

ANNUAL REPORT ON THE STATE OF THE ENVIRONMENT 2024



Prishtina,
October, 2025



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Republika e Kosovës
Republika Kosova - Republic of Kosovo
Qeveria - Vlada - Government

Ministria e Mjedisit, Planifikimit Hapësinor dhe Infrastrukturës
Ministarstvo Životne Sredine, Prostornog Planiranja i
Infrastrukture
Ministry of Environment, Spatial Planning and Infrastructure

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



Annual Report on the State of the
Environment
2024

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List of abbreviations

TON (<i>org.ATO</i>)	Total organic nitrogen
TA (<i>org.AT</i>)	Total alkalinity
TIN (<i>org.ATI</i>)	Total inorganic nitrogen
Ar	Aroma
KA1 (<i>org.AKS1</i>)	Kosovo Agglomeration 1
KEPA (<i>KEPA</i>)	Kosovo Environmental Protection Agency
KFA (<i>APK</i>)	Kosovo Forestry Agency
WSRA (<i>ARRU</i>)	Water Services Regulatory Authority
KAS (<i>ASK</i>)	Kosovo Agency of Statistics
BAT	Best Available Techniques
GDP (<i>BPV</i>)	Gross Domestic Product
EU (<i>BE</i>)	European Union
Cu²⁺	Copper
Cd²⁺	Cadmium
Cr³⁺	Chromium
C₆H₅OH	Phenols
Cl⁻	Chlorides
Cl₂	Free chlorine
Ca⁺	Calcium ions
OANIV (<i>CNVP</i>)	Organization for the Association of Natural and Individual Values
CLC	Corine Land Cover
CO	Carbon monoxide
CO₂	Carbon dioxide
DET	Detergents
KC (<i>DG</i>)	Kosovo Customs
EIONET	European Monitoring and Surveillance Network
EEA	European Environment Agency
FMg	Magnesium hardness
Fca	Calcium hardness
Fp	Total hardness
Fe²⁺	Iron
GIZ	German Technical Cooperation
GHG	Greenhouse gases
H	Level

HCO₃-	Bicarbonates
KINP (IKMN)	Kosovo Institute for Nature Protection
IPA	First Instrument EU membership
KNIPH (IKSHPK)	Kosovo National Institute of Public Health
KHMI	Kosovo Hydrometeorological Institute
IPPC	Integrated Pollution Control and Prevention
IPCC	Intergovernmental Panel on Climate Change
IWRM-K	Integrated Water Resources Management in Kosovo
WWTP (ITUN)	Wastewater Treatment Plant
JICA	Japan International Development Agency
KEK	Kosovo Energy Corporation
KLMC (KMDK)	Kosovo Landfill Management Company.
RWC (RWC)	Regional Waste Company
RWSC (RWC)	Regional Water Supply Company
KEDS	Kosovo Electricity Distribution Company
KESCO	Kosovo Electricity Company
MAFRD	Ministry of Agriculture, Forestry and Rural Development
MESPI	Ministry of Environment, Spatial Planning and Infrastructure
NMSP (MNRV)	Natural Monument of Special Importance
MH (MSH)	Ministry of Health
ME	Ministry of Economy
Mg+	Magnesium ions
M.tert.	Water-soluble substances
Ni²⁺	Nickel
Mn²⁺	Manganese
NO₂	Nitrogen dioxide
N-NO₃-	Nitrate nitrogen
NO₃-	Nitrate ions
N-NH₄⁺	Unionized ammonium nitrogen
NO₂-	Nitrite nitrogen
NgO	Oxygen saturation
OECD	Organization for Economic Cooperation and Development
WHO (OBSh)	World Health Organization
O₃	Ozone

PM10	Airborne particles with a diameter of 10 microns or less
PM2.5	Airborne particles with a diameter of 2.5 microns or less
RDP (PZHR)	Regional Development Program
PCB	Polychlorinated biphenyls
pH	Ion concentration hydrogen
PO43-	Orthophosphates
P - PO43-	Orthophosphate phosphorus
Ptot.	Total phosphorus (poly+ortho)
Pb2+	Lead
PK	National Park
SHKO-Cr	Chemical oxygen demand with dichromate
SHBO7	Biochemical oxygen demand
SO42-	Sulfate ion
SiO32-	Silicates
Si - SiO32-	Silica in Silicates
SIDA	Swedish International Development Agency
SOx	Sulfur oxides
PPA (TCA)	Power Plant A
PPB (TCB)	Power Plant B
TSS	Suspended particulate matter
UNICEF	United Nations Children's Emergency Fund
EIA (VNM)	Environmental Impact Assessment
SEA (VSM)	Strategic Environmental Assessment
X	Electrical conductivity
OPM (OPM)	Office of the Prime Minister
MZK1 (ZKS1)	Monitoring Zone Kosovo 1
Zn2+	Zinc
NPZ (ZMN)	Nature Protected Zones

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1. Introduction

The environment constitutes one of the most valuable assets of any society and is an essential factor for population well-being, economic development, and the preservation of biodiversity. The current state of the environment in the Republic of Kosovo represents an ongoing challenge for responsible institutions, civil society, and citizens in general. The impact of economic activities, rapid urbanization, the lack of adequate infrastructure for waste and wastewater treatment, as well as the unsustainable use of natural resources, has resulted in serious consequences for the main components of the environment.

This report provides an overview of the environmental situation in the country by analyzing the most significant developments during the most recent reporting period, with a particular focus on air and water quality, soil, waste management, nature protection, and impacts on public health. The report also examines institutional functioning, the implementation of environmental strategies and action plans, as well as financing mechanisms and inter-institutional and international cooperation.

The most important part of this report focuses on the state of the environment, beginning with air quality, air pollutant emissions, and greenhouse gases (GHGs), which represent some of the greatest concerns in terms of public health and climate impact. In addition, the contribution of international cooperation projects is presented. The chapter also addresses the condition of surface and groundwater, focusing on both qualitative and quantitative aspects, including wastewater treatment and the use of water resources. The section on soil examines agricultural land use, pollution, and soil monitoring processes.

The section dedicated to waste management places emphasis on the generation, composition, disposal, and treatment of municipal, industrial, and hospital waste, as well as plastic bags and plastic waste. In addition, the phenomenon of illegal

landfills is addressed, which continues to pose a serious risk to the environment and public health.

For the conservation of biodiversity and nature, the report examines the status of protected areas, flora, fauna, and forest resources, which are under continuous pressure from human activities and climate change. The presentation of environmental impacts on public health is provided in the fourth chapter, where the links between air and water pollution and environmentally related diseases are analyzed.

The report also addresses the most sensitive and environmentally endangered areas, including those surrounding industrial zones such as KEK, Ferronikel, Sharrcem, and the so-called environmental “hot spots” that require immediate rehabilitation measures.

Furthermore, the report analyzes progress in the implementation of environmental strategies and action plans at both central and local levels, in order to assess the effectiveness of policies and instruments undertaken to date. Particular importance is also given to concrete measures for environmental protection, including legislation, inspection mechanisms, and the environmental permitting system.

The final chapters focus on the management of natural resources (water, forests, and minerals), institutional functioning and the capacities of environmental authorities, as well as the financial aspect of environmental protection—reviewing projects financed by the state budget, municipalities, and international donors.

The aim of this report is to contribute to public and institutional awareness of the real state of the environment, to encourage greater responsibility in the management of natural resources, and to provide data-based recommendations for the formulation of sustainable policies for the environmental future of our country.

2. Summary of the main findings of the report

Air – Air quality in Kosovo for 2024 was generally within the legal limits set by EU standards for the annual average concentrations of the main pollutants, such as PM10, PM2.5, NO₂, SO₂, O₃, and CO. The number of days with exceedances for PM10, although still within the legal limit of 35 days per year, was high at several urban monitoring stations: Prishtina/Rilindja (33 days), Kodra e Trimave (21), and Obiliq (20), indicating the need for intervention in areas with high urban and industrial pressure.

Other monitoring zones (ZKS1) showed better results. Only Gjilan recorded 26 days with exceedances, while Hani i Elezit recorded none. Data for the period 2013–2024 indicate a noticeable improvement in air quality, particularly for PM10 and PM2.5, reflecting the measures taken to reduce pollution.

Regarding air emissions, based on assessments derived from fuel consumption, the main source of emissions for NO₂ and SO₂ pollutants is energy and heat production. In contrast, for PM2.5, PM10, total dust, and carbon monoxide (CO), the main source of pollution is small-scale combustion, which includes residential, institutional, and commercial sources. Transport is the second-largest source of NO₂ emissions after the energy production sector, while manufacturing and construction industries are the second-largest contributors to CO emissions after small-scale combustion.

Annual greenhouse gas emissions in Kosovo for 2023 are estimated at approximately 10,266 Gg (gigagrams) of CO₂ equivalent, or about 10.6 million tons of CO₂ eq. The main source of greenhouse gas emissions is the energy sector, accounting for 87% of total emissions. The second-largest sector is agriculture and land use, with 7%, while the waste sector represents 4% of total emissions.

Water – The state of water resources in Kosovo remains challenging due to significant environmental pressures from

urbanization, industry, and intensive agriculture. The greatest pollution originates from the discharge of untreated wastewater, as well as from the runoff of chemical substances from agricultural land. This contributes to increased concentrations of organic and inorganic matter in water bodies, such as phosphorus, nitrogen, and suspended solids.

Monitoring conducted by the Kosovo Hydrometeorological Institute (KHMI) through 54 stations indicates high pollution levels in rivers flowing through populated and industrial areas (Prishtevka/Bresje and Graçanka/Vragoli). In some cases, BOD₅ and COD values exceed acceptable limits, signaling severe organic pollution. However, total phosphorus concentrations at most stations do not exceed the threshold for eutrophication.

Wastewater treatment has progressed with the construction of modern treatment plants in Peja, Gjakova, Prizren, and Skenderaj. In 2024, approximately 11% of wastewater was treated, compared to only 1% in 2023. Nevertheless, challenges remain regarding the capacity for total nitrogen removal and the lack of data for certain areas.

Soil / Land - Agriculture has experienced slight growth and continues to make a significant contribution to Kosovo's economy. The share of the agricultural sector in Gross Domestic Product (GDP) increased to 9% in 2024 from 7.2% in 2023. Overall real GDP growth in 2024 was 4.41%, while the agriculture, forestry, and fisheries sector recorded growth of 2.29%.

The total agricultural land area in 2024 amounted to 420,228.67 ha, representing a decrease of 456.3 ha compared to 2023. Land use shows minor negative changes in total area, but there have been improvements in irrigated land and in certain agricultural crops.

The irrigated land area in 2024 increased to 34,070.28 ha, representing an 88.75% increase compared to 2023 (18,050 ha).

However, land continues to face pressure from pollution, and the lack of a soil monitoring system remains a major challenge.

Subsidy programs have had a positive impact on investment and rural development. There is no permanent and comprehensive soil monitoring system in Kosovo. Soil monitoring conducted through the Kosovo Hydrometeorological Institute (KHMI) has been carried out only for specific cases or within EU-funded projects.

Waste Management - The generation of municipal waste in Kosovo shows significant variations among municipalities; in some areas, waste generation per capita has increased, while the total amount collected has decreased, indicating weaknesses in collection and reporting systems.

The composition of waste is dominated by recyclable fractions (plastic, paper, metal, and organic waste). However, the lack of source separation and adequate treatment capacities means that most waste ends up in landfills.

Existing landfills are largely overburdened, not managed in accordance with standards, and are often located near residential areas or rivers, causing air, water, and soil pollution.

Functional recycling infrastructure is lacking. Although some private operators collect recyclable materials, the system is not integrated and does not actively involve citizens.

Industrial and medical waste are not managed as required by law. They often follow the same disposal routes as municipal waste, increasing risks to public health.

Existing legislation and strategies are, on paper, aligned with EU directives, but implementation remains weak due to insufficient funding, limited technical capacity, and inadequate institutional

oversight. Public awareness is very low; source separation of waste is almost non-existent, and the practice of waste burning is still encountered. Currently, more than 90% of wastes in Kosovo are disposed in landfills.

Nature Protection and Biodiversity - In 2024, Kosovo has a total of 260 protected areas, covering an area of 126,112.2 ha, or 11.5% of the national territory.

The main categories of protected areas include: 19 Strict Nature Reserves, 2 National Parks (Sharri and Bjeshkët e Nemuna), 230 Natural Monuments, 1 Nature Park, 7 Protected Landscapes, and 1 Special Protection Area for Birds.

The largest areas are covered by the National Parks “Sharri” and “Bjeshkët e Nemuna,” which represent the core basis for the conservation of mountain biodiversity. In 2024, new areas were placed under protection, such as “Guri i Hoxhës with the Perlepnicë River Gorge” (30 ha), while the designation of “Mount Mokna and Lake Ujman” (~25,000 ha) as a Nature Park is in the finalization process.

Despite the increase in protected areas, human pressures remain very high, including uncontrolled construction, forest exploitation, illegal hunting, mass tourism, and a lack of effective management.

Climate change represents an additional risk, leading to the disappearance or displacement of species and increasing the risk of forest fires. In 2024, the areas affected by fires increased significantly compared to the previous year.

Landscape degradation and habitat fragmentation caused by construction and road development within national parks threaten biodiversity and ecological functions.

Kosovo’s biodiversity is very rich, with over 2,800–3,000 species of vascular flora and a diverse fauna that includes rare and internationally protected species such as the brown bear, lynx, golden eagle, and capercaillie. However, the lack of comprehensive inventories and accurate data on species populations remains a major scientific gap.

Environmental Impacts on Public Health - Air pollution remains one of the greatest threats to public health in Kosovo. Emissions of PM_{2.5}, PM₁₀, NO₂, and SO₂ from transport, industry, and residential combustion directly contribute to respiratory and cardiovascular diseases. According to the World Health Organization (WHO), air pollution causes over 7 million premature deaths globally each year. In Kosovo alone, in 2024, air pollution is associated with approximately 2,370 premature deaths due to PM_{2.5} and 240 due to NO₂. Infectious Diseases have shown significant fluctuations between 2023 and 2024.

In 2024, there was a significant increase in certain infectious diseases: acute diarrhea (+30.4%), rotavirus (+27.4%), pertussis (+10,350%), RSV (+160.3%), HIV/AIDS (+70%), and other zoonotic diseases such as brucellosis (+66.7%). At the same time, notable decreases were observed for COVID-19 (-19.4%), SARI (-21%), varicella (-40.6%), and tuberculosis (-20.34%). Overall, the total number of reported cases increased by 31,658, representing a +12.9% rise compared to 2023.

Drinking water quality continued to improve. In 2024, compliance with microbiological and physico-chemical standards reached 98.84%, compared to 96.6% in 2023. Two water supply systems (Southern Hydroregion and Gjakova) achieved 100% compliance, while the national average remains very high.

State of Environmentally Vulnerable Areas - The environmental situation in Kosovo's industrial areas presents major challenges due to the activities of KEK, Ferronikel, Sharrcem, and other mines. KEK's activities remain the largest source of environmental pressure in the country, causing pollution from dust, gas emissions (SO₂, NO_x, total dust), water and soil contamination, as well as the disposal of large amounts of ash. Data indicate an increase in pollutant emissions from thermal power plants and the accumulation of hazardous waste such as technical oils and batteries, which threaten the environment and public health. In the case of Ferronikel,

although the plant was not operational during 2024, the condition of the slag and Gllavica mine dumps remains concerning, posing risks of soil and water pollution. Sharrcem has made progress in meeting environmental standards following its IPPC re-licensing. A significant reduction in water consumption (about 50%) and improvements in water management through recycling and treatment have been observed. SO_x and NO_x emissions were also within permitted limits. However, some waste categories, such as kiln bricks, have increased.

Regarding mining, the Trepça mines and multiple metal and heavy waste dumps continue to pose ongoing risks for the contamination of soil, water, and nearby residential areas.

Implementation of Environmental Strategy, Action Plan, and Remediation Plans - The implementation of environmental strategies and plans in Kosovo during 2024 presents a mixed situation of progress and ongoing challenges. Data indicate that several key strategic documents, such as the Strategy for Environmental Protection and Sustainable Development and the National Energy and Climate Plan, are still in the drafting or revision phase, delaying practical implementation. Other strategies, such as the Integrated Waste Management Strategy, the Climate Change Strategy, and the Review of the State Water Strategy, have been approved and are being continuously implemented, although the level of implementation remains partial due to limited financial resources, institutional capacities, and inter-institutional coordination. In the field of spatial planning, the Kosovo Spatial Plan and management plans for national parks are at initial or partial stages, indicating delays in implementing concrete measures for nature protection and sustainable land use.

At the local level, the situation shows significant discrepancies among municipalities. Of the 38 municipalities in Kosovo, only some have developed and are implementing action plans for environment, waste, biodiversity, and air quality. Some municipalities have documents in draft form, while others do

not have any plans at all. The most active municipalities (such as Rahovec, Drenas, Gjakova, and Prishtina) have prepared several sectoral plans, whereas other municipalities, like Junik and Leposaviq, do not have any functional plans.

Overall, the findings indicate that: a strategic and planning framework exists, but the level of implementation remains low; documents often remain in drafting/revision stages and are not accompanied by concrete financial plans; there are significant differences among municipalities in terms of local environmental plans; and monitoring and reporting on strategy implementation is limited and often non-standardized.

Measures taken for environmental protection, achievements from undertaken measures and their impact on economic development

- In 2024, significant progress was made in strengthening the legal and institutional framework for environmental protection in Kosovo. The Assembly of Kosovo adopted five key laws addressing strategically important areas such as climate change, promotion of renewable energy sources, energy performance of buildings, and the harmonization of legislation on administrative offenses. These laws have established the legal basis for pollution reduction, increased energy efficiency, and alignment with European Union standards.

In addition to the laws, the Ministry of Environment, Spatial Planning, and Infrastructure (MESPI) issued six administrative instructions regulating practical aspects of environmental protection, ranging from integrated environmental permits to the setting of air quality standards and landfill management. The Ministry of Agriculture, Forestry, and Rural Development (MAFRD) adopted five administrative instructions related to forest conservation, fertilizer use, and animal management, contributing to the sustainable management of natural resources. Meanwhile, the Ministry of Economy approved an administrative instruction supporting investments in renewable energy.

Regarding inspections, in 2024 more than 649 central-level oversight visits were conducted, resulting in 164 decisions and

247 administrative fines. At the local level, only 15 out of 38 municipalities reported activities, conducting a total of 1,512 inspections, 988 assistance visits, and issuing 102 decisions. Additionally, the National Park Directorates initiated 87 cases in prosecution for damages to natural resources, claiming over €183,000 in damages.

In the field of permitting, during 2024, 110 environmental consents were issued for small hydropower plants, 7 consents for medium hydropower plants, 82 environmental permits, 5 integrated permits, 22 water consents, 21 water use permits, and 20 discharge permits. These figures indicate increased administrative activity and enforcement of legislation, although improvements are still needed in terms of processing time and procedural efficiency.

Management of Natural Resources and Environmental Protection - Industrial operators such as KEK, NewCo Ferronikeli, and Sharrcem are the largest water consumers. KEK remains the primary user, consuming over 18 million m³ of water, mainly for cooling processes. Meanwhile, NewCo Ferronikeli had minimal activity due to production suspension. In terms of drinking water and household supply, seven regional water companies distributed approximately 198 million m³ of water, an increase compared to 2023, including coverage in the northern part of the country.

Forests in Kosovo cover about 44.7% of the territory, divided between state forests (295,200 ha) and private forests (180,800 ha). In 2024, significant damage occurred due to fires, affecting over 3,469 ha. Despite this, no new afforestation projects were implemented from the state budget, with only minimal interventions carried out through partner organizations. Timber utilization reached over 91,759 m³, while illegal logging remains a serious problem, resulting in the confiscation of approximately 1,194 m³ of wood.

Mining activity in 2024 was extensive and had a significant economic

impact. In the category of metallic minerals, lead and zinc ore dominated with over 170,000 tons, while the extraction of nickel and cobalt remained minimal.

Regarding energy minerals, lignite continues to be the main basis of domestic energy, with over 8 million tons extracted during the year. In the category of industrial and construction minerals, limestone was the most utilized material (over 6.5 million m³), followed by clay and other construction materials.

Financing of the Environmental Protection System - The Ministry of Environment, Spatial Planning, and Infrastructure (MESPI) recorded a significant increase in its total budget, from €213.48 million in 2023 to €265.44 million in 2024, an increase of approximately 24%. The largest growth was observed in capital expenditures, rising from €177.86 million to €223.16 million.

For 2024, investments were primarily focused on the water sector (dams, riverbeds, water supply systems, and alarm systems), while funds for waste management and municipal infrastructure were significantly reduced.

The budget for environmental capital projects decreased sharply, from €9.88 million in 2023 to only €4.54 million in 2024, representing a reduction of approximately 54%.

Municipalities had a combined budget of €22.73 million, distributed unevenly. Municipalities such as Prizren (€5.21 million), Dragash (€2.68 million), and Prishtina (€2.33 million) received significant support, while smaller municipalities like Ranillug (€14,525) and Klllokot (€62,992) received much less.

International donors (EU, SIDA, JICA, Swiss Government, WIF, GIZ, etc.) have been an important source of funding, financing major projects in water, air, waste management, dams, and institutional capacity building.

Projects such as EU4Green (€11 million), Integrated Water Resources Management (€24 million), and Air Pollution Control by JICA (€3 million) demonstrate that international support remains a key pillar of environmental development.

There has been a noticeable focus on digitalization, improvement of environmental laboratories, creation of registers for hazardous waste, and the marking of protected zones, which signals the transition from large infrastructure projects towards strengthening technical and monitoring capacities.

3. State of environment and trend

3.1. Air

3.1.1. Air quality

Monitoring of air quality is an important process that involves the collection and analysis of data on air pollutants in a certain area. This process helps in identifying sources of pollution, assessing its impact on the health of the population and the environment, as well as in developing policies and measures to improve air quality.

Monitoring was carried out at strategic points selected to represent pollution levels in different areas in: urban, suburban, industrial, and rural areas. These points are equipped with monitoring stations that record the levels of air pollutants. Monitoring has a specialized infrastructure that consists of an integrated network with 12 static stations and 1 mobile station. The monitored parameters are: PM10, PM2.5, O3, SO2, NO2, and CO. In Annex 1 to the report, the air quality monitoring locations and stations and their characteristics are presented.

Air quality standards in Kosovo are based on the EU directives on air quality (2008/50/EC Directive on Cleaner Air, a directive which defines the thresholds of pollutant concentrations that should not be exceeded for a certain period time. Kosovo's environmental legislation is aligned with air quality standards for short-term (hours or days) and long-term (years) air quality standards, since they can have serious health effects from long-term exposure to pollutants. Air Quality Norms according to Administrative Instruction No. 02/2011 are presented in Annex 2.

Air Quality Index (AQI) is an indicator that measures the level of air pollution and helps citizens understand how clean or polluted the air they breathe is. This index includes major pollutants such as PM2.5, PM10, ground-level ozone, nitrogen dioxide, sulfur dioxide, and carbon monoxide. Index values

range from 0 to 500, with lower values indicating good air quality and higher values indicating pollution harmful to health. The air quality index is an important tool for public awareness and taking measures to protect health, especially for children, the elderly, and people with respiratory problems. Its daily monitoring also helps in the design of policies for the environment and sustainable urban development.

Table 1. Air quality index

Pollutant	Good	Acceptable	Average	Poor	Very poor	Extremely poor
PM2.5	0-10	10-20	20-25	25-50	50-75	75-800
PM10	0-20	20-40	40-50	50-100	100-150	150-1200
NO2	0-40	40-90	90-120	120-230	230-340	340-1000
O3	0-50	50-100	100-130	130-240	240-380	380-800
SO2	0-100	100-200	200-350	350-500	500-750	750-1250

Monitored areas: Air quality monitoring is divided into two zones, in the Agglomeration (AKS1) which are located 3 in the capital (KHMI, Rilindja, Kodra Trimave) and 3 in Obiliq (Obiliq Center, Dardhishte and Palaj), and the ZKS1 Zone in Gjilan, Hani Elezit, Brezovica, Prizren, Peja, Drenas and Mitrovica. (Map 1).



Map . 1. Locations of air quality monitoring stations

Air quality data for 2024 in annual average and the number of days with exceedances for the PM₁₀, PM_{2.5}, O₃, SO₂, NO₂ and CO parameters at the monitoring stations, show that the annual average for the PM₁₀ parameter at all monitoring stations has been below the limit value of 40 µg/m³, noting any exceedance of the limit set for this pollutant in terms of the annual average. Even for other monitored parameters such as PM_{2.5}, O₃, SO₂, NO₂ and CO, no exceedances of the annual average limits have been recorded, which indicates a fulfillment of air quality standards in this regard. However, regarding the number of days with exceedances for PM₁₀, which according to the standards should not exceed 35 days per year, it results that only one monitoring station, specifically Prishtina/Rilindja, has recorded 33 days with exceedances, i.e. very close to the maximum allowed limit.

Compared to other stations, such as Palaj (1 day), Dardhishte (8 days), Prishtina/KHMI (15 days), Obiliq (20 days) and Kodra e

Trimave (21 days), it is noted that although none of them has exceeded the limit of 35 days, still, some stations show significant pollution load for certain periods of the year.

This situation reflects the need for sustainable and continuous measures to reduce pollution, especially in urban areas burdened with traffic and industrial activities, in order to further improve air quality and protect public health.

Table 2 presents the annual average air quality data, as well as the number of days with exceedances for the seven monitoring stations outside the agglomeration area. According to these data, no exceedances of the standards were recorded for the annual averages of the monitored parameters, including PM10, PM2.5, O₃, SO₂, NO₂ and CO.

However, for the PM10 parameter, according to the standard of 35 days within the year, there were no exceedances of this limit at any of the stations. The station with the highest number of exceedance days is Gjilan, with 26 days, followed by Peja -18 days and Mitrovica -16 days. The Drenasi and Brezovica stations have recorded only 2 days each, while Hani i Elezit has not recorded any days with exceedances.

These data suggest a relatively good air quality situation in these areas for 2024, however the presence of days with exceedances in some stations indicates the need for continued monitoring and the implementation of preventive measures to prevent further deterioration of air quality in certain periods of the year.

