



Republika e Kosovës
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Komuna e Gjakovës
Opština Djakovica-Municipality of Gjakova



Local Waste Management Plan

2015-2020

Municipality of Gjakova

Local
Waste Management Plan
2015 – 2020
Municipality of Gjakova

Gjakova,
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ACRONYMS / ABBREVIATIONS

LWMP	Local Waste Management Plan
RWC	Regional Waste Company
RAE	Roma, Ashkali and Egyptian Communities
WM	Waste Management
PC	Public Company
MA	Municipal Assembly
SEA	Strategic Environmental Assessment
KAS	Kosovo Agency of Statistics
POE	Publicly Owned Enterprise
WMS	Waste Management Sector

Foreword by the Mayor

“Establishment of a system for maintaining a sound environment in the Municipality of Gjakova, pursuant to the principles and legal framework applicable in the Republic of Kosovo” is one of the priorities for the Municipality of Gjakova.

The establishment of a sustainable waste collection and treatment system is one of the main objectives to the achievement of this vision. Therefore, the provision of conditions for full implementation of the Waste Law is one of the main challenges for the Municipality.

Local Waste Management Plan is a legal requirement, but also a very useful document for establishment of a sustainable system with direct effect to the improvement of the surrounding environment.

I would like to extend my gratitude to members of the working group and the coordination group, the HELVETAS Swiss Intercooperation/DEMOS project, as well as all other stakeholders for contribution provided upon drafting of this document.

Sincerely,

Mimoza Kusari Lila,

Mayor of the Municipality of Gjakova

Summary

Local Waste Management Plan of Municipality (LWMP) of Gjakova is a strategic paper.

This Plan sets out waste management objectives in line with Waste Management Strategy of the Republic of Kosovo. Local Plan is fully compliant with all approved papers and plans of the municipality of Gjakova.

Local Waste Management Plan covers the territory of Municipality of Gjakova, handles only organic, municipal, non-hazardous waste and waste recycling as one of its outputs. This plan is in full compliance with the Law No. 04/L-060 on Waste, and it sets the cooperation with other bodies responsible for economy, finance, environmental protection, urban planning, as well as representatives of companies or the companies, associations, professional institutions, non-governmental organizations, and others, including the consumer organizations.

Local Plan includes: type, quantity and origin of all wastes in municipal territory, expected type, quantity and origin of waste to be used or disposed in the territory covered by the Plan, the objectives to be met in terms of re-usage and recycling of the waste in areas covered by the Plan, waste management public awareness raising program, waste collection installations sites, waste treatment and disposal, including the data on urban and technical conditions, measures for rehabilitation of unregulated landfills, supervision and monitoring of the planned activities and measures, planned activities cost assessment, time frame for implementation of planned measures and activities, and important objectives and measures for efficient waste management.

According to the Law No. 04 / L-060 on Waste, Municipalities are responsible for development of Local Waste Management Plans, therefore, within the local legal framework, the municipality has approved: Local Environment Action Plan, Municipal Regulation on Waste Management and Municipal Regulation on Environmental Protection.

Based on Census 2011, Municipality of Gjakova has in total 94.556 inhabitants. Referring to the territory and the number of inhabitants, Municipality of Gjakova ranks as the third largest municipality in Kosovo. Spread of the population in municipality is approximately proportional between the urban and rural area, with 40,827 inhabitants in the urban area (43.2%) and 53 729 (56.8%) in rural areas. Waste collection services are currently covering 77.6% of the total population, and 100% in urban areas and 60% in rural areas.

The waste amount collected per day ranges from 60-70 tons, whereas the indications are that the overall amount of generated waste is around 90 tonnes per day. As it can be noted from the above conclusion, about 1/3 of the waste is not collected from the current operator. However, this does not mean that the remaining amount of waste remains non-systemized, on the contrary, in the territory of Municipality are operational certain unregistered operators, who in agreement with village representatives perform the duties of the primary waste collection operator. Unfortunately, a significant share of waste is disposed in an uncontrolled manner. Therefore, this Plan aims at the establishment of a long-term sustainable waste management system at the municipal level.

Implementation of the waste management plan 2015-2020 is based on two phases: establishment of a sound waste management system (2015-2018/Phase 1) and the establishment of a new system for collection and transfer station management (2018-2020/Phase 2).

Local Waste Management Plan 2015-2020 envisages:

- 100% Coverage of the territory of the Municipality of Gjakova with, waste collection service, increasng the fee collection rate up to 90%, reducing the level of illegal waste disposal to 10%, reducing the final disposal to 85%, increasing the recycling rate to 23%;
- Establishment of waste management sector within the Department of Public Services;
- Zoning of the territory of the Municipality of Gjakova, is based on the following criteria: proportional distribution of the areas regarding directions and lines of operation in waste management, distribution by the number of residents, distribution by the number of households, distribution by the number of buildings;
- Financial investments should be performed on the basis of short-term needs as well as the capital investments to meet the objectives set forth by the Municipality of Gjakova;
 1. The main estimates for necessary capital investments amounts to €1,600.600;
 2. Waste Management Sector is expected to have a budget in the amount of € 28,800;
- Pilot Projects such as: collection service for bulk waste, minimization of waste through composting, minimization of waste through separation of waste in schools, minimization of waste from plastic bags, recycling of the waste through proper management of the Transfer Station;
- Implementation plan.

As a conclusion, waste management in the Municipality of Gjakova, requires construction of new facilities for waste treatment, waste management budget enhancement, and new tariff structure in order to improve the waste management in the city. The direct beneficiaries to the Local Waste Management Plan are as follows:

- Citizens; live in a cleaner, healthier and safer environment;
- Businesses; economic growth as a result of increased number of tourists attracted by a clean and well managed city;
- Recycling businesses; access to larger amount of used materials;
- Municipal staff will benefit from the vision, goals and objectives that are clearly set, as well as the action plan that will guide them in the next 5 years to improve their waste management services;
- Municipal Authorities will benefit from the better reputation as a result of more satisfied citizens with the waste management services;

1. Introduction

Overall waste problematics in Kosovo

Most frequent complaints by the citizens are related to solid waste, therefore solid waste management is one of the priorities for municipalities across Kosovo. A large share of waste is still being disposed in an uncontrolled manner. Moreover, the amount of waste is increasing, therefore municipalities are under significant pressure to provide better services towards their citizens in this sector.

Delays in undertaking appropriate measures makes this problem to increase further endangering the public health of the citizens of the municipality.

Local Waste Management Plan (LWMP) 2015 -2020 of Municipality of Gjakova is a paper which sets the objectives and recommends policies, programs and necessary infrastructure for waste management in accordance with national priorities and in a way that meets the needs of Municipality of Gjakova and its citizens. The law on waste requires from municipalities to develop waste management plans. This is the first waste management plan for the municipality of Gjakova.

2. Municipal background

Municipality of Gjakova is extended in south-western part of Kosovo, with a total area of 586 km². According to the cadastral data, the city of Gjakova covers an area of 25km². The municipality is bordered, in the south, with the Republic of Albania, in the west, with of municipalities of Junik and Deçan, Municipality of Peja in north, and municipalities of Prizren and Rahovec east. Mountains of Bjeshket e Nemuna and Pashtrik dominate in the eastern and southern area of the municipality, while the Dukagjin Plain lies in the majority of the municipality. Region of Gjakova has abundant resources and the largest are Ereniku river basin, Drini i Bardhe river basin and the Radoniqi dam. According to the Statute, 91 rural settlements are evidenced in the municipality of Gjakova.

2.1 State of Play

Based on the last Census 2011, municipality of Gjakova has a total of 94.556 inhabitants. By referring to the territory and number of inhabitants, Municipality of Gjakova ranks as the third largest municipality in Kosovo.

Spread of the population in municipality is approximately proportional between the urban and rural area, with 40,827 inhabitants in the urban area (43.2%) and 53 729 (56.8%) in rural areas.

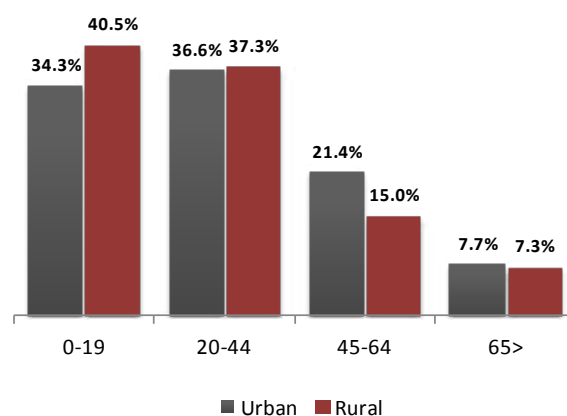
Table 1: Number of population, growth rate for the period 2015-2020

Year	2015	2016	2017	2018	2019	2020
Number of population	94,556	95,618	96,692	97,778	98,876	99,986
Growth rate	-	1,062	1,074	1,086	1,098	1,110

Source: KAS, 2011

Based on estimates, young age people are dominant in municipality of Gjakova, both in urban and rural areas. Whereas the dominant age group of population is the category 19-44 years old.

Figure 1: Number of population by age-group



Majority of the population in Municipality is concentrated in the radius from 0 up to 3km (43%). If this perimeter is expanded up to 12 km of distance, then the number of population grows to 85% of the total number of residents of the municipality.

Table 2: Table of population distribution based on distance and location

Population	0-3 km	3-6 km	6-9 km	9-12 km	12-20 km	Total	In %
Urban	35,400	-	-	-	-	35,400	37.4%
Suburban	3,423	2,005	-	-	-	5,427	5.7%
Rural	1,977	7,671	12,183	14,936	10,218	46,986	49.7%
Remote areas	-	-	2,183	2,395	2,165	6,743	7.1%
Total	40,799	9,676	14,366	17,332	12,383	94,556	100.0%
In %	43.1%	10.2%	15.2%	18.3%	13.1%		

2.2 Waste management roles and responsibilities

Roles and responsibilities of municipal bodies in waste management are provided in the box below:

- Department of Public Services (DPS) is responsible for managing all the works in public and municipal properties, monitoring the work of companies engaged in road maintenance and cleaning and other municipal spaces.
- Department of Finance is responsible for setting the service fees and the fee collection method.
- Department of Urbanism and Environmental Protection, which, inter alia, is responsible for spatial and urban and development planning in the municipality, assists in preparing local regulations for controlling the waste and garbage within the territory of the municipality, also provides support for the development of environmental conservation and maintenance projects.
- Department of Inspection is responsible for the oversight and implementation of laws and provisions of municipal regulations in the field of the Inspectorate for Environmental Protection, Agriculture and Forestry.
- Municipal committee of shareholders for the Enterprise “Çabрати” is responsible for overseeing the work of the enterprise.

2.3 Waste management operator

The only authorized operator in the municipality of Gjakova is RWC “Çabрати” which is 100% owned by the Municipality. The primary activity of the public operator is to collect and transport the local waste and secondary services such as: public spaces management and maintenance, street cleaning, snow removal and maintenance of public green spaces and cemeteries.

The company serves to three customer categories, i.e. households, businesses and institutions. Households customers are divided by the way they receive services to household customers who receive door-to-door service and customers equipped with containers. Businesses are divided into small and medium business that receive service without contracts and large businesses with special service contracts. Some small and medium businesses have door to door service and the rest is equipped with special containers. Businesses which entered into contract are equipped with special containers. Institutions are the third category of customers and besides small NGO`s, lawyer or similar offices, they usually have special contracts and are equipped with special containers.

Waste collection usually takes place from 08:00h to 14:30h. In exceptional cases, it can take place even after this time period, however no later than 18:00h.

As regards procedure and methodology for setting the fees, the company is currently applying the WWRO model, amended and approved by the Board of Directors in June 2012, still applicable. The current collection mechanism in households and small businesses is currently applied through cashiers and auxiliary cash register, but there are cases that this is done through the current account from customers. Whereas regarding large businesses and institutions, collection is done through cash register and current accounts.

The total number of clients of the company “Çabrati” during 2014 was 11642 of whom:

- 9559 are household,
- 1,975 small business,
- 64 large business 64 and
- 44 public institutions.

Fee collection for these categories in 2014 was:

- households, 69.47%;
- small businesses, 51.32%;
- large businesses, 81.05%;
- institutions 100.00%.

Zoning distribution of households and businesses covered by waste management service by company “Çabrati” is as follows:

- **Urban area:** 8288 families
- **Rural area:**
 1. Has – 477 households
 2. Rreka e Keqe – 362 households
 3. Dushkaja – 432 households

The company “Çabrati” employs in total 133 employees, out of whom 56 are engaged as a direct staff and 41 as indirect staff in providing waste collection service. The company provides a wide range of municipal services, where are engaged 36 employees.

Waste transfer station is managed by the company and has three employees (a truck driver and two workers). The waste collected from clients is disposed in transfer station, and from there are reloaded into large containers (25-28 tonnes) and finally is unloaded into the sanitary landfill in Landovica which is managed by Kosovo Landfill Management Company (KLMC) - Prishtina. Payment/fee for permanent disposal is done at the sanitary landfill in Landovica after the weighing.

Storage capacity of existing waste containers is 548 m³, respectively 55-81 ton. Regarding the collection, carrying and transporting infrastructure of the Company, the company possesses a compactor, rotary and self-loading trucks through which is realized the waste collection and their transportation to the transferring station. The company owns 3 compactor trucks with a carrying capacity of 21 ton, 5 compactor truck with capacity of 25 ton, 3 self-loading trucks with capacity of 3 ton and a trailer truck with capacity of 28 ton which is used to transfer the waste to the landfill.

2.4 Waste management

The amount of waste collected per day ranges from 60 to 70 tons, whereas the indications are that the overall amount of waste generated is around 90 tonnes per day. As it can be seen from the above conclusion, about 1/3 of the waste is not collected from the current operator. However, this does not mean that the amount of waste remains un-systemized, in contrary, several unregistered operators operate in the territory of the Municipality who in agreement with village representatives perform the tasks of the primary waste collection operator. Unfortunately, a significant proportion of waste is disposed in an uncontrolled manner.

The main reasons for the incomplete waste collection are various, such as:

- Low level of awareness among residents;
- Limited capacities of the Publicly Owned Enterprise for waste management;
- Non-payment by a share of service recipients;
- Non resolution of construction waste (demolition) issue;
- Unsolved issue of animal waste management
- Low and informal classification and recycling.

