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Ministry Of Environment, Spatial Planning And Infrastructure



AGJENCIA PËR MBROJTJEN E MJEDISIT TË KOSOVËS
KOSOVSKA AGENCIJA ZA ZAŠTITU SREDINE
KOSOVO ENVIRONMENTAL PROTECTION AGENCY

REPORT OF MUNICIPAL WASTE MANAGEMENT IN KOSOVO

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REPORTING YEAR 2021



Prishtinë, 2023

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ABBREVIATIONS

MESPI	Ministry of Environment, Spatial Planning and Infrastructure
KEPA	Kosovo Environmental Protection Agency
UE	The European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit Agjencia Gjermane për Bashkëpunim Ndërkombëtar
JICA	Japan International Cooperation Agency
AI	Administrative Instructions
AMK	Association of Municipalities of Kosovo
MW	Municipal waste
BW	Bulky waste
C & D	Construction and demolition
KoW	Commercial waste
WL	Waste Law
MPWM	Municipal plan for waste management
PAMKOS	Association of regional waste management companies
WMP	Waste management plan
MRrWM	Municipal regulation for waste management
RL	Regional landfills
RWC	Regional waste company
PC	Private company
KSA	Kosovo Statistics Agency
WMS	Waste Management Strategy
CLMK	Company for Landfill Management in Kosovo
WM	Waste Management

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1.0 INTRODUCTION

1.1. Purpose of the report

The Kosovo Environmental Protection Agency (KEPA), based on LAW NO. 03/L-025 ON ENVIRONMENTAL PROTECTION, is responsible for drafting and publishing reports on the state of the environment in Kosovo. Based on LAW NO. 04/L-060 ON WASTE – ANNEX, as well as LAW NO. 08/L-071 FOR AMENDING AND SUPPLEMENTING LAW NO. 04/L-060 ON WASTE, KEPA is responsible for preparing and publishing the report on the state of waste in Kosovo.

Therefore, KEPA, as for the previous years, also for 2021, has finalized the report on the state and management of municipal waste in Kosovo.

Through this report, it is intended to provide a strong and comprehensive data base on municipal waste management in Kosovo. The data presented in this report reflect relatively well the state and management of municipal waste, trends, problems, as well as measures and plans for the future.

One of the objectives of this report is that the data and findings presented in this report to be used by policy-makers, either from the central level, and especially from the local level, in order that municipal waste management policies to be planned and oriented correctly.

After the approval of the Strategy for Integrated Waste Management 2021-2030 (SIWM) and the Plan for Waste Management 2021-2023 (PWM), is planned a new and more visionary approach with strategic objectives, which will play an important role also in terms of economic improvement and living standards.

These objectives are intended in terms of the development and improvement of integrated waste management services and infrastructure, the growth and advancement of the waste recycling sector, increased accountability and enforcement control, and the promotion of best waste management practices, and especially by giving a more pronounced focus to the regional economy.

Meanwhile, at the local level of government, the municipalities have also intensified their efforts to improve the situation in this segment of government, where now they see waste management as one of the priorities in their development plans.

The municipalities have started with the revision of the municipal waste management plans, the allocation of specific budgets for waste management, the undertaking of direct activities in the cleaning of illegal landfills, activities for the promotion of environmental values, active participation in various environmental projects, cooperation with donors etc.

Also, we have noticed that the provision of waste services for citizens and other customers has improved significantly, and a greater readiness on the part of the municipalities, taking into account the financial possibilities, to enter into the realization of various projects, in order of improving the situation in this field.

This report reflects the waste management data from 35 municipalities of the country, which have reported to KEPA for 2021.

Even this reporting year, KEPA has had close support and cooperation with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), with the Association of Municipalities of Kosovo (AMK) and with each municipality in particular.

This mutual cooperation was built during the cooperation of all the above-mentioned parties and we had in the implementation of the "Municipal Performance Grant - "Clean Environment" (2018-2020), where the municipalities were supported with different financial amounts, depending on the level of fulfilling the waste field indicators.

We expect positive developments in the field of waste management in the following years, since from donors such as the EU, GIZ, JICA, etc. there are positive signals of continued support through investments in the field of waste management. These investments will be of a direct nature, but also through raising professional capacities through training, research development and other aspects of technical support.

However, investments in large projects require comprehensive analysis and they must be based on documents such as the "Strategy and Action Plan for Integrated Waste Management in Kosovo", but also on the approach and trends that are currently being developed in EU.

We emphasize that in this report we have tried to reflect as realistically as possible the situation faced by Kosovo and the municipalities individually, as far as municipal waste management is concerned. We have noticed that in certain circumstances, some municipalities stand better in this direction, while others lag behind.

The content of this report presents the data for the reporting year 2021, and to reflect the progress in this sector we used the method of comparing the data with the data of previous years.

1.2. Scope of the report

Through this report, it is intended to achieve a fulfillment of the legislation requirements and planning documents of municipal waste management. Data are presented on the state of non-hazardous solid waste generated at the country level, including: Municipal waste (MW) from households; Commercial waste (KoW); demolition and construction waste (C&D), which means waste from Construction and demolition activities of residential, civil and business facilities; bulky waste (BW), which means waste from households and businesses, and other aspects.

The content of this report presents a current overview of the state of municipal waste management, including: the implementation of legislation, the coverage of waste collection and transport services, billing and cashing, registration of illegal landfills, the amount of municipal waste collected and generated according to the municipalities, the amount of waste deposited, data related to the initiatives of the municipalities for the separation of waste at the source, the cost efficiency of municipal waste management, the management of special waste, etc..

1.3. Data collection methodology

In the first 3 months of 2022, KEPA has started with the necessary preparations before the reporting phase (March 31, 2021), with the support of GIZ, in cooperation with the Association of Municipalities of Kosovo (AMK), as well as with companies licensed for the collection and transportation of municipal waste, meetings were held, where the appropriate instructions were discussed and given for the format, procedure, and reporting deadlines for the management of municipal waste for 2021.

This report presents the data provided by the reporting of 35 municipalities, by regional and local licensed companies dealing with the collection and transportation of municipal waste (RWC), landfill management companies (CLMK), as well as by the Statistics Agency of Kosovo (KSA).

In KEPA, through a well-administered process, these data have been subjected to the process of quality assessment and verification of authenticity. The verification of the authenticity of the reported data was done through the exchange of supplementary data and other relevant documents, which were provided by the cooperation with municipalities and RWCs, but also through the comparison of the database of previous years that KEPA has already built relatively satisfactory.

The data in this report reflect the state of waste management for the fourth year in a row, that KEPA and the aforementioned actors report through the unified and standardized reporting format.

The report was compiled using data reported by:

- Municipalities, through municipal officials, responsible for waste management;
- Waste collection and transport operators (RWC, Municipal Units, etc.);
- Landfill management companies (LMC, RWC, etc.).
- Data from KSA, as well as;
- Other supplementary data during the assessment and verification process.

To verify the accuracy of the data reported by municipalities and companies, such as: the number of households served, the collection rate, the amount of waste generated and deposited, access to the infrastructure for waste separation at the source, the rate of fulfillment of the legislation that regulates the field of waste management, registration of illegal landfills, evaluation of operating costs, etc., from municipalities and operators, additional necessary documentation has been requested.

These additional documents and data include: financial statements, billing lists, reports on the amount of waste deposited, photos and coordinates from the locations of illegal landfills, contracts, MPWM and MRrWM for each municipality, etc.

The results of the data on illegal landfills are based on the field registration carried out in all municipalities throughout the country, in the period of June 2022. Then, these data are reported in the standardized forms of KEPA. Verification of the reported data on illegal dumping was done through field visits to selected locations.

The entire process of verifying the accuracy of the reported data and the aforementioned documents was carried out by the technical group within MESPI, the evaluations were given and the results of the report on municipal waste management for 2021 were drafted.

After evaluating the data, the preliminary draft of the report was drawn up, which KEPA forwarded to the municipalities for review, and after receiving concrete comments and remarks from the

municipalities, the technical group addressed those comments and addressed them within the optimal deadline.

2.0. Legal framework for municipal waste management in Kosovo

Waste Management in Kosovo is defined and regulated by Law No. 04/L-060 for Waste, respectively with Law No. 08/L-071 on Amendment and Supplement of the Law No. 04/L-060 on Waste.

This law aims to avoid and reduce as much as possible the generation of waste, the reuse of usable components from waste, sustainable development through the protection and conservation of natural resources, the prevention of negative impacts of waste on the environment and human health, such as and final waste disposal in an environmentally acceptable manner.

More than 30 Administrative Instructions have also been approved, which are based on this law. The administrative instructions that are directly related to the regulation of municipal waste management are: Administrative Instruction (GRK) No. 08/2017 for the management of waste landfills, AI administrative instruction (GRK) No. 06/2016 on the conditions for the selection of the location and the construction of the waste landfills, AI No. 15/2012 for the management of waste landfills, AI MESP- No. 27/2014 On the Management of Waste from Packaging, AI No. 16/2010 for Biodegradable Waste Administration, AI No. 13/2013 for the State Catalog of Waste, etc.

Planning and Waste Management is also regulated by strategic documents such as:

- Strategy (2021-2030) and Action Plan (2021-2023) for Integrated Waste Management in Kosovo;
- Municipal plans for waste management;
- Municipal regulations for waste management.
- Plans for waste management by waste owners;
- Plans for waste management by licensed persons, etc.

With the approval of the Strategy (2021-2030) and Action Plan (2021-2023) for Integrated Waste Management in Kosovo, waste management has been given a priority and a new and more accelerated approach towards the realization of strategic objectives, which will play an important role not only in improving the state of the environment, but also in economic improvement and living standards.

3.0. MUNICIPAL WASTE MANAGEMENT IN KOSOVO

3.1 *The current situation*

From the regular monitoring carried out by KEPA in the field in order to assess the state of the environment, but also during the collection and processing of data from waste management reports such as: from municipalities, licensed operators for waste management, CLMK, and other relevant data, we estimate that the state of waste in Kosovo is improving from year to year.

For all the reported indicators, we see that there is an increased improvement. However, the impact of the Covid-19 Pandemic has also been observed, which has resulted in a small delay in the further improvement of these indicators.

In almost all municipalities, a great improvement has been noted, as far as the elimination of landfills is concerned, since the municipalities have taken action to clean up these locations, inspections have been increased and fines have been imposed for citizens and operators, as well as they have placed awareness boards and informational tables for the prevention of waste disposal.

The data we have received from the reporting of municipalities and licensed operators, we have processed through a well-evaluated process, with an inclusion of the entire waste management cycle, starting from generation to their final treatment, and based on the obtained results we see an improvement of the indicators.

However, the waste management situation still requires great improvement, as we are still dealing with linear waste management. So, this problem still remains the fact, because more than 90% of the waste generated still ends up in sanitary landfills.

Even further, Kosovo is faced with the lack of real initiatives either at the local level or even at the country level, regarding waste management following the circular economy. Municipalities have not created conditions for the separation of waste at the source, this step preceded the recycling of waste.

Some private operators are carrying out activity in the collection of classified waste, however, this process is rather being covered by the informal sector, making it unclear and difficult to monitor.

As a consequence of the lack of integrated waste management, respectively the 3R initiative (reduction, reuse & recycling), we have an overload of sanitary landfills with waste, where based on the monitoring that KEPA performs every year in these landfills, it has been estimated that the environmental condition of them is extremely heavy, and some of them operate almost outside of any standard.

This state of sanitary landfills has also come from inadequate management, lack of rehabilitative investments, exceeding the receiving capacities in landfills, etc.

It should be noted that despite the fact that the year 2021 has also been accompanied by the state of the pandemic Covid-19, positive results have been recorded in terms of waste management indicators.

Thereof, the coverage of the waste collection service at the country level has marked an increase of about 5%, compared to the previous year, thus reaching the level of 90.02%; the number of illegal landfills registered in 2021 has decreased by 426 less than 1189 in 2020; Also, waste generation from 271.67 kg/inhabitant/year as it was in 2020, has fallen to 251.16 kg/inhabitant/year in 2021.

On the other hand, some deteriorations have also been noted, as is the case with the collection level, where a decrease of about 12% is seen compared to 2020; the level of legal compliance has marked a slight decrease of 1.4%, and an average increase in the amount of waste disposal, in the amount of 43,623 tons more compared to 2020.