Table 2: Air quality data according to parameters and monitoring stations in the agglomeration area for the year 2024

Stations	PM 10 µg/m ³	PM 2.5 µg/m ³	O ₃ µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	Number of days with exceedances for PM10
Prishtinë / KHMI	18.5	13.08	39.2	15.6	28.1	0.7	15
Prishtinë / Rilindje	26.83	18.17	47.8	12.3	14.8	0.5	33
Palaj	15.17	9.92	47.3	10.4	8.8	0.4	1
Obiliq	20.75	15.42	45.3	11.7	9.3	1.0	20
Dardhishtë	17.08	11.92	45.3	6.9	5.4	1.1	8
Kodra Trimave	22.08	15.92	58.4	8.3	17.3	0.3	21

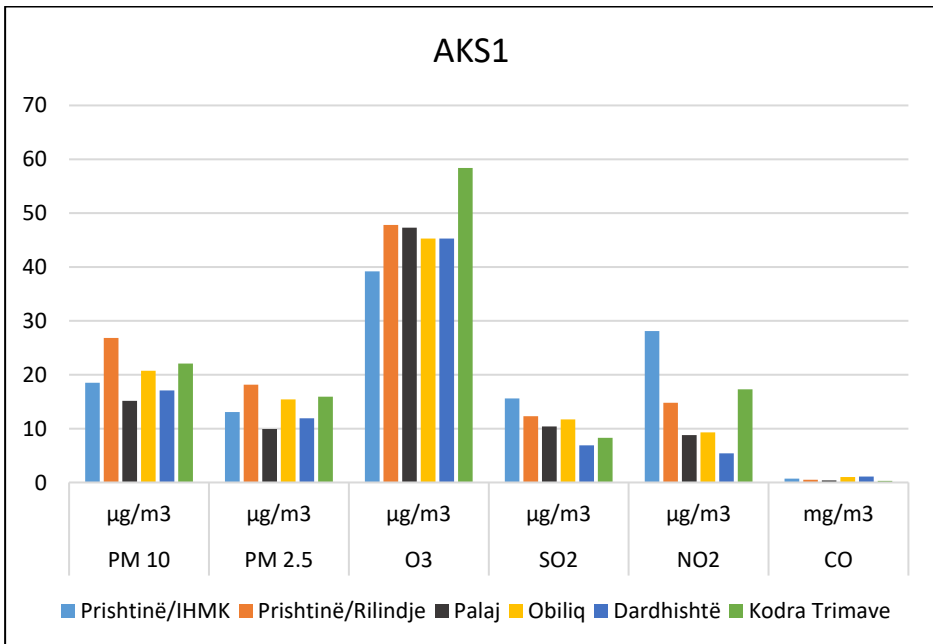


Figure 1: parameters monitored in AKS1

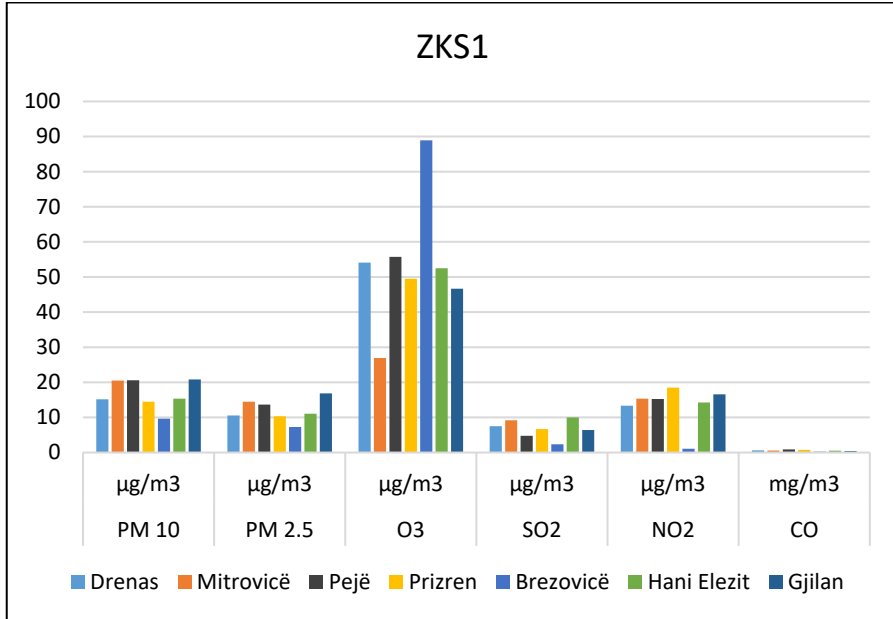


Figure 2: Parametrat e monitoruar në ZKS1

Table 3: Air quality data according to parameters and monitoring stations ZKS1 for the year 2024

Stations	PM 10 µg/m ³	PM 2.5 µg/m ³	O ₃ µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	Number of days with exceedances for PM10
Drenas	15.2	10.6	7.5	6.42	13.3	0.6	2
Mitrovicë	20.5	14.5	9.2	22.42	15.3	0.6	16
Pejë	20.6	13.7	4.8	6.08	15.3	0.9	18
Prizren	14.5	10.3	6.7	8.92	18.5	0.8	7
Brezovicë	9.6	7.3	2.4	4.67	1.1	0.3	2
Hani Elezit	15.3	11.1	10.0	6.25	14.3	0.5	0
Gjilan	20.8	16.8	6.4	6.92	16.6	0.4	26

Air quality trend: Based on monitoring data for the period 2013–2024, the air quality trend has also been analyzed, which

indicates a significant improvement in air quality throughout the territory of the Republic of Kosovo. The analysis has been developed based on the annual concentrations of the monitored parameters. The year 2024 marks a significant decrease, especially for PM₁₀ and PM_{2.5} particles, compared to previous years. The graphs below present the air quality trend for the parameters PM₁₀, PM_{2.5}, O₃, SO₂, NO₂ and CO over the years 2013–2024.

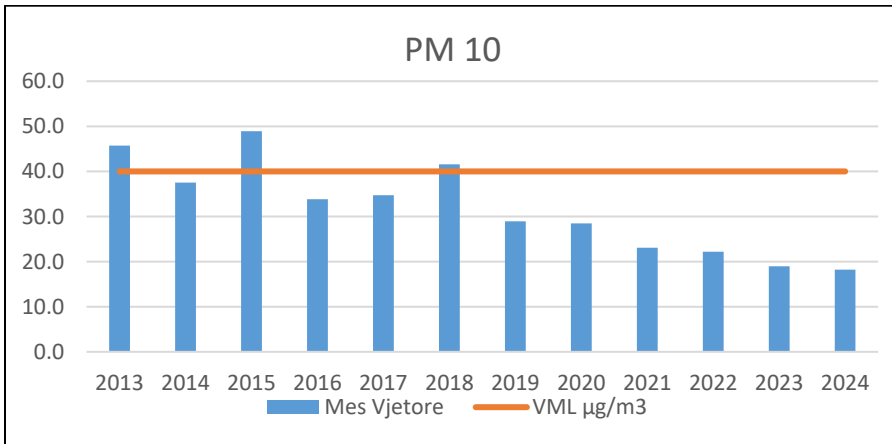


Figure 3: Trend of annual averages of PM10 for the years 2013-2024

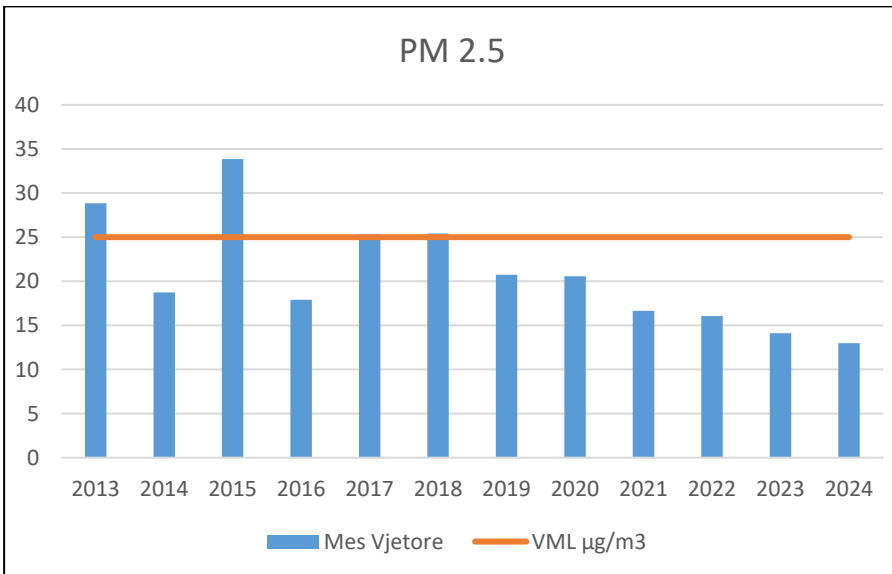


Figure 4: Trend of annual averages of PM2.5 for the years 2013-2024

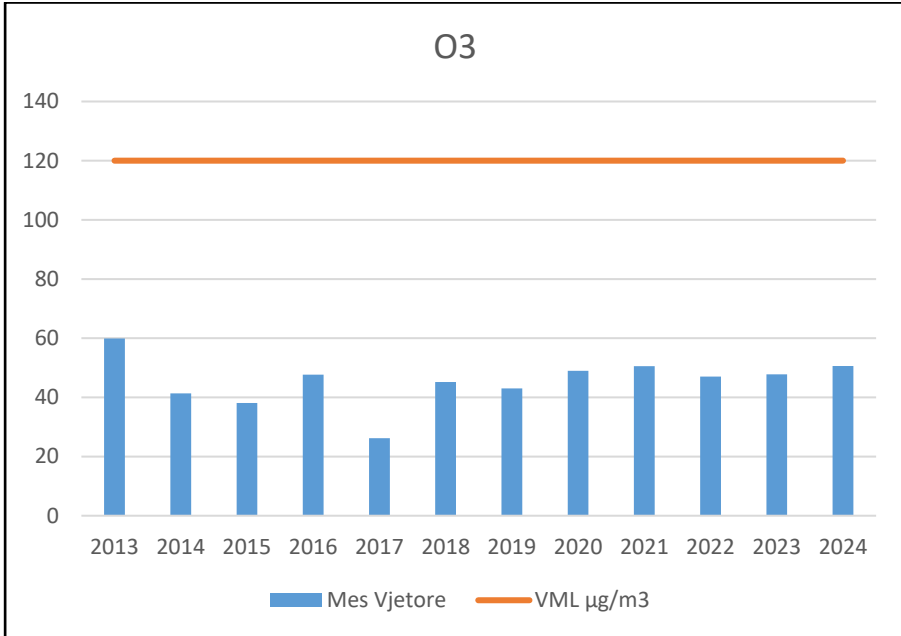


Figure 5: Trend of annual averages of O₃ for the years 2013-2024

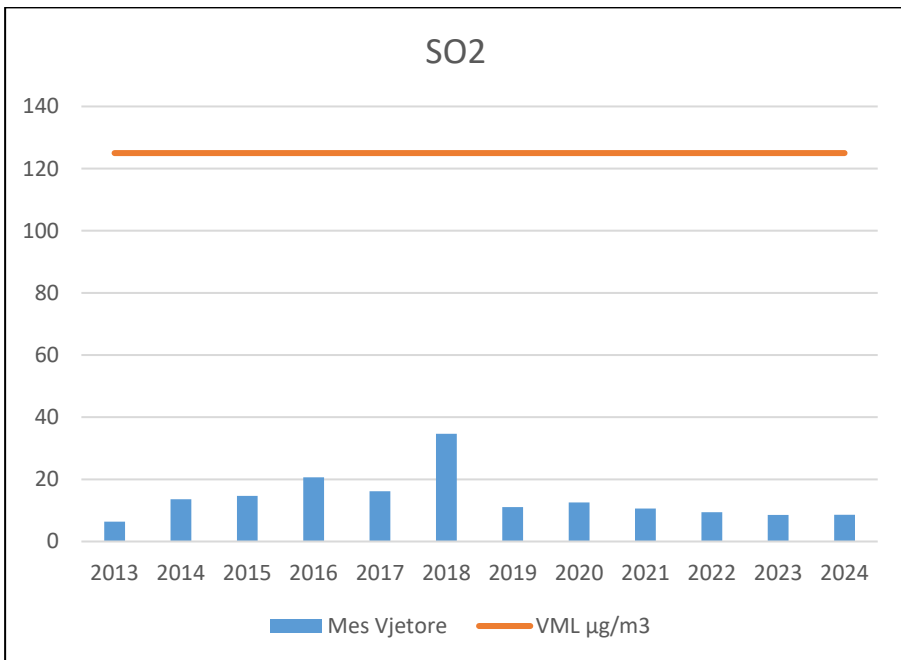


Figure 6: Trend of annual averages of SO₂ for the years 2013-2024

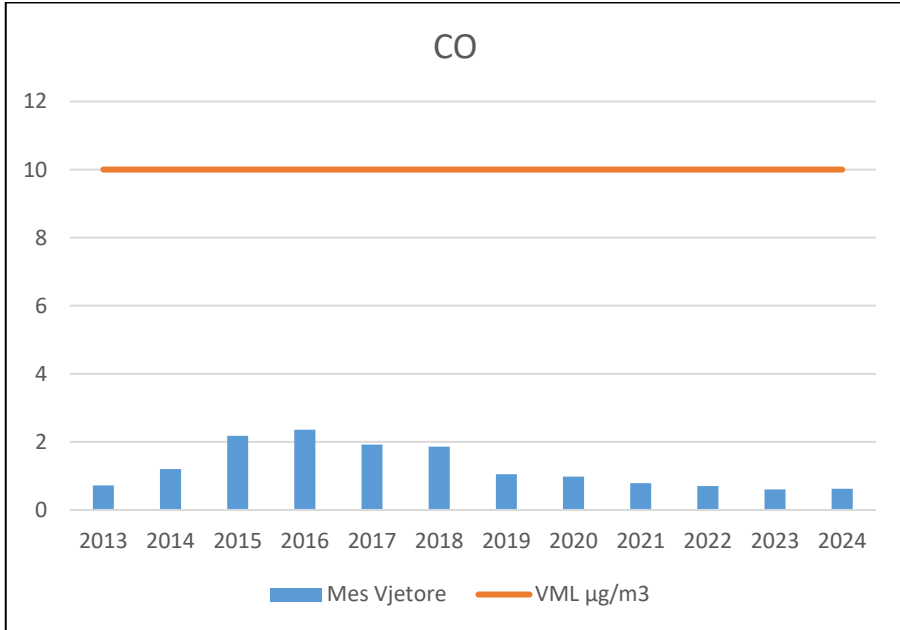


Figure 7: Trend of annual CO averages for the years 2013-2024

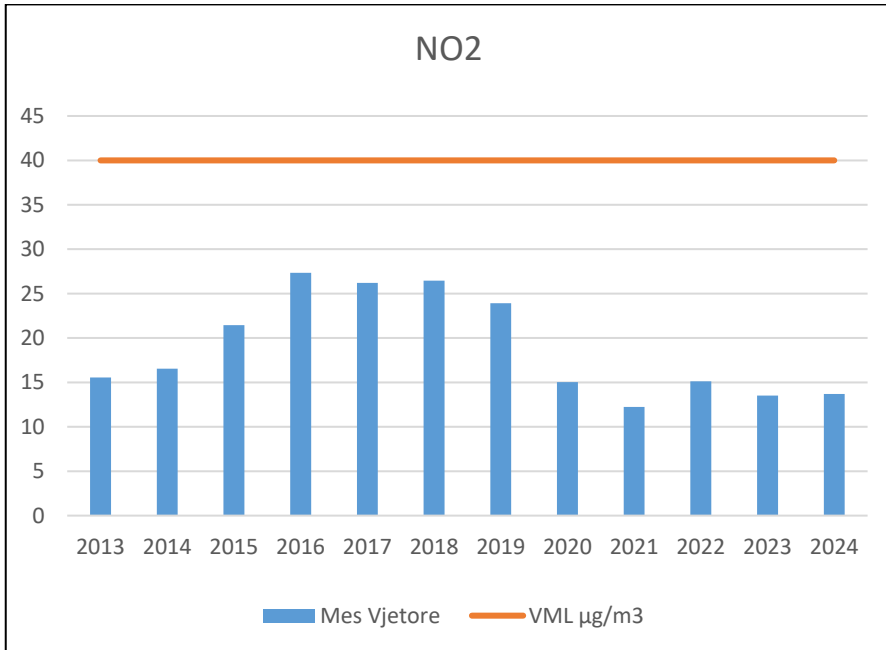


Figure 8: Trend of annual averages of NO₂ for the years 2013-2024

Total (tons/year)	30,9 80	99,3 40	8,31 0	8,78 0	9,4 00	7,210	43,6 10
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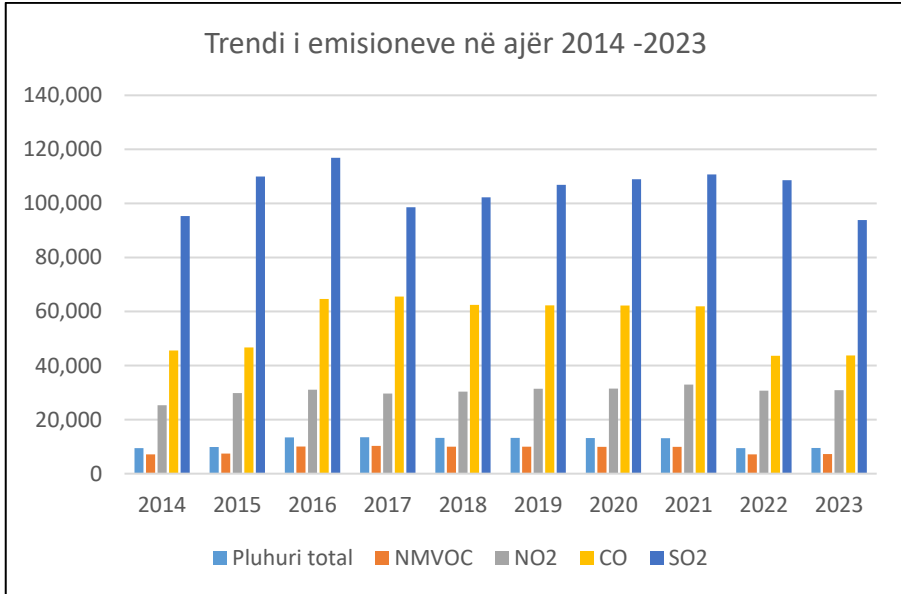


Figure 9. Air emissions trend 2014-2023 (tosn/year)

3.1.3. Greenhouse gas emissions (GHG)

As part of its activities, KEPA has also made an assessment of greenhouse gas emissions for 2023. Annual greenhouse gas emissions in Kosovo for 2023 are estimated at around 10080 Gg (Giga gram) CO₂ eq., (equivalent) or around 10 million tons of CO₂ eq. The main source of greenhouse gas emissions is the energy sector, with a share of 83% of total emissions. The second sector is agriculture and land use with 7%. The waste sector represents 6% of total emissions, while the industrial processes sector with around 3%. (Table 5).

Table 5. total greenhouse gas emissions in Kosovo, by sector 2023

Category (sector)	Gg CO ₂ eq.	%
Energy	8376	83
Industrial processes	372	3
Agriculture and land use	750	7
Waste	582	6
Total emissions	10080	100%

Compared to the previous year, in 2023 there was a decrease in total emissions of about 724 Gg CO₂ eq. There was a decrease in emissions in the category of emissions from the energy and agriculture sectors, while in the categories of emissions from the waste sector and industrial processes there was an increase in emissions.

Total greenhouse gas emissions in Kosovo are highly dependent on the amount of energy produced from coal, which is the main source of greenhouse gas emissions in our country. Based on emissions estimates in this sector during 2023 there was a decrease of about 5% of emissions.

The key categories of greenhouse gas emissions according to the IPCC in the energy sector are the energy industry, road transport, manufacturing and construction, in the agricultural sector it is enteric fermentation, in the waste sector it is solid waste disposal, while in industrial processes it is cement production.

Table 6. key emission categories for the year 2021 according IPCC

IPCC categories	IPCC categories	Greenhouse gas emitted
1.A.1	Energy Industry	CO ₂
1.A.3	Road Transport	CO ₂
1.A.2	Manufacturing and Construction Industry	CO ₂
3.A.1	Enteric Fermentation	CH ₄
4.A	Solid Waste Landfill	CH ₄

2.A.1	Cement Production	CO ₂
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The main gas emitted is CO₂ with 86%, Methane (CH₄) contributes about 12% of total emissions, while N₂O and HFC contribute about 2% of emissions (Table 7).

Table 7. Emissions by gases (2023)

Emissions	CO ₂ eq. (Gg)	%
CO ₂	8660	86
CH ₄	1202	12
N ₂ O	218	2

3.2. Water

The general water resources in Kosovo are used mainly for urban, industrial and agricultural purposes, therefore industrial development, urbanization, intensive agriculture are just some of the factors that affect water pollution. Despite continuous engagement, uncontrolled use of water resources and damage to river beds still remains one of the forms of degradation of our water resources.

The most critical current problem is surface water pollution, which is caused by water discharge, such pressures come mainly as a result of the increase in the volume of discharged water without adequate physical, chemical and biological treatment. All this affects the increase in the values of physical, chemical and microbiological parameters in water bodies.

Other pressures from precipitation are the leaching of agricultural lands and other polluting surfaces, which leads to an increase in suspended matter, inorganic matter (fertilizers-N, P, K, NH₄⁺, etc.) and organic matter (PCB, Herbicides, etc.). Among the greatest pressures on water bodies are industrial discharges from various activities.

In recent years, policies have been developed for better management of water resources through the establishment of a

monitoring and control framework, to reduce pollution of groundwater and surface waters from industrial, agricultural and population activities in rural and urban areas, which cause damage to aquatic ecosystems, as well as rivers from indiscriminate use, management of transboundary waters, reduction of the effects of flooding and drought.

3.2.1. Surface and groundwater quality

The monitoring of river waters in the territory of the Republic of Kosovo is carried out by the Hydrometeorological Institute of Kosovo. The quality of these rivers is determined based on physical, chemical and heavy metal analyses. The monitoring network has a total of 54 sampling sites (monitoring stations). The physical parameters that are currently monitored are 10 physical parameters (measured 11 times per year), 39 chemical parameters (measured 11 times per year) and 8 heavy metals (2 times per year).

In this report, the state of the waters is reflected through indicators (parameters): Dissolved oxygen (mg/l O₂); Biochemical oxygen demand- SHBO₅ (mg/l O₂), Chemical oxygen demand- SHKO (mg/l O₂); Total organic carbon-C (mg/l); Total phosphorus - P (mg/l), Total suspended matter-MTS (mg/L). The values presented in the graph are average values for the year 2024.

In **Annex 3** of the report, the parameters that are monitored and the frequency of measurements are presented, while in Appendix 4, a Table with the codes of the stations monitoring the physical-chemical quality of surface waters - rivers is presented.

Parameters such as: dissolved oxygen (O₂), biochemical oxygen demand for 5 days (BOD₅), chemical oxygen demand (COD), indicate the level of organic and bacteriological pollution of

water, which falls into the group of parameters that are expected to have pressures from the phenomena mentioned above. While, the presence of phosphorus (P_{tot}) causes eutrophication in waters..

Pellgu i Drinit të Bardhë – In this basin, the selection of monitoring points was made for two rivers: the Drini i Bardhë River and the Ereniku River, where the Chemical Oxygen Demand (COD) is presented as the average annual values at the monitoring stations along the river flow, excluding the reference stations (sources).

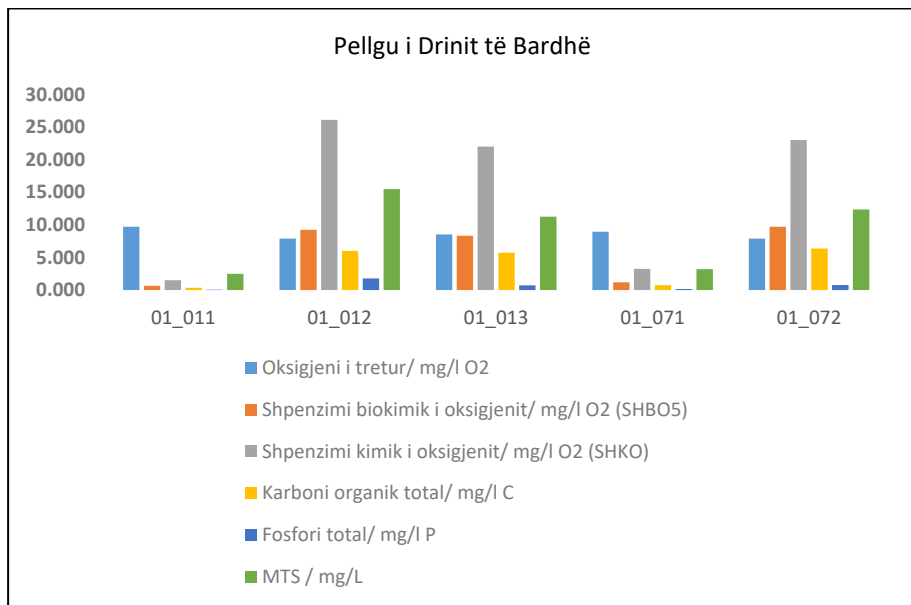


Figure 10: Treguesit e përzgjedhur nga monitorimi i cilësisë së ujit në lumenjëve-KHMI 2024 (Pellgu i Drinit të Bardhë)

Iber River Basin – In this basin, the selection of monitoring points was done for these rivers: Iber, Sitnica, Prishtevka, Graçanka and Drenica (Figure 2), where it can be seen that the Prishtevka/Bresje and Graçanka/Vragoli rivers with almost all presented parameters show higher values, because the stretch of the river itself is along the most populated area and it also includes industrial areas.

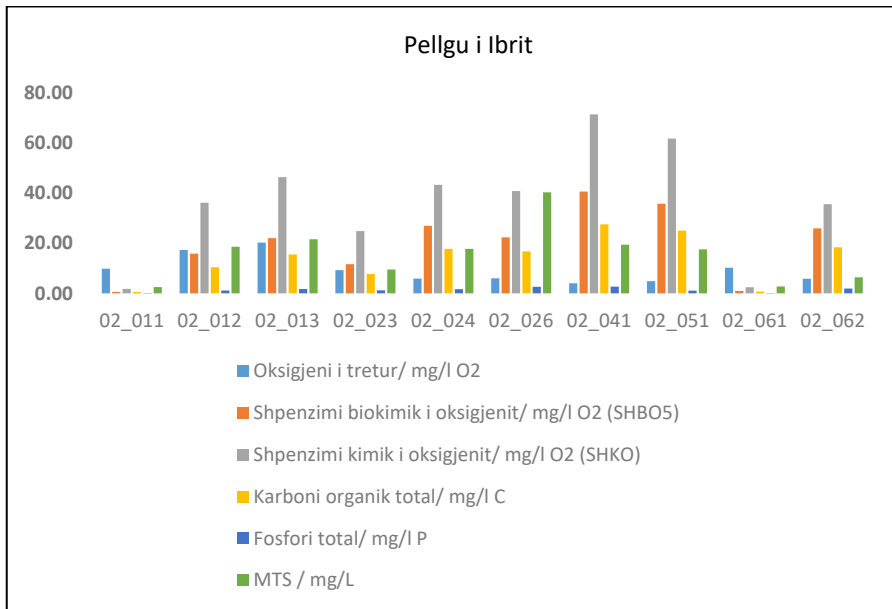


Figure 11: Indicators selected by monitoring river water quality - KHMI 2024 (Iber Basin)

Morava e Binçës and Lepenc Basin - In the Morava e Binçës basin, the Morava e Binçës river has been selected with a total of four monitoring stations, where the chemical oxygen demand parameter has shown a significant increase. While in the Lepenc Basin, two rivers have been selected: the Lepenc and the Nerodimja, where here too the chemical oxygen demand shows an increase along the river's flow.

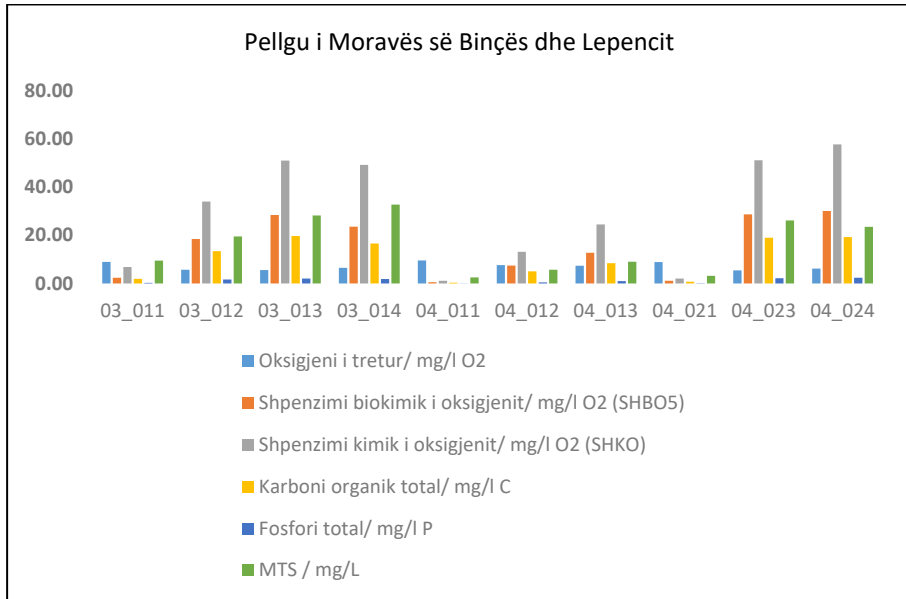


Figure 12: Selected indicators from river water quality monitoring - KHMI 2024 (The Morava e Binçës and Lepenc basin)

Based on these three graphs (territorial extent in all basins) where the presence of the amount of total phosphorus/ mg/l P from the analyses performed show that the amount of phosphorus in river waters does not represent a pronounced impact on surface waters, because its values presented in the diagrams for the year 2024 are between 0.10 mg/l P (Ibër/Kushtovë) and 2.69 mg/l P (Prishtëvka/Bresje). From which we conclude that surface waters in Kosovo are not at risk of eutrophication.

Likewise, the Biochemical Oxygen Demand (BOD₅) indicator, during the monitoring period for 2024, shows that the calculated values are between 0.65 mg O₂/l Ibër/Kushtovë and 40.51 mg O₂/l, in the Prištevka/Bresje river, where for this year, the Prištevka/Bresje and Graçanka/Vragoli rivers show pollution with the highest average annual value. Although in natural conditions clean waters do not possess any amount of BOD₅, this pollution is justified by the fact that surface waters are always

exposed to discharges of polluted waters through which optimal conditions are created for increasing the value of SHBO₅.

The Government's program for investments in polluted water management, within the planned investments 2017-2021, together with donors, has resulted in investments in wastewater treatment plants worth over 60 million EUR (WWTP for Prizren, Peja and Gjakova). Such investments in the WWTP at the Drini Bardhë Basin, although in the initial stages, have resulted in improved water quality in the rivers.

