste hierarchy, as it makes it hard for other waste management options to compete (KEPA, 2021).

Of these seven sanitary landfills, almost all have reached their maximum capacity, so they have to be closed urgently. There are concrete plans to close the Mirash landfill in the Pristina region with the support of the German state-owned development bank KfW <sup>(2)</sup> (KEPA, 2021). Other landfills, such as the ones in Peja and Prizren, are planned to be extended, as stipulated under the IWMS 2021-2030.

The majority of municipal waste is disposed of in non-sanitary, but still officially designated, landfills. These sites are often not well engineered, managed or operated. The inspection of incoming waste is not commonly practised, no weighing takes place and records of deposits are not kept. The waste is usually not pre-treated, but is sometimes compacted before deposition. Open burning of waste to reduce waste volumes is common and a simple soil cover is applied. Informal waste pickers collect recyclable materials for sale (KEPA, 2021).

Significant quantities are also dumped at unauthorised locations. These generate risks to human health and the environment, and their number is estimated to even have increased since 2017 (EC, 2020). KEPA estimates that over 30 000 tonnes of mixed municipal waste, which is about 10 % of the overall amount of municipal waste generated, are deposited in illegal landfills or dumpsites.

Supported by GIZ, in 2019, an inventory was made to map and describe the existing illegal dumpsites in Kosovo. This exercise was part of the performance grant scheme, and municipalities could receive high scores in the intermunicipal competition by contributing data and information to this inventory. In total, 2 246 illegal dumpsites were documented and put into three categories, namely small (one to five waste bags of 200 l), medium (6-20 waste bags of 200 l) and large (over 20 bags of 200 l), based on visual inspection. The average composition was found to be 45 % MSW, 39 % construction and demolition waste, 7 % industrial and hazardous waste, 4 % bulky waste and 5 % other mixed waste (KEPA, 2021).

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<sup>(2)</sup> Kreditanstalt für Wiederaufbau (Credit Institute for Reconstruction).



There are no waste incineration plants in Kosovo. Currently, a waste separation and classification plant is being built with government funding in the Mitrovica region, with a capacity of 50 000 tonnes of mixed municipal waste per year. It is expected to start operating late in 2021. This plant will help reduce the volume of waste sent to landfill. However, it is still unclear what will happen to the output streams — paper, plastic, metals, glass and organic waste extracted from mixed MSW — as there is no proper recycling infrastructure in Kosovo. Except for some metal scrap, there is no significant demand for recyclables by the domestic industry. Most of the waste metals collected by the informal sector are exported to North Macedonia and Albania. No investment is planned that would change the current way of handling these materials. Furthermore, the operation costs are unlikely to be covered by the revenues of the extracted materials, as high-value recyclables are usually taken out by the informal sector before they reach the plant. Treatment costs will therefore partly need to be obtained from other sources, such as fees, as is usual across Europe for the sorting of mixed municipal waste (KEPA, 2021).

As the share of biodegradable waste in MSW is reported to be at 45 % in 2021, a composting plant in Pristina, co-financed by the Centre for International Cooperation and Development (CMSR), the municipality of Pristina and GIZ, will start operations in 2021. The plant has a capacity of 3 000 m<sup>3</sup> and will mainly treat garden and park waste coming from the municipality of Pristina. At a later stage, the composting of household organic waste is also envisaged, although no separate collection for food waste is planned to date (KEPA, 2021).

In a pilot project led by GIZ aiming to foster home composting, 1 900 composting containers with a capacity of 280 l were distributed to households in the municipality of Vushtrri and six other municipalities. In addition to providing the containers, technical support and training are provided. Data and results will become available in 2022 (KEPA, 2021).

For now, the focus is on home composting and the composting of garden and park waste. At a later stage, other sources of bio-waste, including organics from markets, wastewater treatment plants and certain food processing industries, might be considered according to the IWMS 2021-2030.

To conclude, almost all MSW collected in Kosovo is landfilled, either at illegal dumpsites (10 %) or at officially designated non-sanitary sites (50 %). Less than 40 % of all waste collected is disposed of in managed facilities, missing the 2020 target of 60 %. Kosovo has built up an inventory with information on illegally deposited waste. This will help remove or rehabilitate illegal and uncontrolled dumpsites, as stipulated by the IWMS 2021-2030.

Only a very small share of waste is recycled; as this is mainly done by informal waste pickers, there are no official data on the exact quantities. A new sorting plant for mixed municipal waste is about to start operations and a composting plant will start operations in 2021. No separate collection for food waste is planned to date. A pilot project to promote home composting was initiated. These steps are intended to help Kosovo to get closer to the original 2020 target of reducing the amount of biodegradable waste disposed of with municipal waste from 95 % to 40 % (Ministry of Environment and Spatial Planning, 2019), but scaling up and further measures will be needed to substantially reduce the biodegradable municipal waste landfilled.

## 7 Social aspects of waste management

There is no data on how many people are currently employed in the formal waste collection and management sector in Kosovo (KEPA, 2021).



Informal waste pickers play an important role in the collection of recyclable waste; it is estimated that around 2 000 individuals could be individually engaged in informal collection throughout Kosovo, but there are no data or official measurements to assess the level of activity. These waste pickers are usually poor people from various marginalised communities. They collect plastics, metals, paper and cardboard, batteries and WEEE, etc., and sell them to small and medium-sized licensed companies, usually for export. Most likely, staff from the formal collection services are also involved in these activities (Eunomia, 2017). Some waste pickers also enter the landfill premises to collect waste to sell it to waste traders. Over time, the informal sector has changed its way of working. Today it is organised in groups that collect waste and separate it into waste fractions and then sell it to other processors or traders. Limited initiatives aiming to integrate the informal waste pickers into the existing waste management system have not been successful so far (KEPA, 2021).

With respect to ongoing or planned official campaigns to increase the sorting and recycling of waste, there was an official commitment through the action 'Let's clean Kosovo', implemented by a non-governmental organisation in 2018, in order to clean up illegal landfills. Furthermore, the organisation Green Art Center — Pristina ran an awareness campaign focusing on improving the organisation of municipal waste services and promoting separation of waste at the source for seven municipalities in Kosovo (KEPA, 2021).

In the IWMS 2021-2030, the budget for public awareness raising and innovation is set to decrease from EUR 770 750 for the period 2019-2021 to EUR 390 000 for the period 2022-2028, which indicates that less attention is being given to this important topic.



## Abbreviations

Abbreviation	Name
DRS	Deposit refund scheme
EEA	European Environment Agency
ELV	End-of-life vehicle
EPR	Extended producer responsibility
ETC/WMGE	European Topic Centre on Waste and Materials in a Green Economy
GDP	Gross domestic product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German development agency)
IWMS	Integrated waste management strategy
KAS	Kosovo Agency of Statistics
KEPA	Kosovo Environmental Protection Agency
MEE	Ministry of Economy and Environment
MSW	Municipal solid waste
WEEE	Waste electrical and electronic equipment

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