Currently the only operator, licensed by the municipality is POE “Çabрати”, which according to the data, it provides the primary service of waste collection of 77.6% of the total population, and 100% in urban areas and 60% in rural zones.

Despite progress made, there are several categories of waste that represent a challenge for the municipality, particularly construction waste / demolition, animal residues, etc.

Construction / demolitions waste:

Due to the lack of adequate landfill for this category of waste, the waste from construction materials and demolition are disposed everywhere by deteriorating the environmental and aesthetic aspects. Often, uncontrolled disposal of this waste causes the creation of illegal landfills and disposal of various waste from residents and businesses. In addition, there is no link between granting the building permits and the waste disposal monitoring system. Regarding solid waste landfills, the Municipality is in the process of selecting the proper location. The project for constructing solid waste landfill is included in the list of projects foreseen to be implemented within the Waste Management Plan of Republic of Kosovo, for which it is foreseen the co-financing, 40% by the donor; 30% by the Kosovo Budget; and 30% by the Municipality of Gjakova.

Animal residues waste:

Animal residues management in municipality of Gjakova is not in line with the provisions in force, primarily due to the lack of the animal residues treatment plant. In the municipality there are 18 entities engaged in production, processing and preservation of meat, and 33 of them engaged in trade of meat and meat products. Current waste operator has service contracts with some of the businesses above and collects the waste, whereas some of the entities disposes the waste in illegal manner.

Furthermore, it is not clear how the licensed operator handles the collected animal origin waste, they are handled since the regional landfill does not accept this type of waste to be disposed in these specific locations.

Within the Waste Management Strategy and Plan of the Republic of Kosovo, set out the financing of the construction of animal residues treatment plant, which would regulate the animal residues waste management at Kosovo level, and for Municipality of Gjakova as well. Implementation of these projects which are expected to take place during the projection period will contribute to the sustainable local waste management.

2.5 Challenges in waste management which are not under the direct competence of the Municipality

Besides the usual waste from households and businesses under the competence of the Municipality, there is a significant category of waste that is disposed in the territory of Municipality and which is not under its direct competence.

Chemical-Industrial waste:

Municipality of Gjakova within its territory has identified several “landfills” of chemical-industrial waste with deposited amount exceeding 5 tons per landfill. Locations where such wastes are disposed are:

- New Co Jatex (former Enterprise JATEX), waste of textile production origin,
- New Co Miniera Devë, waste of mineral origin,
- Metaliku, waste of metal processing origin, and
- New Co Emin Duraku -Devolli, waste of textile processing origin.

Despite the fact that the Law on Waste and relevant Administrative Instruction on Powers of Waste Holder, specifies the obligations of stakeholders on the management of industrial and chemical waste, however the manner that these landfill sites are administered poses a risk to the surrounding environment and public health. Strategy of the Republic of Kosovo on Waste Management 2012-2021, on the investment chapter of hazardous waste management, includes among the priority projects for clearing the waste from textile processing of the former combine Emin Duraku and enterprise JATEX.

Medical Waste:

In Municipality of Gjakova, respectively in Regional Hospital it is installed a medical waste treatment plant with capacity from 1.500 to 1.800 kg/day, which in normal circumstances would be sufficient for managing all medical waste. However due to lack of proper management of this treatment plant and technical problems, the treatment plant works with symbolic capacity (10 kg/day) or sometimes is not even functional. Consequently, medical waste with high toxic content such as: residues from biological nature, anatomical waste and materials from surgical interventions, blood, used needles, etc. end up in municipal containers by contaminating all municipal solid waste.

2.6 National Legal Framework and Policies

In the Republic of Kosovo, the waste management is governed by the Legal Framework that is harmonized with the European legislation, namely European Union directives and regulations governing the waste sector. The main purpose of the legal framework for waste management is to avoid and reduce, as much as possible, the waste generation, reuse of usable components from waste, prevention of adverse impacts of waste in the environment and human health, as well as ultimate environmentally-friendly storage of waste.

The legal framework contains laws and bylaws governing the waste management. Law No. 04/L-060 on Waste is the main law governing, in details, the waste management. This law lays down and governs waste collection and planning, conditions for waste collection, transport, treatment, processing, storage and disposal, waste type and classification, responsibilities of legal and natural persons regarding waste management, conditions and procedures of licenses and permits for waste management, penalties for failure to comply with legal provisions, as well as other waste-related issues. Article 14 and 15 of the Law No. 04/L-060 on Waste lays down the responsibilities of central and local level institutions for waste management. Pursuant to the Law No. 04/L-060 on Waste, the municipality assumes additional responsibilities related to the waste management and administration.

In addition to the abovementioned laws, the legal framework on waste management contains a significant number of other sector laws, which indirectly govern the waste management, such as: Law No. 03/L-025 on Environmental Protection, Law No. 03/L-040 on Local Self-Government, Law No. 03/L-087 on Publicly-Owned Enterprises, Law No. 04/L-174 on Spatial Planning, Law No. 04/L-045 on Public-Private-Partnership, etc.

Article 17 of the Law No. 03/L-040 on Local Self-Government lays down the waste management as the full and exclusive power of municipalities. Based on this competence, municipalities have the legal authorization to establish structures, mechanisms, as well as envisage a separate budget for the best and most efficient management of waste sector.

Law No. 03/L-087 on Publicly-Owned Enterprises lays down and governs the ownership of publicly-owned enterprises for waste management, their corporative governance in compliance with the international principles and standards. Article 6 of the Law No. 04/L-111 on Publicly-Owned Enterprises enables the establishment of local POEs by municipalities. While, Articles 4, 5 and 6 of the Regulation No. 02/2013 lay down the criteria and procedures for establishment of the publicly-owned enterprises for waste management. Pursuant to the Article 5.2 of this law, the shareholder right of the municipality is exercised by the Municipal Shareholder Committee, composed of a member appointed by the mayor and two other members appointed by the Municipal Assembly. Municipal Shareholder Committee acts on behalf of the municipality, in compliance with the Law on Business Organizations.

2.6.1 Municipal legal framework

Pursuant to the Law No. 03/L-040 on Local Self-Government, Law No. 04/L-060 on Waste, Law No. 03/L-087 Publicly-Owned Enterprises, as well as other sector laws, the municipalities are obliged to establish the local legal framework for the purpose of efficient waste management in their territory. The local legal framework consists of municipal regulations, guidelines, policies, miscellaneous regulators and decisions regulating the waste management sector.

Within the local legal framework, the Municipality of Gjakova approved the following: Local Environmental Action Plans, Municipal Regulation on Waste Management within the territory of the Municipality of Gjakova and the Municipal Regulation on Environmental Protection.

3. Waste Management Planning

3.1 LWMP scope

Local Waste Management Plan represents a document organizing the waste management process at the municipal level. LWMP will define directions and priorities, as well as the manner of solving problems in compliance with the national and EU positive legislature in terms of waste management and environmental protection in general. LWMP, except being legally binding, aims at finding and applying best alternatives for waste management.

The purpose of drafting this plan is to establish a long-term sustainable system for waste management at the municipal level, for improving the living quality and protecting living environment, rational usage of sources and complying with the modern principles in waste management, with a coordinated participation of all waste management acts.

Within the LWMP, the existing capacities for waste treatment and existing capacities for waste management will be analyzed, whereby the need for further developments will be reviewed. Another important goal of LWMP is to address many opened issues that determine the establishment of new system on waste management, which is based in the directions provided by the Strategy of the Republic of Kosovo on Waste Management, Law on Waste, European Standards and legal measures impacting this field.

3.2 LWMP main goals

LWMP represents the basic document whereby the waste management process is organized at the municipal level. The Municipality of Gjakova is determined to improve the waste management state and in this regard has presented specific objectives that are an integral part of this plan. These objectives include the services outreach, prevention, minimization and recycling of waste, as well as eliminating the dumping of waste from hotspots to the determined place. The objectives have been divided in two stages, namely in period 2015-2018 and 2018-2020.

With the waste management plan, the municipality aims at achieving:

- A clean city, healthy environments for citizens,
- The application of concepts of integrated urban residues management,
- Promotion and supporting the waste processing activities,
- Coverage with provision of services of the whole area with the affordable fee,
- The definition of objectives of waste management at municipal level in compliance with the national legislature,
- The definition of an optimal system for waste management,
- The definition of total financial investments and investments in the priority parts of the plan which should be immediately implemented.

Objectives:

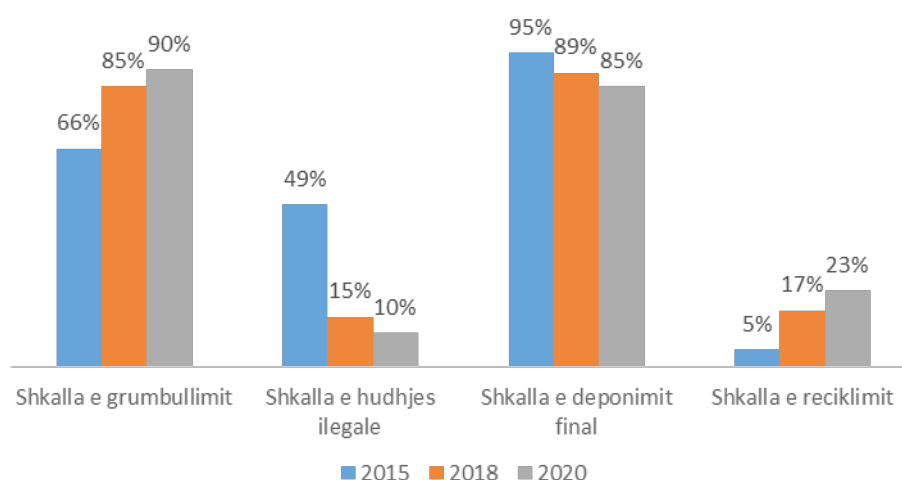
1. Establishing an institutional waste management system,
2. Establishing a system for taxes, fees and means collection,
3. Coverage of the whole territory with the waste collections services
4. Transformation of the waste transfer station into a centre for waste separation for the purpose of profiting through capital-private investments,
5. Elimination of all illegal waste landfills,
6. Development of pilot projects for the purpose of realization of 3R-concept (reduction, reuse and recycling).

Goals:

The plan aims at managing the household waste (households and businesses) and municipal waste.

- The rate of coverage with collection services means the population rate provided with services compared to general population.
- Collection rate means the rate of collected waste amount with the total amount of generated waste.
- Illegal dumping rate means the rate of illegally dumped waste, including inadequate dumping within the area without services, with the total amount of generated waste.
- Final storage rate means the rate of waste storage in licensed and not-licensed landfills (illegal dumping) compared to the total amount of generated waste.
- Recycling rate means the amount of recycled waste with the total amount of generated waste.

Figure 2: LWMP goals expressed in % during 2015-2020



3.3 Plan implementation period 2015-2020

The abovementioned vision shall be achieved step-by-step. The LWMP of the Municipality of Gjakova covers a five year period, 2015 to 2020. This period is divided in two phases, as follows.

- **The first phase (2015 – 2018)** – The establishment of a waste management sound system which means that waste management sector will be established within this time period, in order to create the database, which would serve for an efficient management of waste, and for preparation of the potential transfer of the fee collection responsibility from the operator to the municipality. In 2017, it is envisaged for all legal requirements for this transfer to be met, and the full implementation of the collection is aimed to be concluded in 2018.
- **The second phase 2 (2018 – 2020)** – The establishment of the new system for collection and management of transfer station, which means that during this period it is aimed to establish a new system for waste collection system because the whole administrative territory of the municipality will be covered with waste collection services, as well as it is aimed to achieve the contracting of a private operator for managing the transfer station.

Based on the goals divided in these two phases, the five-year plan for WM may be **modified until the end of 2017**, based on the progress of current performance in first stage. The implementation of the plan for the planned period will be modified, monitored and adjusted at the end of 2017 based on the achievements of outcomes of the first phase.

3.3.1 Supplementing the local legal framework

For the purpose of supplementing the local legal framework and its improvement in the waste management aspect, further Regulations related to the organizational scheme should be drafted and approved with a structure and dimension of the collection service and separation of waste for each settlement, neighbourhood or space or public area, waste collection schedule and dynamics, manner and scheme of organization of the collection amount and manner of collection, etc.

3.4 Establishment of the waste management sector

In order to implement the LWMP, the Municipality of Gjakova enforces the Waste Management Sector, established within the Department for Public Services, which will have the following responsibilities:

- In cooperation with respective stakeholders, will implement the plan on waste management,
- In cooperation with respective stakeholders, will draft operative plans for waste collection and treatment, determining operating zones,
- In cooperation with respective stakeholders, will draft the plan for collecting the fee,
- In cooperation with respective stakeholders, will determine the special conditions and criteria for operators engaged in waste collection, transportation and treatment, as well as will organize the monitoring and assessment of these companies,
- In cooperation with respective stakeholders, will develop procedures and activities for monitoring the activities aiming at reduce the amount illegally disposed waste, develop and manage plans for eliminating the illegal disposal sites,
- In cooperation will respective stakeholders, will develop pilot projects aimed at improving the performance of the municipality in the field of waste management,
- In the short-term period, the Municipality, in 2016, will contact through public calls with the operators for waste collection and treatment, entitled to collect the service fee.

3.5 Service area

Zoning the territory of the Municipality of Gjakova for the purpose of waste management:

For the purpose of organizing the waste management, the territory zoning system has been established.