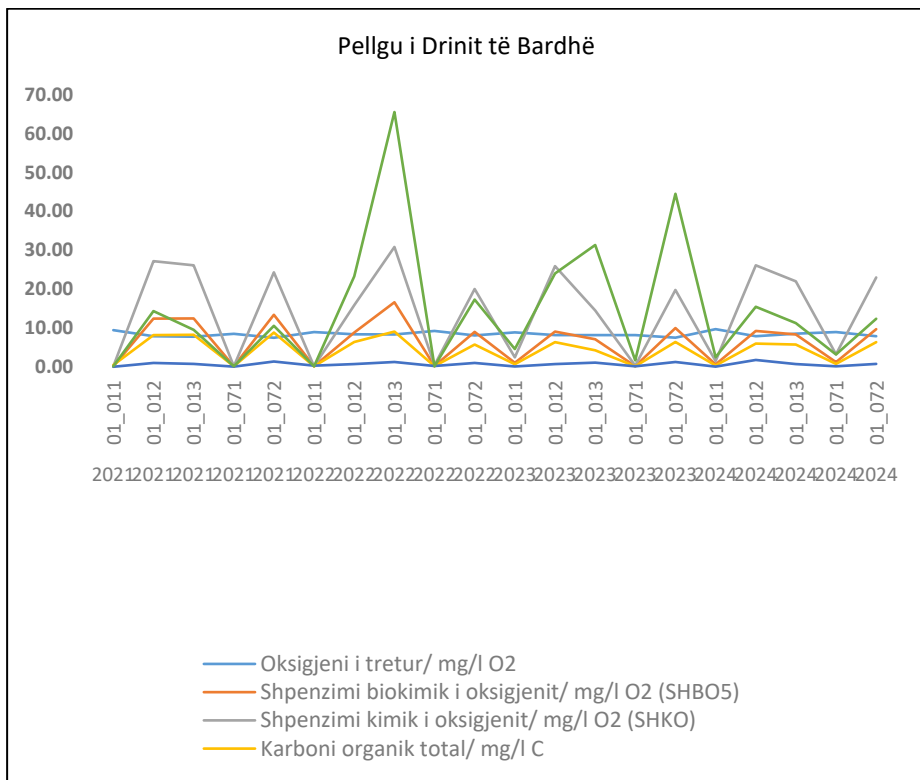
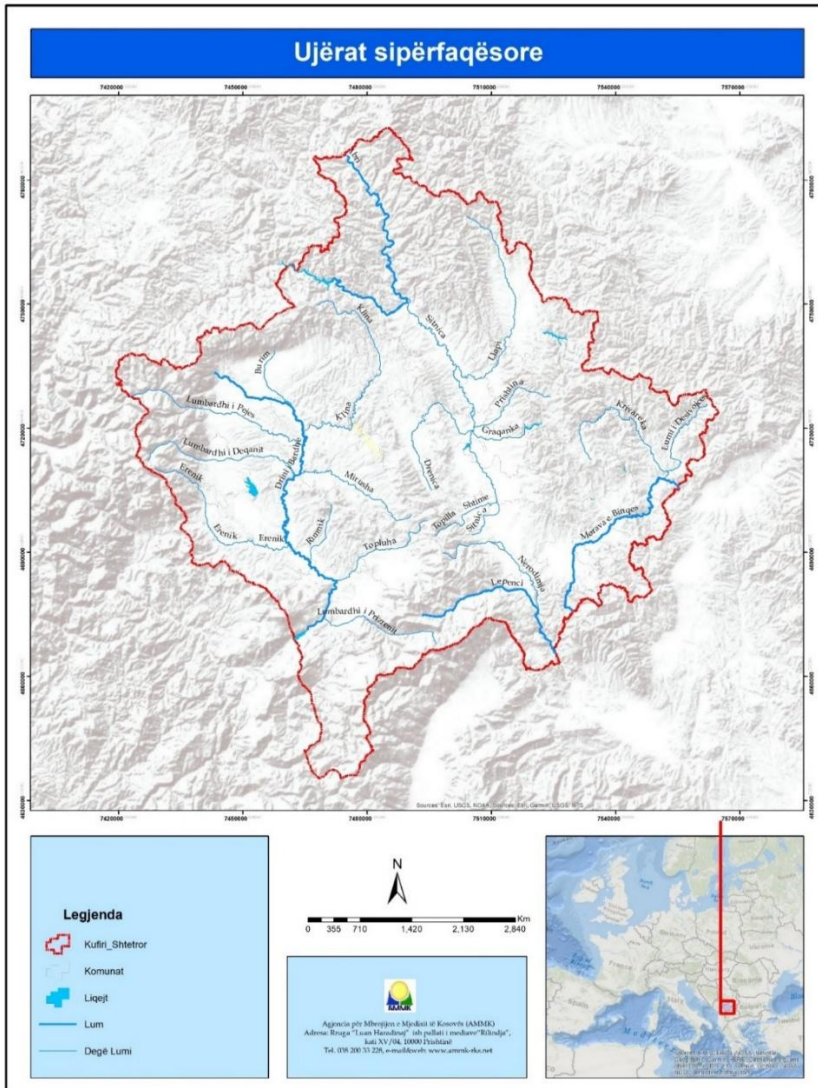


Figure 13: Trend from river water quality monitoring in the Drini i Bardhë Basin for the years: 2021- 2024

The trend in surface water quality (rivers) for the years 2023-2024 is presented in **Annex 5**.



Map 2: Surface water network in Kosovo

Priority Organic Substances in Surfacewaters and Groundwaters

As part of the pilot program for monitoring surface and groundwater within the MIRU-K project, a program of the Swiss Agency for Development and Cooperation (SDC) and the Government of Kosovo (GOK), in 2024 the monitoring of

priority organic substances was carried out for the first time. This activity was conducted with a research-oriented approach and in full compliance with the requirements of the Water Framework Directive 2000/60/EC, as well as the relevant legislation in force in the Republic of Kosovo.

The main focus of this activity was the identification and assessment of the presence of organochlorine pesticides and polycyclic aromatic hydrocarbons (PAHs), which represent substances with a high potential impact on water quality and aquatic ecosystems. The selection of these parameters was based on an assessment of potential pressures and impacts originating from the agricultural and industrial sectors.

Monitoring was conducted in four river basins: the Ibar, Binaçka Morava, Lepenc, and White Drin.

Measurements were carried out at existing stations of the Hydrometeorological Institute of Kosovo (KHMI) monitoring network, with the aim of expanding the scope of monitoring and enabling a comprehensive assessment of the status of water bodies.

Water samples were collected and analyzed twice during the year, ensuring coverage of seasonal variations. Laboratory analyses were performed in accordance with standardized methodologies, using advanced analytical equipment for the detection and quantification of trace organic compounds.

This activity is of particular importance as it represents the first step toward establishing a sustainable system for monitoring priority substances in Kosovo, enabling future long-term trend analyses and the implementation of preventive or remedial measures in cases where pollution is detected.

Table 8: List of priority organic substances

1. Organochlorine pesticides	2. Polycyclic Aromatic Hydrocarbons (PAH)
Aldrin, Dieldrin, Endosulfan, Endrin, Lindan, Heksaklorobenzen, Isodrin, Pentaklorobenzen, DDT Total, Para DDT	Antracen, Naftaline, Fluoranten, Benzo (a) Piren, Benzo (b) fluorescent, Benzo (g, h, i) perilen, Indeno (1,2,3-cd) pirene, Acenafteni, Fenantrene, Fluoren, Piren, Benzo (a) antraceni, Kriseni, Benzo (a, h) antracen.

3.2.2. Amount of surfacewater and groundwater

In addition to water quality, KHMI also monitors water quantity. Water quantity monitoring is carried out through the hydrometric network, which consists of a number of measuring stations located along rivers, where water quantity measurements are performed. At these stations, water level (H) and discharge (Q) are measured.

The following table presents data on water level H (cm) and discharge (Q) at the hydrometric stations for the years 2023–2024.

Table 9. Average annual values of H level (cm) according to measuring stations 2023-2024

Station	Annual/Average 2023 H (cm)	Annual/Average 2024 H (cm)
Gjonaj	236	-
Këpuz	150	141
Gjakovë	-	140
Deçan	-	39
Grykë Rugoves	93	81
Drelaj	68	57
Vlashnjë	-	55
Prizren	44	47
Mirushë	-	54
Klinë	48	39
Berkovë	123	85
Leposaviq	235	-
Vragoli	66	51

Drenas	-	34
Millosevë	-	138
Lluzhan	-	56
Mitrovicë	122	95
Orllan	31	25
Mramorë	16	13
Lupç i Epërm	54	-
Konçul	263	234
Viti	39	31
Hani i Elezit	81	-
Domorovc	-	116
Brod	32	32
Kaçanik	-	44
Mlikë	70	68
Orqushë	-	45

Table 10 presents data on flows Q (m³/sec) for surface water hydrometric monitoring stations conducted for the year 2023-2024, while Table 11 presents data on flows Q (m³/sec) for groundwater hydrometric monitoring stations.

Table 10: Average annual flow values Q (m³/sec) according to measuring stations 2023-2024

Station	Annual/Average _2023 Q (m ³ /s)	Annual/Average _2024 Q (m ³ /s)
Gjonaj	81.75	-
Deçan	-	0.907
Grykë	8.488	4.442
Prizren	1.934	2.034
Viti	-	0.508
Brod	0.928	0.918
Mlikë	1.469	1.347

Table 11: Average annual value(m) sipas disa stacioneve matëse të ujërave nëntokësor për vitin 2024

Station	Average annual value(m)	Station	Average annual value(m)
B.Curr	14.239	Moglice	1.874

Buqan	2.108	NerodimeF1	1.278
Buroje	2.297	NerodimeF2	2.405
Gerlic	1.132	Obiliq	1.261
Gjinoc	3.117	Prapaqan	5.544
Jelloc	1.901	Qitak	9.211
Jezerc	3.447	Qyshk	5.665
Kamenice	3.508	Serbovc	25.033
KEK-Azotik	2.081	Shkugez	2.978
Konjuh	7.218	Talinoc	6.888
Kovrage	12.464	Terstenik	0.768
Kozmin	2.995	Varosh	9.341
Lismir	2.232	Vragoli	2.784
Lladove	2.802	Zoqisht	10.44

Since 2024, the Hydrometeorological Institute of Kosovo has installed a “Camera System” (DischargeKeeper) at seven main hydrometric profiles of the major rivers, representing advanced technology for river monitoring.

At these hydrometric profiles (Table 12), through imaging and photogrammetry, the main hydrological parameters are recorded simultaneously, such as velocity (v), depth (h), and discharge (m^3/s or L/s).

This system enables real-time tracking and transmission of critical water levels during severe hydrometeorological situations, supporting early warning. Photogrammetry is carried out continuously, without interruption, both during the day and at night.

Table 12: River monitoring system using camera system

No.	BASIN	RIVER	PLACE	N	E	L.m.n.d	Intervals
1	Drini	Drini Bardhë	Gjonaj	42°15'15.39"	20°38'57.83"	306	30 min.
2	Drini Bardhë	Bistrica Pejes	Grykë R.	42°39'41.91"	20°15'00.84"	581	30 min.
3	Drini Bardhë	Klina	Klina	42°36'54.60"	20°34'38.48"	380	15 min.
4	Ibri	Ibri	Leposaviç	43°05'50.75"	20°47'58.13"	456	30 min.
5	Ibri	Sitnica	Nedakoc	42°47'52.97"	20°59'24.77"	517	30 min.
6	Morava Binçës	Morava Binçës	Viti	42°19'04.16"	21°21'34.12"	506	15 min.
7	Lepenci	Lepenc	Hani Elezit	42° 09'22.95	21°17'32.36"	376	15 min.

3.2.3. Wastewater treatment

In Kosovo, an important process has begun for reporting wastewater quality parameters related to the operation of wastewater treatment plants in the cities of Skenderaj, Prizren, Peja, and Gjakova. These plants, which have started operating in recent years – except for the one in Skenderaj – represent a major step forward in improving wastewater management and environmental protection in Kosovo, with the aim of reducing pollution of rivers and water resources.

The first wastewater treatment plant built in Kosovo is the one in Skenderaj, with a capacity of approximately 10,000 population equivalents (p.e.). This project, financed by the European Union, provides mechanical-biological wastewater treatment, helping to protect rivers and natural water resources from pollution. In fact, this is one of the EU's pilot projects in Kosovo, aimed at testing and demonstrating wastewater treatment technologies at the local level.

In Prizren, the urban wastewater treatment plant is one of the largest and most advanced projects in the country. It has been supported by the German state, the Government of the Republic of Kosovo, and the Municipality of Prizren. This plant has a capacity of 50,000 population equivalents (p.e.), which represents about 35% of the city's population.

In Gjakova, the wastewater treatment plant is a large urban wastewater treatment project that will currently serve around 30,000 population equivalent (p.e.).¹

In Peja, the wastewater treatment plant is one of the first of its kind in Kosovo, with an initial capacity for 81,000 population equivalent (p.e.), with the possibility of expansion to 98,000 (p.e.). This plant treats wastewater from the city and surrounding villages, contributing to the improvement of water quality and the living conditions of the residents.²

Thanks to the new wastewater treatment plants in Peja, Gjakova, and Prizren, Kosovo has managed to treat around 11% of wastewater at the national level, compared to only 1% up to 2023. This progress is the result of feasibility studies, international financing, and cooperation with external partners and local authorities.

This chapter presents the average monthly values of the main measured and reported parameters, including total suspended solids (TSS), biochemical oxygen demand (BOD), chemical oxygen demand (COD), and total nitrogen for each of these plants. It should be noted that the total phosphorus parameter has not been monitored by the plants. Comparing these values with the permissible limits set by administrative guidelines provides a clear overview of detected pollution exceedances, helping to identify areas where intervention and improvement are required.

¹ Swiss State Secretariat for Economic Affairs (SECO) (2013) *Wastewater Treatment Plant Project Gjakova Kosovo: Institutional Feasibility Study*.

² State Secretariat for Economic Affairs (SECO) (2014) *Wastewater Treatment Project Peja, Kosovo: Complementary Feasibility Study*. 17 September 2014. Bern: SECO.

This new reporting and monitoring process represents a crucial step toward the implementation of environmental standards and the fulfillment of legal requirements, contributing to the improvement of water conditions in Kosovo and gradually aligning with European practices and requirements for wastewater treatment.

Total suspended solids are organic and inorganic solid particles that remain suspended in water or wastewater after gravitational settling. This measurement is a key parameter in environmental monitoring and water quality assessment, affecting water quality, ecology, and human health. High levels of TSS reduce water transparency, lower dissolved oxygen levels, and can cause the death of aquatic organisms. In addition, TSS can carry pathogens and heavy metals, increasing health risks.³

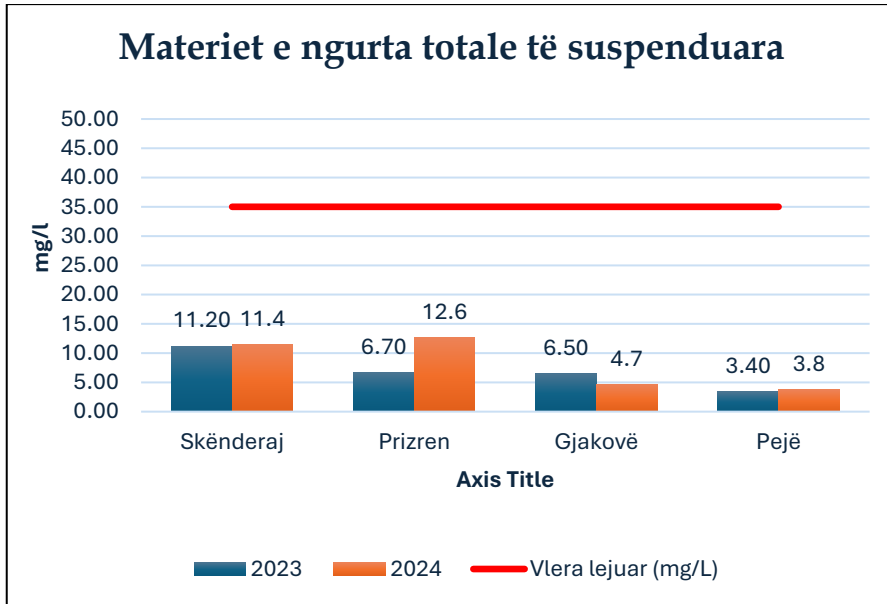


Figure 14. Average concentrations of total suspended solids 2023 and 2024

The data presented in Figure 14 represent the average concentrations of total suspended solids at the four wastewater

³ Smith, J. and Brown, K., 2019. 'Monitoring of suspended solids in wastewater treatment plants.' *Journal of Environmental Engineering*,

treatment plants operating in Skenderaj, Prizren, Gjakova, and Peja for the years 2023 and 2024. All values are well below the maximum permissible limit, indicating good water quality management with regard to total suspended solids.

Biochemical Oxygen Demand (BOD₅) is an indicator of organic pollution in water and represents the amount of oxygen consumed by aerobic microorganisms to decompose organic matter in water at a specified temperature (usually 20°C) over a defined period (typically 5 days). Higher BOD values indicate a greater presence of organic matter that consumes oxygen during decomposition. The measurement of BOD₅ is a key indicator for assessing water quality and the effectiveness of wastewater treatment.

According to international standards, the cleanest rivers have BOD₅ values lower than 1 mg O₂/L, while moderately to heavily polluted rivers show values ranging from 2 to 8 mg O₂/L.⁴

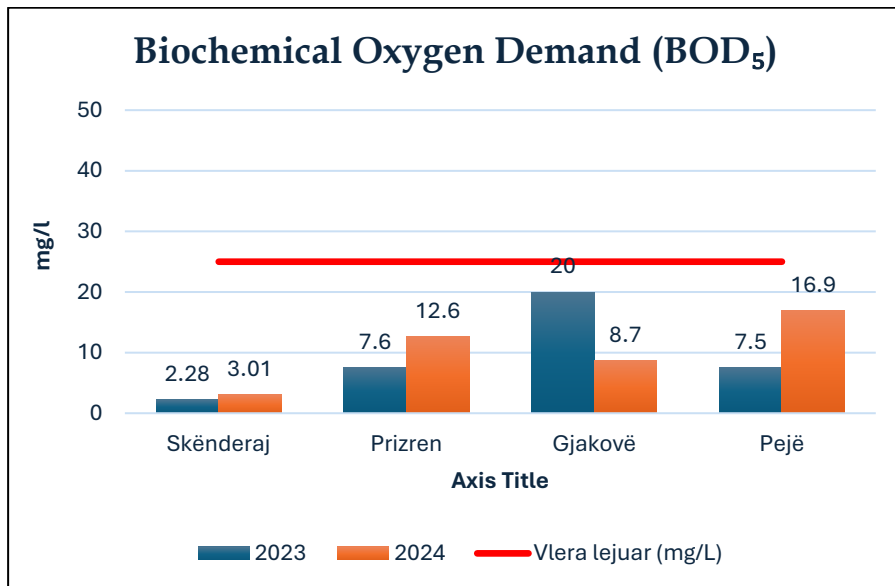


Figure 15: Biochemical Oxygen Demand (BOD) in the waters of four cities in Kosovo for the years 2023 and 2024

⁴ European Commission - Environment, Urban Wastewater / Direktivën e Përpunimit të Ujërave të Ndotura Urbane (Urban Wastewater Treatment Directive - UWWTD).

Asnjë nga vlerat e SHBO-së nuk tejkalon kufirin e lejuar prej 25 mg/L, që tregon se uji është brenda standardeve për këtë parametër. Gjakova ka përmirësim të dukshëm në vitin 2024, ndërsa Prizreni dhe Peja kanë rritje të SHBO-së, që kërkon kujdes të shtuar në të ardhmen.

Chemical Oxygen Demand (COD) is the amount of oxygen needed to chemically oxidize all organic and inorganic material in water, using strong oxidizing agents.⁵ COD is used to quickly assess the level of organic and inorganic pollution in waters.⁶ The COD is always higher than the BOD, as it also includes substances that are not biodegradable. COD values are usually 1.5–2 times higher than BOD, but this varies depending on the water source.⁷ COD is an important indicator of the presence of organic pollutants that consume oxygen during decomposition. The higher the value, the more polluted the water.

⁵ APHA, AWWA, WEF, 2017. *Standard Methods for the Examination of Water and Wastewater*. 23rd ed. Washington, DC: American Public Health Association.

⁶ **Metcalf & Eddy, Inc., 2014.** *Wastewater Engineering: Treatment and Resource Recovery*. 5th ed. New York: McGraw-Hill.

⁷ Metcalf & Eddy, Inc., 2014. *Wastewater Engineering: Treatment and Resource Recovery*. 5th ed. New York: McGraw-Hill.

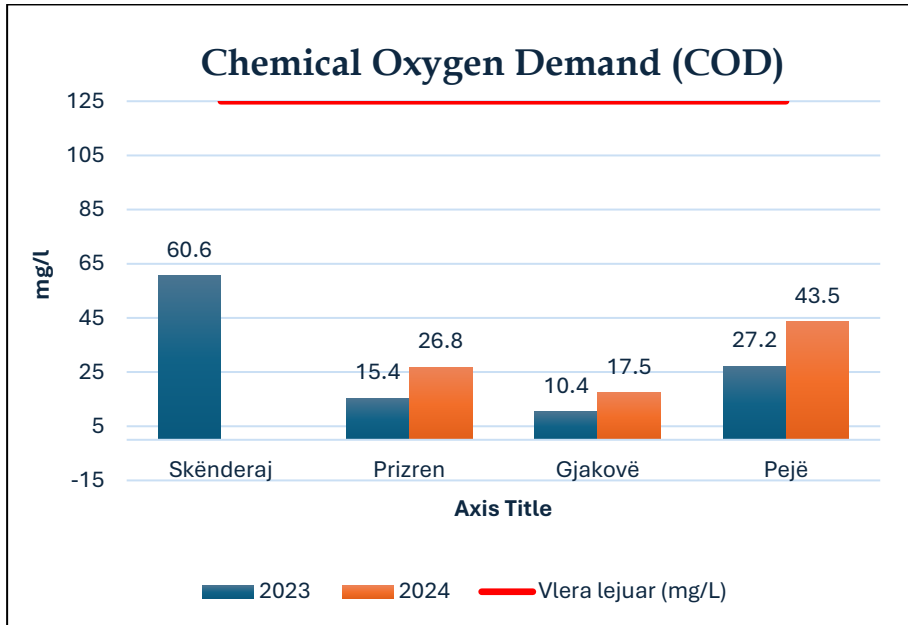


Figure 16: Chemical O₂ consumption (SHKO) for 2023 and 2024

Based on the results shown in Figure 16, all values are within the permissible limit (125 mg/L) for the COD parameter; however, interannual differences are observed, indicating trends that merit attention. Skenderaj recorded the highest value in 2023 (60.6 mg/L), but data for 2024 are missing, making it impossible to assess the trend. Peja and Prizren show a noticeable increase in 2024 compared to 2023. Gjakova, although showing an increase in 2024, remains at the lowest COD level among the four cities.

The increase observed in Prizren and Peja during 2024 signals pressure on water quality, which may result from untreated discharges, urban pollution, or agricultural sources. Regarding the treatment plant in the city of Skenderaj, the results indicate high pollution levels in 2023, while the lack of data for 2024 leaves a gap for further assessment.

Total nitrogen includes all forms of nitrogen in water, including organic nitrogen, ammonia, nitrates, and nitrites. Total nitrogen is an important indicator for assessing eutrophication and

overall water quality.⁸ According to the EU Urban Waste Water Treatment Directive (91/271/EEC, updated by 2024/3019), the permissible value for total nitrogen in discharges from wastewater treatment plants is 15 mg/L for plants serving more than 10,000 population equivalents in sensitive areas.^{9,10}

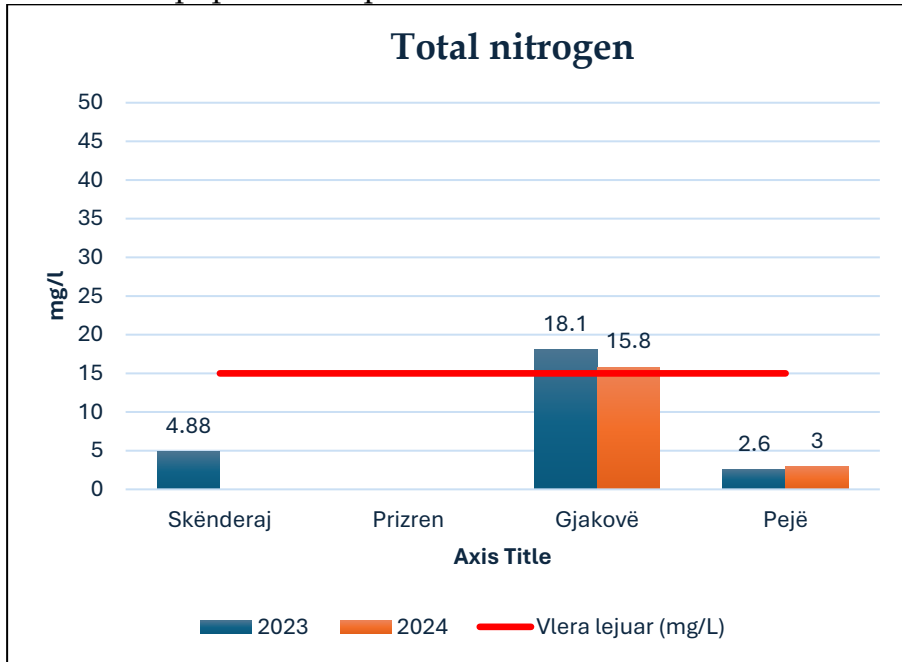


Figure 17: Total Nitrogen for year 2023 and 2024

Based on the results in Figure 17, we note that the Gjakova plant had concentrations above the permitted value in both years. Although the value has decreased from 18.1 to 15.8 mg/L, it still exceeds the limit, indicating a potentially dangerous situation for water quality. Skenderaj and Peja both cities have values much lower than the permitted limit and do not represent a concern, while in Prizren there is no data reported for 2023 or 2024, which makes it difficult to assess for this municipality.

⁸ Wetzel, R.G., 2001. *Limnology: Lake and River Ecosystems*. 3rd ed. San Diego: Academic Press.

⁹ European Commission. "Urban Wastewater Treatment Directive 91/271/EEC." [Link](#)

¹⁰ European Environment Agency. "Urban Wastewater Treatment Directive." [Link](#)

3.3. Land/soil

Kosovo has optimal potential for agricultural development when considering meteorological conditions, the population living in rural areas, available water resources, and the grants allocated to this sector.

In 2024, the contribution of the agricultural sector to Kosovo's Gross Domestic Product (GDP) increased to approximately 9%, compared to 7.2% in 2023. A report by the Kosovo Chamber of Commerce assesses agriculture as one of the key sectors contributing to GDP in 2024.

In 2024, Kosovo's Gross Domestic Product (GDP) recorded a real growth of about 4.41% compared to 2023, while the agriculture, forestry, and fishing sector grew by 2.29% during the same period. This growth reflects the country's overall economic development during the year. In the fourth quarter of 2024, real GDP growth was 4.08% compared to the same quarter of 2023, and the preliminary estimate of overall annual growth is 4.41%, according to the Kosovo Agency of Statistics.

However, the agricultural economy remains far from adequate development when compared to EU countries, as there is still a lack of agricultural infrastructure and financial resources relative to the needs of the sector. Therefore, agriculture in Kosovo faces challenges in terms of support and the adoption of technologies required to meet EU standards and regulations. Sustainable development of this sector requires an integrated approach that includes financial support, education, and infrastructure improvement, with interinstitutional cooperation and community engagement being essential for success.

3.3.1. Agricultural land use

About 80% of Europe's land area is used for human activities, such as urban areas, roads, industrial infrastructure, or

agricultural use. The way we use land is one of the main drivers of environmental degradation and climate change.¹¹

Today, land use has taken on broader dimensions. Therefore, sustainable land management is the foundation for sustainable development. For the sustainable development of land, it is necessary to continuously monitor and assess its use, whether the trend is positive or negative.

An important indicator of land use is its utilization for agricultural purposes. According to the latest data published by the Kosovo Agency of Statistics, in 2024 the area used for agricultural purposes was smaller compared to 2023. Specifically, the agricultural land area in 2024 was 420,228.67 hectares, while in 2023 it was 420,688.21 hectares, representing a decrease of 456.3 hectares¹².