As for the provision of municipal infrastructure to handle special waste, such as animal, medical, construction and bulky waste, based on the reports collected and after analyzing the MPWM, it has been estimated that the municipalities are in a bad position in this direction. Also, regarding the initiatives for waste separation at the source, the municipalities have not made any significant progress.

We must emphasize that Municipal Waste Management undoubtedly remains a challenge for the country and municipalities, therefore greater encouragement and commitment is required in improving waste management.

Cooperation and coordination of activities with the central and inter-municipal level should be increased, cooperation with different donors should be increased, in order to increase investments and realize sustainable projects in waste management.

3.2 Generation of municipal waste

From the 35 municipalities that have reported on waste management for 2021, a good database has been provided. After verifying and analyzing these data, were drawn up the representative results of the reflection of the level of municipal waste generation, according to municipalities and at the country level for the year 2021.

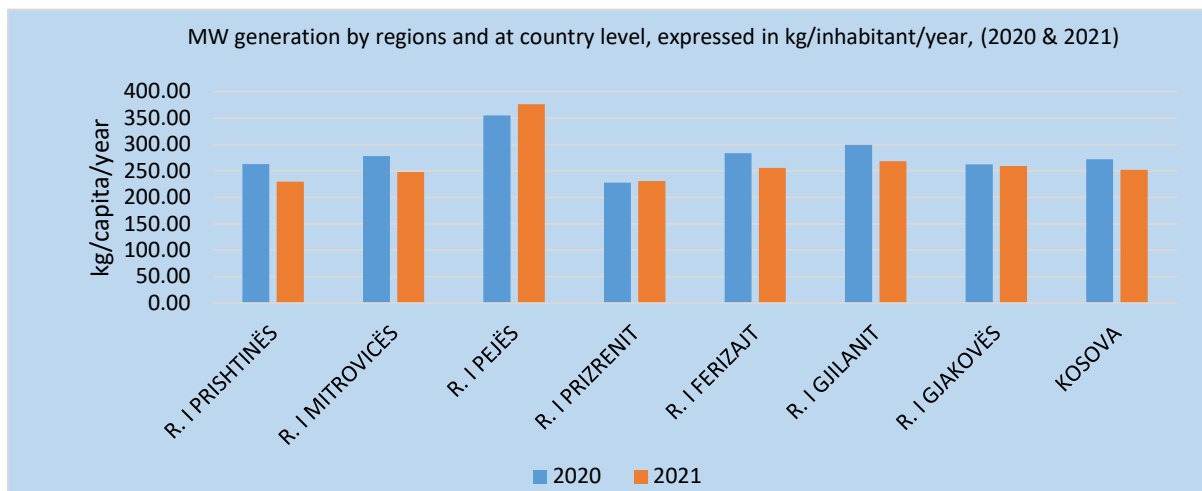
However, we must emphasize that from these data even in this reporting year, we cannot derive a true overview of the composition of waste, either in individual municipalities or at the country level, and also not differentiated data on the amount of waste generated from rural or urban areas.

However, based on the data provided by the reports of municipalities and operators, from the total amount of waste generated, an average generation of waste per inhabitant at the level of municipalities, regions and at the country level can be calculated..

Thus, based on the report on the amount of waste collected for the year 2021, it is about 469,390.00 tons. Taking into account the number of residents served, was calculated the municipal waste generation rate per capita per day and per year, which at the national level results in 0.69 kg/inhabitant/day, respectively 251.16 kg/inhabitant/year.

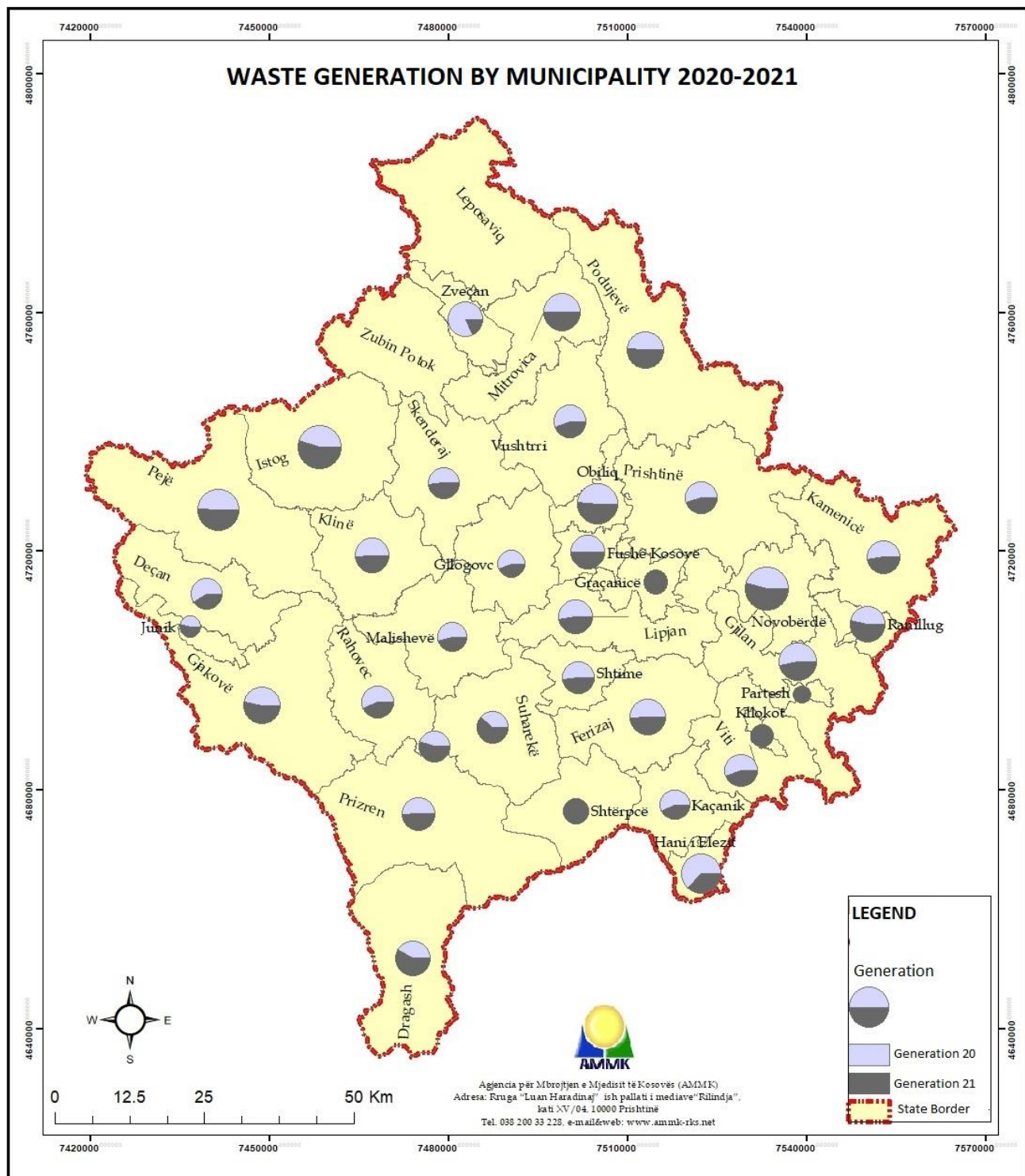
Obviously, in the amount of municipal waste generated for 2021, there may be certain inaccuracies due to the fact that: three municipalities have not reported at all for 2021, the data on the number of the population are already outdated, since the census in 2011, in some municipalities there is a discrepancy between the number of inhabitants according to official statistics and the real number of inhabitants who accept waste service, etc.

Detailed data regarding the amount of waste collected and generated are given in annex 1 of the report.

Figure 1. MW generation by regions and at country level, expressed in kg/inhabitant/year, (2020 & 2021)**Table 1.** The amount of MW generated and accumulated 2021

Region	General data, and service			Amount of accumulated waste (2021)	Waste generation (2021) ¹
	Number of inhabitants (KSA -2011)	The number of family households (KSA -2011)	The number of family households served (12/2021)	Mixed municipal waste collected (kg/ year)	Waste generation per capita (kg/ year)
R. I PRISHTINËS	470,583	85,104	119,225	144,272,430.00	229.33
R. I MITROVICËS	200,118	34,616	36,133	51,458,310.00	247.65
R. I PEJËS	174,235	30,266	28,653	62,078,000.00	376.13
R. I PRIZRENIT	387,828	60,651	67,054	99,076,300.00	230.73
R. I FERIZAJT	185,695	31,001	23,600	36,046,380.00	255.42
R. I GJILANIT	188,188	34,387	28,871	41,757,210.00	268.59
R. I GJAKOVËS	140,659	22,960	21,547	34,701,710.00	259.18
KOSOVË	1,747,306	298,985	325,083	469,390,340.00	252.12

¹ The generation is based on the amount of municipal waste collected, here the calculation does not include waste that is not collected and bulky waste.



Map 1. MW generation in municipalities, expressed in kg/inhabitant/year (2020 & 2021)

3.3 Municipal waste disposal

The amount of municipal waste deposited in 7 sanitary landfills in Kosovo, based on regular reports, in the following table we see that it has been increasing from year to year, excluding the year 2020 where we have a small decrease in the landfill trend.

In 2021, the amount of waste deposited compared to 2020 has marked a relatively large increase of 43,623.00 tons more.

In the landfills managed by CLMK, the amount of waste deposited for 2021 is 375,983.00 tons/year, marking an increase of only 10% compared to 2020.

Meanwhile, in other sanitary landfills managed by RWCs, the amount of waste deposited is about 113,976.00 tons/year, or about 8% more compared to 2020.

In total, the amount of municipal waste deposited in sanitary landfills reaches 489,955.00 tons/year, with an increase of about 10%, respectively 43,623.00 tons, more waste deposited than in 2020.

It should be noted that this amount of waste does not include the amount of waste deposited in other non-sanitary landfills, such as the one in Istog (Tuçep), or in other landfills in the northern part of Kosovo, because there is no reported data.

Table 2. Amount of MW deposited/expressed in tons

Sanitary Landfills	2017	2018	2019	2020	2021
Prishtinë (Mirash)	116,355.77	126,351.47	150,921.83	152,215.43	181,215.42
Gjilan (Velekincë)	62,036.98	65,366.98	66,740.60	67,075.81	58,651.52
Podujevë (Dumnicë)	11,083.00	12,603.60	15,676.18	16,194.56	17,793.01
Prizren (Landovicë)	90,858.81	95,637.99	104,058.58	105,305.18	118,323.04
Subtotal in landfills managed by CLMK:	280,334.56	299,960.04	337,397.19	340,790.98	375,982.99
Mitrovicë (Gërmovë)	64,663.05	62,109.22	53,729.62	47,415.38	49,027.54
Pejë (Sferk)	47,926.00	49,451.00	52,688.00	52,496.00	57,752.00
Dragash (Sharr)	5,530.50	5,797.00	6,067.00	5,630.00	7,193.00
Subtotal in landfills managed by RWM :	118,119.55	117,357.22	112,484.62	105,541.38	113,972.54
Landfill in Istog (Tuçep) *	*	*	*	*	*
Landfill in Zveçan *	*	*	*	*	*
Zubin-Potokut (Lluçkarekë) *	*	*	*	*	*
Landfill in Leposaviq *	*	*	*	*	*
Total	398,454.11	417,317.26	449,881.81	446,332.36	489,955.53

*No data has been reported for these landfills.