Territory zoning is based on the following criteria:

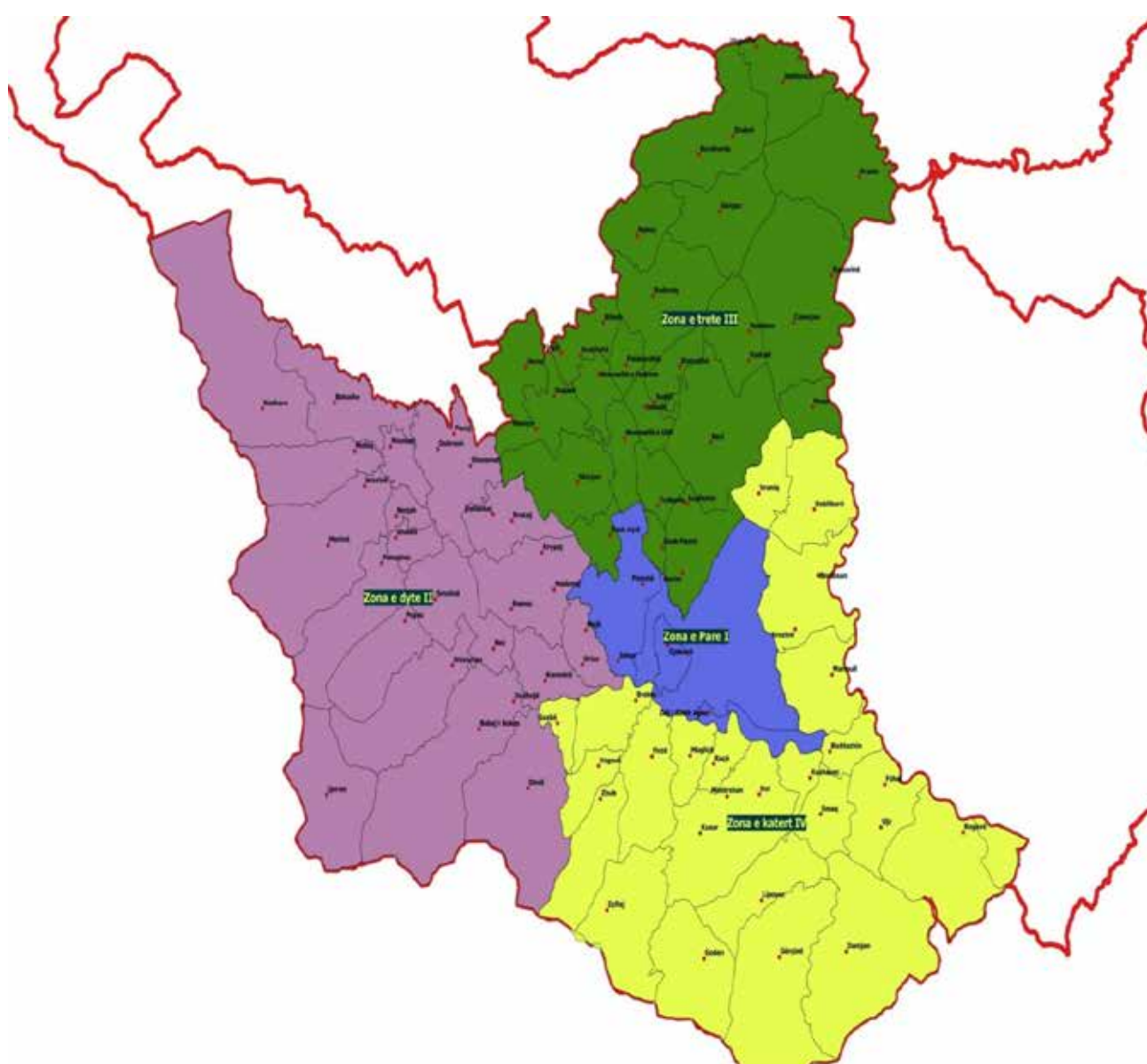
- Proportionate distribution of directions and lines of operation for waste management in zones
- Distribution based on the number of inhabitants
- Distribution based on the number of households
- Distribution based on the number of facilities

The targeted area for the Local Waste Management Plan is the entire administrative territory of the Municipality of Gjakova. Zones aimed to be reached with waste collection services within the Local Waste Management Plan are divided as follows:

Table 3: Zoning the territory for the purpose of waste collection service provision

No.	Zone	No.of localit.	Population	ZONE in m ²	Households	No. of Facilities
1	Zone 1	4	38,822	38,390,560	8,413	19,212
2	Zone 2	19	14,202	203,633,213	1,172	2,816
3	Zone 3	22	19,266	149,829,260	2,040	4,628
4	Zone 4	21	22,265	169,321,554	2,726	5,485
Total		66	94,556	561,174,587	14,351	32,141

Figure 3: Map of the Municipality of Gjakova divided in 4 waste collection service zones



3.6 Establishing the waste management financial system

In order to satisfy expectations regarding revenues from taxes and fees for waste that are planned to be presented by the end of 2016, it is of crucial importance to establish a genuine waste management system; to this end, the Municipality of Gjakova should carry out activities of budget planning. This planning will include the establishment of a budget line for compliance of revenues from waste collection service taxes and fees, as well as the budget lines for implementation of waste management contracting services. On the other hand, the management of the collected tax is very important, which would result in the establishment of a financial system operator friendly in cooperation with Department of Finance. In order to establish a financial system, which will be within Public Services, but connected with the Department of Finance, the municipality should be equipped with a software.

Until the complete implementation of the applicable laws in the short-term period – during 2016, the municipality, through the public calls, should contract waste collection and treatment operators entitled for collection of service fee in zones defined in advance for collection activities for the short-term period, based on the zones presented in the Figure 3.

3.7 The improvement of the waste collection system

The Municipality of Gjakova, within the period 2016-2020, will manage the municipal waste based on the Law on Waste; therefore, during this period, the Municipality of Gjakova will ensure the necessary budget through the tax on waste, which will be collected from the citizens and small businesses which discharge their waste together with household waste and correctly to entrust this to companies for collection and transportation of municipal waste, licensed by MESP.

The Municipality of Gjakova abolishes the current waste management system, by planning the contracting of companies/operators based on zones, so the entire territory of the municipality will be covered with waste collection services, including the cleaning of roads and maintenance of green areas.

The Municipality of Gjakova, through capital investments, plans to transform the space of waste transit station in a centre for separating materials for the purpose of recycling

Treatment of waste from construction - demolition:

The Article 13 of the Administrative Instruction (MESP) No. 07/2015 on Management of Wastes from Construction and from Demolition of the Building Object stipulates that: Municipalities, within their territory, designate centres for the collection, treatment and disposal of wastes from construction/demolition according to the legal criteria, where it is planned the collection of these waste and its transportation from all public spaces and from the riverbed and then, during this period, the municipality will treat these waste for the purpose of acquiring recyclable materials.

4. Financial plan 2015-2020

The financial plan 2015-2020 has been drafted based on information sources of the current operator, as well as financial information on 31.12.2014.

The projection of revenues is based on the revenues structure of 2014, with a conservative growth index, as well as reduction of costs based on planned investments.

The rate of coverage with WM services in municipalities is 78%, expressed in the number of population is 73,331, and covered localities count 30 localities.

The zone covered with WM services is 268.147 km², expressed in percentage 48% from the total area of 561.175 km². The objective of MA Gjakova, until the conclusion of the planning period 2015-2020, is to cover the whole territory with WM services, which means the coverage with WM services of 2,340 households, 36 localities and population of 21,225 persons.

4.1 Main assumptions in the financial plan

Several assumption based on the states observed in the waste management sector, as well as in the financial results of 2014 of the current operator are needed in order to create the financial plan of waste management.

Assumptions are based on objectives of MA of Gjakova for providing qualitative services for citizens and businesses, by not considering new possible forms for other participants of economic operators in waste management.

Main assumptions of the financial plan are:

- Current operator for business years 2013 and 2014 had a positive outcome,
- Investments will occur based on the short-term needs, as well as capital investments to fulfil the objectives determined by the Municipality of Gjakova.
- Necessary investments in the WM sector will be intensive in two first years of the plan (2015/2016) to enable the immediate improvement of the quality level of WM service.
- The costs for waste management will be reduced as a result of new investments, equipment modernization, as well as the contemporary approach in the waste management field.
- The collection rate is planned to mark an increase in all categories of clients (households, small-size businesses, large-size businesses and institutions) in reasonable rates for the planned period.
- The generated waste collection rate is expected to mark an increase during the planning period
- The number of clients (households and businesses), who currently are not included in the waste management system, is planned to be fully included for the planning period 2015-2020.
- The whole coverage of the zone with waste management services for the planning period 2015-2020. The part currently **not covered** with WM services includes 21.225 inhabitants, 2340 households and 36 settlements. The process of whole coverage ends in 2020.

Table 4: General notes on zone, population and waste generation

Population (resident/according to the population census)	94,556				
Population – categorization (resident/according to the population census)	Total	In %	Covered	Not covered	% Coverage
Urban	35,400	37.4%	35,400	-	100%
Suburban	5,427	5.7%	5,427	-	100%
Rural	46,986	49.7%	31,419	15,567	67%
Remote	6,743	7.1%	1,085	5,658	16%
Population (resident/according to the population census)	94,556	100.0%	73,331	21,225	78%
% of population exempted	22%		77.6%	22.4%	
Population provided with services (receives/is considered for the service)	73,331				
The number of population covered with WM services	77.6%				
The number of population not covered with services	22.4%				

Covered

Category	Place	Population	Household	Area in Km²	Distance in KM (average)
Urban	2	35,400	8,326	25,455	1.4
Rural	24	31,419	2,981	202,274	8.0
Suburban	3	5,427	617	18,475	2.5
Remote	1	1,085	87	21,943	8.2
Total: Covered	30	73,331	12,011	268,147	7.0

Not covered

Category	Place	Population	Household	Area in Km²	Distance in KM (average)
Rural	27	15,567	1,755	187,352	10
Remote	9	5,658	585	105,675	11
Total: Not covered	36	21,225	2,340	293,027	10
Total	66	94,556	14,351	561,175	9

Generation of assessed waste

Residues generated per person [kg/inhabitant]-average	1.2 Kg				
Urban	1.5 Kg				
Suburban	1.2 Kg				
Rural	1.0 Kg				
Remote	0.9 Kg				

The assessment of waste generation - calculated

Total of generated residues [t/day]	113				
Total of generated residues [t/year]	41,099				
Total of collected residues 65 ton per working day - [t/year]	17,225				

4.2 New necessary capital investments

Investments necessary for the planned period 2015-2020 amount to €1.600.600.00

- | | |
|----------------------------|----------|
| • Containers 1.1 m3 | €195,600 |
| • Transport means & Garage | €525,000 |
| • Raising public awareness | €30,000 |
| • Collection-recycling | €850,000 |

Planned investment depend on the time and amount of investments, which are divided in two investing periods:

- Period 2015/2017 in the amount of €1.555.600, expressed in percentage of 97.2% from total general investments;
- Period 2017/2020 in the amount of €45.000, expressed in percentage of 2.8% from total general investments of 45.000.00.

Capital investments for waste management amount to €705,600, or expressed in percentage 46.9%, and are planned for the first investing period 2015/2017. Investments in the second period 2018/2020 amount to €45.000, or expressed in percentage 2.8% from the total amount of investments.

Capital investments in collection and recycling in the amount of €850.000, or expressed in percentage 53.1%, are planned in the first investing period 2015/2017. This category of investments is of a special interest:

- enabling the provision of new category of services that have not been provided before
- special impact in environment in general
- reduction of costs for waste management for the amount of recyclable waste (collection, storage, transport, etc.)
- provision of opportunities for vulnerable social categories for the generation of revenues for surviving

Investments will enable the achievement of objectives determined with the strategy of the Municipality of Gjakova in managing waste and increasing the quality of services, also in direct impact in total costs by reducing them, based on means that increase the efficiency of waste management.

4.2.1 Main assumptions for necessary capital investments

Investment planned for the period 2015-2020 are based in assumptions:

- Containers 7.1 m³ should be replaced with containers 1.1 m³.
- The replacement ratio is 1 container 7.1 m³ with 8 containers 1.1 m³.
- Investments in containers, **472 containers 1.1 m³** (8*59=472).
- In the aspect of hygiene, containers 7.1 m³ are not clean to be used. The transportation of containers 7.1 m³ is very ineffective, which contain an average of 650 kg waste.
- The replacement of containers 7.1 m³ would result in a situation where **three trucks** are free to be used for other purposes.
- Existing containers 1.1 m³, namely 183, would be replaced after 5 years because they would not be functional.
- Investment in replacing existing containers and purchase of new containers during the 5-year period:
 - 472 new containers
 - 183 existing containers –replacement for 5-year period
- Total number of containers for investment in the period 2015-2020 is 655
- With 655 containers 1.1 m³, 3 *Iveco trucks* could be used better because the current collection rate per day is low and ranges from 21 to 52 containers, and the same should range not less than 65 containers for a collection cycle.
- The truck Merc.Benz.2aks automatic 2226, with license plates 03 801 -AM of 1998 and with collection capacities of 9 tons, should be replaced with a new one.
- The Municipality of Gjakova practises the collection of waste door to door for households and a good share of the businesses and a capacity of compactor trucks is needed in order to achieve such a service.
- Currently, the company has 4 compact trucks Hyundai and a Ford truck, which were bought between 2010 – 2013, in a good condition; there is no need for additional investments.
- Investing on a truck for transfer station. The municipality has engaged only one truck for transfer in the landfill in Landovica, which is overloaded.
- Planned investments are based on the prices of equipments of the market value, compared to the investments of sister companies that have made these investments.
- Investments in a new garage for the maintenance of the vehicles parking is foreseen in the amount of EUR 300.000 (1000 meters x EUR 300); the current garage does not fulfil the conditions of location, and conditions for maintenance of vehicles.
- The activities for raising public awareness are foreseen in the amount of €6.000 for the protection and care towards the environment with various forms of promotion activity.
- The investments planned for waste collection (preparation for recycling) are based on the target of MA in Gjakova for an investment of this nature. The total amount of the investment is concerned with an investment in infrastructure in the amount of EUR 100.000, as well as for an investment in equipments in the amount of EUR 750.000.