Table 13. Utilized area of agricultural land 2023- 2024 (ha)

Utilized area of agricultural land	2023 ha	2024 ha	Change 2023/2024 to %	Participation in 2024 (%)
Arable land	188,435.41	188,795.00	0.19%	44.93%
Gardens	1,062.39	912.75	-14.07%	0.22%
Tree plantations	10,617.85	10,408.21	-1.96%	2.48%
Vineyard plantations	3,432.49	3,405.54	-0.78%	0.81%
Nursery gardens	160.52	172.86	7.67%	0.041%
Meadows and pastures (including common land)	216,979.55	216,534.33	-0.21%	51.53%
Total utilized agricultural land area	420,688.21	420,228.67	-0.11%	100%

¹¹ <https://www.eea.europa.eu/en/topics/in-depth/land-use>

¹² The Kosovo Agency of Statistics (KAS) released the results of the Agricultural Household Survey (AEB) for the year 2024

Of the total agricultural land used in 2024, the largest portion consisted of meadows and pastures (including common land), Total ng 216,534.33 ha (51.53%), compared to the previous year 2023 (216,979.55 ha) or 51.58%. The decrease in the area of common land is attributed to a reduction in livestock numbers. Arable land accounts for 44.93%, and gardens for 0.22% of the total agricultural land area. In 2024, the total arable land was 188,795.00 ha. The majority of this land was used for: cereals (125,274.35 ha, or 66.4%); forage crops (37,117.13 ha, or 19.7%); vegetables in open fields, greenhouses, and gardens (9,827.39 ha), of which open-field and greenhouse vegetables accounted for 8,914.65 ha, or 4.7%; potatoes (3,806.07 ha, or 2.0%); legumes (2,929.40 ha, or 1.6%); industrial crops (1,689.82 ha, or 0.9%); other crops (2,633.81 ha, or 1.4%); and fallow land amounted to 6,429.78 ha, or 3.4%.

Slight increases were observed in cereals and industrial crops.

The categories of agricultural land that showed positive changes include arable land, greenhouse vegetables, tree plantations, and nurseries, while categories that experienced decreases include open-field vegetables, gardens, vineyards, and meadows/pastures.

The most important crop is wheat, covering 80,063.69 ha (63.9%), followed by maize with 40,647.78 ha (32.4%) of the cereal area. The total area for open-field vegetables, greenhouses, and gardens was 9,827.39 ha.

In 2024, the Ministry of Agriculture, Forestry, and Rural Development continued to support the agricultural sector through the Rural Development Program and the Direct Payments Program. These subsidy programs contributed to increased investments in agriculture, including investments in farms, processing and marketing of agricultural and fishery products, farm diversification, and business development.

During 2024, according to reports from the Municipal Directorates of Agriculture and Public Irrigation Enterprises in Kosovo, a total of 34,070.28 ha of agricultural land was irrigated. This represents an increase of approximately 88.75% in irrigated

land compared to 2023, when about 18,050 ha were irrigated. This increase demonstrates a significant improvement in the utilization of agricultural land through irrigation in 2024 compared to 2023. The expansion of irrigated land is an important factor for increasing production and promoting agricultural development in Kosovo.

3.3.2. Soil monitoring

Land monitoring enables the identification of land use, the assessment of changes in land, changes in land use purpose, degradation, soil overloading due to pollution and contamination, and provides information for rural development, predictive models, risk assessment, and treatment analysis.

Two main institutions responsible for land monitoring—MAFRD through the Agricultural Institute and MESPI through the Hydrometeorological Institute—have still not established a land monitoring system. Land monitoring has been carried out only through projects and on a case-by-case basis in response to requests for environmental impact assessments.

3.3.3. Soil pollution

Soil health is a fundamental component of environmental sustainability and agricultural productivity. Effective soil monitoring ensures that pollution levels are tracked and necessary interventions are implemented to protect this vital resource. Across the Western Balkans, efforts to monitor soil—particularly agricultural land—have varied, reflecting differences in infrastructure and legislative support.

The EU4Green project continues to support soil monitoring in the Western Balkans, including Kosovo. Its main objectives are: identifying widespread soil contamination and polluted sites, providing guidance for creating an inventory and registry of these sites, and determining the rehabilitation of those posing a significant risk to human health and the environment.

The ultimate vision is that by 2050, all soils in the Western Balkans will be in “good status,” a goal aligned with the proposed EU Soil Monitoring Law of July 2023.

Kosovo has not yet implemented a comprehensive soil monitoring system. This is the only way to determine the extent of soil pollution. However, some industrial operators monitor soil contamination on the portions of land use they directly utilize.¹³

According to data from the Kosovo Customs, in 2024 approximately 8,982,3598.59 kg of chemical-origin products were imported. Although no prior assessment has been made, a portion of these chemical preparations is used in agriculture or discharged into various environments.

According to the latest data from the Kosovo Agency of Statistics (ASK) for 2023–2024, the situation regarding the use of mineral fertilizers, organic fertilizers, and pesticides is presented in Tables 14, 15, and 16.¹⁴

Table 14. Use of mineral fertilizers by crop group for the years (2023-2024)

Crops	NPK	NAG	URE	Other	Total (NPK, NAG, URE, others))
Quantity	Kg	Kg	kg	kg	kg
2023	42.600,121	9.207,643	26.561,919	2.512,598	80.882,281
2024	42 977 542	9 463 040	26 913 321	2 762 961	82 116 863

¹³ <https://eu4green.eu/sq/advancing-soil-monitoring-in-the-western-balkans-key-achievements-and-future-steps-sq/>

¹⁴ The Kosovo Agency of Statistics (KAS) released the results of the Agricultural Household Survey (AEB) for the year 2024

Table 15. “The use of organic fertilizer according to agricultural crop groups for the year. (2023-2024)

Crops	Fertilized land area		Fertilized land area	
	Ha	Ton	Ha	Ton
Quantity				
Year	2023		2024	
Total	63.94	900.201	63.970	887.240

In these tables, the fertilized area, quantities, and the average use of mineral fertilizers and organic fertilizer per hectare are presented. It is important to note that the quantities are given in gross values. This means that there is no direct information on the net use of active substances in the different mineral fertilizers. The average amount of mineral fertilizer used is 471 kg/ha, while the average amount of organic fertilizer used is 13.9 tons/ha. Table 16 presents data on the utilized agricultural land area on which pesticides were used (herbicides, fungicides, insecticides, other pesticides: rodenticides – against rodents, acaricides – against mites, etc.).

Table 16. Pesticide use on the utilized agricultural surface land 2020-2024

Year	2020	2021	2022	2023	2024
Pesticides	Surface (ha)				
Utilized area of agricultural land treated with pesticides	122.090.00	122.138.02	122.501,30	122.752,16	122 570.50

The pressure of soil pollution in our country comes from a now well-known series of pollutants such as: agricultural pollutants (chemical preparations used in agriculture); mining and urban

landfills; urban and inter-urban wastewater discharged into surface waters; transportation; hazardous waste from industrial pollutants; physical degradation of land surfaces, urban infrastructure, roads, etc.

3.4. Waste management

Today, more than ever, the issue of waste management in Kosovo has become a significant factor in environmental pollution. This situation not only threatens the ecological balance but also has direct consequences on the quality of life of residents and public health. Waste management in Kosovo is one of the main challenges for both central and local levels of governance. When it comes to municipal waste management, under current legislation, responsibility falls directly on the municipalities. This process includes the collection, transportation, and integrated treatment of waste, which is generated by the daily activities of citizens and businesses. Waste management is regulated by legislation and also guided by strategic documents such as the “Strategy and Action Plan” for integrated waste management in Kosovo.

At the local level, all municipalities in Kosovo have five-year municipal waste management plans, as well as internal regulations in this field. These planning documents contain a wide range of objectives and activities aimed at improving waste management and ensuring implementation in the field. However, despite this commitment and effort, Kosovo continues to face various challenges and difficulties in waste management, which hinder the achievement of expected results according to plans and established standards.

Based on continuously reported results and findings, KEPA assesses that there has been an improvement in waste management almost across all municipalities. Concern remains only for the northern municipalities, which have not shown willingness to cooperate or address the situation.

Based on data reported by municipalities through the online system and field monitoring, an increase in the number of small

landfills has been observed, while large and medium-sized landfills have decreased at the regional level, indicating measurable progress toward more centralized and controlled waste management. In some municipalities, total waste collection has decreased, but per capita waste generation has increased – this suggests that the number of new residents (from the 2024 registration) is lower than previous estimates, which can be explained by internal migration or improvements in registration. In most municipalities, a general increase in per capita waste generation has been observed, indicating higher consumption or improvements in reporting and collection systems.

At the central level, initiatives have been launched to implement projects outlined in the strategy and action plan, such as feasibility studies for sanitary landfills. Additionally, the implementation of the deposit return system for bottles and cans is in the initial phase, aiming to promote recycling and reduce plastic waste. This step provides optimism for achieving this objective and advancing the circular economy in Kosovo, positively impacting the environment and waste management. According to official data from the Kosovo Customs, a decrease has been observed in the import and export of plastic bags and sacks, which can be directly linked to the implementation of Administrative Instruction No. 04/2025 on Packaging and Packaging Waste, as well as the decision on the plastic bag fee. Many businesses have diligently implemented this preventive measure, while citizens have shown increased awareness in using biodegradable bags. Continuous support from international donors has played a key role in advancing waste management in Kosovo. These donors have contributed not only to strengthening KEPA's human capacities but also to financing direct investments in technical equipment, software, and infrastructure, as well as supporting projects and other activities in this sector. This support has enabled significant improvements in waste management and contributed to bringing Kosovo closer to European standards in this field.

KEPA advises that all stakeholders responsible for municipal waste management should initiate and support initiatives that promote integrated waste management, with a primary focus on implementing the 3R model (reduce, reuse, and recycle). This model is recognized as one of the most effective ways to achieve sustainability in waste management, bringing benefits not only environmentally, but also economically and socially.

Another recommendation is for schools across Kosovo to actively participate in recycling initiatives by preparing project proposals aimed at increasing students' awareness of the importance of waste separation and recycling. Additionally, through donor support and projects, the necessary infrastructure should be provided in schools for waste segregation, thereby facilitating practical education and engaging the new generation in environmental protection.

Another category of waste that still lacks proper management includes hazardous waste, some hospital waste, animal waste, construction and demolition debris, used tires, used oils, etc. The management of these types of waste continues to pose significant challenges for environmental quality and public health.

To improve this situation, in-depth analyses and research are necessary to provide a clearer picture of the current status. Specific investments in technology and infrastructure are also required so that the management of these wastes is brought under full control. Only in this way can their condition be improved, and the negative impact on human health and the environment eliminated.

Based on regular monitoring by the Kosovo Environmental Protection Agency (KEPA), it is assessed that sanitary landfills in Kosovo face a range of operational and environmental problems that require urgent attention. The current condition of these landfills is far from European standards for waste management. The most significant issues include the absence of a wastewater treatment system, inadequate gas ventilation,

inconsistent daily coverage of waste, lack of a waste separation system, and lack of fencing and hazard signage. Additionally, stray dogs, insects, and unauthorized persons are present at these landfill sites.

These conditions not only endanger the health of residents and workers but also negatively affect environmental quality. Therefore, immediate measures are necessary to improve landfill management to ensure the protection of public health and the environment, while aligning with European standards for waste management.

In 2024, KEPA identified that eight municipalities in Kosovo did not report any data on waste management. This situation means that the current waste management system in Kosovo does not provide complete data on waste generation, collection, treatment, disposal, or the number of illegal landfills, presenting a significant challenge for assessing the real status of this sector. Therefore, KEPA suggests that stakeholders responsible for waste management develop advanced data management systems and report regularly on the state of waste management. It is also essential to invest in building human capacity at the municipal level, as the lack of officials specifically dedicated to waste causes difficulties in data collection and regular reporting. Regular and verified reporting on waste management is the most reliable way to understand and accurately assess the situation in this sector. Only based on accurate findings can concrete measures and actions be taken to improve the state of waste management, intervening where needed, and collectively contributing to a cleaner, waste-free environment.

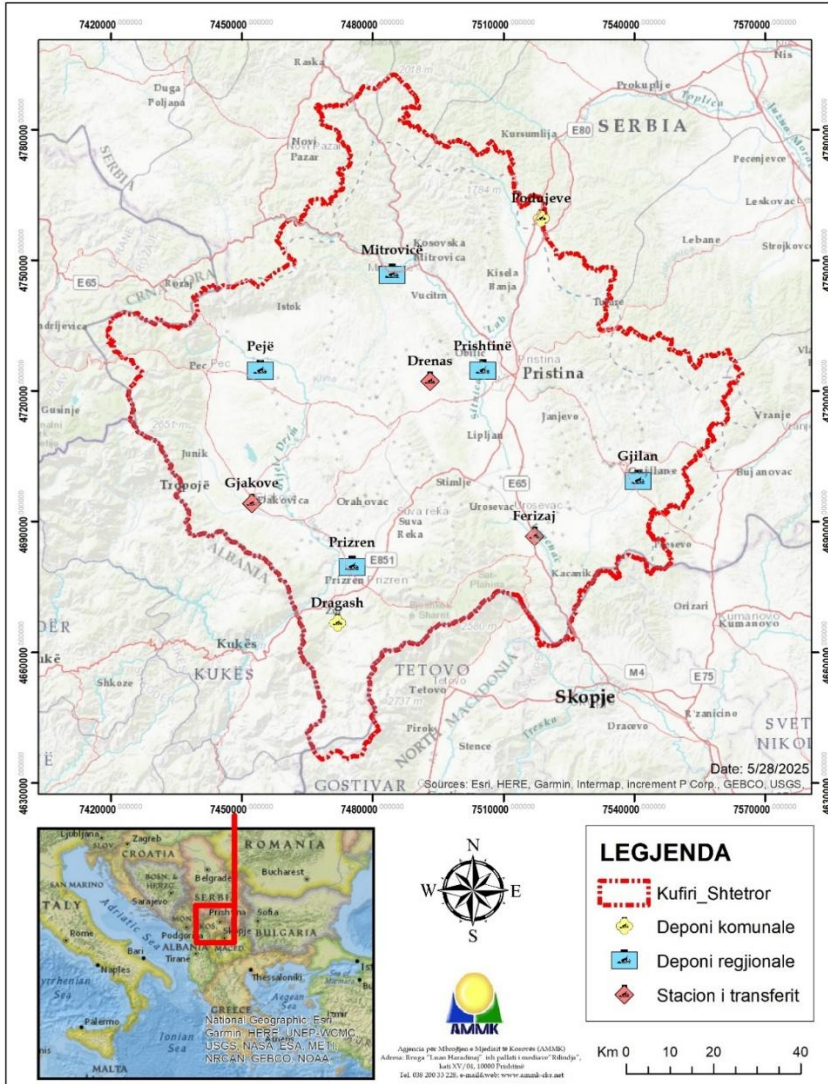
Europe still generates a large amount of waste, although trends in waste generation are quite stable, and the trend is that waste generation is decoupling from economic growth. At the same time, waste is increasingly seen as a valuable resource for the European economy. The proportion of waste being recycled is gradually increasing, while the amount of waste going to

landfills is decreasing. However, performance differences between countries remain significant.¹⁵

Although in Western countries waste is seen as a resource, in Kosovo it is still largely perceived as garbage and a source of pollution.¹⁶ Construction waste and plastics are good examples of waste that are considered resources in the modern world, with various applications in construction, industry, and agriculture, contributing to a circular economy and environmental sustainability.¹⁷ Waste prevention and waste management are now key aspects of the circular economy. Food and plant-based waste (organic waste) can be used to produce compost, which improves soil quality and reduces the need for chemical fertilizers.

¹⁵ *European Environment Agency, (Resource efficiency and waste),*

¹⁶ *European Environment Agency, (2019)*



Map 3: Regional landfills, municipal landfills, and transfer stations 25

3.4.1. Generation of municipal waste

The generation of municipal waste has shown a continuous increase in recent decades due to the growth of the urban population, economic development, and consumption patterns. According to Eurostat data, at the European Union level, the average amount of municipal waste generated per capita has

gradually increased, reflecting the impact of urban living and industrialization.¹⁸

The Kosovo Environmental Protection Agency (KEPA) collects and processes data on the amount of municipal waste generated at the national level, in cooperation with the respective municipalities. Data are gathered through official reporting from municipalities to KEPA, providing a clear overview of the status of municipal waste management in each administrative unit.

Although reporting by municipalities has not been complete, and some have not submitted any data for the relevant reporting period, KEPA has conducted a careful assessment of the data received. This assessment aims to provide a reliable and realistic overview of the amount of municipal waste generated at the national level.

Table 17 presents the data on the amount of municipal waste generated at the municipal level for the years 2023 and 2024.

Table 17. Municipal waste generation kg\inhabitant\year (2023 & 2024)

Municipality ¹⁹	Waste collection tons/year	²⁰ Generation kg/inhabitant/year	Waste collection tons/year	²¹ Generation kg/inhabitant/year
	2023	2023	2024	2024
Prishtinë	89,840.00	243.94	81,797.00	291.28
Drenas	10,685.00	220.86	9,125.00	254.82
Fushë-Kosovë	18,913	236.88	20,438.00	317.31
Graçanicë	5,022.00	318.32	8,216.00	412.59
Lipjan	13,213.00	251.08	13,216.00	392.83
Obiliq	7,217.00	382.93	7,026.00	436.28

¹⁸ Eurostat. (2023). *Municipal waste statistics*. Retrieved from: <https://ec.europa.eu/eurostat>.

¹⁹ Some municipalities have not reported to KEPA (Mitrovica V. Zecan, Zubin-Potok, Leposaviq, Mamusha, Partesh, Kllokot and Ranillug) and consequently the data is not reflected in the table..

²⁰ The data presented in this table refers to the amount of waste collected for the reporting year 2024 for municipalities on the online platform.

²¹ During 2024, preliminary data from the population census in Kosovo were published, which may have influenced the calculation of indicators for 2024. As a result, differences between 2023 and 2024 may be significant, especially due to changes in the population base used for the calculation.

Podujevë	16,106.00	293.95	0.00	0.00
Mitrovicë	25,924.00	291.91	25,729.00	464.28
Skënderaj	8,683.00	203.22	8,268.00	256.21
Vushtri	20,593.00	293.27	17,170.93	325.83
Mitrovica V.	0.00	0.00	0.00	0.00
Zveçan	0.00	0.00	0.00	0.00
Zubin-Potok	0.00	0.00	0.00	0.00
Leposaviq	0.00	0.00	0.00	0.00
Pejë ²²	33,077.00	327.78	33,854.00	389.25
Istog	11,569.00	240.60	7,256.00	181.78
Klinë	7,738.00	171.81	6,431.00	184.63
Prizren	49,166.00	243.02	52,072.00	342.98
Suharekë	13,484.00	174.12	11,354.00	209.97
Malishevë	9,968.00	155.12	10,100.00	230.05
Rahovec	14,051.00	190.99	14,065.00	290.27
Dragash	7,479.00	236.75	6,210.00	247.82
Mamushë	1,200.00	252.22	0.00	0.00
Ferizaj	24,427.00	195.48	35,138.00	341.26
Kaçanik	4,770.00	124.9	6,123.00	208.14
Shtime	4,691.00	204.19	4,422.00	241.06
Hani i Elezit	2,016.00	208.93	1,173.00	178.99
Shtërpca	1,720.00	133.66	2,880.00	291.40
Gjilan	25,557.00	374.41	26,425.00	483.82
Kamenicë	5,061.00	181.69	5,544.00	280.58
Viti	6,451.00	252.37	7,241.00	385.25
Novoberdë	1,076.00	393.05	1,893.00	279.98
Partesh	0.00	0.00	0.00	0.00
Klllokot	0.00	0.00	0.00	0.00
Ranillug	0.00	0.00	0.00	0.00
Gjakovë	22,544.00	237.97	20,267.00	189.42
Deçan	7,211.00	137.21	5,474.00	147.51
Junik	938.00	120.28	800.00	185.29
Country level	470,390.00	235.25	449,707.93	293.60

Municipal waste management reports in Kosovo for the years 2023 and 2024 show significant changes in the amount of waste collected and generated per capita in some municipalities.

²² From the data reported for the municipality of Peja, the total collection value was deducted, as the data also includes contributions from the municipalities of Deçan, Klina and Istog. This was done since the reporting was done jointly for these four municipalities.

Based on the data presented in Table 18, it is observed that the total waste collected decreased from 470,390 tons in 2023 to 449,707.93 tons in 2024 (a decrease of 20,682 tons), while the average waste generation per capita increased significantly from 235.25 kg/person/year to 293.60 kg/person/year.

It should be noted that for 2023, the estimation of waste generation per capita was based on the population according to the 2011 census, whereas for 2024 the new population census was used, reflecting the most recent demographic changes and expected to be more accurate.

The population of Kosovo in 2024 is estimated to be around 1.6 to 1.7 million inhabitants. This indicates that there has not been a significant increase; on the contrary, in some cases a decrease is estimated due to high emigration, low birth rates, internal migration toward urban areas, or lack of economic opportunities. Population increases are mainly concentrated in areas near Prishtina, while decreases occur in the western, northern, and rural parts of Kosovo – a direct reflection of economic migration.

The population is declining in many municipalities, while the number of households has been steadily increasing. In the 2024 reporting, in addition to population data, the calculation of generated waste also included waste originating from economic and commercial activities, through businesses served within the respective municipalities. This means that the total waste collected does not only reflect household waste generated by residents but also waste from the economic sector.

According to the latest data published by the Kosovo Agency of Statistics (ASK), the number of households increased from approximately 299,000 to around 348,000. This increase is particularly pronounced in the Municipality of Prishtina, where households grew from 40,000 to 72,000. While a higher number of households can contribute to an overall increase in generated waste, this may be balanced by a decrease in waste per capita.

In most municipalities, the value of waste generated per capita (kg/person) increased significantly in 2024 compared to 2023.

This sharp rise in per capita waste generation in many municipalities may result from changes in reported population or an actual increase in consumption and waste production. Factors such as economic growth, migration, and urbanization have led to higher consumption and, consequently, larger amounts of waste generated.

In some municipalities, such as Prishtina, Drenas, Podujeva, Istog, Klina, Gjakova, Deçan, and Junik, total waste collection decreased in 2024, even though per capita generation increased. This could be due to population changes according to the new census or more efficient collection practices.

In the Municipality of Prishtina, total waste collection fell from 89,840 tons to 81,797 tons, but per capita generation increased from 243.94 to 291.28 kg/person, reflecting a lower population according to the new census but a higher number of served households and the inclusion of businesses. In Drenas, there was also a decline in both waste collection and population.

Klina, Deçan, and Junik experienced reductions in total collection, even though the number of households increased, indicating changes in collection or reporting practices.

In the Municipality of Graçanica, there was a significant increase in collection from 5,022 to 8,216 tons and per capita generation from 318.32 to 412.59 kg/person, highlighting the impact of served businesses. In Ferizaj, waste collection increased from 24,427 tons to 35,138 tons, accompanied by a rise in households. Northern municipalities (Mitrovica North, Zvečan, Zubin Potok, Leposavić), Partesh, Kllokot, and Ranillug reported no waste collection in either year. The absence of data may result from challenges in data collection or a lack of professional capacities for reporting.

The largest contributors to waste in Kosovo over the past two years are major municipalities such as Prishtina, Ferizaj, Peja, Prizren, Gjiilan, Gjakova, and Fushë Kosova. This is directly linked to population size and the level of urbanization in these areas.

Although municipal reporting has not been complete, affecting the ability to fully represent waste collection and generation at the national level, the Kosovo Environmental Protection Agency (KEPA) has made efforts to assess the current situation based on existing data, aiming to provide the most accurate representation possible of the reality in Kosovo.

3.4.2 Analysis of the composition of municipal waste

The composition of municipal waste refers to the quantitative distribution and percentage of different materials that make up the waste generated in a specific area, such as organic waste, plastics, paper/cardboard, glass, metals, textiles, etc.

Research and analysis of municipal waste composition in Kosovo was enabled for the first time by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, within the project "Sustainable Municipal Services - SMS," and was implemented by Environmental Sustainable Solution (ESS L.L.C.) in cooperation with the respective Municipal Public Service Directorates and six regional companies responsible for the collection and transport of municipal waste. This multi-stakeholder collaboration made it possible to collect reliable data and establish a foundation for the long-term improvement of the waste management system in the country.

The waste collection process was carried out by regional municipal waste service operators (RWC), operating in seven regions of Kosovo. Specifically, the participating operators were: RWC "Pastrimi, Çabрати, Uniteti, Ambienti, Ecohigjiena, Pastërtia, and Eko Regjioni."

The collected data were reported by the respective municipalities through the online platform of the Kosovo Environmental Protection Agency (KEPA). Table 18 presents the average composition of municipal waste for 2024, which is the result of data analysis collected in three separate monitoring phases.

In conclusion, a general assessment was carried out for each waste category, providing a clear and comprehensive overview of the structure of waste generated at the municipal level in Kosovo.

Organic waste constitutes the largest share of total waste, with an average of 30.4%, consistently present across all monitoring phases. This highlights the high potential for implementing composting methods and managing organic waste.

Plastics represent the second most significant category at 19.6%, showing an increasing trend from Phase I to Phase III. Following this is paper and cardboard at 15.1%, although showing a slight decreasing trend during the monitoring phases.

Other categories with a significant percentage include:

- Fine waste (6.9%) – showing a noticeable decrease from Phase I to Phase III, which may reflect improvements in the sorting process or seasonal influences,
- Glass (5.5%) and textiles (4.8%) – exhibiting a stable presence across all phases,
- Diapers account for 4.0% of the total, presenting a particular challenge for management due to their non-recyclable nature,
- Materials such as Tetra Pak (2.6%), mixed and combined materials (MKD) (3.1%), metals (1.8%), and wood (1.5%) appear in lower percentages, yet remain important for the recycling sector and for strategic planning of waste treatment,
- Hazardous waste, although minimal in presence (0.2%), requires special handling and supervision due to its potential impact on public health and the environment.

Table 18. Waste composition ²³

Waste composition	Phase I	Phase II	Phase III	Total
Organic waste	29.2%	32.9%	29.3%	30.4%
Green waste	5.0%	4.4%	4.2%	4.5%
Tetrapak	2.1%	2.5%	3.2%	2.6%
Plastic	18.7%	19.7%	20.3%	19.6%
Paper / cardboard	16.3%	15.4%	13.6%	15.1%
Textile	4.9%	4.4%	5.0%	4.8%
Metals	1.3%	1.5%	2.7%	1.8%
Glass	4.5%	5.8%	6.2%	5.5%
Wood	0.9%	1.0%	2.5%	1.5%
MKD	2.0%	2.9%	4.3%	3.1%
Hazardous Waste	0.2%	0.2%	0.3%	0.2%
Pampers	4.6%	3.5%	3.7%	4.0%
Fine Waste	10.3%	5.7%	4.7%	6.9%

Currently, the waste generated in these regions is mainly disposed of in controlled landfills, including both regional and municipal facilities. This reflects a high level of organization and operational functionality of the waste management system in the country, while also emphasizing the need for further advancement in source separation and recycling.

²³ Report on the analysis of waste composition in the 7 regions of Kosovo, ESS L.L.C, 2022

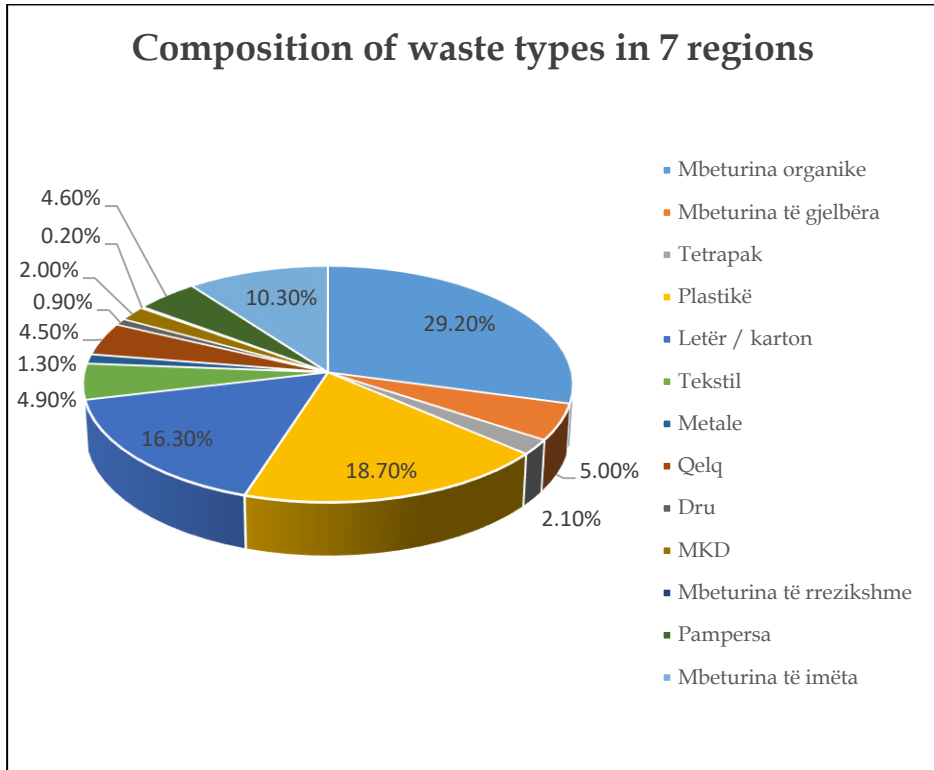


Figure 18: Përbërja e mbeturinave në Kosovë

The data indicate the need to strengthen the source-separation system and increase public awareness. Organic and plastic waste remain the main challenges, while trends such as the increase in mixed waste and metals highlight the lack of effective sorting. These field data are highly valuable for planning recycling strategies and sustainable waste management at both municipal and national levels.