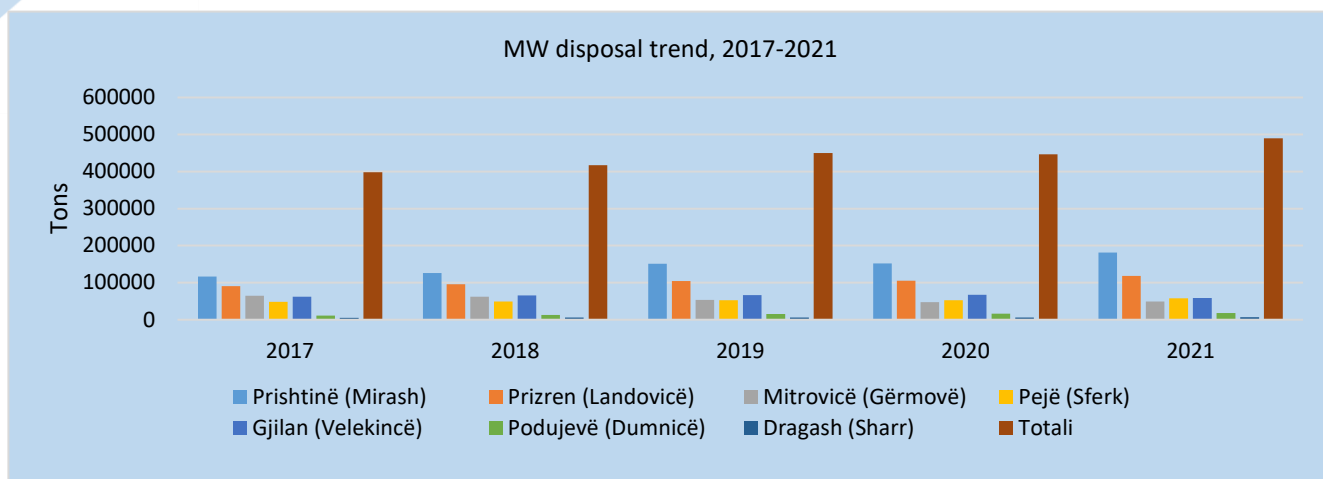


Figure 2. The trend of municipal waste disposal

3.4. Coverage with municipal waste collection service

Municipalities, through licensed operators, provide the basic service of collecting and transporting municipal waste and transferring it to Sanitary Landfills for disposal.

For the year 2021, the following table and figure reflect the level of service coverage of municipal waste collection by regions, respectively by municipalities. However, in the following map, is given an overview of the level of coverage with waste collection services according to municipalities.

In a more detailed form, annex 2 presents the level of waste service coverage for all 35 municipalities that have reported on waste management data for 2021.

By the end of 2021, the coverage of waste collection services for households at the country level has reached 90.2%, (marking an increase of about 5% more compared to 2020).

The Region of Prizren has achieved the highest rate of municipal waste collection service coverage of 96.5%, followed by the Region of Prishtina and Peja with 94.7%, while the lowest rate of service coverage was recorded in the Ferizaj Region with 76.1%.

Based on the data reported to KEPA from 35 municipalities, and after their verification, it is estimated that 10 municipalities have achieved 100% coverage with waste collection services.

As for the indicator of coverage with waste collection services, it should be emphasized that in this case we have some unavoidable inaccuracies due to the already outdated official data from KSA (population census 2011) regarding the number of inhabitants and households in municipalities, as well as the big change in population movement trends during these years.

Therefore, a significant number of municipalities have a larger number of households that are billed, in relation to the total number of households that are taken as a reference by KSA, such as: Municipality of Prishtina, Prizren, Fushë Kosova, Vushtrri, Graçanica, Malisheva, Deçan, Killokot, etc.

On the other hand, a number of municipalities have taken over the collection from the operators and have used the property tax data for the collection process, so the number of family households is much larger than that in the population census and family economies in 2011, thus reducing the accuracy of the service coverage assessment.

As for the municipalities' reporting on the level of providing coverage with the waste collection service for the category of businesses and institutions, it should be noted that many municipalities have not yet succeeded in filtering active and passive businesses, and in the other case they have not have provided calculable data according to the reporting format, which has affected the impossibility of an adequate evaluation of the indicator.

Consequently, the data for the category of businesses and institutions are reflected in Annex 2 only for some municipalities specifically.

For the calculation of coverage with waste collection service, the following definition was used:

$$SHm = \frac{N_{ef. sh}}{N_{p. ef.}} \times 100\%$$

* SHm Coverage rate

* N ef.sh. – The number of family households served/ invoiced in December 2020/2021

* N p.ef. – The total number of households, according to the population census KSA -2011

Detailed data regarding the level of coverage with municipal waste collection services are provided in Annex 2 of the report.

Table 3. MW collection service coverage, (2020 & 2021)

REGION	Level of coverage with waste collection service		
	Level of service coverage for households (2020)	Level of service coverage for households (2021)	Increasing or decreasing the coverage rate for households 2020 - 2021 (point %)
REGION of PRISHTINËS	89.2%	94.7%	5.5%
REGION of MITROVICËS	90.4%	92.8%	2.4%
REGION of PEJËS	87.6%	94.7%	7.1%
REGION of PRIZRENIT	94.2%	96.5%	2.3%
REGION of FERIZAJT	70.4%	76.1%	5.7%
REGION of GJILANIT	72.0%	81.6%	9.6%
REGION of I GJAKOVËS	83.3%	88.5%	5.2%
KOSOVË	85.3%	90.2%	4.9%

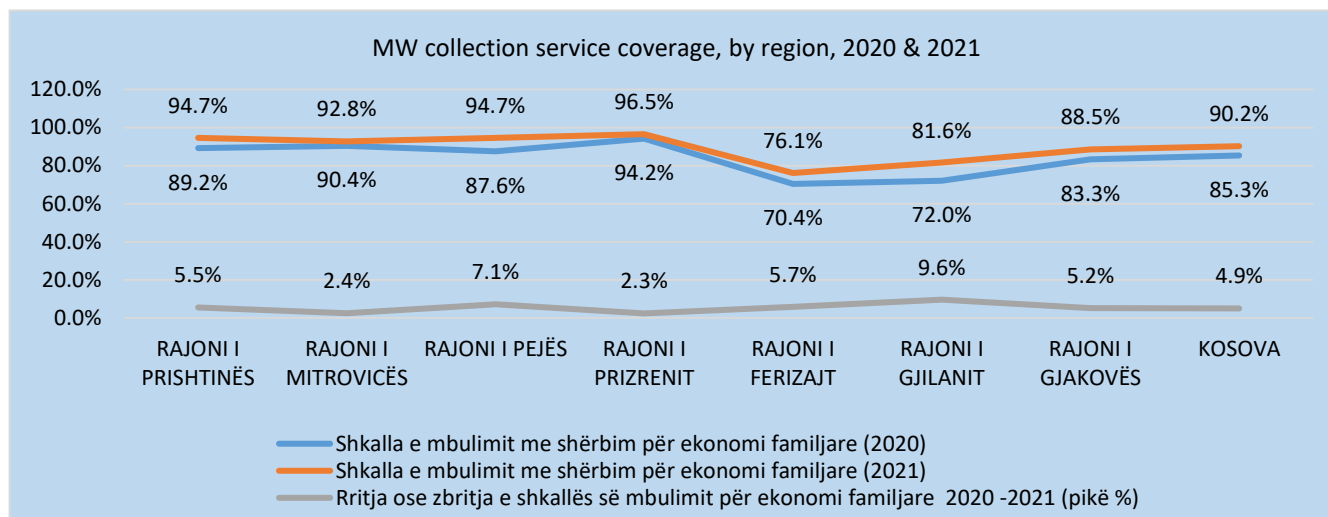


Figure 3. Coverage with collection and transport service of MW for households, (2020 & 2021)

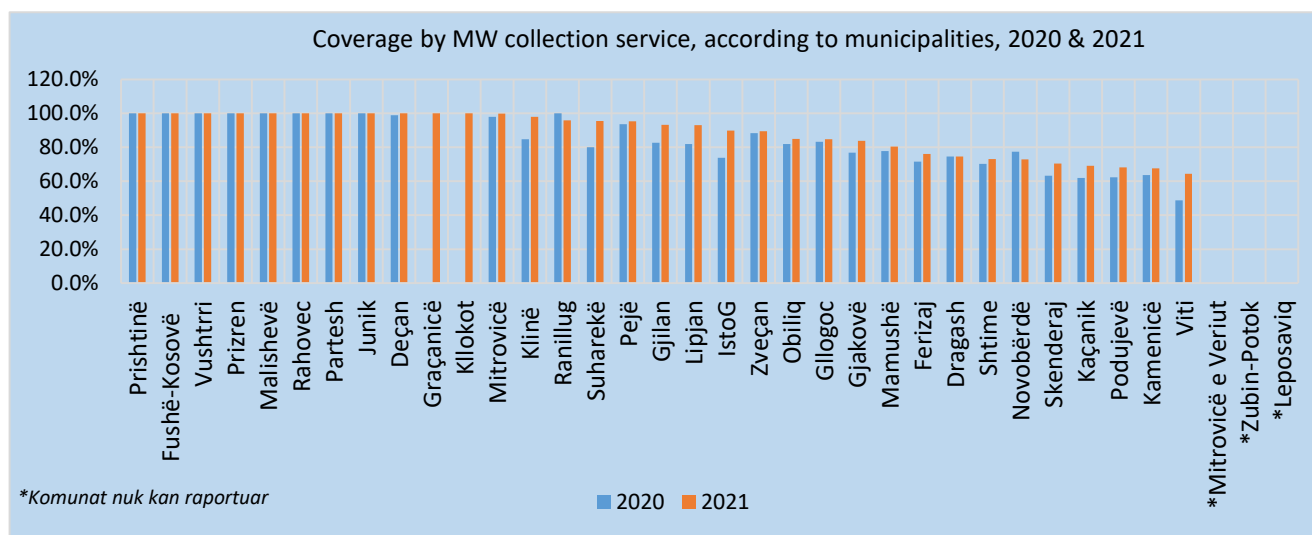
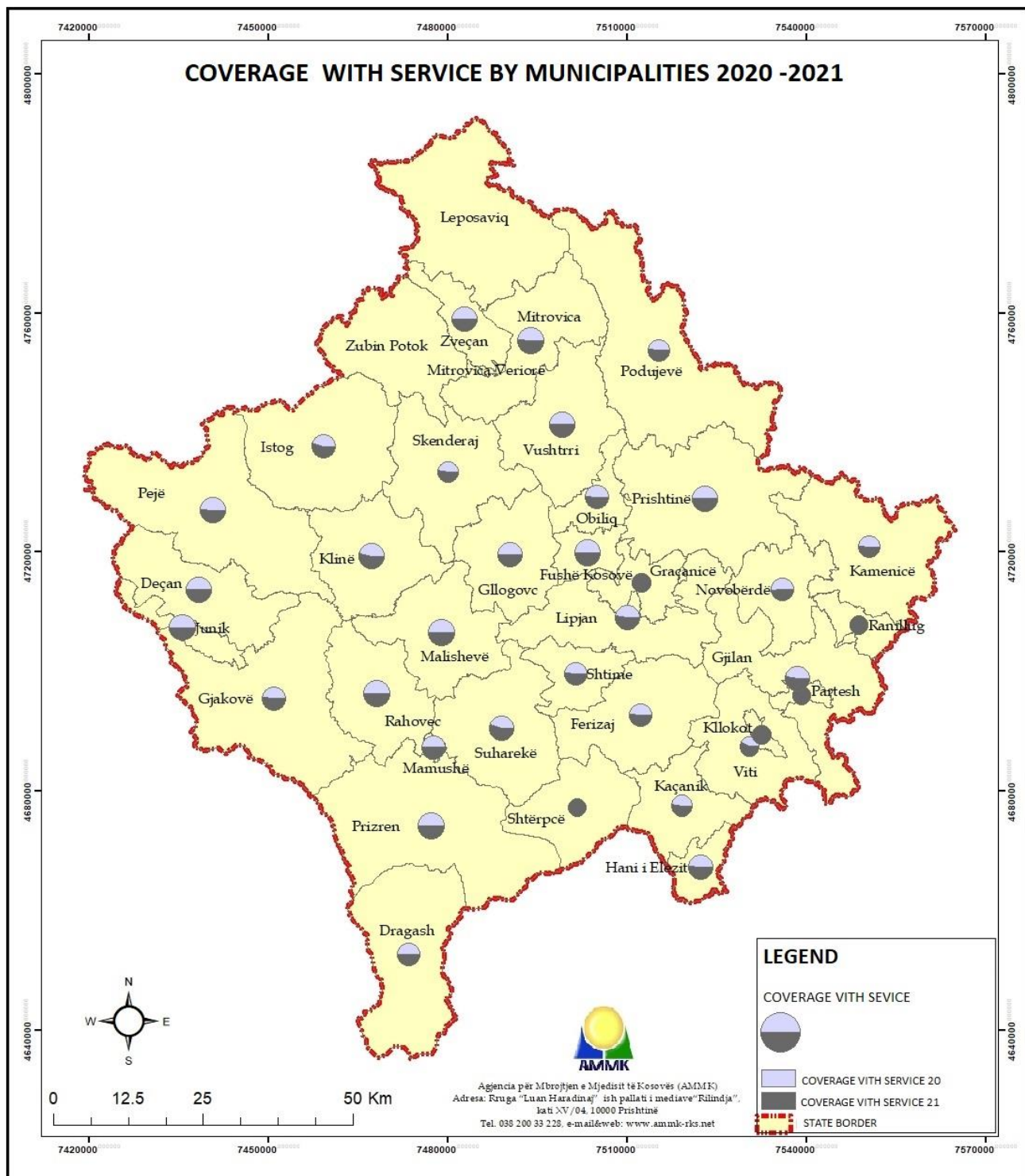


Figure 4. Coverage rate of MW collection and transport service, by households, (2020 & 2021)



Map 2. Coverage rate with collection and transport service of MW by municipalities , (2020 & 2021)

3.5. Billing and Cashing

Efficient waste management requires financial sustainability of the actors involved in waste management. In this case, municipalities and licensed operators dealing with the collection and transportation of municipal waste are faced with difficulties and financial instability. This financial instability was observed especially during the Covid-19 pandemic, which resulted in major financial crises in all sectors, not excluding the waste management sector.