The investments planned for the period 2015-2020 for main categories

Table 5: Main assumptions for necessary capital investments

No	Category	2015	2016	2017	2018	2019	2020	Total	In %
I.	Containers 1.1 m ³	70,800	70,800	27,000	27,000	-	-	195,600	12.2%
II.	Transport vehicles & Garage	225,000	300,000	-	-	-	-	525,000	32.8%
III.	Raising public awareness	-	6,000	6,000	6,000	6,000	6,000	30,000	1.9%
IV.	Collection - Recycling	-	100,000	750,000	-	-	-	850,000	53.1%
Total: Investments		295,800	476,800	783,000	33,000	6,000	6,000	1,600,600	100.0%
In %		8.5%	29.8%	48.9%	2.1%	0.4%	0.4%	100.0%	

Figure 4: Graphical representation of the capital investments structure

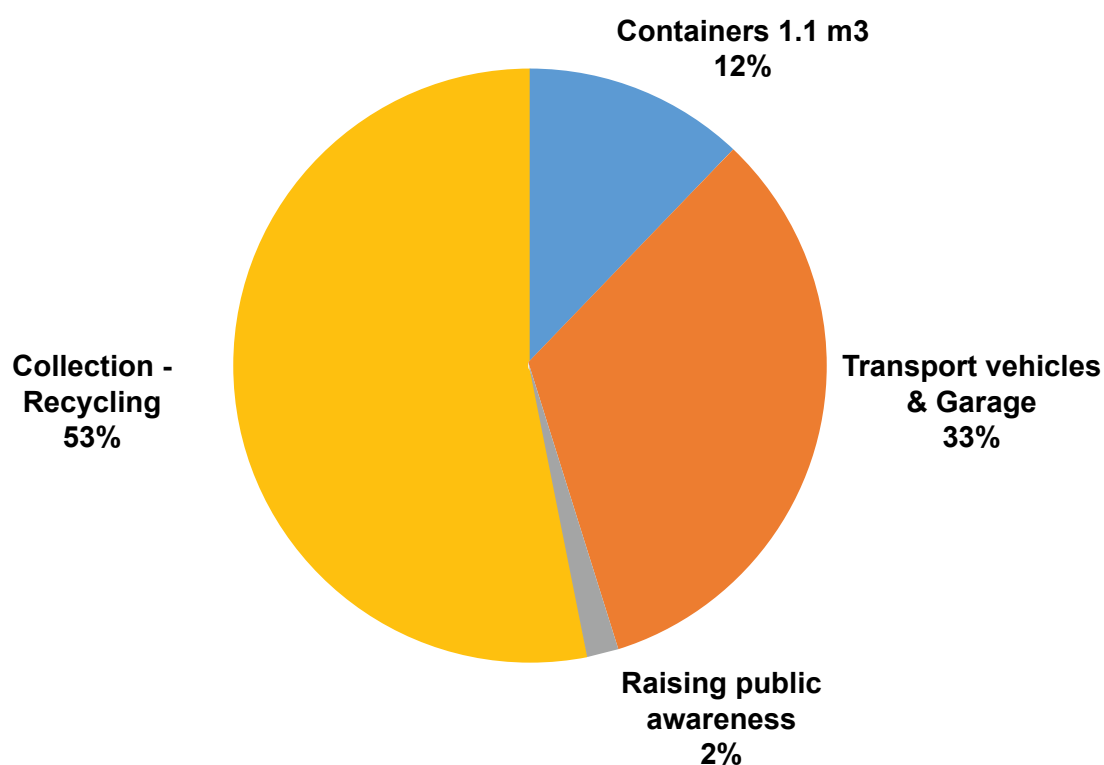


Table 6: Main assumptions for necessary capital investments, divided into two investing periods

No	Kategoria	2015/2017	2018/20120	Total	In %
I.	Containers 1.1 m ³	168,600	27,000	195,600	12.2%
II.	Transport & garage equipments	525,000	-	525,000	32.8%
III.	Public awareness	12,000	18,000	30,000	1.9%
IV.	Collection - Recycling	850,000	-	850,000	53.1%
	Total: Investments	1,555,600	45,000	1,600,600	100.0%
	In %	97.2%	2.8%	100.0%	

4.3 Fee collection mechanism

Currently, there is no sustainable fee collection mechanism which would ensure sufficient funds from the invoices for financing the sustainable waste management.

The current operator, the sole operator licensed for waste management, is entitled and obliged to collect the fee. The collection rate is not satisfactory (67%) as one part of citizens do not settle their obligations, whereas the company has no binding instruments for making consummators to pay the waste fee.

LWMP foresees substantial changes in the waste management system, which should be enriched with a sustainable collection mechanism. Therefore, as mentioned above, the Municipality of Gjakova, from 2016, envisages the zoning of the city in 4 zones and engagement of economic (public or private) operators for the collection of waste within these zones. These operators will initially be entitled to invoice and collect the fee, whereas the municipality will approve the service fees.

The transition to the new invoicing and collecting system should be preceded by the instalment of the new invoicing system, which for the moment does not exist and which should be installed during 2016 or even 2017.

The Municipality of Gjakova is determined that within the period of applying the tax on waste, it will include the instrument of conditioning that will push forward all other mechanisms to enable the higher waste tax collection rate.

4.4 Municipal budget dedicated to the waste management

Within the process of drafting LWMP, the municipality has foreseen numerous activities with budget implications. More concretely, the municipality has foreseen the establishment of the "Waste Management Sector (WMS)," which would be part of the Department for Public Services.

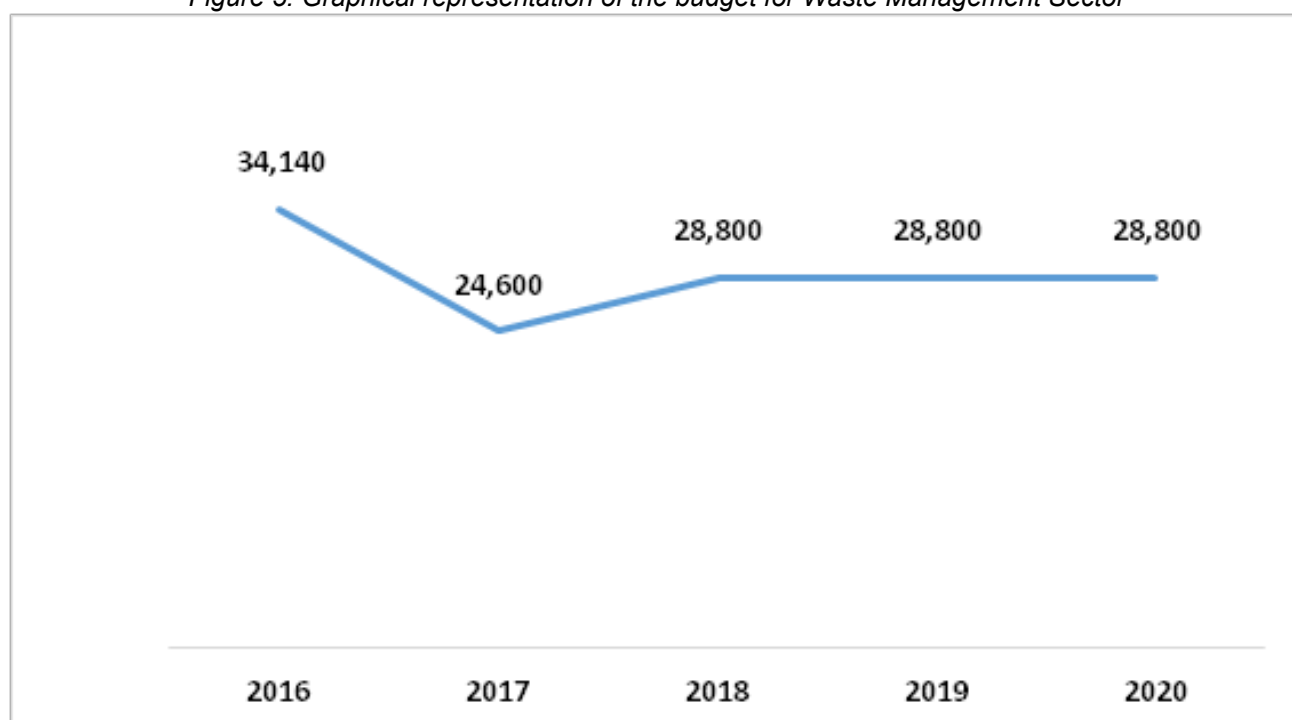
In fact, WMS will be established during 2016-2017, where it will allow municipality to establish a new system which will be able to fulfil the duties and responsibilities of the municipalities, as stipulated with the Law on Waste.

WMS will be empowered step by step and the number of staff and budget will be increased, as foreseen in the table below:

Table 7: Waste Management Sector budget implications

Position/Unit	2016	2017	2018	2019	2020
Head of Sector	1	1	1	1	1
Data Management Officer		1	1	1	1
Public Spaces Planning and Managing Officer	1	1	2	2	2
Costumer Relations Officer	1	2	2	2	2
Total no. of Officers	3	5	6	6	6
Salaries	13,800	22,200	26,400	26,400	26,400
Information System	20,340	2,400	2,400	2,400	2,400
Total budget	34,140	24,600	28,800	28,800	28,800

Figure 5: Graphical representation of the budget for Waste Management Sector



This plan foresees that WMS will gradually undertake duties related to the waste and cleaning domain, which currently are distributed among various units of Department for Public Services and other departments.

4.5 Projected revenues

Based on the assessments for the period 2017-2020, when it is expected that Gjakova municipality shall assume full control of Waste Management sector, including activities such as planning, organization, implementation and fee collection, also an analysis of the two main categories: households and businesses was conducted and in the following tables are clearly indicated the trends behind the projected revenues. Generation of these data is based on the following elements: existing fee, the fee collection rate, the number of households and businesses.

Table 8: Projected revenues -households (2017-2020)

Area	2017	2018	2019	2020
Zona 1	403,824	429,063	454,302	454,302
Zona 2	27,648	51,969	63,288	63,288
Zona 3	82,272	87,414	110,160	110,160
Zona 4	130,848	139,026	147,204	147,204
Total	644,592	707,472	774,954	774,954
Collection rate	80%	85%	90%	90%

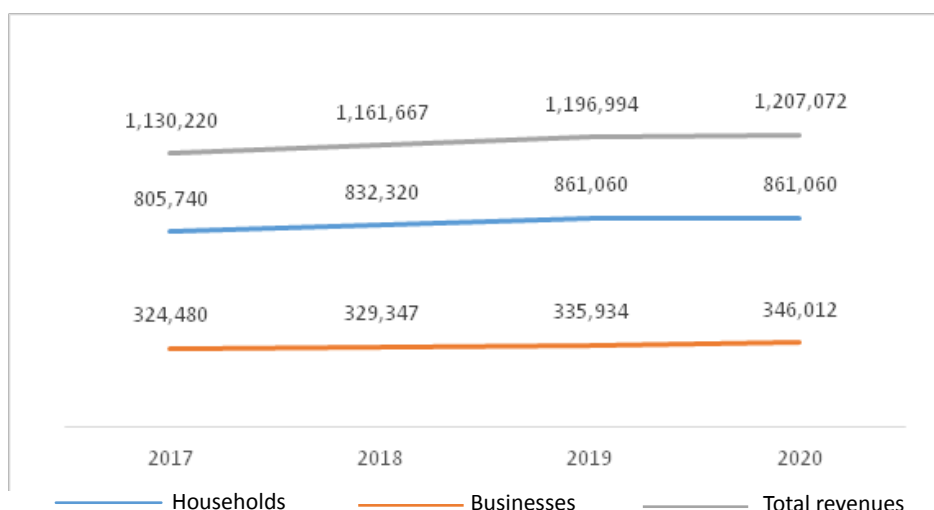
Table 9: Projected revenues - businesses (2017-2020)

Area	2017	2018	2019	2020
Businesses	324,480	329,347	335,934	346,012
Increase in %		1.5%	2.0%	3.0%

Table 10: Projected revenues from municipal waste fee collection (2017-2020)

Category	2017	2018	2019	2020
Households	805,740	832,320	861,060	861,060
Businesses	324,480	329,347	335,934	346,012
Total revenues	1,130,220	1,161,667	1,196,994	1,207,072

Figure 6: Graphical presentation of projected revenues (2017-2020)



5. Strategic Environmental Assessment

5.1 SEA Purpose and Approach

Strategic Environmental Assessment (SEA) is a systematic process for assessment of the environmental impact of a proposed policy, initiative for a plan or program in order to ensure that they are fully involved and are treated appropriately at the earliest appropriate decision-making phase, at the same level with economic and social considerations.

SEA's main purpose is provision of a high level of environmental protection and to contribute to the promotion of sustainable development. SEA aims to improve the plan or program, suggesting new objective or strategies, and by revising strategies proposed and suggesting those that might be the best in terms of environmental protection and that minimize and prevent the adverse impact and risks for the environment. SEA as a process should commence in the early stages of the plan preparation process and should be developed parallel to the plan and should be fully integrated within the plan.

In Kosovo, SEA is provided by the Law on Strategic Environmental Assessment (Law no. 03/230), which sets out the conditions, forms and procedures for the SEA implementation. This law is in accordance with the requirements of the EU Directive on Strategic Environmental Assessment (Strategic Environmental Assessment Directive 2001/42/EC).

Law on Strategic Environmental Assessment requires that the SEA procedure to consist of:

- Preparation of a SEA report in relation to significant impacts of the draft plan or program (PP);
- Consultation of the relevant bodies and general public on the draft Plan or Program and the accompanying SEA report;
- Taking into consideration of the SEA report and consultation results in decision-making;
- Communication of the SEA results and inclusion of its outcome in the respective Plan or Program.
- Under the Law no. 03/230, SEA is responsible for the following Plans and Programs:
 - Plans and Programs which are prepared for spatial planning, urban planning, land use, agriculture, forestry, fishery, hunting, energy, industry, mining, traffic, **waste management**, water management, telecommunication, tourism, which give a frame for future development projects, which are subject to EIA, under the EIA Law;
 - PP's which, considering the location in which they shall be implemented, may affect the protected natural areas, natural habitats and flora and fauna.
 - Other types of PP's, unless they are identified through "scoping" that are likely to have significant environmental impacts.
 - Minor modifications of PP, as well as the PP for small area in local level, only if they are identified through "scoping" that are likely to have significant environmental impacts.

Thus, as specified above and in accordance with Article 4, paragraph 2, of the Law on SEA and Waste Management Plans, require the development of the SEA report. Therefore, Strategic Environmental Assessment report is mandatory for the Local Waste Management Plan 2015 - 2020 of Gjakova municipality.

5.2 Assessment of the proposed measures and policies

Assessment of the proposed measures and policies intends to test the objectives of the Local Waste Management Plan 2015-2020 of Gjakova municipality, as described in chapter 2 of the Plan, in relation to the SEA objectives, to identify interactions and potential incompliance.

The main purposes of compliance assessment/analysis of LWMP 2015-2020 objectives, with the environmental objectives of the SEA, are:

- Testing if all of the SEA objectives are being treated according to the plan, i.e. if there is at least one objective, potentially in compliance with the objectives of the plan, for each SEA objective;
- Highlighting of potential incompliance and conflicts, and recommendation of the ways for plan implementation, in order to avoid such conflicts;
- Highlighting of the potential interactions and suggestion of ways to advance and use them in that plan.