3.4.3. Disposal of municipal waste in sanitary landfills

Municipal waste landfills, according to European standards, are regulated with strict requirements for limiting the amount of waste deposited, preliminary treatment, monitoring, safety and environmental protection. According to the European Union directive on the landfill of waste, by 2035, the amount of

municipal waste deposited in landfills should not exceed 10% of the total amount of this waste. This aims to reduce the negative impact on the environment and promote recycling and recovery of waste.²⁴

Furthermore, from 2030, landfilling of waste that is suitable for recycling or energy recovery is not allowed, with limited exceptions only for cases where landfilling brings the best environmental outcome.²⁵ These measures are designed to meet the objectives of the waste hierarchy, where landfill is the last resort.

While landfills must be equipped with groundwater monitoring systems and respect safety requirements for workers, member states and those that claim to become members soon must implement national strategies to reduce the disposal of biodegradable and recyclable waste.²⁶

Only waste that has been previously treated can be deposited in landfills, and landfills are required to use economic instruments to encourage compliance with environmental requirements.²⁷

Municipal waste generated by the population in Kosovo is collected by waste collection and transport operators and is regularly deposited in seven existing landfills located in: Prishtina (Mirash), Prizren (Landovicë), Mitrovica (Gërmovë), Pejë (Sferk), Gjilan (Velekincë), and Dragash (Sharr). Of these landfills, five are at the regional level, while the remaining two are municipal.

²⁴ **European Parliament.** 2018. Directive (EU) 2018/850 of the European Parliament and of the Council of 30 May 2018 amending Directive 1999/31/EC on the landfill of waste. Official Journal of the European Union, L 150, 14.6.2018, pp. 100-108.

²⁵ **European Commission.** 2020. *Waste Framework Directive: Landfill Directive*. Available at: https://ec.europa.eu/environment/topics/waste-and-recycling/waste-framework-directive_en.

²⁶ **European Environment Agency.** 2019. *Landfilling of waste in Europe*. Available at: <https://www.eea.europa.eu/publications/landfill-of-waste-in-europe>.

²⁷ **European Parliament.** 2018. Directive (EU) 2018/850 of the European Parliament and of the Council of 30 May 2018 amending Directive 1999/31/EC on the landfill of waste. Official Journal of the European Union, L 150, 14.6.2018, pp. 100-108.

The environmental conditions of sanitary landfills in Kosovo are critical and extremely poor compared to European waste management standards. Although these landfills are under continuous management and supervision, almost none of them meet European standards.

Below is a detailed description of the environmental conditions and issues observed at these landfills, based on KEPA's field data and observations. Flooding of the landfills due to the mixing of rainwater and groundwater is a major problem. The new recirculation and surface drainage systems do not function properly, worsening the environmental situation. There is no wastewater treatment system, which increases the risk of environmental and water source contamination. The landfills are partially fenced and lack adequate ventilation systems for the gases generated during the disposal process, leading to increased levels of harmful gases that may affect the safety and health of workers and surrounding communities.

There is a significant presence of stray dogs, birds, and insects in and around the landfills, which contributes to the spread of infections and environmental pollution. Spontaneous fires frequently break out in the landfills, producing dense smoke that pollutes the air and endangers the health of nearby populations. Waste is dispersed over large areas due to the lack of daily covering, increasing odors and air pollution. Proper degassing systems are absent, the landfills lack adequate fencing (green belts), and hazard signs are missing near the area, increasing the risk of contamination from the mixing of different types of waste.

Approximately over 90% of the waste generated in Kosovo is deposited in these landfills, while the remaining portion ends up in illegal dumpsites. A small fraction is collected and utilized by the informal sector for trading purposes.

Evaluation of data from reporting

During 2024, the amounts of waste deposited in sanitary landfills in Kosovo showed variations, with decreases in some regions and increases in others. The status of waste in the seven main sanitary landfills of the country, reflecting regional dynamics and impacts, is illustrated in (Figure 1). The chart clearly shows that waste management is a greater challenge for Prishtina and Prizren, while smaller regions have more limited needs.

In 2024, the largest amount of waste was deposited in the Mirash landfill (Prishtina) – 193,698.74 tons (Figure 19). This indicates that Prishtina, as the capital and largest urban center, generates more waste than any other region.

Prizren ranks second in terms of waste quantity, with 101,770.28 tons, being one of the largest and most populated cities, which explains the high figures.

Regions such as Peja, Gjilan, and Mitrovica maintain a stable level of waste, reflecting similar municipal waste management practices and corresponding to their urban size and activity.

The smallest amounts of deposited waste were recorded in Podujeva with 18,103.20 tons and Dragash with 10,504.00 tons, indicating that these two regions have smaller populations and lower economic activity.

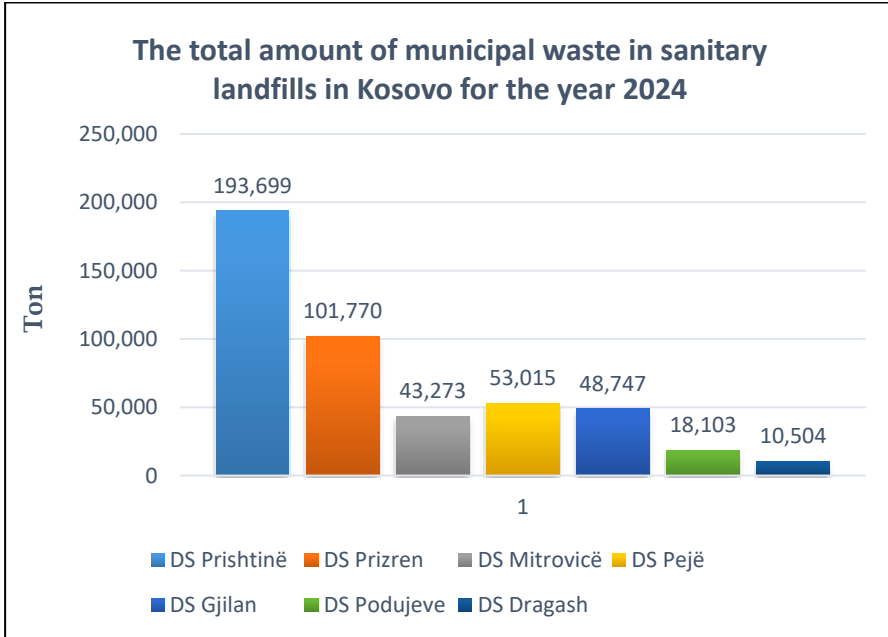


Figure 19: The total amount of municipal waste in sanitary landfills in Kosovo for the year 2024

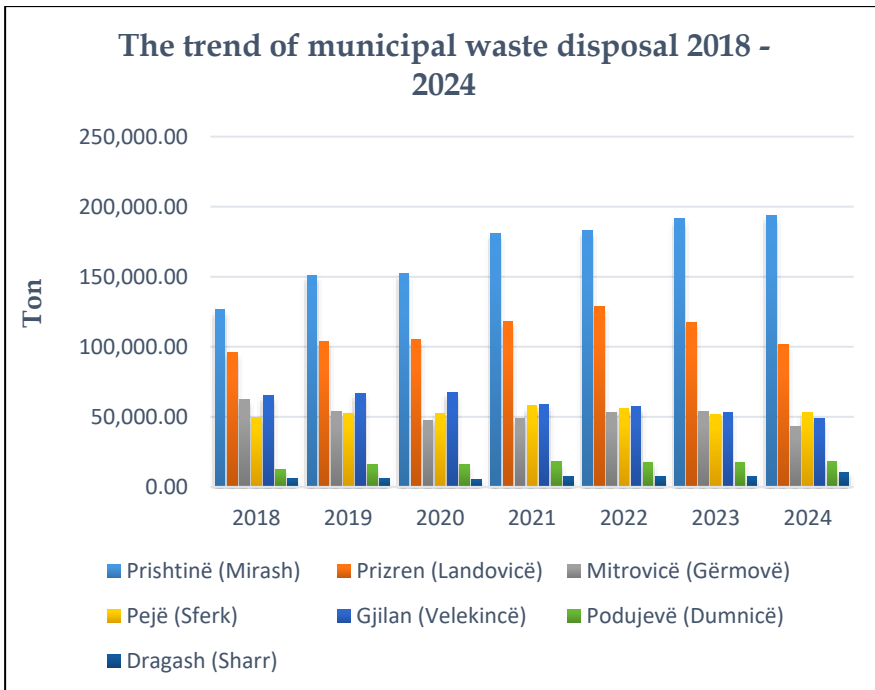


Figure 20: Disposal of Municipal Waste in Sanitary Landfills in Kosovo, 2018 – 2024

Unlike in 2023, when the total amount of waste deposited in sanitary landfills was 493,117.40 tons, in 2024 this amount decreased to 469,111.50 tons. This represents a reduction of 24,005.90 tons, or approximately 4.9%. This positive trend reflects efforts and results aimed at reducing waste in sanitary landfills.

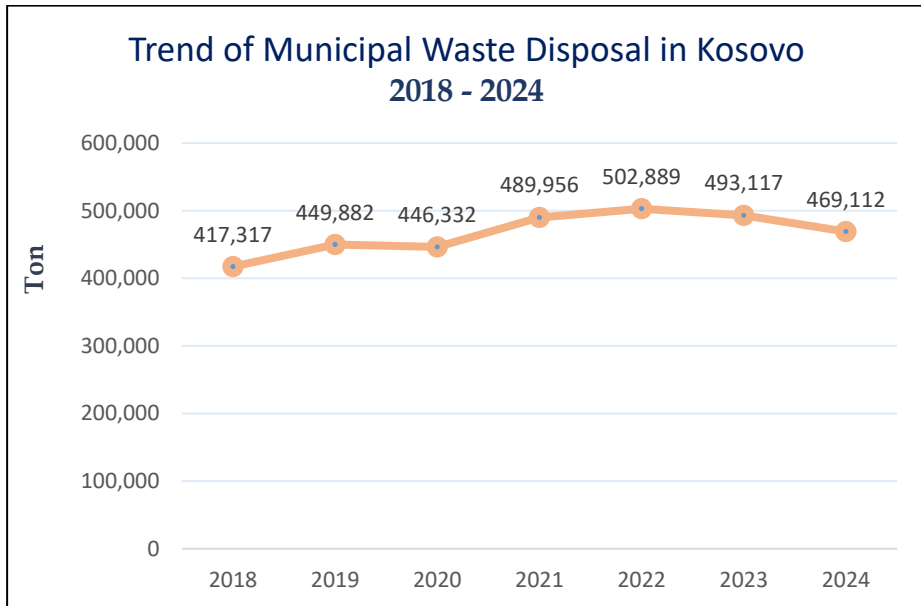


Figure 21: Trend of Municipal Waste Disposal 2018 – 2024

The trend shows that, although some landfills experienced a slight increase (Prishtina, Peja, Podujeva, and Dragash), other landfills saw a significant decrease (Prizren, Mitrovica, Gjilan), resulting in an overall reduction of waste deposited at the national level in 2024. This may be a result of measures for better waste management, socio-economic factors, policies, and new efforts implemented to reduce waste generation and improve its management, in line with the national strategy for integrated waste management and local plans.

In the sanitary landfills managed by KDMK – such as Mirash (Prishtina), Velekincë (Gjilan), and Landovicë (Prizren) – waste disposal in 2024 showed noticeable changes in volume. At the Mirash landfill (Prishtina), there was a slight increase of 2,054.00 tons, rising from 191,644.74 tons to 193,698.74 tons. This indicates a stable and slightly higher volume of waste deposited at this landfill, which could be due to population growth or increased economic activity.

At the Velekincë (Gjilan) and Landovicë (Prizren) landfills, a significant decrease in waste disposal was observed during 2024. In Velekincë, there was a reduction of 4,597.08 tons (approximately 8.61%), from 53,343.76 tons to 48,746.68 tons, reflecting visible efforts to reduce waste in this area. In Landovicë, the decrease was even greater, with 15,693.74 tons (approximately 13.36%), dropping from 117,464.02 tons to 101,770.28 tons. This is a clear indicator of improvement in waste management or reduction in the Prizren region.

At the regional sanitary landfill in Mitrovica (Gërmovë), there was a significant decrease of 10,790.15 tons (approximately 19.96%), from 54,063.48 tons to 43,273.33 tons, which may result from the implementation of better waste management policies. On the other hand, at the Peja landfill, a slight increase of 1,132.77 tons (approximately 2.18%) was observed, rising from 51,882.50 tons to 53,015.27 tons, indicating stability in the amount of waste deposited and reflecting a steady state of waste management in this area.

At the Dragash and Podujeva sanitary landfills, only waste generated by the respective municipalities is deposited. In 2024, the amounts deposited were 10,504.0 tons at the Dragash landfill and 18,103.2 tons at the Podujeva landfill.

3.4.4. Waste Treatment

Waste treatment includes all physical, chemical, biological, and thermal processes aimed at reducing the quantity of waste and

its environmental impact, thereby facilitating its handling, recycling, or disposal. According to the EU Waste Directive (Directive 2008/98/EC), “treatment” refers to any operation that is not prevention and that is intended to prepare waste for recycling or disposal, including the stages of sorting and processing.²⁸

Recycling and source separation – one of the most successful waste treatment practices in Europe is source separation, which facilitates the recycling process and significantly reduces the need for landfilling. It can be carried out at the source (at the point where waste is generated) or in specialized facilities.²⁹

Recycling involves the processing of waste materials to convert them into products, materials, or substances, either for their original purpose or for other purposes. According to the European Commission’s Waste Management Guidelines, recycling does not include processes that result in energy production or the use of waste as fuel.³⁰

Biological treatment - This includes processes such as composting and anaerobic digestion, where organic waste is decomposed by microorganisms. The final products can be used as organic fertilizer or as an energy source (biogas).³¹

Incineration (waste burning) – one of the most widely used technologies for reducing the volume of waste, incineration involves burning waste at high temperatures, usually with energy recovery (waste-to-energy). According to the OECD, incineration is effective for waste that cannot be recycled and for hazardous waste.³²

²⁸ European Parliament (2008). Directive 2008/98/EC on waste and repealing certain Directives. Official Journal of the European Union.

²⁹ BMUV (2023). Waste separation and recycling in Germany. Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.

³⁰ European Commission, 2016.

³¹ European Commission (2008). Green Paper on the management of bio-waste in the European Union.

³² OECD (2022). *Global Plastics Outlook: Economic Drivers, Environmental Impacts and Policy Options*.

Treatment of hazardous waste - These wastes require specialized treatments that ensure the isolation of harmful substances, such as heavy metals, toxic chemicals, or radioactive materials. Treatment may include chemical neutralization, stabilization, or encapsulation. This ensures that toxic substances do not contaminate water, soil, or air.³³

Storage (Disposal) - When waste cannot be treated otherwise, it ends up in controlled landfills. Modern landfills are equipped with a system of closure and protection against infiltration into groundwater and include monitoring of gases and liquids flowing from the waste.³⁴

Waste treatment plants - Plants are facilities specifically built and equipped to carry out one or more treatment processes. They may be dedicated to separation, recycling, thermal treatment or the treatment of hazardous waste. In accordance with EU standards, plants must operate with advanced technologies to minimize pollution and increase the efficiency of resource recovery.³⁵

Waste treatment is both a challenge and an opportunity at the same time. Through modern technologies and sustainable policies, European countries have managed to reduce their reliance on landfills and increase levels of recycling and energy recovery. For developing countries, these practices offer good examples that can be adapted to the local context.

The presented chart illustrates the quantities of waste treated by different categories for the reporting year, as reported by the Kosovo Agency of Statistics (KAS). The data are the result of regular surveys and the collection of information from operators and institutions involved in the management of municipal waste.

³³ European Commission (2021). EU Taxonomy: Environmental Objectives – Waste management including hazardous waste.

³⁴ European Commission (2020). *Landfill of Waste – Directive 1999/31/EC*

³⁵ European Commission (2017). Best Available Techniques (BAT) Reference Document for Waste Treatment Industries. Retrieved from: <https://eippcb.jrc.ec.europa.eu/reference/waste-treatment>

The main waste categories and the respective quantities treated are as follows:

- **Waste from households and similar sources** represents the overwhelming majority of treated waste, with a total amount of **490,316 tons**. This category includes **municipal waste** generated by households, small businesses, and public institutions, reflecting the highest level of urban waste generation.
- Paper and cardboard waste amounts to 16,869 tons, indicating a significant presence of this material in waste streams that could potentially be recycled.
- Metal waste and plastic waste account for 4,646 tons and 4,221 tons respectively, representing important fractions for material recovery and the circular economy.
- Hospital waste, considered hazardous due to its biological and chemical content, represents a smaller quantity of 2,540 tons, but requires specialized treatment.

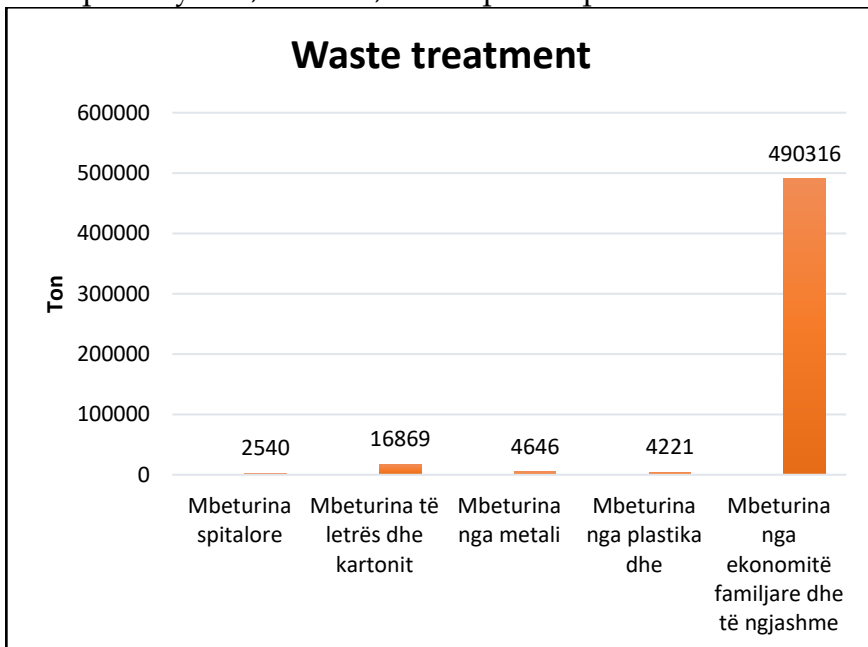


Figure 22: Treatment of Municipal Waste in Kosovo

3.4.5. Illegal Dumps

During 2024, 30 municipalities carried out the registration of illegal dumps and reported the relevant data to the Kosovo Environmental Protection Agency (KEPA) through the online platform. There was a change in the total number of illegal dumps between 2023 and 2024, with an overall increase from 403 to 458 dumps (an increase of 55 dumps).

This increase was mainly influenced by the rise in the number of small dumps, while there was a decrease in the number of large and medium dumps, which were categorized by size as follows:

- **162 small dumps** (1–5 waste bags of 200 liters),
- **150 medium dumps** (6–20 bags),
- **146 large dumps** (more than 20 bags).

The data show that the situation on the ground continues to vary from one municipality to another. In some municipalities, a significant increase in the number of illegal dumps has been observed, as in the cases of Podujeva and Ranillugu, which for the first time included data in this report and at the same time reported a high number of dumps (40 and 22 respectively).

On the other hand, some municipalities recorded a slight decrease in the number of illegal dumps compared to the previous year, such as Lipjan, with a reduction from 80 to 76 dumps; Prishtina, from 3 to 1 dump; Peja, with a decrease from 21 to 14 dumps; Prizren, from 14 to 11; and Deçan, from 10 to 8 dumps. Meanwhile, several other municipalities maintained a stable situation, such as Fushë-Kosova, Graçanica, Istog, Klinë, Skenderaj, Kamenica, Shtime, Kaçanik, Gjakova, and Shtërpçë, with no change in the total number of dumps from one year to the next.

Furthermore, during 2024, municipalities such as Gjilan, Viti, Ranillugu, and Podujeva were also included in the reporting process, demonstrating broader institutional involvement in the

monitoring of illegal dumps and the growing importance given to this environmental issue at the local level (see Table 22).

Municipalities that did not report in 2023 and 2024 include North Mitrovica, Zvečan, Zubin Potok, Partesh, Kllokot, Leposavić, and Malisheva, which did not submit data for either of the last two years, leaving a significant gap in the representation of the environmental situation in these areas.

Detailed data for each municipality and the distribution of dumps by size are presented in the following table:

Table 19. Number of landfills created in Kosovo during 2024 – according to reports from municipalities

2023					2024				
Municipality	Illegal landfills (dumps) by size			Total 2023	Municipality	Illegal landfills (dumps) by size			Total 2024
	Small dumps (1-5 bags of garbage) 200 l)	Medium dumps (6-20 bags of garbage) 200 l)	Large dumps (>20 bags of garbage) 200 l)			Small dumps (1-5 bags of garbage) 200 l)	Medium dumps (6-20 bags of garbage) 200 l)	Large dumps (>20 bags of garbage) 200 l)	
Prishtinë	0	0	3	3	Prishtinë	0	0	1	1
Glllogoc	5	9	3	17	Glllogoc	8	9	4	21
Fushë-Kosovë	1	3	5	9	Fushë-Kosovë	1	3	5	9
Graçanicë	2	4	1	7	Graçanicë	2	4	1	7
Lipjan	15	35	30	80	Lipjan	15	35	26	76
Obiliq				0	Obiliq	0	0	0	0
Podujevë					Podujevë	30	7	3	40
Mitrovicë	6	6	4	16	Mitrovicë	6	6	4	16
Skenderaj	3	13	10	26	Skenderaj	3	13	10	26
Vushtrri	1	1	1	3	Vushtrri	1	1	1	3
Mitrovicë e V.					Mitrovicë e V.				

Zveçan					Zveçan				
Zubin-Potok					Zubin-Potok				
Leposaviq					Leposaviq				
Pejë	7	9	5	21	Pejë	3	5	6	14
Istog	1	5	1	7	Istog	1	5	1	7
Klinë	3	7	8	18	Klinë	3	7	8	18
Prizren	12	2	0	14	Prizren	11	0	0	11
Suharekë	5	4	0	9	Suharekë	4	4	0	8
Malishevë					Malishevë				
Rahovec	2	3	2	7	Rahovec	22	0	0	22
Dragash	0	11	27	38	Dragash	2	12	23	37
Mamushë	2	2	2	6	Mamushë				
Ferizaj	0	5	1	6	Ferizaj	0	4	1	5
Kaçanik	8	3	4	15	Kaçanik	8	3	4	15
Shtime	0	6	5	11	Shtime	0	6	5	11
Hani Elezit	3	4	1	8	Hani Elezit	2	4	1	7
Shtërpçë	10	7	5	22	Shtërpçë	10	7	5	22
Gjilan					Gjilan	1	1	1	3
Kamenicë	0	3	6	9	Kamenicë	0	3	6	9
Viti					Viti	0	0	0	0
Novobërdë	0	3	1	4	Novobërdë	0	3	1	4
Partesh					Partesh				
Kllokot					Kllokot				
Ranillug					Ranillug	22	0	0	22
Gjakovë	2	6	28	36	Gjakovë	2	6	28	36
Deçan	5	4	1	10	Deçan	5	2	1	8
Junik	1	0	0	1	Junik	0	0	0	0
Total	94	155	154	403	Total	162	150	146	458

3.4.6. Hospital waste

Hospital waste is treated through a sterilization process in seven sterilizers installed in seven regional hospitals. Through sterilization, the main items treated include syringes, infusion sets, bandages, and various equipment used in healthcare services. After sterilization and shredding, these wastes are placed in containers for municipal solid waste and disposed of at landfills.

Another category of waste (mainly expired medicines, various supplements, etc.) is destroyed in metal smelting furnaces at several companies equipped with the relevant environmental permits.

Another category includes pathological waste (placenta, embryos, amputations, bodily fluids, etc.), which hospital centers, through contracted companies, bury in cemeteries and treat with lime for disinfection.

Chemical waste used in healthcare is not separated and is not treated separately in accordance with legislation, and it is assumed to be disposed of or managed improperly.

Pharmaceutical waste (cytostatic medicines) used in healthcare, in large quantities, is disposed of at the central landfill in Prishtina, while a portion is also stored in regional hospitals.

Table 20 shows the quantities of recycled waste, sterilized waste (in appropriate sterilization facilities), disposed waste, and the total amount of waste treated in 2024.

Table 20: Amount of sterilized hospital waste in the 8 regional hospital centers

The plant	2018	2019	2020	2021	2022	2023	2024
Quantity	kg	kg	kg	kg	kg	kg	kg
1.Prishtinë	360,819.10	487,169.60	766,347.40	465,335.00	610,564.20	756,882.00	838359
2.Prizren	100,175.70	97,195.20	96,227.50	96,290.80	106,782.70	74,262.00	57010.7
3.Pejë	49,215.00	45,720.00	50,480.00	47,560.00	44,678.00	44,488.00	59,317.0
4.Ferizaj	35,465.90	39,215.00	37,664.40	39,934.30	38,914.80	30,014.50	34,818.00
5.Gjilan	26,460.40	29,859.80	40,748.00	42,046.00	39,689.00	47,687.00	42425

6.Gjakovë ³⁶	2,951.00	3,357.00	3,159.00	3,284.00	1,288.00	0.00 ³⁷	689.0
7.Mitrovicë	72,323.00	85,149.00	68,214.00	67,174.00	76,250.00	73,798.00	77320.3
8.Vushtri	2,504.00	2,580.35	632.61	1,185.74	2,613.55	2,541.21	1622.36
Total	649,914	790,245	1,063,472	762,809	920,780	1,029,672	1,111,561

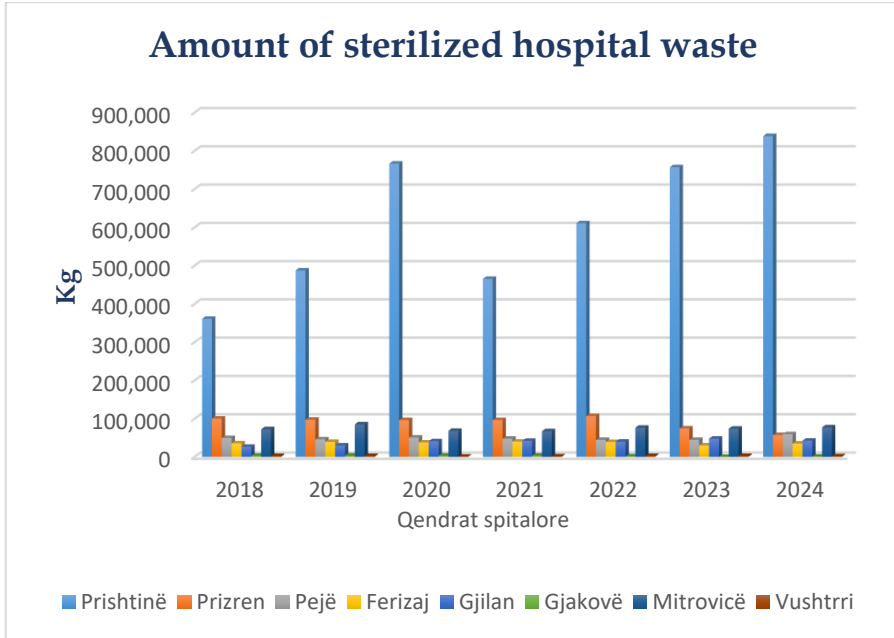


Figure 23: Trend in the amount of sterilized hospital waste in the 8 regional hospital centers

Based on the data reported and assessed by these hospital waste treatment centers, an increase of **81,889 kg** of waste was recorded in 2024 compared to 2023, indicating an overall improvement in the performance of the facilities. The largest share of this waste in 2024, as in previous years, was treated at the facility operating at UCCK–Prishtina, with a total amount of **838,359 kg**, followed by the facility at the hospital in Mitrovica

³⁶ Within the framework of waste management, a total of 1,658 kg of waste were treated in Gjakova, of which 969 kg of waste were treated in the hospitals of Peja and Ferizaj.

with **77,320.3 kg**, while the smallest amount was treated at the facility in Gjakova, with **689 kg**.