The increase in the level of collection by municipalities and operators from Waste Management, their proper planning, and the reduction of operating costs, affect the increase in service performance and, consequently, the improvement of the environment.

Based on the data and reporting for the year 2021, the trend of the increase in the rate of collection for family economies has marked a decrease of about 12%. This decrease in the collection level has undoubtedly affected the condition of waste collection and transport operators, considering the fact of the increase in fuel prices and equipment maintenance.

The reasons for the drop in the collection level are not very clear, but to some extent they can be related to the impacts of the Covid-19 pandemic.

Compared to 2020 when the cashing rate from households was 90.84%, in 2021 the cashing rate has decreased by 12%, respectively reaching 78.9%.

In the case of cashing for the category of businesses and institutions, the cashing rate has not been calculated at the country level, due to poor quality of reporting; So the data are reflected in Annex 3, in the report for individual municipalities, where it was possible to verify the data.

As for cashing, the fact that the operators have not been able to make difference between cashing and billing for the relevant year and previous years (old debts) is still a challenge, so this has made it difficult to reflect as realistically as possible the level of cashing for the year 2021.

In the reporting year 2021, only 4 municipalities have reached or exceeded the 100% cashing rate for waste collection services for households. In some municipalities such as Prishtina, Prizren, Vushtria, compared to 2020, there has been a decrease in the cashing level, even up to 30%.

At the regional level, the highest cashing rate for households in 2021 was achieved by the Region of Gjakova with over 98%, followed by the Region of Peje with 96%, while the lowest cashing rate was recorded in the Region of Prishtina with 68%, followed by the Mitrovica Region with 75.8%.

Cashing rate data is calculated using the following formula:

$$SHa = \frac{sh.f.l.v}{sh.f.a} \times 100\%$$

*SHa - Cashing rate

*shf.l.v - Amount of invoices issued per year

*shf.a – The amount of invoices collected in the relevant year

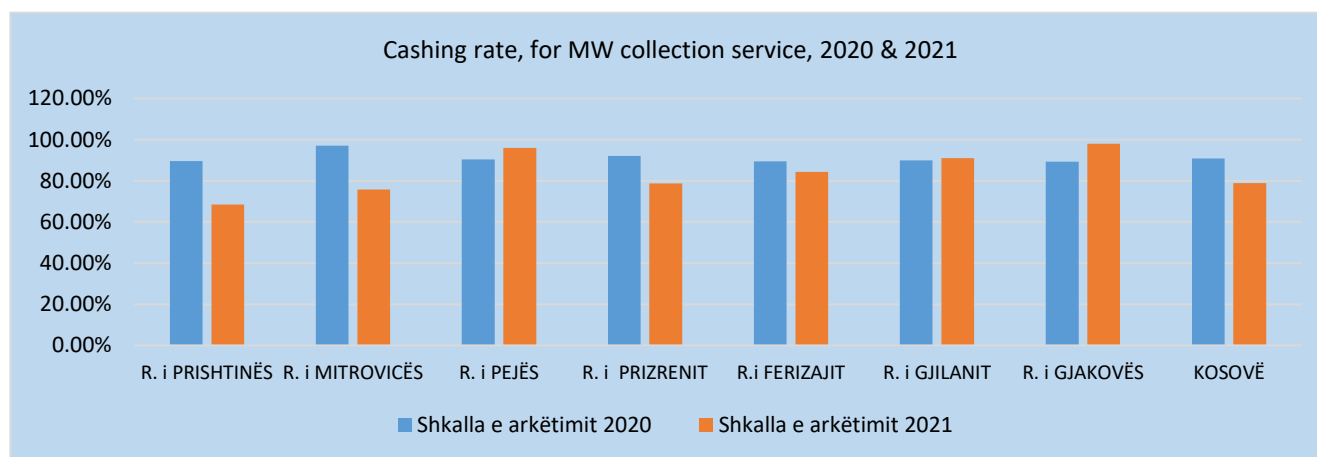
Detailed data related to the collection rate are provided in annex 3, in the report.

Table 4. Billing and Cashing for service of collection and transport of MW, (2021)

REGION	Invoicing for household service	Cashing for household service
R. of PRISHTINA	€ 6,385,807.13	€ 4,376,394.85
R. of Mitrovica	€ 1,597,618.85	€ 1,211,641.86
R. of PEJA	€ 1,544,674.00	€ 1,483,906.45
R. of PRIZREN	€ 3,187,137.37	€ 2,507,410.64
R. of FERIZAJ	€ 1,360,710.68	€ 1,146,918.32
R. of GJILAN	€ 1,281,609.60	€ 1,165,853.99
R. of GJAKOVA	€ 1,189,123.20	€ 1,165,617.57
KOSOVË	€ 16,546,680.83	13,057,743.68

Table 5. Cashing rate (%) for MW collection and transport service, (2020 & 2021)

REGION	Cashing rate 2020	Cashing rate 2021
R. of PRISHTINËS	89.62%	68.53%
R. of MITROVICËS	97.10%	75.84%
R. of PEJËS	90.47%	96.07%
R. of PRIZRENIT	92.05%	78.67%
R. of i FERIZAJIT	89.50%	84.29%
R. of GJILANIT	89.88%	90.97%
R. of GJAKOVËS	89.32%	98.02%
KOSOVË	90.84%	78.91%

**Figure 5.** Cashing for service of collection and transport of MW, (2020 & 2021)

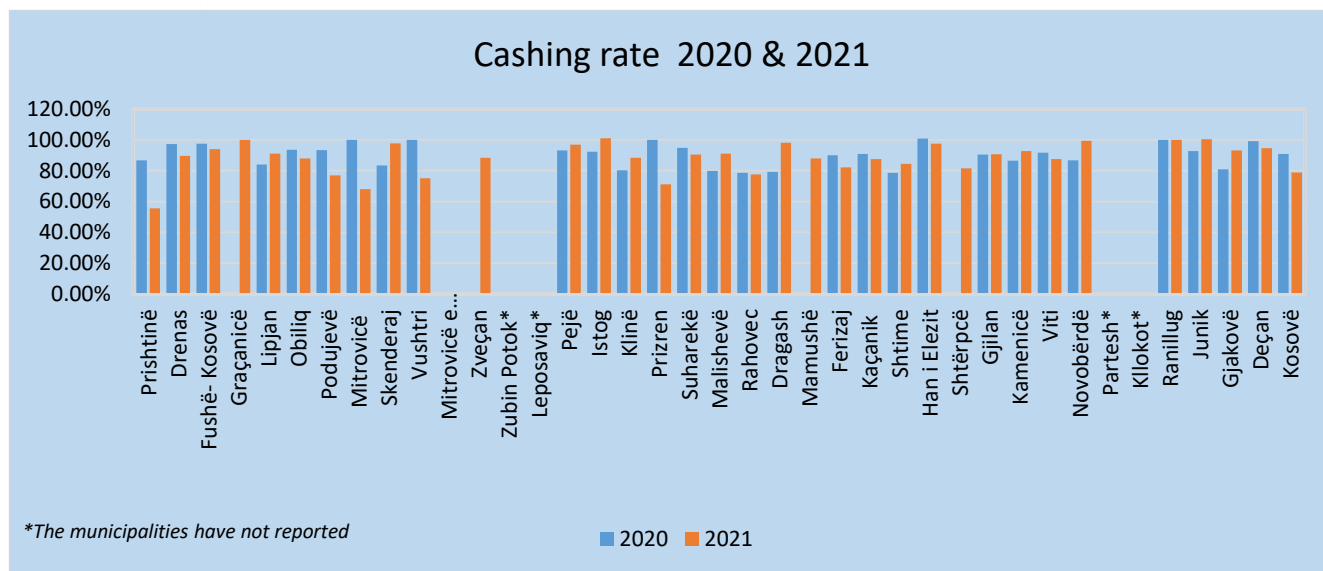
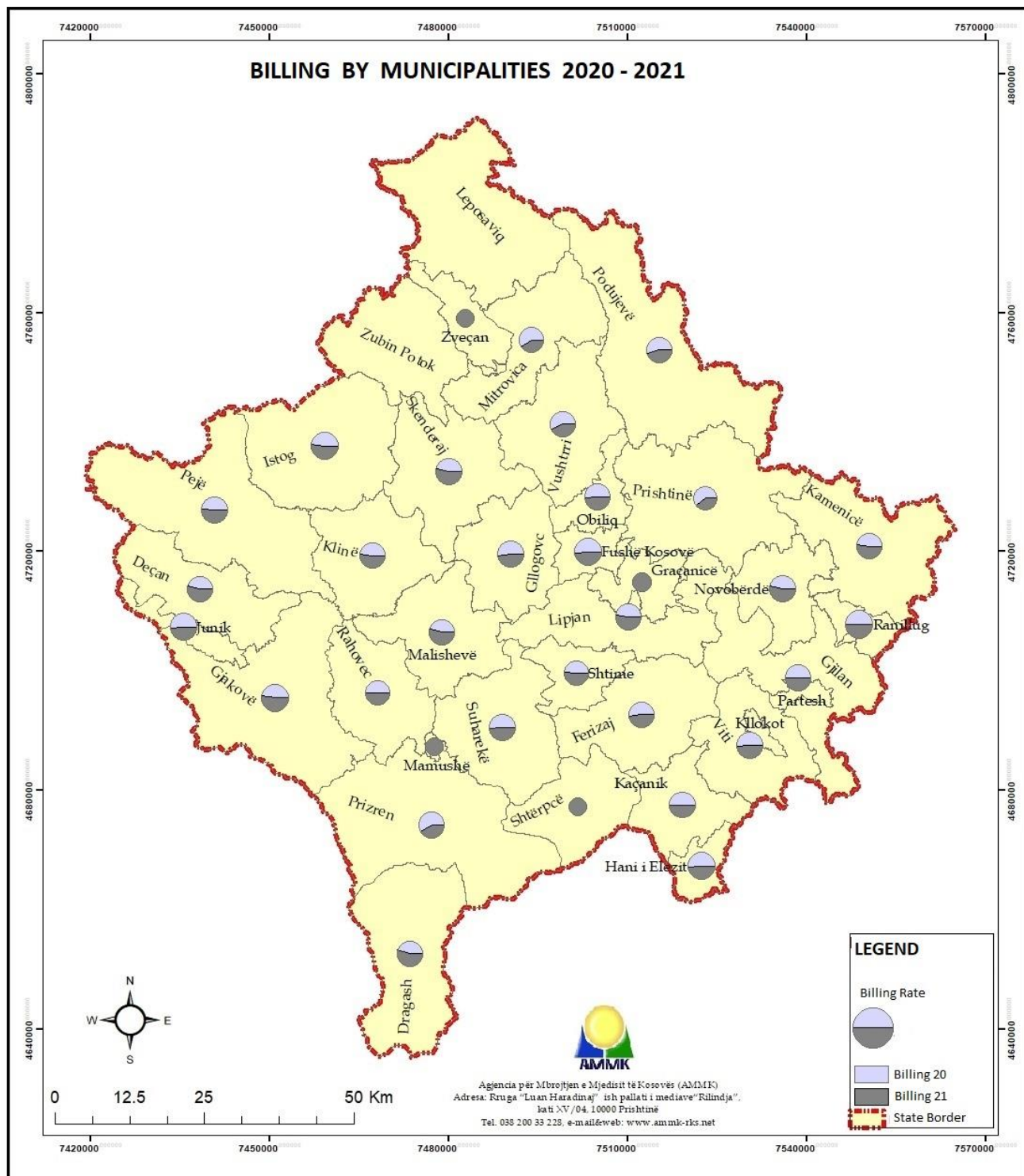


Figure 6. Cashing for service of collection and transport of MW, (2020 & 2021)



Map 3. Cashing rate for MW collection and transport service, (2020 & 2021)

3.6. Illegal landfills

One of the problems that continues to follow the state of the environment in Kosovo is the presence of illegal landfills, which appears everywhere in the environment.