Comments regarding the key findings of the incompliance between the goals of the Local Plan of the Waste Management of Gjakova municipality and the SEA objectives are as follows:

Objective 1: To increase the waste collection service coverage level from 77.6% to 100%

- This objective aims to increase the extent of coverage of waste collection service throughout territory of the municipality.
- This will have significant positive impact, especially on objective 4 of the SEA (elimination of illegal waste landfills) and in objective 9 of the SEA (improvement of the public health and reduction of the pollution risk), as by expanding the service throughout the municipality will create conditions for the elimination of illegal landfills and will improve the quality of life of the citizens.
- This objective will have an indirect positive impact on the objectives 2, 3, 4, 5, 6, 7 and 8, as it will indirectly affect the reduction of emissions and wastes in water and soil, and will reduce wastes in parks and other areas of the nature.

Objective 2: To increase the waste collection overall level from 66% to 90%

- This objective aims to increase the overall level of waste collection throughout territory of the municipality.
- This will have significant positive impact, especially on objective 9 of the SEA (improvement of the public health and reduction of the pollution risk) as increase of the overall level of waste collection is closely related with the improvement of the quality of life.
- This objective will have an indirect positive impact on the objectives 3, 5, 6, 7 and 8, as it will indirectly affect the reduction of emissions and wastes in water, air and soil, it will reduce wastes in parks and other areas of the nature, and it serves to the elimination of illegal landfills and in decreasing the generation of wastes through its recycling and reuse.

Objective 3: To reduce illegal waste disposal rate from 49% to 10%

- This objective aims to reduce the illegal waste disposal rate to 0% throughout territory of the municipality.
- This objective will have significant positive impact, especially on Objective 4 of the SEA (elimination of illegal landfills) and on Objective 6 of the SEA (Land protection from change of designation and its sustainable management), as by decreasing the waste disposal rate to 0% throughout territory of the municipality will created conditions for complete elimination of illegal landfills and land protection from change of its designation.
- This objective will have an indirect positive impact on the Objectives 2, 3, 5, 7, 8 and 9, as it will indirectly affect the reduction of emissions and wastes in water (surface waters) and in soil, air, in reducing wastes in parks and in other areas of the nature, and will contribute in improving the living standard.

Objective 4: To reduce the rate of final waste depositing from 95% to 85%

- This objective aims at reduction of the final waste disposal rate to 10%.
- The objective is not expected to have significant impact on any of the SEA objectives, as the waste disposal takes place outside the territory of the municipality, while the transfer station will remain operational.
- However this objective will have a indirect positive impact on the Objectives 1 and 2, as this objective will indirectly affect the reduction of air emissions and greenhouse gas emissions.
- The impact of this objective will still remain undefined (positive and negative impacts) for objective 3 of the SEA (reduction of emissions in ground waters) and objective 6 of the SEA (Land protection from change of designation and its sustainable management), as reduction of the amount of waste deposited for merely 10%, is not expected to have any impact on improving the quality of surface and groundwater, nor will an impact in improving the land in the surrounding area, for the fact that the landfill will continue to be functional despite significant reduction of waste disposed.
- The impact on the quality of groundwater, underground water and land will still be present due to the activity that will be present at the waste transfer station site.

Objective 5: To increase the waste recycling and reuse rate from 5% to 23%

- This objective aims to increase the overall waste recycling rate to 10% throughout territory of the municipality.
- Although the increase of recycling rate to 10% will have a significant positive effect, especially on objective 5 of the SEA (reduction of waste generation through recycling and reuse), as the increase of the overall waste recycling rate shall have impact reducing waste generation through recycling and reuse.
- This objective will have an indirect positive impact on objectives 1 and 2, as it will affect indirectly the reduction of emissions into the air and reduction of greenhouse gas emissions, due to the fact that the amount of waste deposited will be reduced and indirectly will also be reduced air emissions and greenhouse gas emissions from the waste sector.

5.3 Recommendations and monitoring proposals

Based on the assessment of the proposed measures and policies by testing objectives of the Local Waste Management Plan 2015-2020 of Gjakova municipality, with the environmental objectives of the SEA and by analyzing key findings from the analysis of the compatibility matrix, which identified interactions and potential conflicts and in order to minimize them, the following recommendations are proposed to be implemented in order to improve the compatibility between the Plan and the SEA objectives:

Table 2: SEA objectives implementation monitoring plan

SEA objective	Monitoring approach (Monitoring indicators)	Proposed monitoring frequency	Responsible authority, where data will be obtained
O1: Air protection from pollution and reduction of air pollutants	Monitoring of air quality and air emissions	every year	Kosovo Environmental Protection Agency/ Hydro-meteorological Institute
O2: Reduction of greenhouse gas emissions	The inventory of greenhouse gas emissions from the waste sector The amount of wastes transported to the landfill	every 2 years	Kosovo Environmental Protection Agency Regional waste company
O3: Reduction of discharges into ground waters	Monitoring of water quality and ground water discharges in waste transfer station and near illegal landfills	every 2 years	Kosovo Environmental Protection Agency/ Hydro-meteorological Institute
O4: Elimination of illegal waste landfills	Number of eliminated and rehabilitated illegal landfills Number of new settlements (or households) covered by waste collection system	every year	Inspectorate and the Department of Public Services of Gjakova municipality Regional Waste Company
O5: Reduction of waste generation through recycling and reuse	The amount of waste recycled and reused Number of distributed composting bins Number of waste recycling licensed companies	every 2 years	Kosovo Environmental Protection Agency Gjakova municipality Recycling companies
O6: Land protection from change of designation and its sustainable management	Rehabilitated land surface areas from the illegal landfills and other activities	every 3 years	MESP/KEPA

O7: Protection and preservation of nature and biodiversity	Number of new areas of nature under protection	every year	Gjakova municipality
	Number of areas with rare species of flora and fauna		Kosovo Environmental Protection Agency/ Kosovo Institute for Nature Protection
	Number of important identified areas with potential species and habitats to be included under protection		
O8: Expansion of green spaces in urban areas and their maintenance	Number (surface area) of new parks and green spaces in urban areas	every 1-2 years	Gjakova municipality
O9: Improvement of public health and reduction of pollution risk	The number of environment related diseases (diseases of the respiratory system, diarrheal diseases, etc.)	every 1-2 years	Family Medicine Centre in Gjakova
	The quality of drinking water		National Public Health Institute

Whereas for the purpose of monitoring the implementation of the objectives of the Strategic Environmental Assessment, it is proposed to implement a monitoring plan which would include: monitoring approach (monitoring indicators), the frequency in monitoring indicators and the responsible authorities where monitoring data will be obtained. Table 2 provides a monitoring plan which could be supplemented with other indicators, depending on the needs and objective changes of the SEA during the consultation process with the public and relevant authorities.

6. Public awareness

6.1 Marketing Communication Strategy

Summary

This strategy of marketing communications plan is based on detailed research and analysis reports and on the specific data of the current state of waste management in Gjakova municipality. This plan addresses the annual activities for effective waste management in order to reduce the amount of waste, elimination of illegal landfills and for education of the public through promotion of 3R's (Reduce, Reuse and Recycle).

Proposed communication activities will be developed in the framework of the principles set out below:

- The whole communication should be simple, clear, open and efficient, which allows a dialogue from both sides.
- The communication tone should be honest, positive and accurate.
- All communication messages should be developed with flexibility in order to enable its development in all evolution plans of the Waste Management Strategy.
- Creation of a clear and sustainable mark/identity for all communication channels, whereby people may be connected and understand our key messages.
- The use of materials to understand other successful practices and promotion of promoting materials of the campaign in national contests for the purpose of greater interaction
- Usage of eco-friendly products/materials for production of all promoting and publishing materials.
- The inclusion of all audience groups as priority audience of the campaign, including various groups of age, gender, socio-economic status and other ethnic groups.
- The production of specific promoting materials that are specific for each specific group, materials suited for their needs.
- Main initiatives/activities will be supported by regular publicity to ensure ongoing encouragement and motivation of the audience to change/correct their behaviour in relation to the waste management.
- Most of communications will be aimed for targeted audiences because this project aims at effectively changing the audience behaviour in general.
- Strategic Plan for Communication will be continuously in coordination and approval with project coordinators.
- Monitoring and evaluation of the communication means and improving communication tactics, where necessary.

6.1.1 Targeted public/stakeholders:

Businesses

- Private corporate and businesses in the Municipality of Gjakova
- Business Associations in the Municipality of Gjakova
- Business Associations of the Kosovo Chamber of Commerce
- Employees

Community

- Citizens of the Municipality of Gjakova
- Women
- Families
- Young people
- Representatives of local media
- Representatives of NGOs

6.1.2 Key messages for promotion

Marketing communication should promote the following key messages of the campaign:

- Waste prevention and reduction is a very important issue for all citizens of the Municipality of Gjakova.
- Better reuse and recycling of waste.
- Promotion of environmental benefits to which we can benefit from effective waste management.

7. Action plan

7.1 Clarifying responsibilities of citizens, businesses and local government

The Municipality of Gjakova, citizens and businesses should build an adequate WM system, where all the above assume their responsibilities:

Citizens

Citizens should timely settle their taxes set by the Municipality of Gjakova.

Observing discharging rules

- Citizens consider the discharging manners set by the Municipality. Citizens living in those parts of the city where the special collection of cardboards and metals is carried out, properly separate recyclables and conform instructions provided by the Municipality.

Active cooperation in the Plan

- Citizens actively cooperate about measures undertaken by the government for implementing waste management plan.

Businesses

Polluter pays principle

Small-sized companies discharging waste together with households, should pay within the deadlines set by the municipality.

Large-sized companies should individually enter into waste collection and transport services contract with the service provider licensed by the Ministry of Environment and Spatial Planning. Therefore, large-sized companies contracting waste collection service should report annually to the municipality on the waste disposal amount.

Businesses will actively participate in activities for reduction, recycling and reuse, by being carriers or supporter of the specific activities.

Local government

Adequate waste disposal

Municipality endeavours to create stable collection and transportation services, given the efficiency, environment and hygiene. Municipality shall commit to minimise waste through 3R activities with citizens and business companies.

7.2 Summary of Implementation Plan 2015-2020

Activity	Responsible	2015				2016				2017				2018				2019				2020			
Waste management plan		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Final plan	WG/DEMOS																								
Public discussion	DPS/WG																								
Approval with the Municipal Assembly	DPS/WG																								

Department reorganization – the establishment Of the institutional system for waste

Establishment of organizational structure and job description	DPS																								
Budget planning	DPS/DBF																								

Activity	Responsible	2015				2016				2017				2018				2019				2020			
Establishment of tax system , fees and collection of funds		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Taxes and fees for waste- Determination of collection sample	DPS/DBF																								
Taxes and fees for waste – budget Planning shall be made	DBF/ DEMOS																								
Determination and review of tax and Service fees	DPS																								
Supply with proper software and Implementation of collection	DBF/ DPS/ DEMOS																								
Implementation of the tax and fee Collection on waste	DPS/ DBF																								

Activity	Responsible	2015				2016				2017				2018				2019				2020			
Waste Management and Transfer Station		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Determination of operation areas	DPS																								
Provision of collection service in Operation areas (service collection, Is performed by the operator that Provides collection service)	DPS / ZP																								
Provision of transfer station	DPS / MA																								
Contracting the operator for managing The transfer station	DPS																								
Functionality of Waste Transfer Station Management	DPS																								
Regulation of waste collection points In public areas	DPS																								
Pilot projects																									
Composting at source	DPS																								
Waste separation at source/school	DPS																								
Waste collection with bags	DPS																								
Waste collection of Large dimensions	DPS																								

The time period for implementing activities presented in the table is planned to be implemented during 2015-2020, but this does not mean that there is a possibility for several activities to be implemented within shorter time periods.

8. Monitoring and review

It is important to monitor the progress and efficiency of undertaken measures.

In monitoring implementation may be considered the inclusion of three elements:

- Implementation efficiency – monitoring performance
- Efficiency of these actions – monitoring compliance
- Identification of new needs – response towards change

Local governments, regarding the implementation of the Local Plan on Waste Management, should be supported by Central Institutions, including Ministry of Environment and Spatial Planning, Ministry of Economic Development, Environmental Protection Agency, Forest Agency, as well as various non-governmental organizations.

8.1 Determining performance indicators and verification sources

Objectives	Activities	Responsible authorities	Success indicators	Impact
1. Waste Management Planning	Submission of LWMP to the Municipal Assembly for approval Reviewing and updating LWMP in compliance with the updated operating plan, including monitoring plan	Municipality of Gjakova, Department for Public Services Waste Management Sector	Number of votes pro LWMP	Entry into force and implementation of LWMP Improvement of WM services and cleaner environment
2. Increasing percentage of collection from waste collection	Identification of households that do not pay at all the waste invoice and those who do not pay regularly this invoice and their publication Imposing penalties and obligatory measures for households that do not pay the waste invoice and raising awareness of households that do not pay waste invoices	Waste Management Sector Citizens NGOs Department of Inspectorate and Task Force for Environment	Number of public announcements The number of penalties imposed for households that do not pay invoices.	Number of public announcements The number of penalties imposed for households that do not pay invoices.
3. Establishment of a Special Waste Management Sector in the Municipality of Gjakova	Establishment of the WM Sector within the organizational structure of the Municipality of Gjakova and Departments' offices staffing (at least 3 employees should be engaged)	Department for Public Services	Waste Management Sector, included in the organizational structure of the Municipality of Gjakova and fully operative, as well as the staff number	Updating reliable data. Better WM services. More chances to attract respective investments.

4. Inclusion of Recycling Businesses	Recycling businesses develop advertisements in written and electronic media. (Advertisements should be focused on benefits for environment and society from recycling) Signature of the Memorandum of Understanding between Recycling Businesses and Municipality/Central Institutions for classifying waste in source in all offices of public administration.	Recycling Businesses Recycling Businesses Municipality of Gjakova Central Institutions	Number of advertisements. Number of publications in media. Number of Memorandum of Understanding, signed.	Raising public awareness on recycling. Increasing the amount of recyclable materials Reduction of waste amount sent to the transferring station. Increasing employment in recycling industry.
5 Transforming transfer station into Recycling Centre	Construction of a recycling centre, initially modest and then gradually more modern, according to the available finances. Construction of a plant for waste classification.	Municipality of Gjakova, Investors interested in investing in Constructing Transferring Station Recycling Businesses interested in becoming owners/co-owners of the Transferring Station.	The number of contracts signed with recycling businesses. Enables waste classification.	Increasing employment Reducing the amount of waste sent to the permanent landfill. Cleaner city.