3.4.7. Industrial waste

According to the data from the Industrial Waste Survey for 2023, the total amount of industrial waste generated reached 3,390,647 tons, marking a slight increase of 0.02% compared to 2022.

During the same year, a total of 3,390,687.00 tons of industrial waste were processed. The forms of treatment included landfilling, incineration, and recycling.

Data from 2023 show that the largest amounts of waste generated by industrial sectors were in Sector D (*Electricity, gas, steam, and air conditioning supply*), which contributed the highest quantity of waste, generating 2,797,996 tons, representing an increase of 0.08% compared to the previous year, and Sector C (*Manufacturing*), which generated a total of 334,258 tons of industrial waste.

It is worth noting that the total amount of industrial waste processed in 2023 was 3,390,687 tons, including both treated waste and waste destined for final disposal.

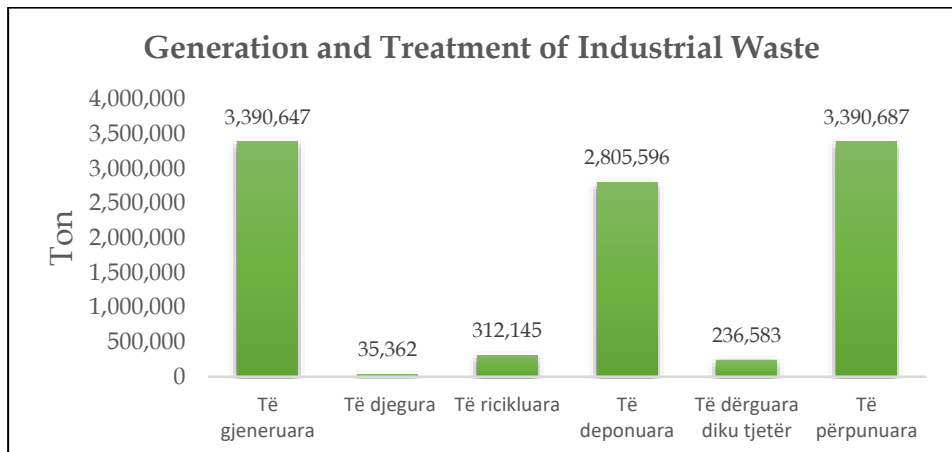


Figure 24: Generation and Treatment of Industrial Waste in Kosovo

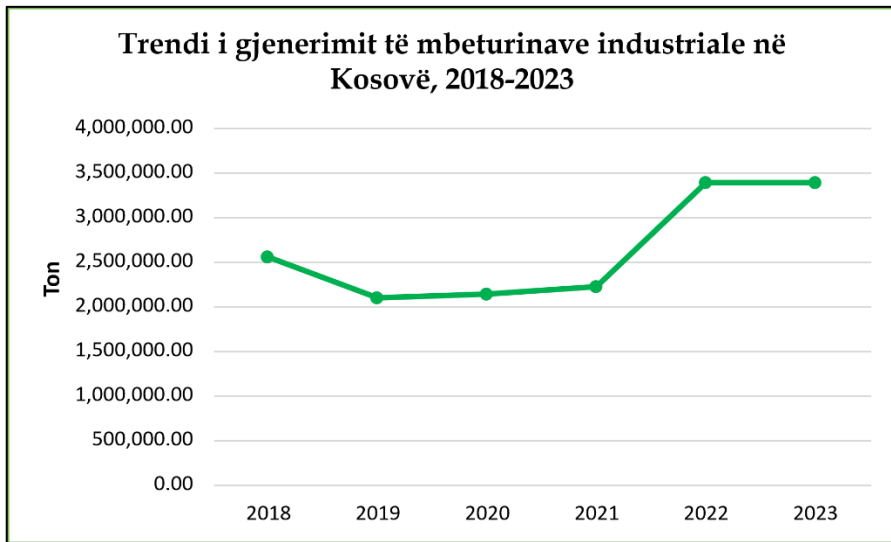


Figure 25: *The Trend of Industrial Waste Generation in Kosovo 2018-2023*

According to the data, we observe that the trend of industrial waste generation during the period 2018–2023 shows some fluctuations in the early years, with a decrease from 2018 to 2019, and a slight gradual increase from 2020 to 2021.

However, from 2022 onwards, a significant rise is observed, reaching the highest value in 2023 at 3,390,647 tons. This increase in the last two years may be a result of intensified industrial activities post-pandemic or improvements in the reporting and monitoring of industrial waste.

3.4.8. Import and Export of Plastic Bags and Sacks, as well as Waste

Plastic pollution represents one of the most serious environmental challenges at both the global and local levels. In our country, the high presence of plastic waste, especially from single-use products such as plastic bags, has become a persistent problem negatively affecting terrestrial and aquatic ecosystems. The lack of proper waste management, public awareness, and sustainable alternatives has worsened this situation, turning

plastic pollution into a constant threat to the environment and public health.³⁸

Plastic bags have become one of the most common and visible pollutants in our environment, frequently encountered on streets, rivers, fields, and public spaces. This phenomenon is the result of a combination of factors, including the extensive use of single-use bags, the lack of sustainable alternatives, low environmental awareness, and the absence of enforcement measures regulating their use and distribution. Plastic bags, which are typically used for a very short time, remain in the environment for decades, contributing to soil and water pollution and causing damage to biodiversity.³⁹

One of the main factors contributing to environmental pollution in Kosovo with plastic waste, as well as to the high presence of plastic bags in our surrounding environment, is the large and continuous import and use of plastic bags. A significant portion of municipal waste generated by households, as well as by economic and industrial activities, consists of plastic bags and sacks. Due to their non-biodegradable nature, these wastes significantly contribute to long-term environmental pollution.

In 2024, according to official data from the Kosovo Customs, 258,936 kg of plastic sacks and bags were imported, marking a significant decrease of 68.4% compared to 2023. On the other hand, in 2024, 3,091,778 kg of plastic sacks and bags were exported, showing a decrease of 3.4% compared to 2023, when exports amounted to 3,200,686 kg.

These data indicate a significant decrease in imports and a slight reduction in exports in 2024 compared to 2023. This decline in the import and export of plastic bags and sacks may also be a result of the positive impact of the implementation of Administrative Instruction (QRK) No. 04/2025 on Packaging

³⁸ Thompson, R. C. et al. 2009. *Our plastic age*. *Philosophical Transactions of the Royal Society B: Biological Sciences*.

³⁹ Geyer, R., Jambeck, J. R. & Law, K. L. 2017. *Production, use, and fate of all plastics ever made*. *Science Advances*.

and Packaging Waste, which was followed by the decision of the Ministry of Environment, Spatial Planning, and Infrastructure dated October 5, 2023, to impose a fee of 5 cents for each plastic bag used.

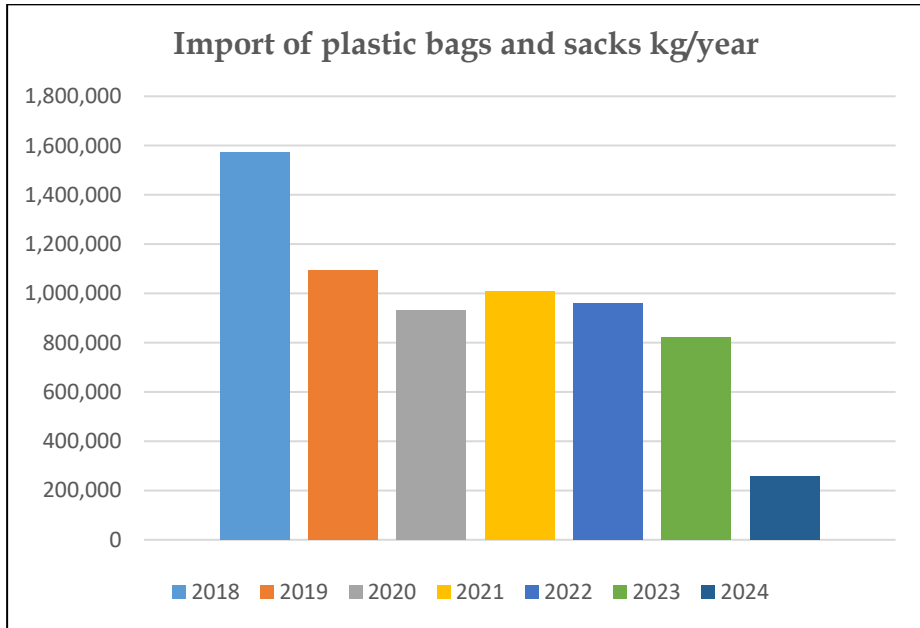


Figure 26: Quantity of plastic bags and sacks imported 2018 – 2024 kg/year

Data on the import of plastic sacks and bags in Kosovo for the period 2018–2024 show an overall trend of significant decline, with the exception of an unusual increase observed in 2021. This trend reflects ongoing efforts to reduce the use of single-use plastics, with an atypical exception in 2021, and suggests a shift towards more sustainable environmental policies in recent years.

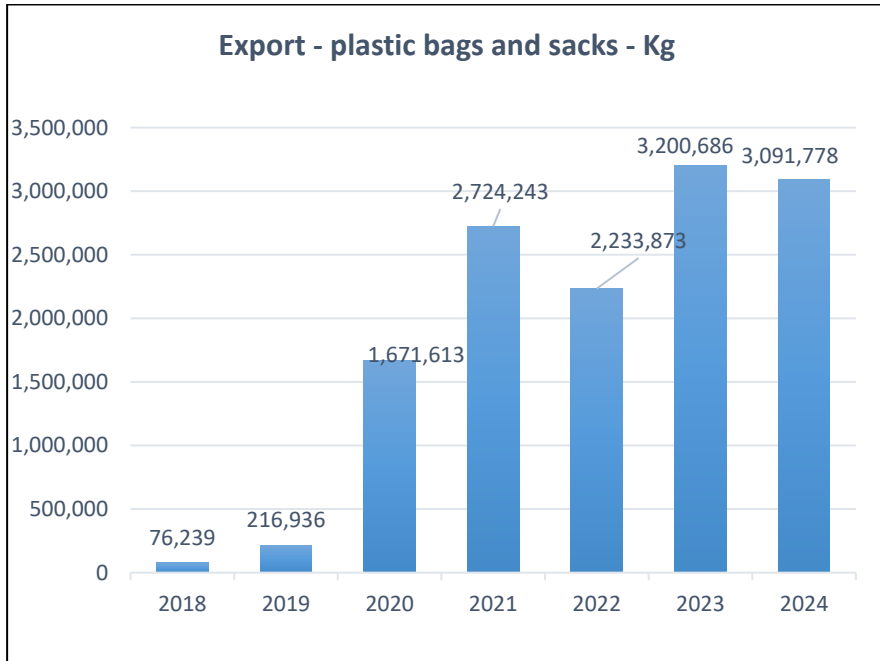


Figure 27: *Quantity of plastic bags and sacks exported 2018 – 2024*

The export of plastic sacks and bags from Kosovo during the period 2018–2024 has experienced a continuous and significant increase. This trend reflects considerable development in production capacities and the presence of domestic products in international markets, while the slight decrease in 2024 suggests a stabilization of exports after rapid growth in previous years.

Reporting of plastic bag production by local producers

According to the Administrative Instruction on plastic bags, Article 42, point 1, producers of plastic bags are required to report to the Kosovo Environmental Protection Agency the number of bags produced during the previous year.

This reporting is in accordance with legal and administrative requirements aimed at environmental protection and the sustainable management of plastic use in Kosovo. Furthermore, these measures contribute to the implementation of policies for reducing the use of plastic bags and promoting more environmentally friendly alternatives, in line with the practices of European Union countries⁴⁰.

Table 21. Production of plastic bags by several major local companies

Production 2024	Packaging bag/ Plastic storage bag 25-50	50 micron bag/ Plastic bag holding over 50	Quantity/Piece
Production of plastic bags by four local companies.	4,407,474	3,848,317	Piece
	557,200	31,958,636	Piece
	12,242,312.00	19,906,591.78	Piece
	-	323.421	Piece
Total:	17,206,986.00	55,713,868.20	Piece

The table presents partial data on domestic production of plastic bags in Kosovo for 2024, mainly reflecting the activity of several dominant companies in the market. The data do not include all companies engaged in this production activity in Kosovo. Nevertheless, this industry faces significant environmental and legal challenges and changes that are expected to affect the future of plastic bag production and consumption in Kosovo. On the other hand, there is a growing effort in Kosovo to reduce the use of single-use plastic bags and to promote recycling. This may influence production and consumption trends in the coming years. Additionally, the import of plastic bags in Kosovo has decreased significantly in the last year due to fiscal policies, such

⁴⁰ Administrative Instruction (Mea) No. 11/2020 Determining technical and other requirements for plastic bags

as the imposition of a 5-cent fee per plastic bag, which has led to economic savings and a reduction in environmental pollution. In total, plastic bag production for 2024 in two size categories (25–50 microns and over 50 microns) reaches approximately 17.2 million pieces for smaller bags and over 55.7 million pieces for larger bags, indicating a substantial volume of domestic production.

3.5. Nature and biodiversity protection

3.5.1 Protected zones

The natural heritage values in Kosovo are numerous. These values (protected zones and biodiversity), the living environment, and national heritage are the responsibility of everyone. The list of Protected Natural Areas (PNAs) in the territory of Kosovo has shown a year-by-year increase.

In the chronology of the designation of protected natural areas, four time periods can be distinguished, which correspond to general developments in Kosovo. After the 1999 war, significant results were achieved in increasing the total number of protected areas as well as in expanding the protected areas of all categories.

The period 1950–1970 represents the initial phase of nature protection and the declaration of protected natural zones in Kosovo, starting with the designation of the first area in 1950, “Gazimestani.” By the early 1970s, the number of protected zones had reached 19. During this period, areas such as the Gadime Cave and several other monuments of botanical importance, including the Oak in Marash and the Ancient Trees in Isniq, were placed under protection.

The period between 1970–1988 is characterized by the declaration of a significant number of protected areas. This success is linked to the establishment of the Kosovo Nature Protection Entity in 1974 by the Assembly of Kosovo. During this period, a total of 32 areas were placed under protection, including: the “Nerodimka River Bifurcation,” the first National

Park “Mali Sharr” (1986), the White Drin Spring with the Cave and Waterfall in Radavc (1983), and several other natural monuments.

The period 1989–1999, as in other sectors, saw a complete stagnation in nature protection, including the designation of protected areas. This was a period when, as a result of the exclusion of Albanian experts from nature protection institutions and beyond, not a single area was protected or proposed for protection.

The period after 2000 marks the re-establishment of Kosovo institutions, including the Ministry of Environment and Spatial Planning, and the Kosovo Institute for Nature Protection. During this period, over 2,000 different areas were legally protected, and more than 30 additional areas were proposed for protection. Among the protected zones, notable examples include: “Bjeshkët e Nemuna” National Park (2013), the expanded Sharri National Park, Mount Pashtrik and Vermica Lake, and the Henc-Radavc Wetlands, among others. Most of the protected zones consist of natural monuments of botanical, hydrological, geomorphological, speleological, and other significance.

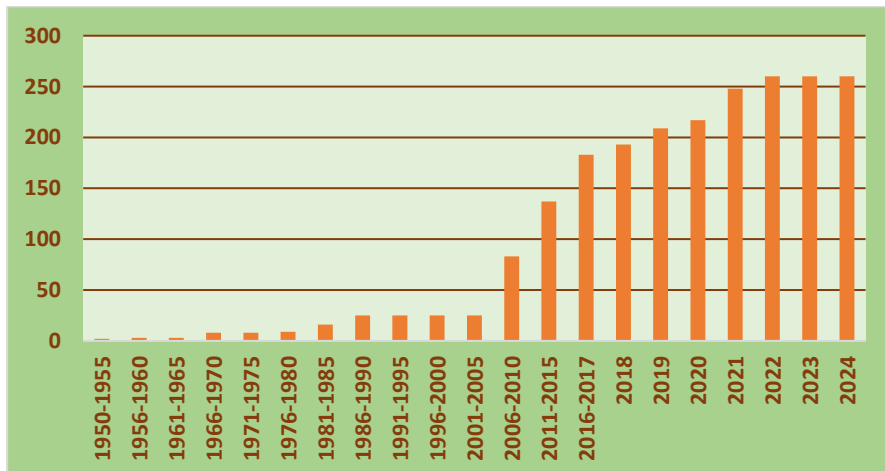


Figure 28. Number of protected nature zones 1950 – 2024

Protected nature zones – State 2024

The total number of protected natural areas in Kosovo (2024) is 260, covering an area of 126,112.2 hectares, or 11.5% of Kosovo's total territory.

These areas include: 19 Strict Nature Reserves (“Arneni Reserve,” “Maja e Ropsit,” “Rusenica,” “Kamilja,” etc.), 2 National Parks (NP “Sharri,” NP “Bjeshkët e Nemuna”), 230 Natural Monuments (“White Drin Spring with the Radavc Cave,” “Gadima Cave,” “Mirushë Waterfalls,” “Rugova Gorge,” “White Drin Canyon at Ura e Fshajtë,” “Marash Oak Trunk,” etc.), 1 Nature Park (“Mount Pashtrik and Vermica Lake”), 7 Protected Landscapes (“Shkugëza,” “Germia,” “Deçan Pines,” etc.), and 1 Special Protected Bird Area (“Henc-Radaves Wetlands”).

The largest areas among the protected zones are the National Parks: “Bjeshkët e Nemuna” and “Sharri,” the Nature Park “Mount Pashtrik and Vermica Lake,” the Protected Landscape “Germia,” the Strict Nature Reserve “Mirushë Waterfalls,” and the Natural Monument “Boshtres Site in the Golesh area,” among others.

Table 22: *Number and surface of Protected Zones 2024*

Category IUCN-së	Naming	No.	Surface/ ha	Participation in the total surf. of Protected Zones
I	Strict Nature Reserves	19	10,882.9	7.7
II	National Parks	2	115,957	82.1
III	Natural Monuments	230	6,180.90	4.4
V	Nature Park	1	5,934	4.2
V	Protected Landscape	7	2,319.85	1.6
V	Special Protected Bird	1	109.5	0.08
	Total	260	126122.7	100⁴²

⁴¹ Clarification: this area of protected areas does not include the protected areas located within the “Sharri” and “Bjeshkët e Nemuna” National Parks.”

⁴² Clarification: the percentage is derived from the total area, including the area of protected areas within national parks.

During 2024, the area “Guri i Hoxhës with the Perlepnica River Gorge” in the territory of the Ranilug municipality was granted preliminary legal protection as a Natural Monument, covering a total area of 30 hectares. This area possesses values of geomorphological significance (the gorge and limestone rocks – Guri i Hoxhës), hydrological importance (river flow, artificial waterfalls, and water springs), speleological interest (observed only on the surface), as well as biodiversity values.

Additionally, the process is nearing completion for the preliminary protection of the area “Mount Mokna and Ujman Lake” in the municipalities of Istog and Zubin Potok, designated as a Nature Park with a total surface of approximately 25,000 hectares.

Furthermore, over 30 natural monuments in the municipalities of Pejë, Prizren, Kamenica, and Artanë have been in the process of protection in previous years.

Protected areas are under continuous pressure from human interventions, which often compromise the sustainability of these areas. The greatest threats faced by protected areas, particularly national parks, are:

- **Construction and infrastructure** – buildings, constructions with touristic or economic purposes, roads, hydropower plants, etc.
- **Overexploitation of natural resources** – deforestation, illegal hunting, collection of rare plants.
- **Uncontrolled mass tourism** – large numbers of visitors without clear rules, causing littering, noise, fires, and damage to biodiversity.
- **Climate change** – global warming leading to the extinction of certain species, habitat shifts, and an increase in extreme events (fires).
- **Lack of management and control** – protection only “on paper,” without staff, funding, or effective plans.

Thus, the greatest threat is the combination of human pressures and climate change, which together contribute to the degradation of ecosystems and the loss of natural values and biodiversity.

The two main problems faced by protected areas in 2024, especially those with large surfaces (particularly national parks), are construction and infrastructure, which must be addressed with great care.

Development through construction and infrastructure in these areas must be sustainable and controlled, respecting the legal framework for protected areas, in order to preserve nature for current and future generations. Unfortunately, the current situation regarding construction and infrastructure in many protected areas, particularly national parks, is unsustainable and brings numerous consequences, causing:

Degradation of the natural landscape – disruption of the natural landscape reduces the aesthetic and recreational value of the park. It also threatens cultural, historical, or geological values that may be part of the park.

Fragmentation of natural landscapes – constructions and infrastructure create physical barriers that divide nature into smaller sections, hindering animal movement and often disrupting natural cycles. For example, building roads within a park can interrupt species migration or increase the risk of collisions with vehicles.

Loss of biodiversity – constructions in national parks are often associated with the destruction of natural habitats. This leads to the displacement or extinction of rare animals and plants, harming biodiversity. Interventions in protected areas, such as building hotels, roads, or tourist centers, directly affect the lives of many species that rely on the tranquility and integrity of the wild environment.

Pollution and environmental degradation – tourism and construction are often accompanied by water, soil, and air pollution. Unregulated sewage, noise pollution, and artificial lighting harm wildlife. Waste generated by visitors or surrounding industrial constructions can have long-term effects. Threats to ecological and climate functions – national parks play an important role in maintaining climatic and ecological stability. They serve as the “green lungs” of the planet, helping

filter air and maintain the water cycle. When they are damaged, the surrounding nature loses a critical protective system.

Excessive commercialization – constructions are often promoted as means to develop tourism, but they may benefit private capital more than local communities. Increased commercial activity in national parks often creates conflicts between nature conservation and economic interests.

In this context, in order to improve the situation, engagement and coordination are required from all relevant central and local institutions to ensure that all activities and interventions in protected zones are in harmony with the Law on Nature Protection No. 03/L-233 and other laws and strategic documents concerning protected areas.

Damage from fires – Forest fires represent one of the major challenges for institutions, especially during the summer period. According to various analyses and statistics, over 99% of fires in forests and forested land are caused by human activity, while only 1% are caused by other abiotic factors. During 2024 (see the graph), due to the dry period and human negligence, the forest areas affected by fires showed a significant increasing trend, particularly in comparison with the previous year.

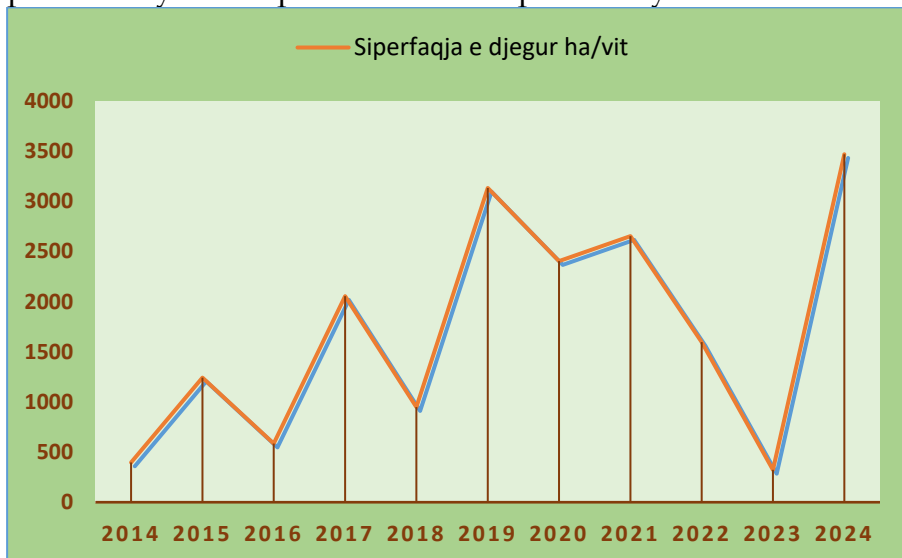


Figure 29. Burned forest area in ha/year

Investment in monitoring, education, protective policies, and public awareness is essential to ensure that forests remain a valuable heritage for future generations. In this regard, the Kosovo Forestry Agency, in cooperation with other institutions responsible for law enforcement, emergency services, and security, has undertaken several measures to prevent and reduce the occurrence and spread of fires in forest areas and surrounding lands. These measures include training and certifying personnel for forest fire suppression and engaging seasonal workers for forest fire protection.

3.5.2. Biodiversity

Our country is rich in biodiversity, playing a crucial role in environmental stability and overall health. Biodiversity is very important not only for maintaining ecosystem balance but also for supporting agricultural productivity and local economies. Diverse landscapes include various rare and endemic plant species, which contribute to genetic diversity and the resilience of these habitats. Moreover, biodiversity is deeply connected with cultural heritage and the traditions of the people, many of whom rely directly on these natural resources for their livelihoods.

Preserving this biodiversity is essential to ensure sustainable development and adaptation to environmental changes, such as climate change. Healthy ecosystems, including their biodiversity, provide clean water, fertile soil, plant pollination, clean air, mitigation of extreme weather, and protection against erosion or floods. Ecosystem services, which deliver multiple benefits, are divided into four categories: provisioning services, such as food and water supply; regulating services, such as climate and disease control; supporting services, such as nutrient cycling and oxygen production; and cultural services, such as spiritual and recreational benefits.

However, the unsustainable use of natural resources in recent decades, driven by socio-economic transition, poses a serious

threat to ecosystems and biodiversity. These concerns need to be integrated into policy-making and decision-making processes.

General Status of Flora – Although vegetation studies have been conducted by various domestic and international authors, a complete inventory of flora has not yet been carried out, and the exact number of plant taxa is unknown. According to notes from different authors, it is estimated that there are approximately **2,800–3,000 vascular plant species** in Kosovo, of which only about one-third have been published to date.

Vegetation – Kosovo's vegetation is classified into 139 associations or phytocenoses, 63 alliances, 35 orders, and 20 classes, representing characteristic ecosystems that also serve as habitats for many animal species. Lowland meadow vegetation is classified into 4 associations belonging to one alliance, one order, and one class. Meanwhile, subalpine and alpine hill meadow vegetation is classified into 65 associations, 33 alliances, 22 orders, and 13 classes.

Fauna – Based on current research and literature records, many wild vertebrate species are present, including fish, amphibians, reptiles, birds, and mammals. High forests and mountain ecosystems provide favorable conditions for the populations of large mammals such as the Brown Bear (*Ursus arctos*), Lynx (*Lynx lynx*), Roe Deer (*Capreolus capreolus*), and Chamois (*Rupicapra rupicapra*), as well as numerous birds of prey and songbirds that are important for the ornithofauna of Kosovo, the Balkans, and Europe. Representative species include the Golden Eagle (*Aquila chrysaetos*), the White-tailed Eagle (*Haliaeetus albicilla* / *Falco naumanni* as noted), and the Western Capercaillie (*Tetrao urogallus*), which also have international protection status.

The fauna of Kosovo includes almost all species present in the Balkan Peninsula. The most represented group of mammals by species number are rodents. The mammal class includes insectivores such as the European Hedgehog (*Erinaceus europaeus*), the European Mole (*Talpa europaea*), the Common

Shrew (*Sorex araneus*), and various rodents including the European Hare (*Lepus europaeus*), Muskrat (*Ondatra zibethicus*), Water Vole (*Arvicola terrestris*), House Mouse (*Mus musculus*), Striped Field Mouse (*Apodemus agrarius*), Wood Mouse (*Apodemus sylvaticus*), and the Edible Dormouse (*Glis glis*), among others.

Carnivores include the Lynx (*Lynx lynx*), Brown Bear (*Ursus arctos*), Wolf (*Canis lupus*), Red Fox (*Vulpes vulpes*), and Wild Cat (*Felis silvestris*). Non-ruminants include the Wild Boar (*Sus scrofa*), while ruminants include the Roe Deer (*Capreolus capreolus*) and Chamois (*Rupicapra rupicapra*). Bats (*Chiroptera*) are very poorly studied. In areas where cameras have been installed, various mammal species have been photographed and recorded.

Data on the presence of wild fauna reflect the actual findings from diversity research. However, there are still significant gaps in information regarding the population sizes of many species, the number of individuals, population trends, and the factors threatening them.