In order to identify and register illegal landfills, during the month of May 2022, KEPA, with the support of GIZ and with the participation of representatives of municipalities and officials of regional companies, has identified and registered illegal landfills in 38 municipalities of Kosovo.

Landfill registration is based on two characteristics: size and composition of waste.

According to the size, the landfills are classified into three categories: large, medium and small landfills. This classification is done by visually assessing the volume of landfills. While according to the composition of waste, landfills are classified into: (a) municipal waste landfills; (b) construction and demolition waste landfills; (c) hazardous waste landfills; (d) bulky waste landfills; and (e) other waste landfills.

In this process, a total of 763 illegal landfills of various sizes were registered in 38 municipalities, where the category of small landfills dominates with a total of 270, while according to the composition, the category designated as `other` dominates with 40%.

In the Region of Prizren, the largest number of illegal landfills was registered with a total of 187, while in the Region of Gjakova, the smallest number of landfills was registered with a total of 30 landfills.

Meanwhile, according to the municipalities, the largest number of illegal landfills was registered in the municipality of Lipjan with a total of 88 landfills, followed by the municipality of Malisheva with 84 landfills, while no illegal landfills were registered in the municipalities of Viti and Junik.

It should be noted that year after year significant progress is being made in cleaning up illegal landfills, and we also see less and less that new landfills are being created. This progress has been influenced by the increased commitment of municipalities and waste management companies, but also by the increase in citizen awareness of the importance of protecting the environment. Thus, compared to 1184 illegal landfills registered in May 2021, in the last registration carried out in June 2022, the number of illegal landfills has decreased by 426, so a total of 763 illegal landfills have been identified and registered at the country level.

Detailed data on illegal landfills are provided in Annex 4, in the report.

Table 6. The number of illegal landfills over the years by region

REGION	2018	2019	2020	2021
REGION of PRISHTINËS	582	313	277	150
REGION of MITROVICËS	221	222	101	118
REGION of PEJËS	342	141	156	68
REGION of PRIZRENIT	448	298	256	187
REGION of FERIZAJT	158	127	118	99
REGION of GJILANIT	377	325	242	111
REGION of GJAKOVËS	118	63	39	30
KOSOVË	2246	1489	1189	763

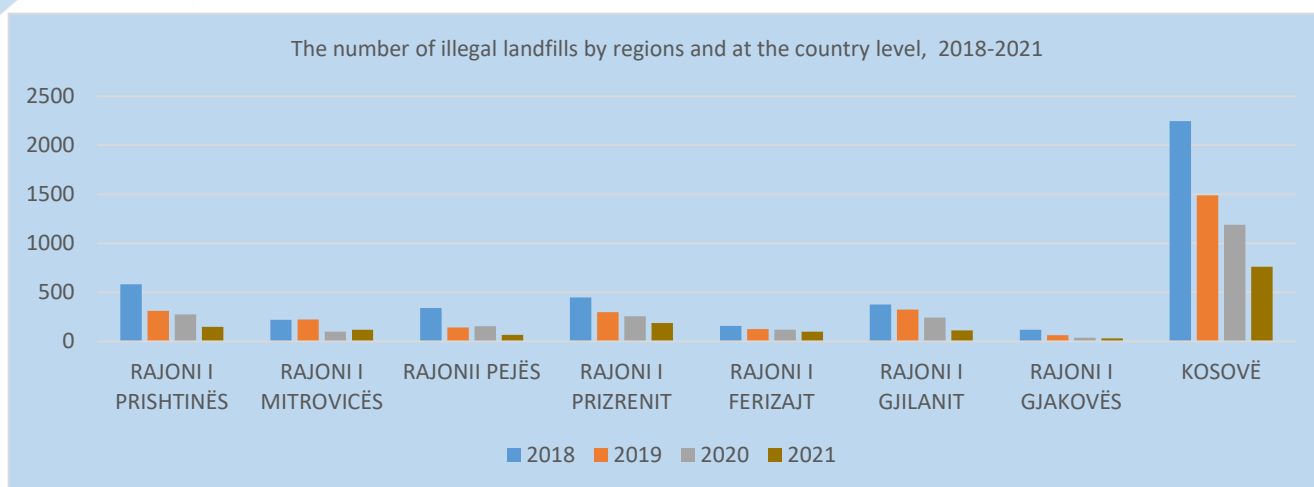


Figure 7. The number of illegal landfills, by regions and at the country level

Table 7. Illegal landfills according to composition, 2021

REGION	Municipal waste	Construction and demolition waste	Industrial and hazardous waste	Bulky waste	Other waste
REGION of PRISHTINËS	27.0%	41.1%	0.0%	0.6%	31.3%
REGION of MITROVICËS	46.4%	19.5%	1.2%	1.4%	31.5%
REGION of PEJËS	46.3%	19.3%	0.3%	0.0%	34.0%
REGION of PRIZRENIT	8.2%	33.5%	0.4%	0.0%	57.9%
REGION of I FERIZAJT	27.3%	37.2%	0.0%	1.1%	34.3%
REGION of I GJILANIT	28.8%	24.3%	0.0%	0.9%	46.1%
REGION of I GJAKOVËS	5.0%	27.5%	0.0%	0.0%	67.5%
KOSOVË	28.0%	30.8%	0.3%	0.8%	40.1%

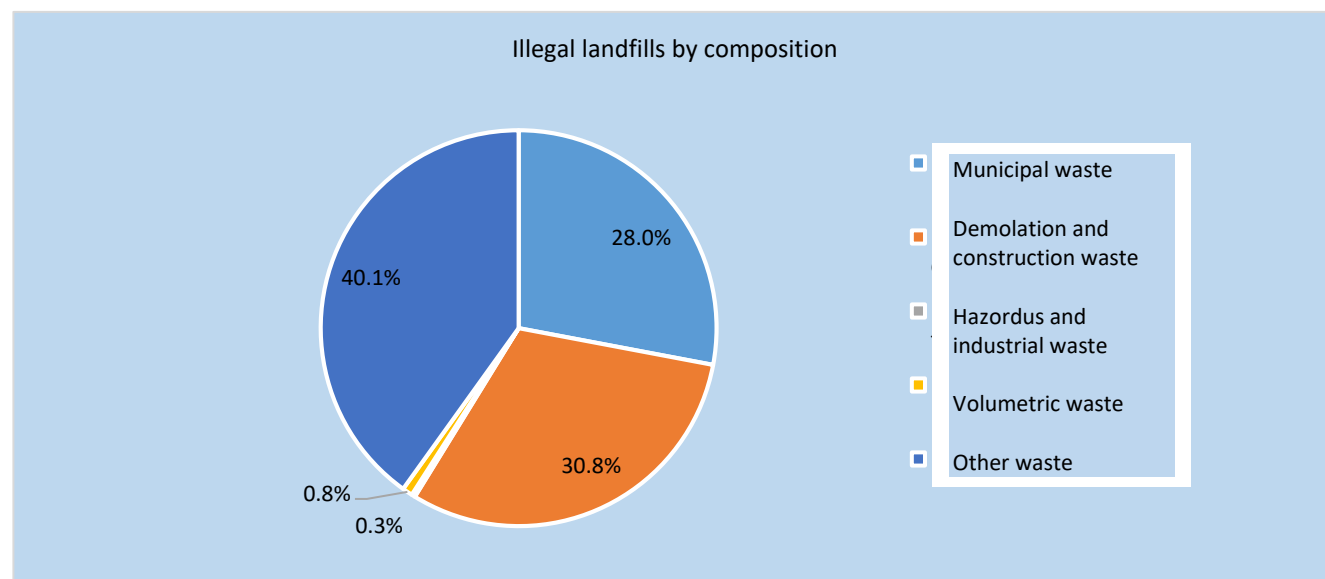
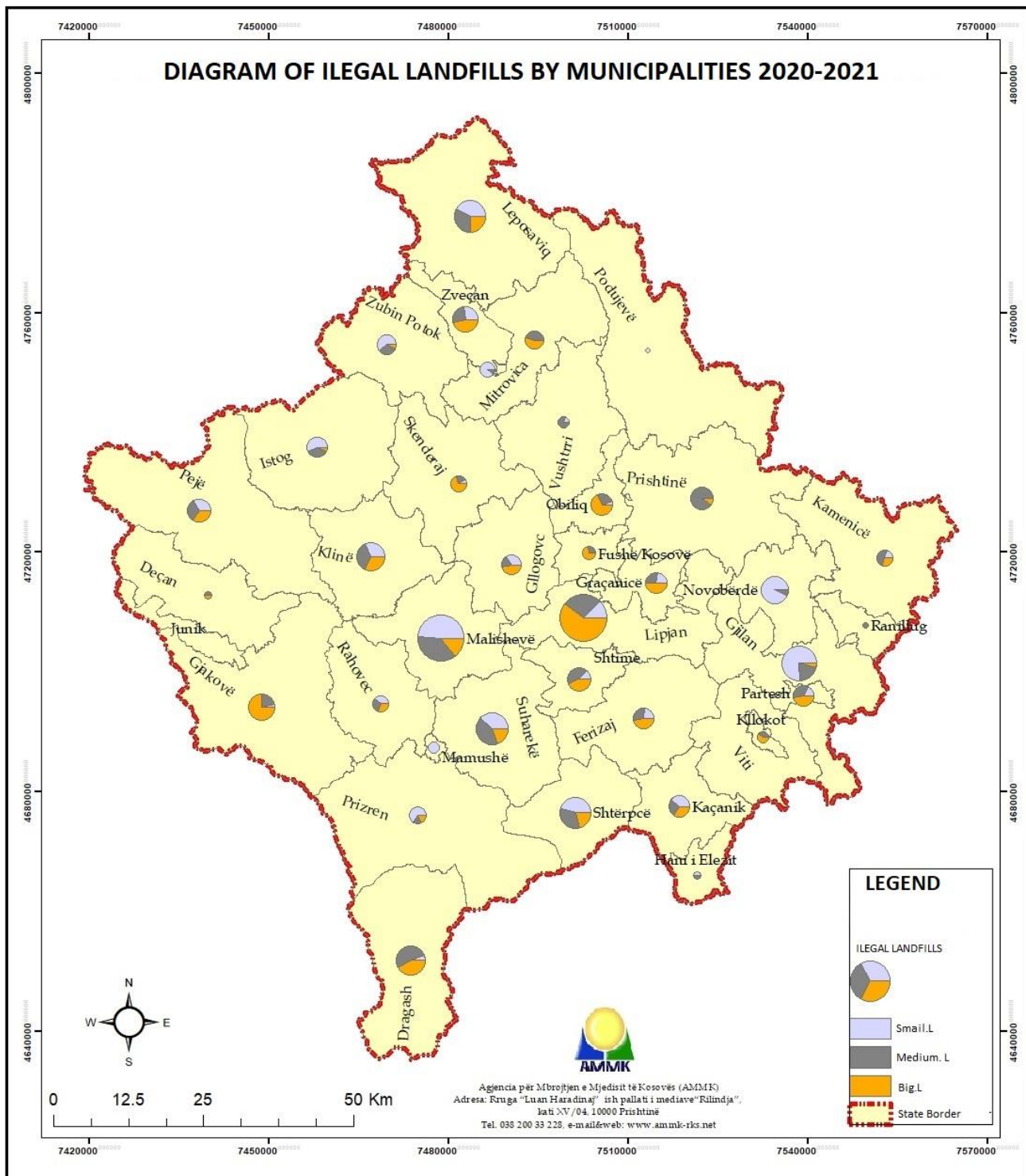


Figure 8. Illegal landfills, according to composition at country level (%)



Map 4. Illegal landfills, according to municipalities, 2021

3.7. Cost efficiency of municipal waste management

The rational management of financial resources and technical capacities are at the same time very closely related to operational sustainability and the provision of appropriate services at the same time.