8.2 Planned pilot projects

8.2.1 Presentation of large size waste collection service

In Gjakova, until 2014, there was no voluminous waste collection system. Wastes such as furniture, carpets and others were discharged as households waste, and became an obstacle for the municipal waste collection. Therefore, Municipality of Gjakova decided to present the voluminous waste collection according the individual requests from the citizens. The service provider for such wastes shall be the one contracted with the Municipality of Gjakova for waste collection.

Municipality of Gjakova and the service providers will establish a communication line dedicated for requests of such wastes collection. The service fee will be announced through the media within the Municipality.

Moreover, a strategy will be drafted for these wastes in order that the same be selected, reprocessed and reused, thus by creating a profit from these wastes.

8.2.2 Promotion of waste minimization through composting

The organic wastes which are calculated to be 40 % of municipal wastes can cause problems and generate methane gas which impact the global warming and leakage. Thus, the promotion of composting the organic waste at the generation source is expected to impact in reducing the waste volume and extending the life of the landfill and at the same time reducing the negative environmental impact. The Municipality of Gjakova aims to establish a composting system with proper equipments. The Municipality of Gjakova aims to allocate the composting bins for 20% of households in rural areas and for 5% in urban areas until 2020. In order to strengthen the ownership of the activities, the citizens are requested to bear 50 % of the acquisition cost of the composting bins whereas the other part is subsidized by the Municipality/Operators.

8.2.3 Promotion of waste minimization through waste classification at schools

In order to raise the awareness and educate the students about environmental protection, the Municipality of Gjakova will start with a pilot project in primary and secondary schools, whereby will promote the waste classification system at source. The concept of this project will be to provide containers to educational institutions for the purpose of classifying the recycled wastes and then to provide lectures related with efficient waste management. The Municipality, for the implementation of this project will request the support of non-governmental organizations to involve in this pilot project also the citizens who care for the environment. In this way will be achieved an increase of awareness to the citizens to have a clean environment as well as establish a new recyclables management system including the development of businesses operating in waste recycling business. It is important to mention that, through education of citizens we will manage to implement also the LWMP objectives.

8.2.4 Promotion of waste minimization through plastic bags

The Municipality orders the plastic bags with the logo of the Municipality. These bags will be provided by the Municipality in the market with certain prices, based on the size of bags. Waste producers are obliged to buy these bags, thus by enabling the Municipality to directly collect the revenues for waste management. The company contracted by the Municipality collects the waste bags.

Through this collection system are expected the following results:

- The Municipality will have a reduction to minimum in budget expenditures – The initial expenditure is the order of plastic bags with logo,
- Encouraging citizens for recycling – collection of bags with recycled materials for free, whereas the non-recycled materials with payment. This has a direct impact on stimulating the economic development.
- Reducing the waste amount– the citizens will be aware to reduce the amount of generated waste, because they will pay by purchasing the bags.

8.2.5 Promotion of waste recycling through proper Transfer Station management

There are no accurate data, it is considered however, that currently about 5% of generated and collected wastes are used for recycling purposes. The recycling activity is carried out by informal sector including also members of RAE community and social categories which classify and recycle the waste, whether in municipal containers or transfer station. In most cases, their activity presents an unwanted public image and risk exposure for their health and public health in general. In certain cases, their activity causes waste disposal outside the containers and additional work for the Company and additional cost for the municipal budget. Currently it is not being applied the classification of waste at source which would enable the classification of wastes according their specific characteristics. As a consequence, all municipal wastes with organic compounds and other recyclables such as: paper, plastic, metal, wood, glass and others end up in the same containers.

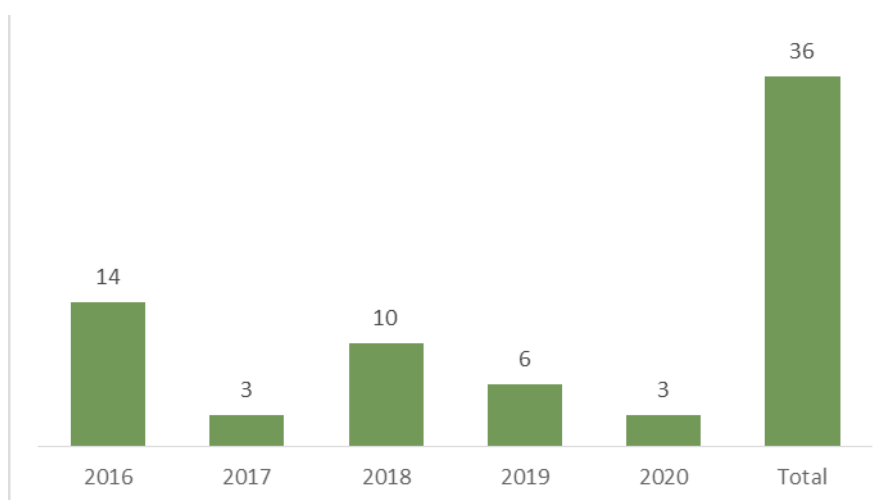
ANNEXES

Annex I: Territorial zoning

1.1 Coverage of the zone during the WM plan 2016-2020

Category	2016	2017	2018	2019	2020	Total
No. of population	8,132	2,007	5,427	3,493	2,165	21,225
No. of settlements	14	3	10	6	3	36
No. of settlements in %	38.90%	8.30%	27.80%	16.70%	8.30%	100.00%

1.2. Coverage during the period 2016-2017



Population 2016-2017

Nr. Loca- tion	Category	Range	Household	Popula- tion	MM-Ton	2016	2017	2018	2019	2020	Total
1 Qerim	Rurale	0-3	137	1,413	516	1,413					1,413
2 Osek pashë	Rurale	3-6	42	570	208	570					570
3 Firzë	Rurale	3-6	73	473	173	473					473
4 Trakaniq	Rurale	3-6	56	431	157	431					431
5 Zhub	Rurale	3-6	21	334	122	334					334
6 Vogovë	Rurale	3-6	72	315	115	315					315
7 Guskë	Rurale	3-6	20	237	86	237					237
8 Bardhasan	Rurale	6-9	54	934	341	934					934
9 Lipovec	Rurale	6-9	106	879	321	879					879
10 Novosellë e poshtme	Rurale	6-9	77	703	257	703					703
11 Smaq	Rurale	6-9	70	588	215	588					588
12 Shishman	Rurale	6-9	77	576	210	576					576
13 Janosh	Rurale	6-9	50	352	128	352					352
14 Vraniq	Rurale	6-9	46	327	120	327					327
15 Hereç	Rurale	9-12	137	1,073	392		1,073				1,073
16 Dobrixhë	Rurale	9-12	29	667	243		667				667
17 Meqe	Rurale	9-12	27	267	97		267				267
Total			901	10,139	2,968	8,132	2,007	-	-	-	10,139

Covering during the period 2018 - 2020

Population 2018-2020

Nr. Loca- tion	Category	Range	House- hold	Popula- tion	MM-Ton	2016	2017	2018	2019	2020	Total
1 Batushë	Rurale	12-20	147	1,176	429			1,176			1,176
2 Brovinë	Rurale	12-20	95	1,013	370			1,013			1,013
3 Ponoshec	Rurale	12-20	106	752	274			752			752
4 Molliq	Rurale	12-20	97	691	252			691			691
5 Nivokaz	Rurale	12-20	96	685	250			635			685
6 Jabllanicë	Rurale	12-20	61	643	235			643			643
7 Stubëll	Rurale	12-20	30	267	97			267			267
8 Berjah	Rurale	12-20	27	182	66			182			182
9 Rakoc	Rurale	12-20	4	12	4			12			12
10 Koshare	Rurale	12-20	0	6	2			6			6
11 Devë	Rurale-Thele	6-9	76	734	241				734		734
12 Kushavec	Rurale-Thele	6-9	34	364	120				354		364
13 Cërmjan	Rurale-Thele	9-12	172	1,868	614				1,868		1,868
14 Kodrali	Rurale-Thele	9-12	22	370	122				370		370
15 Zylfaj	Rurale-Thele	9-12	10	97	32				97		97
16 Goden	Rurale-Thele	9-12	10	61	20				61		61
17 Kralan	Rurale-Thele	12-20	159	1,164	382					1,164	1,164
18 Zhabel	Rurale-Thele	12-20	55	655	215					655	655
19 Gërgoc	Rurale-Thele	12-20	47	346	114					364	364
Total				11,085	3,840	-	-	5,427	3,493	2,165	11,085

Nr.	Zone	Localities No.	Population	Surface m ²	Households	Buildings No.
1	Zona 1	4	38,822	38,390,560	8,413	19,212
2	Zona 2	19	14,202	203,633,213	1,172	2,816
3	Zona 3	22	19,266	149,829,260	2,040	4,628
4	Zona 4	21	22,265	169,321,554	2,726	5,485
Total		66	94,556	561,174,587	14,351	32,141

Waste management designated Zones– MA Gjakova

Zone 1	Zone 2	Zone 3	Zone 4	Total
No. of Settlm. 4 6.1%	No. of Settlm. 19 28.8%	No. of Settlm. 22 33.3%	No. of Settlm. 21 31.8%	No. of Settlm. 66 100%
Population 38.822 41.1%	Population 14.202 15.0%	Population 19.266 20.4%	Population 22.265 23.5%	Population 94.556 100%
SURFACE m² 38.390.560 6.8%	SURFACE m² 203.633.213 36.3%	SURFACE m² 149.829.260 26.7%	SURFACE m² 169.321.554 30.2%	SURFACE m² 561.174.587 100%
Households 8.413 58.6%	Households 1.172 8.2%	Households 2.040 14.2%	Households 2.726 19.0%	Households 14.351 100%
Buildings 19.212 59.8%	Buildings 2.816 8.8%	Buildings 4.628 14.4%	Buildings 5.485 17.1%	Buildings 32.141 100%

Zone 1

No.	Location	Population	Surface m²	Households	No. buildings
1	GJAKOVË- N.CITY	14,191	22,955,780	3,081	6,380
2	GJAKOVË-CITY	21,209	2,499,375	5,245	11,141
3	JAHOC	3,311	10,043,211	77	1,575
4	ZIDI SADIK AGËS I	112	2,892,194	10	116
Total		38,822	38,390,560	8,413	19,212

Zone 2

No.	Location	Population	Surface m²	Households	No. buildings
1	BABAJ I BOKËS	1,085	21,942,711	87	211
2	BATUSHË	1,176	9,426,969	144	244
3	BERJAH	182	1,876,331	27	32
4	BROVINË	1,013	20,318,296	96	210
5	DEVË	734	17,572,765	76	151
6	KORENICË	928	5,034,502	89	188
7	KOSHARE	6	24,568,861	-	1
8	MOLLIQ	691	8,430,969	97	144
9	NIVOKAZ	685	2,866,341	96	136
10	ORIZE	752	3,901,465	12	159
11	PJETËRSHAN	1,904	16,761,332	35	394
12	PONOSHEC	752	10,289,753	106	153
13	POPOC	309	8,022,707	44	56
14	RAMOC	588	11,078,157	30	110
15	RRACAJ	631	6,362,629	35	116
16	SHEREMET	1,189	10,500,608	34	216
17	SHISHMAN	576	12,722,172	77	106
18	SMOLICË	734	9,560,479	57	137
19	STUBËLL	267	2,396,165	30	52
Total		14,202	203,633,213	1,172	2,816

Zone 3					
No.	Location	Population	Surface m²	Households	No. buildings
1	BEC	1,316	15,351,478	186	380
2	CËRMJAN	1,868	19,606,484	172	367
3	DOBRIXHË	667	4,245,758	29	144
4	DUJAKË	1,795	5,880,273	108	434
5	GËRGOC	346	9,602,036	47	61
6	HEREÇ	1,073	5,213,056	137	251
7	JABLLANICË	643	7,332,328	61	113
8	JANOSH	352	2,587,176	50	76
9	KODRALI	370	6,095,766	22	70
10	KRALAN	1,164	14,929,440	159	224
11	MEQE	267	3,515,153	27	65
12	NOVOSELLË E EPËRME	861	3,079,187	100	229
13	NOVOSELLË E POSHTME	703	3,594,460	77	188
14	OSEK HLLË	1,280	2,862,593	175	294
15	OSEK PASHË	570	1,367,678	42	194
16	PALABARDHË	388	2,324,030	35	83
17	QERIM	1,413	7,295,834	137	465
18	RAKOC	12	5,795,699	4	2
19	SKIVJAN	2,553	9,343,720	322	619
20	TRAKANIQ	431	3,431,307	56	102
21	ZHABEL	655	12,984,237	55	135
22	ZHDREDHË	540	3,391,567	39	132
Total		19,266	149,829,260	2,040	4,628

Zona 4					
No.	Location	Population	Surface m²	Households	No. buildings
1	BARDHASAN	934	10,290,796	54	231
2	BISHTAZHIN	673	3,136,333	68	172
3	BREKOC	2,005	5,540,033	530	909
4	DAMJAN	4,797	20,887,351	535	942
5	DOBLIBARË	1,195	8,935,824	125	278
6	FIRZË	473	8,733,061	73	111
7	GËRÇINË	1,189	20,425,524	131	237
8	GODEN	61	10,663,287	10	11
9	GUSKË	237	2,182,316	20	55
10	KUSHAVEC	364	2,593,687	34	86
11	LIPOVEC	879	7,878,465	106	185
12	MARMULL	867	8,204,627	100	183
13	MOGLICË	564	3,863,540	58	130
14	RAÇË	449	2,604,196	56	102
15	ROGOVË	4,791	12,862,274	547	1,215
16	SMAQ	588	4,793,034	70	119
17	UJZ	1,128	7,899,671	60	247
18	VOGOVË	315	3,550,647	72	90
19	VRANIQ	327	4,890,118	46	73
20	ZHUB	334	7,759,386	21	90
21	ZYLFAJ	97	11,627,385	10	19
Total		22,265	169,321,554	2,726	5,485