Activities Carried Out for Wildlife Conservation – As part of activities aimed at protecting rare fauna species, the Institute of Nature, in cooperation with the Wildlife-Albanian Photographers Organization, KEDS, and KESCO, carried out activities for the protection of birds. As a result of this collaboration and coordination, a joint activity was conducted to install platforms for nesting birds. In this context, nesting platforms for birds were installed on several electric poles in the area surrounding the Ranillugut Municipality. The platforms are dedicated to the species European Roller (*Coracias garrulus*), and they will serve as shelter and nesting sites, thus contributing to the increase in the population of these species, which are very important for the ornithofauna. This bird species has a wide range, extending from Western Europe and Northwestern Africa to the Indian subcontinent, further to the eastern coast of Asia, and down to Southeast Asia.

4. Environmental Impacts on Population Health

4.1. Public Health - Environmental Diseases

Environmental pollution is one of the main factors affecting public health. Air pollution from emissions of economic operators, transport, household combustion, waste, agriculture, and other pollutants represents one of the key sectors with a high risk to population health. Specifically, air pollution from pollutants such as PM_{2.5}, PM₁₀, NO₂, and SO₂, which are common in urban and industrial areas, has a direct harmful effect on the respiratory and cardiovascular systems, as well as on pregnant women, children, and individuals sensitive to pollution.

According to the latest WHO report on air pollution and health impacts, air pollution continues to be one of the main environmental and health threats globally. Pollution in both outdoor and indoor environments causes approximately 7 million premature deaths every year. It is responsible for numerous diseases, including cardiovascular diseases, strokes, chronic obstructive pulmonary disease, lung cancer, and acute respiratory infections.

In Kosovo, responsible institutions have not yet conducted a comprehensive assessment of health impacts caused by environmental pollution, except for some projects implemented in previous years with support from external donors. The assessment of public health impacts from environmental pollutants falls under the responsibility of the Ministry of Health (MSH) and the Institute of Public Health of Kosovo (IKSHPK).

Infectious diseases continue to be a major challenge for public health, directly affecting population quality of life and increasing the burden on the healthcare system. Analysis of data for 2023 and 2024 provides a clear overview

of the progression of these diseases and helps evaluate the effectiveness of interventions.

During 2023, the highest levels of diseases included: Pneumonia/Acute Respiratory Infection (ARI), Influenza A, Food Poisoning, Gastroenterocolitis, Pertussis, and Group A Streptococcal Infections.

For 2024, the diseases with the highest incidence included: Influenza A H3, RSV, Acute Diarrhea, Rotavirus, Acute Hepatitis B, Epidemic Parotitis (Mumps), Tularemia, Brucellosis, West Nile Virus (WNV), HIV/AIDS, Echinococcus, and Entamoeba histolytica.

When compared as a percentage of the total diseases listed, in 2024, the overall incidence was slightly lower, at 18.76%.

Table 23. Diseases that appeared during the year 2023-2024⁴³

The disease	2023 (No. of cases)	2023 Incidence (New cases in/100.000)	2024 (Nr rasteve)	2024 Inciden ce (New cases in/100.0 00)	Num erical chang e	Changes (%)
COVID-19	2,153	120.81	1,735	97.36	-418	-19.4%
IIPR- Pneumonia/A RI	16,950	951.12	17,646	990.17	+696	+4.1%
SARI	262	14.70	207	11.62	-55	-21.0%
ILI (Flu-like illnesses)	129,315	7256.27	138,825	7789.90	+9,51 0	+7.36%
Influenza A	235	13.19	297	16.67	+62	+26.4%
Influenza AH1N1	47	2.64	0	0.00	-47	-100%
Influenza A H3	1	0.06	3	0.17	+2	+200%
Influenza B	179	10.04	40	2.24	-139	-77.7%
Influenza B/Victoria	29	1.63	1	0.06	-28	-96.6%
RSV	68	3.82	177	9.93	+109	+160.3%
Human Adenovirus	4	0.22	0	0.00	-4	-100%
Diarea akute	82,884	4650.88	108,077	6064.54	+25,1 93	+30.4%

⁴³ IKSHP/Buletini vjetor i semundjeve infektive, 2024

Variçela	10,999	617.19	6,536	366.76	-4,463	-40.6%
Sindromi meningjeal	232	13.02	155	8.70	-77	-33.2%
EHSV	2	0.11	2	0.11	0	0%
EHKK	0	0.00	1	0.06	+1	N/A
Kamptilobakter	1	0.06	0	0.00	-1	-100%
Helmime me ushqim	936	52.52	1,102	61.84	+166	+17.7%
Salmonella enteritidis	76	4.26	46	2.58	-30	-39.5%
Shigelloza	2	0.11	0	0.00	-2	-100%
Adenovirus	0	0.00	21	1.18	+21	N/A
Enterovirus	0	0.00	16	0.90	+16	N/A
Norovirus	0	0.00	3	0.17	+3	N/A
Clostridium difficile	2	0.11	0	0.00	-2	-100%
E.coli (O 157)	0	0.00	0	0.00	0	0%
E coli patogjene	2	0.11	4	0.22	+2	+100%
Rotavirus	73	4.10	93	5.22	+20	+27.4%
Gastroenterokolitet	398	22.33	764	42.87	+366	+91.96%
Acute hepatitis A	3	0.17	2	0.11	-1	-33.3%
Acute hepatitis B	37	2.08	40	2.24	+3	+8.1%
Acute hepatitis C	4	0.22	3	0.17	-1	-25%
Typhoid fever	0	0.00	0	0.00	0	0%
Morbill	1	0.06	1	0.06	0	0%
Mumps	30	1.68	32	1.80	+2	+6.7%
Pertussis	2	0.11	209	11.73	+207	+10,350%
TBC	0	0.00	0	0.00	0	0%
Tularemia	4	0.22	10	0.56	+6	+150%
Brucellosis	33	1.85	55	3.09	+22	+66.7%
Leishmaniasis	7	0.39	1	0.06	-6	-85.7%
Leptospirosis	5	0.28	3	0.17	-2	-40%
Toxoplasmosis	8	0.45	6	0.34	-2	-25%
WNV	1	0.06	7	0.39	+6	+600%
Malaria	3	0.17	4	0.22	+1	+33.3%
Lyme disease	12	0.67	8	0.45	-4	-33.3%
TB	585	32.83	466	26.15	-119	-20.34%
HIV/AIDS	20	1.12	34	1.91	+14	+70%
IST	480	26.93	400	22.45	-80	-16.6%
Echinococcus	2	0.11	5	0.28	+3	+150%
Mpox	0	0.00	1	0.06	+1	N/A

Parasitosis	20	1.12	0	0.00	-20	-100%
Ascariasis	7	0.39	0	0.00	-7	-100%
Giardiasis	46	2.58	30	1.68	-16	-34.8%
Entameba Hystolitica	1	0.06	2	0.00	+1	+100%
Clostridium difficile	2	0.11	0	0.00	-2	-100%
Group A streptococcal infections	0	0.00	119	6.68	+119	N/A
Other contagious diseases	178	9.99	223	12.51	+45	+25.3%
Total	245,754	13790.02	277,412	15566.4 5	+31,6 58	+12.9%

4.2. Drinking water quality

According to the most recent reports, the quality of drinking water in Kosovo is at a satisfactory level for the majority of the population served by public water supply systems. According to the latest report from the National Institute of Public Health of Kosovo (IKSHPK), compliance with drinking water quality standards reached 98.84% in 2024, with an ongoing trend of improvement year by year. This means that, in most parts of the country, the water coming from citizens' taps is safe for consumption, as it is regularly monitored and controlled by the relevant authorities. The parameters checked include microbiological and physico-chemical analyses, which must be within the limits set by national legislation and the European directives on drinking water.

Water treated in centralized systems, such as in Prishtina and Mitrovica, meets all the prescribed standards and is considered safe for consumption. Water treatment and disinfection are carried out regularly, and laboratory results show that the chemical and bacteriological parameters are within the allowable limits.

However, quality issues have been observed in some rural areas and in specific cases, especially in certain municipalities such as Klinë or some villages in Deçan, where microbiological or

chemical contamination has been reported due to old infrastructure, source pollution, or inadequate water treatment. Additionally, water from private wells, particularly untreated water, can be hazardous for consumption without prior testing, as it is often not subject to regular monitoring and may contain harmful pollutants or microorganisms.

According to reports and field observations, bottled water in Kosovo is not always safe and often does not meet the required standards. Therefore, it is recommended that consumers exercise caution and primarily use water treated by public water supply systems.

The responsible institution, IKSHPK, plays a key role in monitoring and ensuring the quality of drinking water by conducting regular analyses and taking measures in case of water quality risks.

Kosovo's strategic goal is to increase water quality compliance to 99.5% and ensure access to safe water for 90% of the population by 2027.

In conclusion, drinking water from public water supply systems in Kosovo is considered safe and of good quality for consumption, while caution should be exercised with water from independent sources, such as wells, which require regular testing before use.

As presented in Table 24, in 2024, the compliance rate (%) of microbiological and physico-chemical analyses of drinking water with local quality standards was reported for each of the Regional Water Utility Companies (RWU) in Kosovo, showing a significant improvement compared to the previous year.

Table 24. Rate (%) of compliance of bacteriological and physico-chemical tests with local water quality standards of RWCs, 2024⁴⁴

Regional Companies		Microbiological	Physico-Chemical	Average for RWC
1.	RWU - Prishtina	98.9%	99.5%	99.2%
2.	RWU - Southern Hydroregion	100.0 %	100%	100.0%
3.	RWU - Hidrodrini	97.3%	94.8%	95.9%
4.	RWU - Mitrovica	99.5%	99.8%	99.7%
5.	RWU - Gjakova	100 %	100.0%	100.0%
6.	RWU - Bifurkacioni	95.8%	96.7%	96.3%
7.	RWU - Khidromorava	99.7%	99.0%	99.4%
RWU - Overall average		98.9%	98.0%	98.84%

The overall average for all RWC s is very high: 98.9% for microbiological parameters and 98.0% for physico-chemical parameters, with an overall average of 98.84%. This indicates that water distributed by public systems is almost fully compliant with the required standards and is safe for consumption in the vast majority of cases.

RWC Southern Hydroregion and RWC Gjakova achieved 100% compliance in both parameters in 2024, demonstrating excellent performance. RWC Prishtina, Mitrovica, and RWC Hidromorava recorded values above 99%, which are considered very high and indicate good quality control. RWC Bifurcation and RWC Hidrodrini had slightly lower values, at 96.3% and 95.9% respectively, suggesting isolated cases where water did not fully meet the standards, but the overall level remains satisfactory.

⁴⁴ Niveli i shërbimeve të ofruara nga ofruesit e licencuar- Përputhshmëria me kushtet e licencës, ARRU 2024

The microbiological parameter is crucial for health safety, as bacterial contamination can cause immediate illnesses. Values above 95% indicate good control, but any deviation must be addressed with immediate measures.

The physico-chemical parameter relates to the chemical composition of water (such as nitrates, metals, etc.). Values above 94% shown in the table are clearly very good, but continuous monitoring is required, especially in areas with deviations.

The data indicate a very high level of safety and quality of drinking water across all major regions of Kosovo, with minor differences possibly linked to local factors such as infrastructure, water sources, or network management. Any deviation from 100% should serve as a signal for further improvement, but overall, consumers can trust the water distributed by these companies.

Compared to the previous year, the overall quality of drinking water provided by the Regional Water Utility Companies in Kosovo has improved in 2024, increasing from an average of 96.6% to 98.84%, as a result of noticeable improvements in both microbiological and physico-chemical parameters.

4.3. The impact of air quality on health

Air pollution affects the quality of life for every individual. Exposure to polluted air can, depending on a person's health status, lead to impaired lung function, respiratory infections, lung cancer, onset or worsening of asthma, and a sense of disharmony between the body and the environment, among other health effects.

A portion of the population still lives in poor socio-economic conditions, which indicates that this group may be more vulnerable due to limited financial resources for healthcare and living in areas with lower air quality.

Reference values for air quality, as defined by national legislation, the EU Air Quality Directive, and the World Health Organization (WHO), are presented in the following table.

Table 25. National, EU and WHO reference standards for air quality

Pollutant	Limit values	Administrative Instruction No. 02/2011	EU Air Quality Directive 2015/1480	WHO Instructions 2021
PM _{2.5}	Annual	25 µg/m ³	25 µg/m ³	5 µg/m ³
	Daily (24 h)	-	-	15 µg/m ³
PM ₁₀	Annual	40 µg/m ³	40 µg/m ³	15 µg/m ³
	Daily (24 h)	50 µg/m ³	50 µg/m ³	45 µg/m ³
O ₃	Peak season ⁴⁵	-	-	60 µg/m ³
	8-orëshe	120 µg/m ³	120 µg/m ³	120 µg/m ³
NO ₂	Annual	40 µg/m ³	40 µg/m ³	10 µg/m ³
	1 hour	200 µg/m ³	200 µg/m ³	200 µg/m ³
SO ₂	Daily (24 h)	125 µg/m ³	125 µg/m ³	20 µg/m ³
	1 hour	350 µg/m ³	350 µg/m ³	-
CO	8-hour	10 mg/m ³	10 mg/m ³	10 mg/m ³

During 2024, the European Environment Agency (EEA) published the report "Air Quality in Europe 2024: Health Impact of Air Pollution." The report also refers to air quality monitoring data from the national network managed by KHMI and includes an assessment of the health impact of air pollution for Kosovo. According to the report, exposure to PM_{2.5} concentrations was associated with 2,370 premature deaths, while exposure to NO₂ concentrations was associated with 240 premature deaths. Compared to the 2023 assessment, there has been a decrease in the annual concentrations of PM_{2.5} and NO₂ pollutants, as well as a reduction in deaths related to these pollutants.

⁴⁵ The sixth consecutive month of the year with the highest ozone concentration over the last six months.

Table 26: the correlation of premature deaths with the level of air pollution concentration⁴⁶

	Evaluation 2024			Evaluation 2023		
	Kosova	BE 27	Europe, Total	Kosova	EU 27	Europe, Total
Annual average $\mu\text{g}/\text{m}^3$ (PM2.5)	16.5	11.4	11.5	19.40	11.2	11.4
Premature deaths (PM2.5)	2,370	239,000	269,000	3,059	237,810	274,673
Annual average $\mu\text{g}/\text{m}^3$ (NO2)	13.6	14.1	15.7	14.4	14.1	15.7
Premature deaths (NO2)	240	48,000	66,000	264	48,555	64,312

⁴⁶ "Air quality in Europe 2024, Health impact of air pollution", EEA 2024 (<https://www.eea.europa.eu/en/topics/in-depth/air-pollution/air-pollution-country-fact-sheets-2024/kosovo-air-pollution-country-fact-sheet-2024>)

5. The state of endangered environments

5.1. Environmental situation in the KEK operation area

The environmental aspects throughout the entire energy production chain at KEK are extremely sensitive and complex due to the large scale of its operations. Pollution from dust and gas emissions from thermal power plants, the occupation of agricultural land due to mining activities, noise pollution, the disposal of large quantities of ash, the use of technological oils, and the considerable consumption of water for technological processes – which is often accompanied by water pollution – position KEK as one of the most significant and simultaneously most challenging environmental actors in the country. Among the key operational indicators, such as coal utilization and energy production, pollutant emissions into water are major factors showing that the environment in this area is under continuous pressure from pollution.

Table 27. KEK's main operating indicators during the year 2024⁴⁷

Indicators	2023	2024
Annual electricity production from `TC Kosova A`	2,290,512 (MW/h)	2,221,294 (MW/h)
Annual electricity production from `TC Kosova B`	3,243,685 (MW/h)	3,957,078 (MW/h)
Total lignite consumption	7,437,452 (t)	-
Total amount of ash produced	1,086,754 (t)	1,228,337 (t)
Consumption of decarbonated and demineralized water `TCA` and `TCB`	19,373,762 (m ³)	19,045,965 (m ³)

During daily operations at the thermal power plants, as well as during the coal exploitation process at the DPQ and electricity production, varying amounts of waste are generated. This waste includes not only residues resulting from the production process

⁴⁷ Annual Report on the State of the Environment at KEK, 2024

but also those created as a consequence of equipment renovation, maintenance interventions, and repairs of technical and technological defects.

Table 28. Metal waste, batteries, oils, grease, throughout the year 2024

Power Plants -2024	Metal waste, batteries, oils, grease, throughout the year 2024	Quantity
Discarded materials at TCA	Stationary Batteries - Industrial	1,360.00 (kg)
	Vehicle Batteries	900.00 (kg)
Discarded materials at TC-B	Waste Oils	49,312 (lit.)
	Oils Polychlorinated Biphenyls-PCB	20,000 (lit.)
	Various Metal Waste	1,300 ton
	Stationary Industrial Batteries	5,025 kg
Discarded oils in DPQ	Engine Oil	1100 (lit.)
	Engine Oil	2770 (lit.)
	Hydraulic Oil	360 (lit.)
	Gearbox Oil	200 (lit.)
	Hydraulic Oil	3195 (lit.)
Fat in DPQ	Grease	360 (lit.)
Discarded metal waste in the DPQ	Heavy Vehicle Batteries	2,400.00 (kg)
	Vehicle Batteries	600.00 (kg)
	Motor Vehicles	335,000.00 kg

According to the data from the relevant table, significant quantities of various oils have been accumulated in the TC-B warehouses, extracted from different equipment and machinery. These oils are classified as unusable and constitute potentially hazardous waste for the environment. Due to their nature and the risk they pose to the workplace and the surrounding environment, urgent measures are required to manage them in accordance with the applicable environmental protection standards.

Environmental pressure in this area also arises from the discharge of pollutant emissions and dust particles.

Table 29. Annual air emissions for pollutants SO₂, NO_x and total dust from `TCA` and `TCB` 2023-2024

TC	SO ₂ (t/year)		NO _x (t/year)		Total dust (t/year)	
	2023	2024	2023	2024	2023	2024
Total	10,495 (t/year)	11,712.2 (t/year)	11,384.7 (t/year)	16,852.29 (t/year)	4,742.99 (t/year)	5,605.32 (t/year)

5.2. Environmental situation in the Ferronikeli area of operation

During 2024, the Feronikel factory was not operational, which means that from January to December of this year, no production activities took place. As a result, regular monitoring of key environmental parameters, including air, water, and soil quality, was not conducted, and no measures were taken to minimize potential environmental impacts. However, the current condition of the company's waste sites remains a concern, particularly the slag landfill and the Gllavica mine. These locations pose a potential risk of environmental pollution and require special attention and appropriate interventions to prevent further damage to the environment and public health.

5.3. Environmental situation in the Sharrcem operation area

In 2024, Sharrcem was re-licensed for the second time after fulfilling all environmental requirements for the Integrated Permit, Prevention and Integrated Pollution Control (IPPC), issued by the Ministry of Environment and Spatial Planning. This permit, which will remain valid for the next 10 years, demonstrates Sharrcem's commitment to comply with the highest environmental standards and responsibly manage its environmental impacts.

Air emissions – During 2024, SO_x and NO_x emissions from Sharrcem remained within the limits set by the IPPC permit and European Union regulations. Compared to 2023, the average NO_x emissions increased by 24%, reaching 422 mg/Nm³, while the permitted limit remains 500 mg/Nm³. On the other hand, the average SO_x emissions decreased by approximately 35%, reaching 106 mg/Nm³, which is still below the allowed limit of 200 mg/Nm³.

Water management – Sharrcem made significant progress in water management. During 2024, the company invested substantially in water recycling systems and improvements to the existing water network, leading to more efficient water use. These improvements were accompanied by the development and implementation of advanced water management systems, including the installation of new meters for expanded monitoring.

Moreover, water consumption was reduced by approximately 50% compared to 2023 thanks to investments in upgrading the factory's water network infrastructure. In 2024, a feasibility study for surface water treatment was also conducted. Across all measured indicators, water consumption in 2024 decreased compared to 2023. Total and specific water consumption dropped nearly 50%, reflecting significant improvements in water use efficiency.

Wastewater discharge – Discharges from the wastewater treatment plant (WWTP) decreased relative to consumption, indicating that a large portion of the water used is being treated and recycled. Total water discharge from the WWTP decreased by 6,000 m³ between 2023 and 2024. Overall, this reduction in discharges can be considered a positive indicator of improved water management and reduced environmental impact.

Table 30. Changes in measurement indicators for the years 2023-2024⁴⁸

Indicator	2023	2024	Changes (difference)
Total water consumption (1,000 m ³ /year)	107,000 m ³ /vit	54,000 m ³ /vit)	Reduction of 53,000 m ³ /year
Specific water consumption for cement products (L/t cement)	154 l/t	78 l/t	Reduction of 76 L/t
Total water discharge from the WWTP (1,000 m ³ /year)	24,000 m ³	18,000 m ³	Reduction of 6,000 m ³ /year

Waste management – during 2024, there was a reduction in the generation of several waste categories such as scrap, demolition waste, and wooden pallets. These changes may indicate improvements in processes, increased recycling, and more efficient use of materials. However, some categories, such as refractory bricks for kiln lining, recorded a significant increase, which may be related to changes in production processes, increased demand for this material, or limitations in its recycling possibilities.

Table 31. Waste generation by category from Sharrcem for the year 2024

Year	Mixed municipal waste (t/y)	Scrap (t/y)	Bricks for kiln masonry (t/y)	Torn cement bags (t/y)	Paper and cardboard (t/y)	Demolition waste (t/y)	Wooden pallets (m3/y)	Used oils (t/y)
2023	59.8	211.8	274.0	22.7	2.7	506.8	30.8	0.3
2024	59.7	171.08	720.6	22.7	2.7	267.2	14.3	0.2

⁴⁸ Annual Environmental Report, Sharrcem - 2024

5.4. Other forms of hazardous environments

In the Republic of Kosovo, there exists a certain number of developed mines (key mines), as well as a number of previously assessed but undeveloped deposits. The developed (key) mines are: the “Trepça” mines in Stanterg, Hajvalia, Badovci, Kizhnica, Artana, Bellobërda, and Cërnaci. These mines are assessed as having a significant environmental impact. The waste created from mining operations, industrial production, and urban waste represents one of the highest environmental pressures. The exploitation of mines, especially those rich in lead, zinc, and other heavy metals, has resulted in massive generation of waste with high concentrations of heavy metals.

This waste has been deposited in various locations, some of which present a potential risk of contamination of agricultural lands, water sources, watercourses, residential areas, etc. To these environmentally hazardous deposits are added urban waste sites that operate without compliance with environmental legislation standards.

The total amount of hazardous waste from the concentration of mineral ores is approximately 60 million tons, deposited in eight landfills: Kelmend Mitrovicë; Gornje Polje Zveçan; Zhitkoc Zveçan; Bostanishte Leposaviq; Gornji Kërnjin Leposaviq; Staro Jalovishte Kizhnicë; Badovc; and Mareci 1 & 2 Artanë. The Artanë, Hajvali, Badovc, and Kishnicë mining complex extends in the eastern part of the country over an area of about 400 km², including the territories of several municipalities: Graçanicë (mines Hajvalia, Badovci, Kizhnica and the Kizhnica flotation plant), Artanë (Artana mine and the mineral-bearing fields Përroi i Thartë and Kaltrina), and Podujevë (the “Çuka e Batllavës” mine under development). The Cërnac and Belo Bërd mines are located in northern Kosovo, while the combined flotation plant of these mines is situated in Leposaviq. The entire area is, in varying degrees, under pressure from pollutant emissions, particularly heavy metals.

The environmental pressure is further increased by the storage of hazardous waste located in 17 different sites, generated and inherited from various sectors. Although some of these are monitored by the Ministry of Environment, Spatial Planning and Infrastructure (MESPI), the Kosovo Security Forces (KSF), and KFOR, this waste represents a highly dangerous pollution source for both the environment and public health. Since 1999, the hazardous waste located in these sites has not been disposed of or properly treated.

Another environmental issue is illegal waste landfills. According to reports submitted by 30 municipalities of Kosovo for 2024, there are a total of 458 illegal landfills. This number is likely higher, considering that 8 other municipalities did not report on the existence of illegal landfills in their territories. Illegal landfills have been identified in various locations, such as near settlements, rivers, natural areas, and roads.

6. Implementation of the Strategy, Action Plan, and Environmental Remediation Plans

6.1. Implementation of Environmental Strategies and Plans

Table 32: Level of implementation of strategies and action plans for the environmental sector for 2024

Strategy/Plan	Validity period	Document status	Level of implementation
Strategy for Environmental Protection and Sustainable Development Part of the strategy also includes the Air Quality Strategy and the Biodiversity Strategy.	2023-2033	In the process of drafting	In the process of drafting - reviewing
Strategy for Integrated Waste Management in Kosovo	2024-2035	Approved by the Government of	Implemented continuously

		the Republic of Kosovo	
Action Plan for Integrated Waste Management in Kosovo	2024-2026	Approved by the Government of the Republic of Kosovo	Implemented continuously
Climate Change Strategy and Action Plan for Kosovo	2018-2027	Approved by the Government of the Republic of Kosovo Decision, No.05/90, date 19.02.2019	Implemented continuously
Revision of the State Water Strategy of Kosovo – Review for the Period 2023-2027	2023-2027	Approved by the Government of the Republic of Kosovo	Implemented continuously
Water Action Plan	2023-2025	Approved by the Government of the Republic of Kosovo	Implemented continuously
National Energy and Climate Plan of the Republic of Kosovo (First Draft)	2023-2025	In the process of drafting	In the process of drafting
Spatial Plan of Kosovo – Strategy for the Spatial Development of Kosovo (Revision of the 2010-2020 Plan+)	2023-2028	Under review	Under review
Spatial Plan for the “Bjeshkët e Nemuna” National Park	2023-2033	Approved by the Assembly of the Republic of Kosovo. Published in the Official Gazette on 05.07.2023	In the initial phase
Management Plan for the “Sharri” National Park	2015-2024 (Under review)	Approved by the Ministry of Environment and Spatial Planning	Partially

6.2. Implementation of Local Environmental Plans

Table 33: Environmental Plans at the Local Level 2024

Municipality	Local Action Plan for Environment	Local Action Plan for Wastes	Local Action Plan for Biodiversity	Local Action Plan for Air Quality	Local Mobility Plan
Deçan	+	+	-	-	-
Dragash					
Drenas	+	+	-	+	+
Fushë Kosovë	-	+	-	+	+
Ferizaj	+	+	-	-	Draft
Gjakovë	+	+	+	Draft	-
Gjilan					
Gracanicë					
Hani i Elezit	+	+	-	+	-
Istog					
Junik	-	-	-	-	-
Kaçanik					
Kamenicë	Draft	+	-	-	-
Klinë	Draft	+	-	Draft	-
Kllokot					
Lipjan	Draft	+	-	-	-
Malishevë					
Mamushë					
Mitrovicë e Jugut	+	+	-	-	+
Novobërdë					
Obiliq	Draft	+	-	+	-
Partesh					
Pejë					
Podujevë					
Prishtinë					
Prizren					
Rahovec	+	+	+	+	+
Ranillug	Draft	+	-	-	-
Shtërpce					
Shtime	+	+	+	-	-
Skënderaj					

Therandë					
Viti	+	+	Draft	-	+
Vushtrri	+	+	-	-	Draft
North Mitrovica					
Zubin Potok					
Zveçan					
Leposaviq	-	-	-	-	-

7. Measures Taken for Environmental Protection, Achievements from the Implemented Measures, and Their Impact on Economic Development

7.1. Drafting of State Environmental Legislation

With the aim of protecting the environment and promoting sustainable development, the Assembly of Kosovo, the Government together with the Ministry of Environment, Spatial Planning and Infrastructure (MESPI), the Ministry of Agriculture, Forestry and Rural Development (MAFRD), and the Ministry of Economy (ME) have, during 2024, adopted a series of laws and subordinate acts aimed at strengthening the legal framework for environmental protection in Kosovo.

This legislation has been drafted to ensure the preservation and sustainable management of natural resources, protection of biodiversity, improvement of air and water quality, pollution reduction, and promotion of the use of renewable energy. In particular, these measures have a direct impact on citizens' quality of life by reducing pollution and contributing to the protection of public health.

Through five laws adopted by the Assembly of Kosovo, new standards have been established in key areas of environmental protection, including the promotion of renewable energy, energy performance of buildings, climate change, and road management in accordance with sustainable development principles. In this context, the **Law on Climate Change** aims to create a strong legal basis for pollution reduction and climate adaptation, while the **Law on Promoting the Use of Renewable**

Energy Sources encourages investments in alternative and clean energy sources.

Furthermore, the Ministry of Environment, Spatial Planning and Infrastructure has issued six administrative guidelines addressing important issues such as industrial pollution control, setting air quality standards, and monitoring the technical compliance of vehicles to reduce their environmental impact. These guidelines support the implementation of environmental standards in line with best international practices.