Cost efficiency is an important indicator, where through this indicator we see how municipalities, respectively operators provide efficient waste management services, and on the other hand create operational stability, making an ideal pre-calculation for setting a service fee that covers service costs.

The quality and sustainability of waste management service delivery, can seriously deteriorate if services are not provided in an economical and cost-effective manner, and in the case where service delivery is inefficient, it is an indicator that must be addressed in the management aspect, especially the financial and operational one.

The costs for providing the waste management service are different in each municipality. Each municipality has its own characteristics, such as: typology of service provision, terrain topography, social differences, infrastructure, etc. Therefore, the cost efficiency of service provision for each municipality is closely related to the aforementioned characteristics, and to the level of the tariff burden for service provision.

Municipalities and mandated service providers report on the cost efficiency of the service provided, based on their internal analysis and estimates of the costs incurred during the operating year. In the evaluation of this report in the evaluation procedure practiced in KEPA, municipalities and operators are required to support the costs generated during the reporting year with relevant and reliable documentation. Relevant for the calculation of the costs of providing the waste management service, are the costs that are exclusively billed to this service.

The municipal waste management cost efficiency indicator, is designed to calculate the amount of waste collected in tons/year. However, the operators mandated for the collection and transportation of municipal waste have not managed to support the reporting with reliable data and documentation, so in these circumstances, after reviewing the reports, for the calculation of the efficiency of the waste collection, the number was taken as the basis of service provider staff per 1,000 clients (units) served. A more detailed overview of the cost of providing the service is presented in the following table:

Table 8. Cost efficiency of waste management, 2021

Municipality	Service Provider staff	Customers served	Staff efficiency per 1,000 customers served
Prishtine	259	79,143	3
Drenas	51	8,160	6
Fushe Kosove	58	14,273	4
Gracanice	79	4,409	18
Lipjan	63	10,810	6
Obiliq	42	3,575	12
Podujeve	57	10,170	6

Mitrovica	219	14,358	15
Skenderaj	46	5,951	8
Vushtrri	76	17,265	4
Mitrovica e Veriut*	-	0	-
Zvecan	50	1,827	27
Zubin Potok*	-	0	-
Leposaviq*	-	0	-
Pejë	129	19,667	7
Istog	36	6,779	5
Klinë	36	6,490	6
Prizren	242	39,832	6
Suharekë	74	9,662	8
Malishevë	103	8,145	13
Rahovec	50	11,615	4
Dragash	59	4,990	12
Mamushë	11	481	23
Ferizaj	272	15,973	17
Kaçanik	74	4,138	18
Shtime	36	3,363	11
Hani i Elezit	25	1,484	17
Shterpce	15	1,492	10
Gjilan	62	17,219	4
Kamenicë	16	4,813	3
Viti	16	5,295	3
Novo Brdo	7	1,190	6
Partesh	12	1,038	12
Klllokot	6	939	6
Ranillug	3	975	3
Gjakovë	142	16,129	9
Deçan	49	8,169	6
Junik	11	1,083	10
Total	2,486	360,902	7

* The municipalities have not reported

3.8. Separate systems for special wastes

The indicator: separate systems for special waste, is the second year that Municipalities report to KEPA. The purpose of this indicator is to assess how and to what extent the municipalities have started their commitments to create infrastructure for the management of special waste streams, and this includes: Construction and demolition waste, bulky waste, by-products of animal and healthcare waste.

This indicator measures the initiatives of the Municipalities to include these waste streams in their investment planning for waste management, which are a special part, relatively complex part, but also of great importance for the preservation of the environment and public health.

Municipalities have included these streams of waste in the MPWM with priority, therefore the indicator also aims to assess to what extent the municipalities have been able to fulfill the implementation of these plans.

Based on the evaluation of waste reporting for 2021, and analyzing the realization of MPWM, with a focus on these waste streams, we have found that in general municipalities have not correctly reflected the management priorities of these streams.

This has been established by the fact that municipalities have not well defined the special sections of planning service levels, operational models, cost estimation and financing (including budget allocation) and necessary investments, but even in those cases where they have defined them well, have not taken steps to realize them.

Thus, during the review of the MPWM for each Municipality that has reported, an assessment was made by finding how many municipalities have included these waste streams in the MPWM, as well as at what level they have reflected them in the sections such as: purpose, objectives, measures /activities and the budget allocated for their management.

The results of this indicator are presented in the following table for each municipality. Thus, for the municipalities that have been assessed to have provided a clear description of these waste streams in the MPWM, they have been assessed with a value of 1, while in some municipalities, even after reviewing the MPWM, it has been assessed that they have not clearly planned and harmonized them, or in some cases they are not included at all, in these cases the evaluation is given with the value 0.

Table 9. Separate systems for special wastes, 2021

Municipality	Separate systems for special wastes				
	Overall assessment				
	Waste from Construction and Demolition	Bulky waste	Animal waste and animal by-products	Medical waste	Total rating
Prishtinë	4	4	3	3	14
Drenas	4	4	3	4	15
Fushë Kosovë	0	0	0	0	0
Gracanice	0	0	0	0	0
Lipjan	0	0	0	0	0
Obiliq	0	0	0	0	0

Podujeve	3	3	3	3	12
Mitrovice	0	0	0	0	0
Skenderaj	0	0	0	0	0
Vushtrri	0	0	0	0	0
Mitrovica e Veriut	0	0	0	0	0
Zvecan	0	0	0	0	0
Zubin Potok	0	0	0	0	0
Leposaviq	0	0	0	0	0
Pejë	3	3	3	3	12
Istog	0	0	0	0	0
Klinë	0	0	0	0	0
Prizren	0	0	0	0	0
Suharekë	0	0	0	0	0
Malishevë	0	0	0	0	0
Rahovec	4	4	0	0	8
Dragash	0	0	0	0	0
Mamushë	3	3	0	0	6
Ferizaj	0	0	0	0	0
Kaçanik	0	0	0	0	0
Shtime	3	0	1	4	8
Hani i Elezit	3	0	0	0	3
Shterpce	0	0	0	0	0
Gjilan	3	3	3	3	12
Kamenicë	0	0	0	0	0
Viti	0	0	0	0	0
Artanë	0	0	0	0	0
Partesh	0	0	0	0	0
Klllokot	0	0	0	0	0
Ranillug	0	0	0	0	0
Gjakovë	4	4	2	2	12
Deçan	4	4	4	3	15
Junik	0	0	0	0	0
Total	38	32	22	25	117

3.9. Separation of waste at source - Recycling

Separation of waste at the source still remains one of the aspects of waste management where municipalities have not yet begun to undertake initiatives to start the implementation of this step, which represents the key to the start of integrated waste management. In the absence of the implementation of waste separation at the source, a sustainable waste recycling system cannot be developed, which is one of the main links in the development of the circular economy.

From the review of the data reported by municipalities and operators for waste management for 2021, as in previous years, it has been estimated that almost no municipality is implementing any proper system for the classified collection of generated waste.

Even in the few municipalities that have reported on such activity, however, it has been assessed that it is not sustainable and rather it is an initiative within pilot campaigns, but not something sustainable.

The requirements of the standardized reporting format drafted by KEPA are that municipalities and operators mandated for the collection and transportation of municipal waste, report on the number of households that have access to the infrastructure for waste separation at source, including all households that are within a 250 m radius of a waste collection point that offers separation of recyclable wastes, households that are equipped with a composter and households within a 5 km radius of a separate waste collection center.

Thus, of the 35 municipalities that have reported on waste management in 2021, only a few municipalities have reported that they have developed infrastructure for the separation of waste at source. However, after examining the data, it has been estimated that only the municipality of Drenas has enabled 274 family economies to have access to this kind of infrastructure, while the data reported by other municipalities are applied to the activities of previous years and not for the reporting year 2021.

The reported data has been verified with planning documents and photo evidence of locations, orthophotos, list of settlements, etc.

Of course, in order to implement a sustainable system of separate waste collection, a detailed planning is required, including in the first place infrastructural changes, construction of the waste treatment system and especially coordination with the recycling sector, sensitization of citizens, etc.

Regarding recycling, it is known that there is activity in this direction, but municipalities have not been able to provide data related to recycling activity. Some private companies are recycling waste mainly of nylon, plastic and metals, but this waste is mostly collected by the informal sector and it is difficult to realistically estimate the amount of waste being recycled.

Therefore, in the absence of reporting data, we have referred to the data from the KSA surveys regarding the amount of treated waste for 2021 and they are presented in the following table:

Table 10. Waste treated by type for 2021/t (KSA)

Waste;	Deposited	Recycled	Total
Paper and cardboard waste;	/	11,361.00	11,361.00
Waste from metals;	/	3042.00	3,042.00
Plastic waste;	/	6,904.00	6,904.00
Waste from economy;	483,777.00		483,777.00
Total	483,777.00	21,307.00	505,084.00

Knowing the level of waste recycling in Kosovo, and especially building a sustainable recycling system, should be one of the main goals. The government and municipalities must focus and create mechanisms for the development and advancement of this sector, which will not only minimize the load of landfills with waste, but also will affect the improvement of the environment and will also give positive results in economic and social aspect.

3.10 Compliance with the legal and planning framework for WM

With the Waste Law and other sub-legal acts, the duties and responsibilities of municipalities for waste management within their territory are defined. Planning documents at the central and local level are also derived from this legal basis, which provide a framework for the development of the waste sector.

Thus, with the implementation of legal duties and obligations, as well as with the realization of the objectives of the planning documents, the municipalities improve the situation in the waste management sector.

Within this indicator: *Compliance with the legal and planning framework for waste management*, for the reporting year 2021, with the standardized reporting format, municipalities have been requested to report on the fulfillment of legal obligations.

Until March 31, 2022, 35 municipalities have reported on the fulfillment of this indicator with the requirements listed below:

1. Drafting and approval of the MRrWM;
2. Drafting and approval of MPWM;
3. Permanent employment of the waste management officer, whose job description ensures that at least 50% of the responsibilities are for waste management;
4. Employment of the environmental inspector, whose job description ensures responsibility in the field of waste management;
5. Contracting licensed operators for the collection and transportation of municipal waste, implementing procurement procedures;
6. Contracting licensed operators for the collection and transportation of waste from the construction and demolition of construction facilities, implementing procurement procedures;
7. Determining service fees by going through the fee process for the collection, transportation and disposal of municipal waste, through the calculation of service costs, customer profiling and the determination of service fees;
8. Designation of the center for collection, treatment and disposal of waste from the construction and demolition of construction facilities;
9. Determination of the organizational structure of the organization of the inspectorate in the Municipality; and
10. Pronunciation of mandatory fines.

Municipalities are responsible for fulfilling the legal obligation for reporting within the deadline set until March 31 of the following year for the previous reporting year.

After reviewing the data reported for this indicator, evaluating and verifying them with supporting documents, a general overview of the realization of the processes was drawn, in compliance with the legal and planning framework for waste management.

Thus, the Region of Prishtina has recorded the highest level of fulfillment of legal processes with 82%, while the Region of Gjilan has reached the lowest level of 51%.

Meanwhile, the level of realization of these 10 processes-legal requirements at the country level in 2021, has reached an average of 68%, which compared to 2020 has marked a decrease in improvement by 1.5%.