Annex II: Financial part

1.1 Coverage plan for planned period 2015-2020, for the area uncovered with WM services

Category	2015	2016	2017	2018	2019	2020	Total
No. of Population	-	8,132	2,007	5,427	3,493	2,165	21,225
No. of Households	-	901	193	661	324	261	2,340
Waste generation	-	2,968,224	732,649	1,981,029	1,147,448	711,179	7,540,529
No. of settlements	-	14	3	10	6	3	36
No. of settlements in %	0.0%	38.9%	8.3%	27.8%	16.7%	8.3%	100.0%

1.2 New necessary capital investments

Necessary investments for the period planned 2015-2020 reach the amount of €1.600.600.00

- Containers 1.1 m³ 195,600
- Means of Transport & Garage 525,000
- Public awareness 30,000
- Collection-Recycling 850,000

1.2.1 Investments planned for the period 2015-2020 for the main categories

No	Category	2015	2016	2017	2018	2019	2020	Total	In %
I.	Containers 1.1 m ³	70,800	70,800	27,000	27,000	-	-	195,600	12.2%
II.	Transport & garage equipments	225,000	300,000	-	-	-	-	525,000	32.8%
III.	Public awareness	-	6,000	6,000	6,000	6,000	6,000	30,000	1.9%
IV.	Collection - Recycling	-	100,000	750,000	-	-	-	850,000	53.1%
	Total: Investments	295,800	476,800	783,000	33,000	6,000	6,000	1,600,600	100.0%
	In %	18.5%	29.8%	48.9%	2.1%	0.4%	0.4%	100.0%	

1.3 Depreciation of transport equipments and WM

Category	Tankers	Broom	Truck	Loader	Trailer	Tractor	Vehicle	Totali
Average	33.67	4.00	11.88	9.50	21.00	9.00	20.00	14.57

1.3.1 Basic means (depreciation structure)

Trucks and equipments					
Category	No	Purchasing Value	Accounting Value	In %	Depreciation
Truck	24	367,317	236,220	80.6%	55,042
Other equipments	6	98,402	51,476	17.6%	11,994
Tractor	13	65,300	2,430	0.8%	566
Trailer	4	20,216	1,565	0.5%	365
Container	242	14,942	1,491	0.5%	347
Greenery	5	989	26	0.0%	6
Total	294	567,166	293,207	100.0%	68,320

1.3.2 Customers, revenue structure based on collection categories

Total number of costumers for 2014				
Category	No. of costumers	Revenues	Collection	Monthly revenues
Households	9,559	484,638	69.5%	4.22
Small businesses	1,975	111,430	51.3%	4.70
Large businesses	64	42,610	81.1%	55.48
Institutions	44		100.0%	
Total	11,642	638,679		

1.3.3 Staff salaries structure at POE “Çabrati”

4. Salaries-employees		
4.1 Employees		
Category	No.	In %
Waste management	65	57.5%
Others	48	42.5%
Total number of employees	113	100%
4.2. Salaries for 2014		
Monthly salaries	387,385	
Salaries – Contributions	40,148	
Salaries, other expenditures	605	
Total	428,137	
4.3. Employees in the WM sector		
Category	Amount	No. of employees
Personnel for street cleaning	37,920	14
Personnel for waste collection	110,400	40
Personnel for transfer	9,000	3
Other employees	23,040	8
Total	180,360	65

1.3.4 Tax expenditures and court fees

5. Taxes and court fees	
Category	Amount
Taxes	1,083
Court Fees	1,262
Total	2,345

1.3.5 Operative costs

6. Operative costs (collection, transport, maintenance, personnel)		
Maintenance costs	Amount	In %
Truck insurance + fees	14,868	6.0%
Oil + filters	4,939	2.0%
Tyres	13,089	5.3%
Mechanical maintenance	31,192	12.6%
Materials	13,603	5.5%
Petroleum	139,767	56.5%
External services	29,795	12.1%
Total maintenance costs	247,253	100.0%

1.3.6 Revenues statement for 2014

No	Category	Amount	In %
1	Revenues – Business	42,610	4.1%
2	Revenues – Small business	111,430	10.8%
3	Revenues – Households	484,638	47.0%
4	Revenues from WM	85,111	8.3%
5	Revenues –from MA	159,527	15.5%
6	Revenues – Cemeteries	33,908	3.3%
7	Revenues – Others	113,556	11.0%
Total revenues		1,030,781	100.0%
Operative costs			
8	Administration	36,542	4.3%
9	Waste Management Service	247,253	29.1%
10	Landfill	68,284	8.0%
11	Salaries	428,137	50.3%
12	Depreciation	68,320	8.0%
13	Tax	2,345	0.3%
Total: Operative costs		850,882	100.0%
Operative profit		179,899	
<i>Profit margin</i>			17.5%
<i>Total costs/Total revenues</i>			82.5%

1.3.7 Revenues structure for 2015

Revenues from Waste Management	Amount	% - Group	% Total
Revenues –Business	42,610	5.9%	
Revenues – Small business	111,430	15.4%	
Revenues – Households	484,638	67.0%	
Revenues from WM	85,111	11.8%	
Total: Revenues from Waste Management	723,789	100.0%	70.2%
Other revenues			
Revenues –from MA	159,527	52.0%	
Revenues – Cemeteries	33,908	11.0%	
Revenues -Others	113,556	37.0%	
Total: Other revenues	306,992	100.0%	29.8%
Total revenues	1,030,781		100.0%

2.4 Financial performance (cash flow planning) (annex)

2.4.1 Projected sector revenues 2015-2020

No.	2014	2015	2016	2017	2018	2019	Mesat.
Revenues	1,030,781	1,072,012	1,136,333	1,227,240	1,349,964	1,511,959	1,221,381
Operative costs	850,882	863,477	892,559	939,419	1,006,362	1,096,886	941,597
% Operative costs	82.5%	80.5%	78.5%	76.5%	74.5%	72.5%	77.5%
Operative profit	179,899	208,535	243,774	287,821	343,602	415,073	279,784
Increase/decrease rate							
Revenues		4%	6%	8%	10%	12%	8%
Expenditures		-2%	-4%	-6%	-8%	-10%	-6%

2.5 Fees

By applying the method of allocating costs to calculate the costs for fees based on the category of customers are as follows

- Households 3.07 Euro per month
- Small business 3.41 Euro per month
- Large business 40.29 Euro per month

2.5.1 Revenues structure based on the main revenue categories

Revenues from Waste Management	Amount	% - Group	% Total
Revenues –Business	42,610	5.9%	
Revenues – Small business	111,430	15.4%	
Revenues – Households	484,638	67.0%	
Revenues from WM	85,111	11.8%	
Total: Revenues from Waste Management	723,789	100.0%	70.2%
Other revenues			
Revenues –from MA	159,527	52.0%	
Revenues – Cemeteries	33,908	11.0%	
Revenues -Others	113,556	37.0%	
Total: Other revenues	306,992	100.0%	29.8%
Total revenues	1,030,781		100.0%

2.5.2 Calculation of costs for the group of costumers

Costs for collection and transport, WM direct costs	
Monthly salaries	180,360
Maintenance costs	247,253
Total collection costs	427,613
Total of wastes collected in 65 ton per day - [t/year]	17,300
Costs for collection and transport (1 ton)	24.72
Total expenditures for collection and transport - Company's level	
Maintenance costs	247,253
Salaries in company's level	278,289
Total costs	525,542
Costs for collection and transport (1 Ton)	30.38

2.5.3 Calculation for the group of costumers

Calculation of costs for the group of costumers					
Category	Revenues– Households	Revenues -Business	Revenues – Small business	Revenues from WM	Total
Revenues from Waste Management	484,638	42,610	111,430	85,111	723,789
In %	67.0%	5.9%	15.4%	11.8%	100.0%
Total costs	351,895	30,939	80,909	61,799	525,542
Number of costumers	9,559	64	1,975	1	
Costs for the group of costumers	3.07	40.29	3.41	5,149.90	

Annex III: Zone mapping

1. Population

1.1 Number of residents by zone and main categories

Population	North-West	North- East	South-East	South- West	Total	In %
Urban	21,209	14,191	-	-	35,400	37%
Suburban	3,311	-	112	2,005	5,427	6%
Rural	19,660	6,634	17,829	2,862	46,986	50%
Rural-remote	-	4,403	424	1,916	6,743	7%
Total	44,180	25,228	18,365	6,783	94,556	100%
In %	46.7%	26.7%	19.4%	7.2%	100.0%	

1.2 Number of residents by zone and the distance (reference point)

Population	0-3	3-6	6-9	9-12	12-20	Total
Urban	35,400	-	-	-	-	35,400
Suburban	3,423	2,005	-	-	-	5,427
Rural	1,977	7,671	12,183	14,936	10,218	46,986
Rural-remote	-	-	2,183	2,395	2,165	6,743
Total	40,799	9,676	14,366	17,332	12,383	94,556
In %	43.1%	10.2%	15.2%	18.3%	13.1%	

1.3 Number of residents by zone and age groups

Category	0-19	20-44	45-64	65>	Total
Urban	12,146.75	12,952.25	7,588.57	2,712.19	35,399.76
Suburban	1,862.25	1,985.75	1,163.43	415.81	5,427.24
Rural	19,014.96	17,503.83	7,029.17	3,437.63	46,985.59
Rural-remote	2,729.04	2,512.17	1,008.83	493.37	6,743.41
Total	35,753.00	34,954.00	16,790.00	7,059.00	94,556.00

1.4 Number of residents by zone and age groups (Urban/Rural)

Category	0-19	20-44	45-64	65>	Total
Urban	14,009.00	14,938.00	8,752.00	3,128.00	40,827.00
Rural	21,744.00	20,016.00	8,038.00	3,931.00	53,729.00
Total	35,753.00	34,954.00	16,790.00	7,059.00	94,556.00
Urban	39.2%	42.7%	52.1%	44.3%	43.2%
Rural	60.8%	57.3%	47.9%	55.7%	56.8%
MA Gjakova	37.8%	37.0%	17.8%	7.5%	100.0%

1.5 Number of residents by zone and distances and directions

Distance/Population	North-West	North-East	South-East	Jug -Perëndim	Total	In %
0-3						
Urban	21,209	14,191	-	-	35,400	86.8%
Suburban	3,311	-	112	-	3,423	8.4%
Rural	-	1,413	564	-	1,977	4.8%
Rural-remote	-	-	-	-	-	0.0%
Total	24,520	15,604	676	-	40,799	100.0%
3-6						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	2,005	2,005	20.7%
Rural	3,032	-	2,353	2,286	7,671	79.3%
Rural-remote	-	-	-	-	-	0.0%
Total	3,032	-	2,353	4,291	9,676	100.0%
6-9						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	4,827	3,772	3,008	576	12,183	84.8%
Rural-remote	-	-	364	1,819	2,183	15.2%
Total	4,827	3,772	3,372	2,395	14,366	100.0%
9-12						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	7,016	807	7,113	-	14,936	86.2%
Rural-remote	-	2,238	61	97	2,395	13.8%
Total	7,016	3,044	7,174	97	17,332	100.0%
12-20						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	4,785	643	4,791	-	10,218	82.5%
Rural-remote	-	2,165	-	-	2,165	17.5%
Total	4,785	2,808	4,791	-	12,383	100.0%
Total	44,180	25,228	18,365	6,783	94,556	

2. Households

2.1 Household distribution ratio by cadastral zones

(Rural/Urban) – Source: Kosovo Agency of Statistics

Category	North-West	North-East	South-East	South-West	Total
Urban	5,322	3,081	10	530	8,943
Rural	1,943	1,130	1,810	525	5,408
Total	7,265	4,211	1,820	1,055	14,351

2.2 Household distribution ratio by cadastral zones (statistical office)

Category	North-West	North-East	South-East	South-West	Total
Urban	5,245	3,081	-	-	8,326
Suburban	77	-	10	530	617
Rural	1,943	675	1,766	352	4,736
Rural-remote	-	455	44	173	672
Total	7,265	4,211	1,820	1,055	14,351

2.3 Household distribution ratio by cadastral zones (tax in ton)

For residence	North-West	North-East	South-East	South-West	Total
Urbane	6,655	4,453	-	-	11,108
Para - Urbane	1,039	-	35	629	1,703
Rurale	3,242	1,094	2,940	472	7,748
Rurale -Thelle	-	726	70	316	1,112
Total	10,936	6,273	3,045	1,417	21,671

2.4 Household distribution ratio by distance in KM from the (MA Gjakova as reference point)

Population	0-3	3-6	6-9	9-12	12-20	Total
Urban	11,108	-	-	-	-	11,108
Suburban	1,074	629	-	-	-	1,703
Rural	326	1,265	2,009	2,463	1,685	7,748
Rural-remote	-	-	360	395	357	1,112
Total	12,508	1,894	2,369	2,858	2,042	21,671
In %	87.2%	13.2%	16.5%	19.9%	14.2%	

3. Cadastral zones

3.1 Cadastral zones by main categories – SURFACE in m²

Surface m ²	North-West	North-East	South-East	South-West	Total	In %
Urban	2,499,375	22,955,780	-	-	25,455,155	5%
Suburban	10,043,211	-	2,892,194	5,540,033	18,475,438	3%
Rural	179,324,668	61,003,097	109,316,347	39,982,083	389,626,196	69%
Rural-remote	-	63,217,963	13,256,974	51,142,861	127,617,797	23%
Total	191,867,254	147,176,840	125,465,515	96,664,978	561,174,587	100%
In %	34.2%	26.2%	22.4%	17.2%	100.0%	

3.2 Cadastral zones by main categories -SURFACE m²

Distance/Population	North-West	North-East	South-East	South-West	Total	In %
0-3						
Urban	2,499,375	22,955,780	-	-	-	0.0%
Suburban	10,043,211	-	2,892,194	-	-	0.0%
Rural	-	7,295,834	3,863,540	-	-	0.0%
Rural-remote	-	-	-	-	-	0.0%
Total	12,542,586	30,251,614	6,755,734	-	49,549,934	100.0%
3-6						
Urbane	-	-	-	-	-	0.0%
Para - Urbane	-	-	-	5,540,033	5,540,033	8.7%
Rurale	11,563,043	-	19,365,528	27,259,912	58,188,482	91.3%
Rurale - Thelle	-	-	-	-	-	0.0%
Total	11,563,043	-	19,365,528	32,799,945	63,728,516	100.0%
6-9						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	32,966,142	39,468,215	24,012,459	12,722,172	109,168,988	72.2%
Rural-remote	-	-	2,593,687	39,515,475	42,109,162	27.8%
Total	32,966,142	39,468,215	26,606,145	52,237,647	151,278,150	100.0%
9-12						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	48,826,098	6,906,721	49,212,546	-	104,945,365	68.6%
Rural-remote	-	25,702,250	10,663,287	11,627,385	47,992,922	31.4%
Total	48,826,098	32,608,970	59,875,833	11,627,385	152,938,287	100.0%
12-20						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	85,969,385	7,332,328	12,862,274	-	106,163,988	73.9%
Rural-remote	-	37,515,713	-	-	37,515,713	26.1%
Total	85,969,385	44,848,041	12,862,274	-	143,679,700	100.0%
Total	191,867,254	147,176,840	125,465,515	96,664,978	561,174,587	