Table . 11. Compliance with the legal and planning framework for waste management, (2020 & 2021)

REGION	Year	MPWM	MRRWM	Official for WM	Environmental inspector	Contracting of licensed	Contracting of licensed operators /	Tariff process	Center for WCD	Inspectorate	Mandatory fine	Average of implemented processes
PRISHTINËS	2020	100%	100%	100%	71%	100%	0%	100%	71%	100%	100%	84.3%
	2021	100%	100%	100%	71%	100%	0%	100%	71%	100%	86%	82.9%
MITROVICËS	2020	100%	60%	80%	80%	60%	0%	100%	60%	80%	60%	68.0%
	2021	100%	75%	100%	75%	75%	0%	75%	75%	100%	50%	72.5%
PEJËS	2020	100%	100%	100%	100%	33%	0%	100%	33%	100%	100%	76.7%
	2021	100%	100%	67%	67%	67%	0%	100%	33%	100%	67%	70.0%
PRIZRENIT	2020	67%	83%	100%	100%	83%	0%	17%	83%	100%	100%	73.3%
	2021	83%	83%	100%	83%	50%	0%	0%	67%	100%	83%	65.0%
FERIZAJT	2020	80%	60%	80%	80%	60%	0%	80%	80%	80%	40%	64.0%
	2021	100%	75%	100%	100%	75%	0%	50%	####	100%	75%	77.5%
GJILANIT	2020	86%	57%	71%	57%	57%	0%	0%	57%	57%	86%	52.9%
	2021	100%	57%	57%	71%	57%	0%	0%	43%	71%	57%	51.4%
GJAKOVËS	2020	100%	100%	100%	100%	67%	0%	67%	67%	100%	67%	76.7%
	2021	100%	100%	67%	100%	100%	0%	100%	67%	100%	67%	80.0%
Municipalities that have implemented the process	2020	31	28	32	29	25	0	22	24	31	28	25
	2021	33	28	29	27	25	0	18	22	32	24	24
Average realization of the process/s	2020	86.1%	77.8%	88.9%	80.6%	69.4%	0.0%	61.1%	66.7%	86.1%	77.8%	69.4%
	2021	94.3%	80.0%	82.9%	77.1%	71.4%	0.0%	51.4%	62.9%	91.4%	68.6%	68.0%

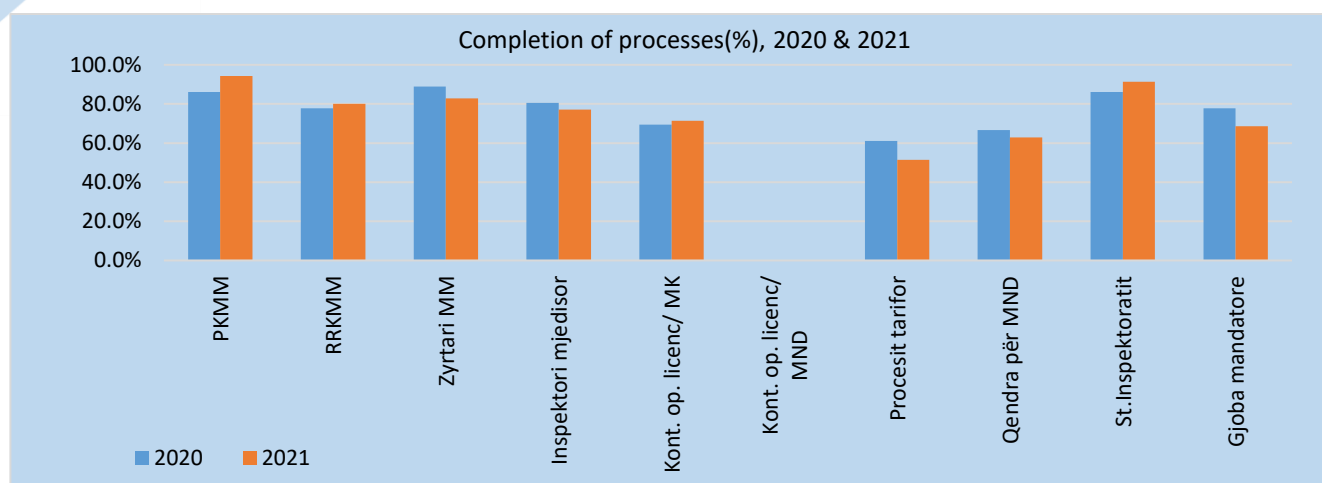


Figure 9. The level (%) of completion of the required processes at the country level, (2020 & 2021)

As in the previous years, also this year the process which was not carried out by the Municipalities is the process no. 6. Based on our estimates, this is happening due to non-contracting of licensed companies for the collection and transportation of waste from construction and demolition.

This phenomenon is related to the lack of licensed companies for the management of construction and demolition waste. However, it has been estimated that some municipalities have taken steps to manage this waste, by contracting public companies that operate in the territory of the municipalities, private construction companies or some other form.

The process that was the most fulfilled by the municipalities (33 of the 35 municipalities that reported) for the year 2021 is process 1: drafting and approval of the MPWM; whereas process 7: Setting service fees by going through the tariff process, has resulted as the least fulfilled process by only 18 municipalities or on average by 51%.

The detailed data related to the degree of realization of the processes, are given in annex 5 in the report.

Findings of the report

- After evaluating the reporting data for 2021, it was estimated that over 90% of the generated waste ends up in sanitary landfills;
- Waste generation, although it has recorded a decrease compared to 2020, it is nevertheless considered that in the long term there are trends of continuous growth;
- The coverage of waste collection and transport services for households is increasing from year to year, so while in 2020 it was 85.3%, in 2021 it has reached 90.2%;
- The cashing rate for the household economy has decreased by 12%, so compared to 2020, which was 90.8%, in 2021 it has decreased to 78.9%. This apparently happened due to the difficulties created as a result of the Covid-2019 pandemic;
- The number of illegal landfills registered in 2021 is 763, marking a decrease of 426, in contrast to 2020 when were registered 1189 illegal landfills.
- The treatment and especially the recycling of waste still remains a challenge for the Municipality. Although in some municipalities there are initiatives to provide access to the source separation of recyclable waste such as: plastic, paper, cardboard, aluminum, and organic waste, this remains unsustainable.
- Regarding the implementation of the processes that emerge as an obligation from the legal basis of waste management and planning documents, in 2021 the municipalities recorded a small regression compared to 2020. There was a regression in the implementation of these processes: the appointment of the official for waste management and the municipal environmental inspectorate, the passage of the tariff process and the imposition of mandatory fines;
- Progress in waste management is not uniform and there are differences from municipality to municipality or according to regions, and this is influenced by the technical capacities and other resources at their disposal;
- The treatment of special waste such as: Construction and demolition waste, bulky waste, animal by-products and health care waste, remains only written in planning documents such as MPWM, but there is no concrete commitment in their management;
- Waste Management still continues according to the linear form, and it seems that it will remain a challenge for municipalities to move to waste management according to the 3R format (reduce, reuse and recycle).

Recommendations

- Municipality, waste management operators, and central institutions, should develop policies that promote prevention of waste generation and invest in waste treatment-recycling;
- Municipalities and licensed operators dealing with waste collection and transportation must increase efforts to increase coverage with waste collection services up to 100%;
- The municipality and the operators contracted for the waste collection service, should increase the cashing rate, because it still remains low. The cashing rate is decisive for financial stability and this directly affects the provision of quality services and the preservation of the environment at the same time;
- An analysis of the balance must be done to define the value collected from the accumulated debts from the cashing that belongs to the reporting year;
- The Municipality, in coordination with licensed and contracted operators, should invest in technical capacities in order to reduce operational costs. The waste collection and transport equipment of most contracted municipalities-operators is already very outdated with an average of 15 years;
- The presence of illegal landfills remains an ugly phenomenon for the environment, therefore municipalities and mandated operators must increase their commitment to completely eliminate these landfills;
- Progress must be made and move from linear waste management to a circular economy, this is achieved by making a deep analysis of the potential for waste reuse and recycling;
- Cooperation and coordination with licensed operators for recycling, the informal sector and sanitary landfill management companies, should be encouraged;
- Municipalities should be maximally engaged in fulfilling legal obligations (8 processes presented in annex 5 in the report);
- Central policies and donor support should be properly oriented to ensure balanced development in waste management in all regions and municipalities;
- Municipalities should be oriented towards inter-municipal cooperation for the implementation of waste management projects, because this form is more effective and more affordable;
- Municipalities should revise MPWM and MRrWM, harmonizing them with planning documents of the national level such as SMIM and PMM;
- Municipality and central institutions should be committed to the promotion of integrated waste management, through concrete initiatives, realization of awareness campaigns and other activities that enable sustainable waste management.

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- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Klina;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Prizren;
- The annual report for waste management, REPORTING YEAR 2021 - Municipality of Suhareka;
- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Malisheva;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Rahovec;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Dragash;
- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Mamusha;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Ferizaj;
- Annual report for waste management, REPORTING YEAR 2021-Kaçanik Municipality;
- Annual report for waste management, REPORTING YEAR 2021-Shtime Municipality;
- The annual report for waste management, REPORTING YEAR 2021-Municipality of Han i Elezit;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Gjilan;
- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Kamenica;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Vitia;
- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Novobërda;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Partesh;
- Annual report for waste management, REPORTING YEAR 2021-Ranillug Municipality;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Gjakova;
- Annual report for waste management, REPORTING YEAR 2021 - Municipality of Deçan;
- Annual report for waste management, REPORTING YEAR 2021-Municipality of Junik;
- The annual report for waste management, REPORTING YEAR 2021 - Municipality of Shtërrpce;
- The annual report for waste management, REPORTING YEAR 2021 - Municipality of Killokot.

“REPORT OF MUNICIPAL WASTE MANAGEMENT IN KOSOVO”,
REPORTING YEAR 2021

This report has been prepared by the Environmental Assessment Directorate of the Environmental Protection Agency of Kosovo, with the support of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, on behalf of the German Government.

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- Annex 2.** General Overview of coverage with municipal waste collection and transport service in the years 2020 and 2021;
- Annex 2.1.** Overall coverage rate with municipal waste collection and transportation services in the years 2020 & 2021;
- Annex 3.** General overview of cash payment for the municipal waste collection and transport service in 2021;
- Annex 3.1.** Cash payment rate for the service of waste collection in the year, 2021 (%);
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- Annex 5.** Compliance with the legal and planning framework for waste management, 2021;

Annex 1. Amount of municipal waste collected and generated in Kosovo, 2021

#	Municipalities/Region	General and service data			Amount of collected waste (2021)		Waste generation (2021)	
		Number of residents (KAS-2011)	Number of households (KAS-2011)	Number of households served (12/2021)	Mixed municipal waste collected (ton/year)	Mixed municipal waste collected (kg/year)	Waste generation per capita (kg/year)	Waste generation per capita (kg/day)
1	Prishtinë	198,897	40,528	73,328	76,339.00	76,339,000.00	212.13	0.58
2	Glllogoc	58,531	8,786	7,447	7,458.10	7,458,100.00	150.33	0.41
3	Fushë- Kosovë	34,827	6,580	13,121	17,626.83	17,626,830.00	253.81	0.70
4	Graçanicë	10,675	2,421	4,040	4,503.26	4,503,260.00	252.80	0.69
5	Lipjan	57,605	9,497	8,839	13,053.12	13,053,120.00	243.47	0.67
6	Obiliq	21,549	3,852	3,274	7,152.62	7,152,620.00	390.52	1.07
7	Podujevë	88,499	13,440	9,176	18,139.50	18,139,500.00	300.22	0.82
RWC "Pastrimi"		470,583	85,104	119,225	144,272.43	144,272,430.00	229.33	0.63
R1	REGION OF PRISHTINA	470,583	85,104	119,225	144,272.43	144,272,430.00	229.33	0.63
8	Mitrovicë	71,909	13,173	13,148	21,967.00	21,967,000.00	306.06	0.84
9	Skenderaj	50,858	7,682	5,406	7,464.06	7,464,060.00	208.55	0.57
10	Vushtrri	69,870	11,866	15,884	19,596.85	19,596,850.00	209.53	0.57
RWC "Uniteti"		192,637	32,721	34,438	49,027.91	49,027,910.00	243.81	0.67
11	Mitrovicë e Veriut*							
12	Zveçan	7,481	1,895	1,695	2,430.00	2,430,000.00	363.15	0.99
13	Zubin- Potok*							
14	Leposaviq*							
R2	R. OF MITROVICA	200,118	34,616	36,133	51,457.91	51,457,910.00	247.65	0.68
15	Pejë	96,450	17,682	16,867	36,063.00	36,063,000.00	391.97	1.07
16	Istog	39,289	6,741	6,065	16,256.30	16,256,300.00	459.88	1.26
17	Klinë	38,496	5,843	5,721	9,758.70	9,758,700.00	258.90	0.71
RWC "Ambienti"		174,235	30,266	28,653	62,078.00	62,078,000.00	376.13	1.03
R3	R. OF PEJA	174,235	30,266	28,653	62,078.00	62,078,000.00	376.13	1.03
18	Prizren	177,781	29,625	35,295	49,839.86	49,839,860.00	235.31	0.64

19	Suharekë	59,722	9,145	8,740	15,181.54	15,181,540.00	265.98	0.73
20	Malishevë	54,613	6,879	7,399	10,596.00	10,596,000.00	180.38	0.49
21	Rahovec	56,208	8,221	10,532	14,426.90	14,426,900.00	200.35	0.55
22	Dragash	33,997	6,215	4,633	7,952.00	7,952,000.00	313.77	0.86
RWC "Ekoregjioni"		382,321	60,085	66,599	97,996.30	97,996,300.00	230.59	0.63
23	Mamushë	5,507	566	455	1,080.00	1,080,000.00	243.96	0.67
R4	REGION OF PRIZREN	387,828	60,651	67,054	99,076.30	99,076,300.00	230.73	0.63
24	Ferizaj	108,610	18,359	13,986	23,476.48	23,476,480.00	283.74	0.78
25	Kaçanik	33,409	5,547	3,835	3,942.74	3,942,740.00	170.70	0.47
26	Shtime	27,324	4,158	3,041	4,486.51	4,486,510.00	224.51	0.62
RWC "Pastërtia"		169,343	28,064	20,862	31,905.73	31,905,730.00	253.58	0.69
27	Han i Elezit	9,403	1,452	1,388	2,313.31	2,313,310.00	257.36	0.71
28	Shtërpçë	6949	1,485	1,350	1,827.34	1,827,340.00	289.26	0.79
R5	REGION OF FERIZAJ	185,695	31,001	23,600	36,046.38	36,046,380.00	255.42	0.70
29	Gjilan	90,178	17,115	15,959	25,124.14	25,124,140.00	298.79	0.82
30	Kamenicë	36,085	6,419	4,343	5,493.55	5,493,550.00	225.01	0.62
31	Viti	46,987	7,520	4,849	6,351.20	6,351,200.00	209.63	0.57
32	Novobërdë	6,729	1,449	1,056	2,181.15	2,181,150.00	444.77	1.22
RWC "Ekohigjiena"		179,979	32,503	26,207	39,150.04	39,150,040.00	272.44	0.75
33	Partesh	1,787	418	952	563.36	563,360.00	138.42	0.38
34	Klllokot	2556	510	795	925.48	925,480.00	232.28	0.64
35	Ranillug	3,866	956	917	1,118.33	1,118,330.00	301.58	0.83
R6	REGION OF GJILAN	188,188	34,387	28,871	41,757.21	41,757,210.00	268.59	0.74
36	Gjakovë	94,556	16,303	13,674	25,585.22	25,585,220.00	322.61	0.88
RWC "Çabratia"		94,556	16,303	13,674	25,585.22	25,585,220.00	322.61	0.88
37	Deçan	40,019	5,887	6,909	8,298.40	8,298,400.00	176.69	0.48
38	Junik	6,084	770	964	818.09	818,090.00	107.41	0.29
R7	R. OF GJAKOVA	140,659	22,960	21,547	34,701.71	34,701,710.00	259.18	0.71
KOSOVË		1,747,306	298,985	325,083	469,389.94	469,389,940.00	252.12	0.69

Annex 2. General Overview of coverage with municipal waste collection and transport service in the years 2020 & 2021

#	Municipalities / Region	General data				Coverage with waste collection services			
		Number of residents (KAS-2011)	Number of households (KAS-2011)	Number of active businesses in the municipality 2021	Number of institutions in the municipality 2021	Number of households that receive the service (2020)	Number of households that receive the service (2021)	Number of businesses that receive the service (2021)	Number of insitutions that receive the service (2021)
1	Prishtinë	198,897	40,528	*	*	72,530	73,328	5,723	92
2	Drenas	58,531	8,786	1,596	68	7,320	7,447	645	68
3	Fushë-Kosovë	34,827	6,580	*	*	11,995	13,121	1,085	67
4	Graçanicë	10,675	2,421	783	61		4,040	308	61
5	Lipjan	57,605	9,497	3,076	96	7,790	8,839	1,895	76
6	Obiliq	21,549	3,852	0	33	3,159	3,274	268	33
7	Podujevë	88,499	13,440	1,021	97	8,369	9,176	940	54
RWC "Pastrimi"		470,583	82,683	5,693	294	111,163	119,225	10,864	451
R1	R. OF PRISHTINA	470,583	82,683	5,693	294	111,163	119,225	10,864	451
8	Mitrovicë	71,909	13,173	1,145	65	12,895	13,148	1,145	65
9	Skenderaj	50,858	7,682	564	78	4,867	5,406	474	71
10	Vushtrri	69,870	11,866	884	164	13,710	15,884	1,232	149
RWC "Uniteti"		192,637	32,721	2,593	307	31,472	34,438	2,851	285
11	Mitrovicë e Veriut	*	*	*	*	*	*	*	*
12	Zveçan	7,481	1,895	*	*	1,674	1,695	112	20
13	Zubin-Potok	6,616	*	*	*	*	*	*	*
14	Leposaviq		*	*	*	*	*	*	*
R2	R. OF MITROVICA	206,734	34,616	2,593	307	33,146	36,133	2,963	305
15	Pejë	96,450	17,682	2,737	99	16,569	16,867	2,701	99
16	Istog	39,289	6,741	*	*	4,984	6,065	664	50
17	Klinë	38,496	5,843	*	*	4,958	5,721	699	70
RWC "Ambienti"		174,235	30,266	2,737	99	26,511	28,653	4,064	219
R3	R. OF PEJA	174,235	30,266	2,737	99	26,511	28,653	4,064	219

18	Prizren	177,781	29,625	*	*	31,739	35,295	4,403	134
19	Suharekë	59,722	9,145	850	72	7,316	8,740	850	72
20	Malishevë	54,613	6,879	*	67	7,151	7,399	679	67
21	Rahovec	56,208	8,221	*	*	9,618	10,532	1,026	57
22	Dragash	33,997	6,215	399	77	4,633	4,633	290	67
RWC "Ekoregjioni"		382,321	60,085	1,249	216	60,457	66,599	7,248	397
23	Mamushë	5,507	566	81	6	440	455	20	6
R4	R. OF PRIZREN	387,828	60,651	1,330	222	60,897	67,054	7,268	403
24	Ferizaj	108,610	18,359	*	*	13,125	13,986	1,918	69
25	Kaçanik	33,409	5,547	1,275	*	3,436	3,835	272	31
26	Shtime	27,324	4,158	*	*	2,918	3,041	294	28
RWC "Pastërtia"		169,343	28,064	1,275	*	19,479	20,862	2,484	128
27	Han i Elezit	9,403	1,452	87	10	1,307	1,388	86	10
28	Shtërpçë	6,949	1,485	140	25		1,350	120	22
R5	R. OF FERIZAJ	185,695	31,001	1,502	35	20,786	23,600	2,690	160
29	Gjilan	90,178	17,115	*	*	14,157	15,959	1,137	123
30	Kamenicë	36,085	6,419	*	*	4,088	4,343	398	72
31	Viti	46,987	7,520	*	*	3,663	4,849	388	58
32	Novobërdë	6,729	1,449	*	*	1,122	1,056	104	30
RWC "Ekohigjiena"		179,979	32,503	*	*	23,030	26,207	2,027	283
33	Partesh	1,787	418	70	16	952	952	70	16
34	Klllokot	2,556	510	134	10	*	795	134	10
35	Ranillug	3,866	956	37	21	956	917	37	21
R6	R. OF GJILAN	188,188	34,387	241	47	24,938	28,871	2,268	330
36	Gjakovë	94,556	16,303	*	*	12,524	13,674	2,375	80
RWC "Çabрати"		94,556	16,303	*	*	12,524	13,674	2,375	80
37	Deçan	40,019	5,887	1,353	50	5,829	6,909	1,210	50
38	Junik	6,084	770	*	*	975	964	111	8
R7	R. OF GJAKOVA	140,659	22,960	1,353	50	19,328	21,547	3,696	138
KOSOVË		1,753,922	298,985	15,449	1,054	296,769	325,083	33,813	2,006

* Municipalities have not reported the data!

Annex 2.1. Coverage rate with MW collection and transportation services, 2020 & 2021

#	Municipalities / RWC Region / REGION	Coverage rate with waste collection service				
		Service coverage rate for households (2020)	Service coverage rate for households (2021)	Increase or decrease of the coverage rate for households 2020 -2021 (point %)	Service coverage rate for businesses (2021)	Service coverage rate for institutions (2021)
1	Prishtinë	100.0%	100.0%	0%	*	*
2	Glogoc	83.3%	84.8%	1%	40.4%	100.0%
3	Fushë-Kosovë	100.0%	100.0%	0%	*	*
4	Graçanicë	0.0%	100.0%	100%	39.3%	100.0%
5	Lipjan	82.0%	93.1%	11%	61.6%	79.2%
6	Obiliq	82.0%	85.0%	3%	0.0%	100.0%
7	Podujevë	62.3%	68.3%	6%	92.1%	55.7%
RWC "Pastrimi"		89.2%	94.7%	5.5%	*	*
R1	R. OF PRISHTINA	89.2%	94.7%	5.5%	*	*
8	Mitrovicë	97.9%	99.8%	2%	100.0%	100.0%
9	Skenderaj	63.4%	70.4%	7%	84.0%	91.0%
10	Vushtrri	100.0%	100.0%	0%	100.0%	90.9%
RWC "Uniteti"		87.1%	93.0%	5.9%	94.7%	92.8%
11	Mitrovicë e Veriut	*	*	*	*	*
12	Zveçan	88.3%	89.4%	1%	0.0%	0.0%
13	Zubin-Potok	*	*	*	*	*
14	Leposaviq	*	*	*	*	*
R2	R. OF MITROVICA	90.4%	92.8%	2.4%	*	*
15	Pejë	93.7%	95.4%	2%	98.7%	100.0%
16	Istog	73.9%	90.0%	16%	*	*
17	Klinë	84.9%	97.9%	13%	*	*
RWC "Ambienti"		87.6%	94.7%	7.1%	*	*
R3	R. OF PEJA	87.6%	94.7%	7.1%	*	*
18	Prizren	100.0%	100.0%	0%	*	*
19	Suharekë	80.0%	95.6%	16%	100.0%	100.0%

20	Malishevë	100.0%	100.0%	0%	0.0%	100.0%
21	Rahovec	100.0%	100.0%	0%	*	*
22	Dragash	74.5%	74.5%	0%	72.7%	87.0%
RWC "Ekoregjioni"		97.1%	96.7%	-0.4%	*	*
23	Mamushë	77.7%	80.4%	3%	24.7%	100.0%
R4	R. OF PRIZREN	94.2%	96.5%	2.3%	*	*
24	Ferizaj	71.5%	76.2%	5%	*	100.0%
25	Kaçanik	61.9%	69.1%	7%	21.3%	0.0%
26	Shtime	70.2%	73.1%	3%	*	*
RWC "Pastërtia"		69.4%	74.3%	4.9%	*	*
27	Han i Elezit	90.0%	95.6%	6%	98.9%	100.0%
28	Shtërpçë	0.0%	90.9%	91%	85.7%	88.0%
R5	R. OF FERIZAJ	70.4%	76.1%	5.7%	*	*
29	Gjilan	82.7%	93.2%	11%	*	100.0%
30	Kamenicë	63.7%	67.7%	4%	*	0.0%
31	Viti	48.7%	64.5%	16%	*	100.0%
32	Novobërdë	77.4%	72.9%	-5%	*	*
RWC "Ekohigjiena"		70.9%	80.6%	9.7%	*	*
33	Partesh	100.0%	100.0%	0%	100.0%	100.0%
34	Klllokot	0.0%	100.0%	100%	100.0%	100.0%
35	Ranillug	100.0%	95.9%	-4%	100.0%	100.0%
R6	R. OF GJILAN	72.0%	81.6%	9.6%	*	*
36	Gjakovë	76.8%	83.9%	7%	*	*
RWC "Çabрати"		76.8%	83.9%	7.1%	*	*
37	Deçan	99.0%	100.0%	1%	89.4%	100.0%
38	Junik	100.0%	100.0%	*	*	*
R7	R. OF GJAKOVA	83.3%	88.5%	5.2%	*	*
KOSOVË		85.3%	90.2%	4.9%	*	*

* Municipalities have not reported the data!