4. Property tax

4.1 Number of households (data from property tax)

For residence	North-West	North-East	South-East	South-West	Total
Urban	6,655	4,453	-	-	11,108
Suburban	1,039	-	35	629	1,703
Rural	3,242	1,094	2,940	472	7,748
Rural-remote	-	726	70	316	1,112
Total	10,936	6,273	3,045	1,417	21,671

4.2 Surfaces area of buildings in m² - source: property tax MA Gjakova

Surface m ²	North-West	North-East	South-East	South-West	Total	In %
Urban	1,205,661	1,126,303	-	-	2,331,964	51%
Suburban	226,130	-	34,593	139,094	399,817	9%
Rural	700,547	304,722	581,180	103,583	1,690,032	37%
Rural-remote	-	95,500	14,997	56,548	167,045	4%
Total	2,132,338	1,526,525	630,770	299,225	4,588,858	100%
In %	46.5%	33.3%	13.7%	6.5%	100.0%	

4.3 Surfaces of buildings in m² - source: property tax MA Gjakova (distances measured in KM)

Distance	North-West	North-East	South-East	South-West	Total	In %
0-3						
Urban	1,205,661	1,126,303	-	-	2,331,964	86.4%
Suburban	226,130	-	34,593	-	260,723	9.7%
Rural	-	82,769	22,352	-	105,121	3.9%
Rural-remote	-	-	-	-	-	0.0%
Total	1,431,791	1,209,072	56,945	-	2,697,808	100.0%
3-6						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	139,094	139,094	32.6%
Rural	114,818	-	81,450	90,978	287,246	67.4%
Rural-remote	-	-	-	-	-	0.0%
Total	114,818	-	81,450	230,072	426,340	100.0%
6-9						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	172,657	168,342	97,446	12,605	451,050	86.7%
Rural-remote	-	-	13,895	55,062	68,957	13.3%
Total	172,657	168,342	111,341	67,667	520,007	100.0%
9-12						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	260,199	41,078	200,904	-	502,181	90.1%
Rural-remote	-	52,633	1,102	1,486	55,221	9.9%
Total	260,199	93,711	202,006	1,486	557,402	100.0%
12-20						
Urban	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	0.0%
Rural	152,873	12,533	179,028	-	344,434	88.9%
Rural-remote	-	42,867	-	-	42,867	11.1%
Total	152,873	55,400	179,028	-	387,301	100.0%
Total	2,132,338	1,526,525	630,770	299,225	4,588,858	

5. WM services by categories

5.1 Structure of the population served by distance range – WM services coverage index

Category	0-3	3-6	6-9	9-12	12-20	Total	In %
WM services are provided	39,386	7,317	8,908	12,929	4,791	73,331	77.6%
WM services are not provided	1,413	2,359	5,458	4,403	7,592	21,225	22.4%
Total	40,799	9,676	14,366	17,332	12,383	94,556	100.0%
<i>Coverage index</i>	96.5%	75.6%	62.0%	74.6%	38.7%	77.6%	

5.2 Structure of the population served by distance range – WM services coverage index

WM services are provided							
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %
Urban	35,400	-	-	-	-	35,400	48.3%
Suburban	3,423	2,005	-	-	-	5,427	7.4%
Rural	564	5,312	7,823	12,929	4,791	31,419	42.8%
Rural-remote	-	-	1,085	-	-	1,085	1.5%
Total	39,386	7,317	8,908	12,929	4,791	73,331	100.0%
In %	53.7%	10.0%	12.1%	17.6%	6.5%	100.0%	
WM services are not provided							
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %
Urban	-	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	-	0.0%
Rural	1,413	2,359	4,360	2,007	5,427	15,567	73.3%
Rural-remote	-	-	1,098	2,395	2,165	5,658	26.7%
Total	1,413	2,359	5,458	4,403	7,592	21,225	100.0%
In %			25.7%	20.7%	35.8%	100.0%	
Total	40,799	9,676	14,366	17,332	12,383	94,556	

5.3 Distribution of calculated generating of WM by distances in kilometres from reference point

Category	0-3	3-6	6-9	9-12	12-20	Total	In %
WM services are provided	21,086,360	2,816,963	3,211,924	4,719,056	1,748,618	33,582,921	81.7%
WM services are not provided	515,732	861,028	1,952,033	1,519,527	2,692,208	7,540,529	18.3%
Total	21,602,092	3,677,992	5,163,957	6,238,583	4,440,826	41,123,450	100.0%
<i>Coverage index</i>	97.6%	76.6%	62.2%	75.6%	39.4%	81.7%	
WM services are provided							
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %
Urban	19,381,368	-	-	-	-	19,381,368	57.7%
Suburban	1,499,142	877,989	-	-	-	2,377,131	7.1%
Rural	205,850	1,938,974	2,855,339	4,719,056	1,748,618	11,467,836	34.1%
Rural-remote	-	-	356,585	-	-	356,585	1.1%
Total	21,086,360	2,816,963	3,211,924	4,719,056	1,748,618	33,582,921	100.0%
In %	62.8%	8.4%	9.6%	14.1%	5.2%	100.0%	
WM services are not provided							
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %
Urban	-	-	-	-	-	-	0.0%
Suburban	-	-	-	-	-	-	0.0%
Rural	515,732	861,028	1,591,464	732,649	1,981,029	5,681,902	75.4%
Rural-remote	-	-	360,569	786,878	711,179	1,858,626	24.6%
Total	515,732	861,028	1,952,033	1,519,527	2,692,208	7,540,529	100.0%
In %	6.8%	11.4%	25.9%	20.2%	35.7%	100.0%	
Total	21,602,092	3,677,992	5,163,957	6,238,583	4,440,826	41,123,450	

6. Calculated waste generation

6.1 Report of wastes distribution based on the main categories

Category	North-West	North-East	South-East	South-West	Total
Urban	11,611,722	7,769,646	-	-	19,381,368
Suburban	1,450,287	-	48,855	877,989	2,377,131
Rural	7,175,975	2,421,504	6,507,516	1,044,744	17,149,739
Rural-remote	-	1,446,262	139,447	629,503	2,215,211
Total	20,237,984	11,637,413	6,695,817	2,552,236	41,123,450
In %	49.2%	28.3%	16.3%	6.2%	100.0%

6.2 Wastes distribution by distances in KM – number of residents x waste generation per day

Category	0-3	3-6	6-9	9-12	12-20	Total
Urban	19,381,368	-	-	-	-	19,381,368
Suburban	1,499,142	877,989	-	-	-	2,377,131
Rural	721,582	2,800,003	4,446,802	5,451,705	3,729,648	17,149,739
Rural-remote	-	-	717,155	786,878	711,179	2,215,211
Total	21,602,092	3,677,992	5,163,957	6,238,583	4,440,826	41,123,450

6.3 Amount of wastes calculated by service provision

Category	WM services are provided	WM services are not provided	Total
Urban	19,381,368	-	19,381,368
Suburban	2,377,131	-	2,377,131
Rural	11,467,836	5,681,902	17,149,739
Rural-remote	356,585	1,858,626	2,215,211
Total	33,582,921	7,540,529	41,123,450

6.4 Distribution of calculated WM generation by distances in kilometres from the reference point

<i>WM services are provided</i>								
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %	Total in %
Urban	19,381,368	-	-	-	-	19,381,368	57.7%	
Suburban	1,499,142	877,989	-	-	-	2,377,131	7.1%	
Rural	205,850	1,938,974	2,855,339	4,719,056	1,748,618	11,467,836	34.1%	
Rural-remote	-	-	356,585	-	-	356,585	1.1%	
Total	21,086,360	2,816,963	3,211,924	4,719,056	1,748,618	33,582,921	100.0%	81.7%
In %	62.8%	8.4%	9.6%	14.1%	5.2%	100.0%		
<i>WM services are not provided</i>								
Category	0-3	3-6	6-9	9-12	12-20	Total	Group in %	Total in %
Urban	-	-	-	-	-	-	0.0%	
Suburban	-	-	-	-	-	-	0.0%	
Rural	515,732	861,028	1,591,464	732,649	1,981,029	5,681,902	75.4%	
Rural-remote	-	-	360,569	786,878	711,179	1,858,626	24.6%	
Total	515,732	861,028	1,952,033	1,519,527	2,692,208	7,540,529	100.0%	18.3%
In %			25.9%	20.2%	35.7%	100.0%		
Total	21,602,092	3,677,992	5,163,957	6,238,583	4,440,826	41,123,450		100.0%

6.5 Structure of wastes calculated for 2014

Composition	In %	2014
Kitchen wastes	42.0%	17,272
Paper	13.6%	5,593
Others	11.5%	4,729
Plastics	10.6%	4,359
Ashes of heating	8.3%	3,413
Glass/bottles	4.9%	2,015
Grass & wood (green wastes)	2.9%	1,193
Ashes/soil	2.9%	1,193
Metal	1.3%	535
Textile	1.2%	493
Ceramics & stone	0.5%	206
Tires and leather	0.3%	123
Total	100%	41,123

6.6 Structure of wastes calculated for 2014 based on the area (ton)

Composition	2014	North-West	North-East	South-East	South-West	Total
Kitchen wastes	42.0%	8,500	4,888	2,812	1,072	17,272
Paper	13.6%	2,752	1,583	911	347	5,593
Others	11.5%	2,327	1,338	770	294	4,729
Plastics	10.6%	2,145	1,234	710	271	4,359
Ashes of heating	8.3%	1,680	966	556	212	3,413
Glass/bottles	4.9%	992	570	328	125	2,015
Grass & wood (green wastes)	2.9%	587	337	194	74	1,193
Ashes/soil	2.9%	587	337	194	74	1,193
Metal	1.3%	263	151	87	33	535
Textile	1.2%	243	140	80	31	493
Ceramics & stone	0.5%	101	58	33	13	206
Tires and leather	0.3%	61	35	20	8	123
Total	100%	20,238	11,637	6,696	2,552	41,123

6.7 Structure of wastes calculated for 2014 by distance range measured (ton)

Composition	0-3	3-6	6-9	9-12	12-20	Total
Kitchen wastes	9,073	1,545	2,169	2,620	1,865	17,272
Paper	2,938	500	702	848	604	5,593
Others	2,484	423	594	717	511	4,729
Plastics	2,290	390	547	661	471	4,359
Ashes of heating	1,793	305	429	518	369	3,413
Glass/bottles	1,059	180	253	306	218	2,015
Grass & wood (green wastes)	626	107	150	181	129	1,193
Ashes/soil	626	107	150	181	129	1,193
Metal	281	48	67	81	58	535
Textile	259	44	62	75	53	493
Ceramics & stone	108	18	26	31	22	206
Tires and leather	65	11	15	19	13	123
Total	21,602	3,678	5,164	6,239	4,441	41,123

7. Recycling

7.1 2015-2012 waste collection potential projections

Recycling in %		15%	17%	19%	21%	23%
Category	2015	2016	2017	2018	2019	2020
Kitchen wastes	17,272	2,591	2,936	3,282	3,627	3,973
Paper	5,593	839	951	1,063	1,174	1,286
Others	4,729	709	804	899	993	1,088
Plastics	4,359	654	741	828	915	1,003
Ashes of heating	3,413	512	580	649	717	785
Glass/bottles	2,015	302	343	383	423	463
Grass & wood (green wastes)	1,193	179	203	227	250	274
Ashes/soil	1,193	179	203	227	250	274
Metal	535	80	91	102	112	123
Textile	493	74	84	94	104	114
Ceramics & stone	206	31	35	39	43	47
Tires and leather	123	19	21	23	26	28
Total	41,123	6,169	6,991	7,813	8,636	9,458

7.2 2016-2020 recycling calculation inputs

Recycling commencement	15.0%
Growth rate	2.0%
Cost rate	40.0%
Investments planned	750,000

7.3 Recycling for the period 2016-2020(in quantities)

Category	2016	2017	2018	2019	2020	Price
<i>Paper</i>	839	951	1,063	1,174	1,286	0.10
<i>Plastics</i>	654	741	828	915	1,003	0.50
<i>Metal</i>	80	91	102	112	123	0.18
<i>Tires and leather</i>	19	21	23	26	28	0.25
Total	3,607	3,821	4,034	4,247	4,460	
<i>Growth Index</i>	15%	17%	19%	21%	23%	

7.4 Recycling for the period 2016-2020 (In EUROS)

Category	2016	2017	2018	2019	2020
<i>Paper</i>	83,892	95,077	106,263	117,449	128,634
<i>Plastics</i>	326,931	370,522	414,113	457,704	501,295
<i>Metal</i>	14,434	16,359	18,283	20,208	22,133
<i>Tires and leather</i>	4,626	5,243	5,860	6,477	7,094
Total	429,884	487,202	544,520	601,838	659,155
<i>Growth Index</i>		13%	12%	11%	10%

7.5 Calculation of revenues and costs

Category	2016	2017	2018	2019	2020
Total revenues	429,884	487,202	544,520	601,838	659,155
Calculated costs in %	40.0%	40.0%	40.0%	40.0%	40.0%
Costs in amount	171,954	194,881	217,808	240,735	263,662
Estimated Profit	257,930	292,321	326,712	361,103	395,493

7.6 Calculation of return investments

Investments planned	750,000
Return of investments	30

	2016				2017				2018	
Period	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Revenues	64,483	64,483	64,483	64,483	73,080	73,080	73,080	73,080	108,904	108,904
Return of investments in amount	685,517	621,035	556,552	492,070	418,989	345,909	272,829	199,748	90,845	18,059
Return of investments per month		-	-	-	-	-	-	-	-	30
Profit for the period	-	-	-	-	-	-	-	-	-	108,904



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