On the other hand, the Ministry of Agriculture, Forestry and Rural Development has taken measures to regulate forest management, the use of artificial fertilizers, and biodiversity conservation, including issuing guidelines for the assessment and compensation of animals destroyed due to infectious diseases. These measures are important for preserving natural ecosystems and ensuring the sustainable use of natural resources.

The Ministry of Economy has contributed with an administrative guideline regulating the competitive bidding process for providing support to renewable energy, aiming to create favorable conditions for investments in this sector and promote a cleaner and more sustainable economy.

This legislation represents an important step toward meeting environmental standards and aligning with European legislation, improving the quality of life for the citizens of Kosovo, and creating a strong foundation for sustainable economic development.

Through these measures, Kosovo aims to reduce the negative impacts of pollution, protect natural resources, and promote a green economy that ensures the well-being of future generations.

Table 34: Environmental Laws approved by the Assembly of Kosovo during the year 2024

Name of the Law	Date of Publication
Law No. 08/1-283 on Harmonization of Special Laws with Law No. 05/1-087 on Misdemeanors	26.12.2024
Law No. 08/1-242 on Energy Performance of Buildings	12.06.2024
Law No. 08/1-258 on Promotion of the Use of Renewable Energy Sources	02.05.2024
Law No. 08/1-250 on Climate Change	05.01.2024
Law No. 08/1-275 on Roads	20.11.2024

Table 35: Administrative instructions issued by MESPI

Name of the administrative instruction	Publication date
Administrative Instruction (MESPI) No.18 /2024 on the Form, Content and Manner of Completing the Application for Integrated Environmental Permit	16.12.2024
Administrative Instruction (MESPI) No.17/2024 on setting the Tariff Value for Services Related to the Integrated Pollution Prevention and Control Process	28.10.2024
Administrative Instruction (MESPI) No.16 /2024 for Limit Values, Target Values, Alert Thresholds for Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Air	02.10.2024
Administrative Instruction (MESPI) No.01/2024 for the Control of the Technical Regularity of Vehicles on the Road	07.03.2024
Administrative Instruction (MESPI) No.03/2024 on the Criteria for Selecting the Location of Landfills and the Technical Conditions According to Their Destination	05.03.2024
Administrative Instruction (MESPI) No.02/2024 on Determining the Conditions, Criteria and Procedures for Issuing Permits for Import, Export and Transit of Waste	01.03.2024

Table 36: Administrative Instructions issued by the Ministry of Agriculture, Forestry and Rural Development

Name of the administrative instruction	Publication date
Administrative Instruction (MAFRD)-No. 13/2024 on the evaluation and compensation of animals destroyed due to infectious diseases	27.08.2024
Administrative Instruction (MAFRD)-No.24/2024 on amending and supplementing Administrative Instruction No.16/2013 on the reproduction of farm animals	15.08.2024
Administrative Instruction (MAFRD) – No. 23/2024 on the Amendment and Supplementation of Administrative Instruction (MAFRD) – No. 02/2004 on Setting Conditions for the Licensing of Importers, Marketing, and Storage of Artificial Fertilizers	15.08.2024
Administrative Instruction (MAFRD) - No. 08/2024 on Forest Conservation, Responsibilities and Obligations of the Forest Ranger	11.04.2024
Administrative Instruction (MAFRD) - No. 07/2024 on the Kosovo Forest Information System	21.03.2024

Table 37: Administrative instructions - Ministry of Economy

Name of the administrative instruction	Publication date
Administrative Instruction No. 01/2024 on the Competitive Bidding Process for the Provision of Support for Renewable Energy	17.12.2024

7.2. Inspection and control of law enforcement

Inspection and control of law enforcement

Within the framework of implementing environmental legislation in the fields of environment, water, nature, spatial planning, and construction, at the central level, the Inspectorate for Environment, Water, Nature, Spatial Planning, and Construction / Ministry of Environment, Spatial Planning, and Infrastructure, in accordance with its official duties, conducted in 2024: 649 inspection supervisions with official reports, 164 decisions, and 247 fines for violations.

Table 38: Inspections and Other Legal Procedures

Type of Inspection Activity in the Field of Environmental Protection	Number of activities 2023	Number of activities 2024
Inspection supervision with minutes	355	388
Decisions	141	100
Misdemeanor fines	153	113
Type of inspection activity in the field of water protection	Number of activities 2023	Number of activities 2024
Inspection supervision with minutes	240	199
Decisions	91	57
Misdemeanor fines	133	124
Type of inspection activity in the field of nature protection	Number of activities 2023	Number of activities 2024
Inspection supervision with minutes	30	22
Decisions	1	3
Misdemeanor fines	12	10
Type of inspection activity in the field of spatial planning and construction	Number of activities 2023	Number of activities 2024
Inspection supervision with minutes	49	40
Decisions	9	4
Misdemeanor fines	8	0

During 2024, for damages caused to natural resources, the Directorates of the Sharri and Bjeshkët e Nemuna National Parks have filed a total of 87 cases with the Basic Courts and Prosecutor's Offices with the claim that criminal law, misdemeanor law and material damage to the institution have been violated, of which 85 were reports and 2 requests for the initiation of misdemeanor proceedings. The total value of the claimed damage is 183,114.80 euros.

Table 39: Criminal Reports to Basic Prosecutor's Offices for Damages to Natural Resources in Kosovo 2023– 2024

Type of activity	Number of cases 2023	Amount of Damage	Number of cases 2024	Amount of Damage
Criminal reports at the Basic Prosecution Office in Ferizaj	50	166,613.00 €	43	107,351.40 €
Criminal Reports to the Basic Prosecutor's Office in Prizren	22	30,755.50 €	23	24,056.00€
Criminal Reports to the Basic Prosecutor's Office in Pejë	516	1,589,447.65 €	19	50,380.40 €
Requests to Initiate Misdemeanor Proceedings at the Basic Court in Prizren	4	10,000.00 €	2	1.327.00 €
Requests to Initiate Misdemeanor Proceedings at the Basic Court in Ferizaj	1	1,071.00 €	-	-

At the local level, out of the 38 municipalities of the Republic of Kosovo, regarding the implementation of environmental legislation in the fields of environment, water, nature, spatial planning, and construction, only 15 municipalities reported. From the municipalities that reported for the year 2024, the following were carried out at the local level:

- 1,512 inspection supervisions with official reports;
- 988 inspection assistances;
- 102 decisions;
- 95 mandatory fines;
- 41 administrative fines;
- 499 recommendations, orders, and warnings;
- 1 court initiation.

Table 40: Inspections and Other Legal Procedures at the Local Level 2024

Inspection activities for 2024	Inspections with minutes	Assistance in inspections	Decisions	Mandatory fines	Administrative fines	Recommendations, orders and remarks	Court Initiations
Deçan	55	76	21	6	-	55	-
Dragash							
Drenas	122	170	1	14	0	97	0
Fushë Kosovë	27	41	-	2	-	27	-
Ferizaj	443	-	25	25	25	234	-
Gjakovë							
Gjilan							
Gracanicë							
Hani i Elezit	38	10	1	0	0	5	0
Istog							
Junik	15	11	-	-	8	1	-
Kaçanik							
Kamenicë	43	152	14	18	-	4	-
Klinë	73	73	-	10	-	-	1
Klllokot							
Lipjan	129	-	-	12	-	-	-
Malishevë							
Mamushë							
Mitrovicë e Jugut	402	-	4	-	6	-	-
Novobërdë							
Obiliq							
Partesh							
Pejë							
Podujevë							
Prishtinë							
Prizren							
Rahovec	93	140	30	16	2	15	-
Ranillug	4	1	-	2	-	3	-
Shtërpce							
Shtime	40	-	5	5	-	-	-
Skënderaj							
Therandë							

Viti	28	314	1	5	0	13	0
Vushtrri							
North Mitrovica							
Zubin Potok							
Zveçan							
Leposaviq	-	-	-	-	-	-	-
Total	1512	988	102	115	41	499	

7.3. Permission Permits Issued by MESPI

According to data from MESPI, during 2024 activities were carried out in all relevant fields. Based on the authorizations of environmental legislation, during 2024 the following were issued:

- 110 environmental consents for VNM;
- 7 environmental consents for VSM;
- 82 environmental permits;
- 5 integrated permits;
- 1 permit for traders and intermediaries of non-hazardous waste;
- 22 water consents;
- 21 water use permits;
- 20 water discharge permits;

More detailed data on permitting activities in the fields of environment, waste, and water are presented in the following table.

Table 41: Permitting Activities During the Year 2023 – 2024

Activities for Environmental Consents	2023	2024
Applications accepted for EIA Environmental Consents	127	164
Applications approved for EIA Environmental Consents	29	110
Applications rejected for EIA Environmental Consents	7	9
Applications accepted for SEA Environmental Consents	13	7
Applications approved for SEA Environmental Consents	4	7
Applications rejected for SEA Environmental Consents	1	0
Environmental Permit Activities	2023	2024
Applications received for Environmental Permits	171	177
Approved applications for Environmental Permits	108	82
Rejected applications for Environmental Permits	45	15
Completion of administrative procedures	60	89
In procedure	-	-
Integrated Environmental Permit Activities	2023	2024
Applications received for Integrated Environmental Permits	-	1
Applications approved for Integrated Environmental Permits	-	5
Applications rejected for Integrated Environmental Permits	-	6
In procedure	-	1
Environmental Authorization Activities	2023	2024
Applications received for Environmental Authorizations	3	4
Approved Applications for Environmental Authorizations	-	1
Rejected Applications for Environmental Authorizations	-	6

In procedure	3	-
Permitting activities in the field of waste	2023	2024
Application for a permit for traders and mediators for non-hazardous waste	7	2
Granting a permit for traders and mediators for non-hazardous waste	6	1
Rejection of a permit for traders and mediators for non-hazardous waste	1	1
Permitting Activities in the Field of Water	2023	2024
Water Conditions	0	5
Water Consents	25	22
Water Permit for Use	56	21
Water Permit for Discharge	53	20
Water Permit Extensions	10	1

8. Management of Natural Resources and Environmental Protection

8.1. Utilization of Water Resources

The largest consumers of water resources are major industrial operators, such as KEK, NewCo Ferronikeli, Sharrcem, etc. NewCo Ferronikeli did not have production activities in 2024, and therefore there was no environmental monitoring, and consequently, no annual environmental report for 2024. Most of these operators are supplied with water from surface reservoir lakes.

Table 42. Water Utilization 2023–2024 by Major Industrial Enterprises⁴⁹

Users	Amount of Water Used (m ³ /year) 2023	Amount of Water Used (m ³ /year) 2024
Kosovo Energy Corporation - KEK	16097678*	18042349
New Co FERRONIKEL	1552307	54537
SHARRCEM	107467	/
Total	17757452	18096886

Regarding the use of water for drinking and household purposes, seven regional water companies (RWCs) licensed by the Water Services Regulatory Authority (WSRA) operate to provide these services, and 32 municipalities benefit from the services of these companies. The total water production distributed by the regional companies in 2024 was 198,710,307 m³, which is higher compared to 183,413,830 m³ in 2023. It is

⁴⁹ Annual reports on the state of the environment, New Co Feronikeli

worth noting that from 2023, the northern part of the country has also been included.

Clarification: In the Kosovo Energy Corporation, water used in the electricity production process, specifically for cooling, is decarbonized to prevent corrosion.

8.2. Utilization of Forest Resources

According to assessments, reports, and analyses prepared by the Kosovo Forestry Agency (KFA), as well as other competent authorities, the condition of forest areas is stable. According to data from the national forest inventory, forests cover approximately 481,000 hectares, or 44.7% of Kosovo's total area. Of this total forest and forest land area, 295,200 hectares are state-owned forests and 180,800 hectares are privately-owned forests. The forests of Kosovo are a source of timber used for heating, industry, and other activities.

During 2024, the KFA did not carry out afforestation activities funded by its budget (due to a failed tender, as no economic operators showed interest), but 0.95 hectares were afforested through the CNVP organization.

According to data from the Kosovo Forestry Agency, a total of 91,759.7 m³ of timber was utilized from state and private forests in 2024 (details are provided in the table below).

In 2024, the Regional Coordinating Directorates of the KFA confiscated 1,194.18 m³ of timber, of which 125.51 m³ was technical wood and 1,068.67 m³ was firewood.

Illegal logging (cutting) and other illegal activities in forests and forest lands remain among the main challenges of the forestry sector and forest management in general.

Table 43. Amount of Timber (m³) Utilized by the Regional Coordinating Directorates of the KFA and Sectors for the Year 2024

Serial Number	Directorate of KFA	State forests (m ³)	Private forests (m ³)
1	Prishtinë	0	9694.10
2	Mitrovicë	80.50	32230.90
3	Pejë	3053.71	2911.55
4	Prizren	1918	1795
5	Ferizaj	5546.69	1893.02
6	Gjilan	4394.48	24301.30
7	DMKE	3606.15	334.42
Total		18.599.53	73160.17

Regarding the utilization of non-timber forest products, including medicinal and aromatic plants, in terms of quantities collected, areas, and export volumes, please contact the MAFRD, specifically the Department of Economic Analysis and Agricultural Statistics, and refer to the Green Report of MAFRD for the data.

8.3. Utilization of Mineral Resources

Based on official data received from the Commission for Mines and Minerals for 2024, the exploitation of mineral resources in the Republic of Kosovo has been present and active in several categories of raw materials, which are classified according to their nature into: metallic minerals, energy minerals, and industrial and construction minerals. This activity represents an important segment of economic development and serves as a significant indicator for assessing the use of natural resources.

8.3.1. Metallic Minerals

During 2024, among metallic minerals, lead and zinc ore (Pb-Zn) held the primary position, with a reported quantity of 170,042.48 tons, making it one of the most exploited and economically significant minerals in the country. Additionally, a smaller quantity of nickel and cobalt ore (Ni-Co) was reported at 370.55 tons, while no exploitation activity was reported for chromium ore (Cr₂O₃) during this year.

8.3.2. Energy Minerals

The exploitation of lignite (soft coal) remains the main pillar of energy supply in Kosovo. For 2024, the total amount of lignite utilized reached 8,106,057.00 tons, positioning this resource as the most important for local energy and representing a significant activity in the overall use of natural resources.

8.3.3. Industrial and Construction Minerals

This category shows broad economic activity, with high levels of exploitation of raw materials for construction and processing industries:

- **Limestone:** 6,552,562.00 m³;
- **Clay:** 684,097.65 tons;
- **Andesite:** 240,438.34 m³;
- **Marl:** 159,576.70 m³;
- **Basalt:** 24,748.11 m³;
- **Diabase:** 31,205.02 m³;
- **Sand and Gravel:** 17,834.01 m³.

Table 44. Industrial and construction minerals

Minerals	Unit	2024
Andesite	m ³	240,438.34
Basalt	m ³	24,748.11
Clay	t	684,097.65
Limestone	m ³	6,552,562.00
Marl	m ³	159,576.70
Sand and gravel	m ³	17,834.01
Diabase	m ³	31,205.02

The high amount of limestone and clay utilization testifies to the continuous demand for construction materials, while the utilization of andesite, marl, and other materials constitutes an important indicator for the construction and infrastructure sector.

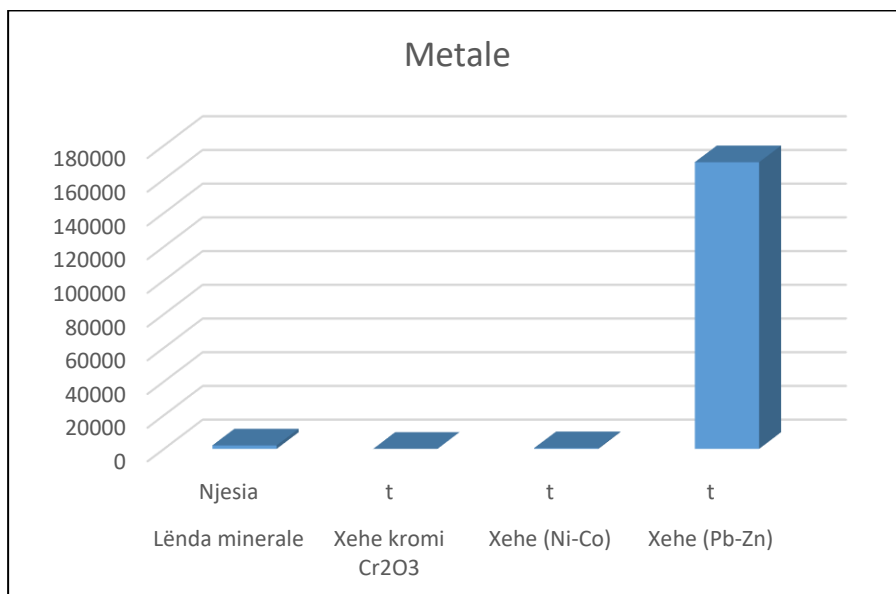


Figure 30: Metalet

9. Analysis of the Functioning of Institutions, Authorities, and Other Entities for Environmental Protection

9.1. Regulation (OPM) No. 08/2024 on the Internal Organization and Job Classification of the Ministry of Environment, Spatial Planning, and Infrastructure - Reorganization

The Regulation (OPM) No. 08/2024 on the Internal Organization and Job Classification of the Ministry of Environment, Spatial Planning, and Infrastructure (MESPI) is an important step toward creating a more efficient structure focused on environmental protection. This regulation aims to establish a strong foundation for the functioning of institutions responsible for the environment by clearly defining the responsibilities of departments and divisions to ensure sustainable management of natural resources, supervision of polluters, and implementation of environmental policies.

The main functions of the regulation include:

Increasing transparency and accountability in public administration regarding environmental issues.

Improving institutional efficiency by creating specialized divisions for different areas of environmental protection.

Ensuring strict implementation of EU environmental legislation and spatial planning policies.

Strengthening inspection and monitoring capacities to provide better oversight of polluters and urban developments.

Through this regulation, a proactive approach to environmental issues is emphasized, with particular focus on waste management, protection of water resources, and biodiversity.

The new regulation introduces a reorganization and expansion of several key departments within MESPI, which will supervise the most critical areas of environment and infrastructure. The departments that will be strengthened with new divisions to better fulfill their mission are:

1. Department of Environmental and Water Protection (DEWP);
2. Department of Spatial Planning, Construction and Housing;
3. Regional River Basin Authority (RRBA).

These departments will have a key role in the implementation of environmental policies and sustainable development in Kosovo, relying on new specialized divisions.

The new divisions have been created to address specific environmental issues and improve the efficiency of implementing strategies for the protection of the environment and nature.

The adoption of this regulation represents an important step toward improving environmental management in Kosovo. The impact of the new divisions will be significant if they are fully operational with the appropriate personnel and adequate funding.

If these structures are properly supported:

There will be improved oversight of industrial pollution, reducing air and water pollution.

Water resources will be managed more sustainably, preventing pollution and overuse.

Waste management will improve, promoting recycling and pollution reduction.

Biodiversity and protected zones will be preserved, ensuring better monitoring of natural ecosystems.

Urban planning will improve, by preventing illegal constructions and uncontrolled developments.

If this structure is successfully implemented, Kosovo will make significant progress in environmental protection and alignment with European standards for sustainable development. This is an investment in the future, a guarantee for a cleaner environment, and a greener economy for further generations.

9.2. Draft Regulation on Internal Organization and Systematization of Jobs in the Kosovo Environmental Protection Agency / KEPA

The Draft Regulation on the Internal Organization and Job Classification of the Kosovo Environmental Protection Agency (KEPA) is in the final stage of approval, and we expect it to be adopted by the Government of Kosovo. This regulation is an important step toward strengthening KEPA's capacities to fulfill its legal obligations and to improve environmental protection, nature conservation, and the management of natural resources. The new divisions included in this regulation will significantly contribute to monitoring, assessing, and reporting on the state of the environment and nature, as well as improving the management of protected areas.

In this context, several new divisions have been added within departments that will play a key role in achieving objectives for nature and environmental protection, improving oversight, and implementing sustainable environmental policies. If these structures are fully functional and supported with the appropriate number of officials, they will bring substantial benefits for nature, the environment, and Kosovo's economy.

To strengthen oversight and enable a more effective approach to environmental and nature protection, the regulation includes new departments and divisions specialized in different areas. These departments and divisions are as follows:

Department of Environmental Assessment and Legal Affairs

Division of Air Emissions Inventory and Environmental Discharge Registry: This division will focus on monitoring air emissions and other pollutants, as well as recording environmental discharges. This is essential for controlling and reducing the impact of industrial polluters and ensuring

compliance with established air and environmental protection standards.

Division of Legal Affairs: This division will provide legal support in drafting strategic and legislative documents, identify issues in the implementation of regulations, offer legal advice and recommendations, review requests and complaints, draft administrative acts, and initiate criminal and misdemeanor procedures against environmental degraders in protected areas.

Kosovo Institute for Nature Protection

Division of Protected Zones: This division will manage Kosovo's protected zones, ensuring strict oversight to prevent illegal interventions and preserve biodiversity.

Division of Biodiversity and Natura 2000: This division is responsible for monitoring and preserving Kosovo's biodiversity and ensuring the implementation of EU directives and requirements for Natura 2000 areas.

Division of Geoheritage: This division will handle the conservation of natural heritage and the management of special natural resources, identifying and protecting geologically significant sites.

Hydrometeorological Institute of Kosovo

Division of Meteorology and Climate: This division will monitor climate change and develop advanced climate models to assist in predicting the effects of climate change in Kosovo.

Division of Hydrology: This division will monitor and manage Kosovo's water resources and implement policies to preserve water quality.

Division of Air Quality Monitoring: This division will focus on air quality monitoring, implementing strategies to reduce pollution and improve air conditions for citizens.

Division of Water and Soil Quality Monitoring: This division will monitor water and soil quality, ensuring that natural resources are used sustainably and without environmental harm.

Department of Sharri National Park Administration

Division of Forestry and Professional Services: This division will oversee the forests of Sharri National Park, ensuring they are sustainably managed and protected.

Division of Supervision and Control: This division will supervise and control activities in the park to prevent illegal activities and protect biodiversity.

Department for the Administration of Natural Monuments of Special Importance

Division of the “Mirushë Waterfalls” Natural Monument: This division will focus on protecting one of Kosovo’s most important natural monuments, ensuring its conservation and sustainable development.

Benefits for the Environment, Nature, and Kosovo if Departments and Staff Are Fully Functional:

Protection of Protected Zones and Biodiversity: New divisions, such as the Division of Protected Zones and the Division of Biodiversity and Natura 2000, will strengthen oversight and management of protected zones, prevent habitat destruction, and preserve Kosovo’s rich biodiversity.

Monitoring Climate Change and Pollution: Divisions like Meteorology and Climate and Air Quality Monitoring will provide detailed information on climate change and air pollution, enabling policy development to address these challenges.

Improvement of Water and Soil Quality: Continuous monitoring of water and soil quality will ensure that natural resources are managed sustainably and without pollution, protecting public health and ecosystems.

Enhanced Natural Resource Management: These divisions will contribute to better management of water, forest, and other natural resources, positioning Kosovo as a regional example of sustainability.

Sustainable Ecotourism Development: By protecting natural areas and monuments such as the “Mirushë Waterfalls,” ecotourism will be encouraged, supporting economic development and promoting Kosovo as a green tourism destination.

In conclusion, if these structures are fully functional and adequately resourced, they will strengthen Kosovo’s capacities for environmental protection and nature management, contribute to the conservation of natural wealth, and improve the quality of life for its citizens. Otherwise, they risk remaining only on paper, as was the case with the regulation of 2017.

9.3. Cooperation with the European Environment Agency / EIONET

The Kosovo Environmental Protection Agency (KEPA) has developed close cooperation with the European Environment Agency (EEA) since 2010. This collaboration grants Kosovo the status of an EEA

cooperating country and helps the country improve environmental management and align with European standards.

Initially, one of the main initiatives of this cooperation was the implementation of the EU twinning project, *“Support to the Environmental Sector in Kosovo”*. Subsequently, numerous projects have been carried out under the Instrument for Pre-Accession Assistance (IPA). The aim of these projects is to enhance the capacities of KEPA and other relevant institutions in environmental monitoring and reporting to the EEA, enabling:

- **Consolidation of administrative capacities** within KEPA and the relevant departments of the Ministry of Environment and Spatial Planning (MESP) in legal, institutional, and technical aspects of environmental monitoring.
- **Improvement of KEPA’s capacities** to meet EEA reporting requirements for priority indicators, including air, water, protected areas, and climate change mitigation and adaptation.
- **Development of a strategy** to raise public awareness and produce relevant informational materials.
- **Creation of modern data management systems**, including the development of a comprehensive environmental database.

As a cooperating country of the EEA, Kosovo has become a member of the European Environment Information and Observation Network (EIONET). This network is one of the most important platforms for environmental management in Europe and contributes to achieving environmental protection and sustainable development goals. These objectives are accomplished by exchanging information and best practices at the European level, providing training and opportunities to strengthen the capacities of national environmental administrations, and assisting participating countries in fulfilling their obligations under EU environmental policies and legislation.

Today, Kosovo has also developed its national EIONET network with approximately 40 members, including experts from 9 different local institutions. These members collaborate to improve the collection and dissemination of environmental information and to strengthen capacities to maintain high standards of environmental monitoring and data reporting.

An example of the performance of the Kosovo Environmental Protection Agency (KEPA) in data reporting within the EIONET is that in 2024, for the fourth consecutive year, Kosovo fulfilled 100% of its reporting obligations (Figure 33).

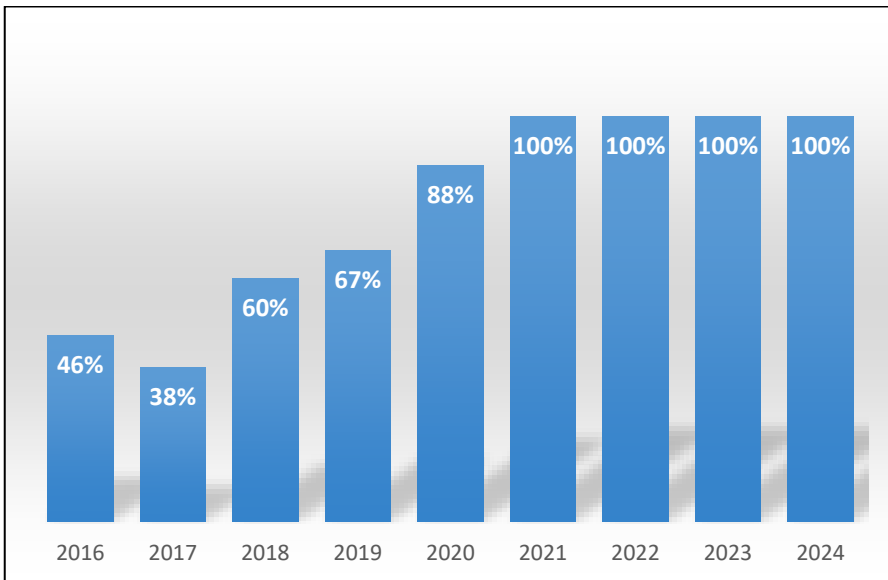


Figure 31: KEPA's Performance 2016–2024 within EIONET⁵⁰

This engagement helps improve transparency, accountability, and sustainable development in Kosovo. It also plays a key role in supporting Kosovo's integration into European structures and in fulfilling national commitments to EU environmental policies.

⁵⁰ <https://www.eea.europa.eu/en/analysis/publications/eionet-core-dataflows-2024>

Furthermore, KEPA has participated in other activities aimed at enhancing environmental management and aligning with European standards, including attending international conferences and workshops, as well as developing joint strategies and reports with the EEA. Through these collaborations and initiatives, the EEA and Kosovo aim to strengthen environmental governance and contribute to sustainable development in the region.

9.4. Environmental Officers and Environmental Inspectors at the Local Level

The institutional organization of human resources at the municipal level in the environmental sector represents a crucial link for the effective implementation of environmental policies in Kosovo. Municipalities, as holders of numerous legal and operational competencies in waste management, air quality protection, and natural resource preservation, are responsible for implementing both horizontal and sectoral environmental legislation. In this context, the presence of permanent structures with adequate professional capacities is fundamental for sustainable environmental management. This analysis aims to provide a detailed, comparative, and substantive overview of the current state of human resource organization in the environmental sector at the municipal level. Out of a total of 38 municipalities, only 17 have submitted data, representing 44.74% of the total. The low participation reflects deficiencies in administrative capacities, lack of awareness of the importance of reporting, and possibly a shortage of staff dedicated to environmental issues even at the most basic level. This poses a dual challenge: not only is there a lack of specialized staff, but there is also a lack of transparency and cooperation with the central level in developing public policies.

Despite efforts made through the Association of Kosovo Municipalities, the respective municipal mayors, sending emails

to urbanism directorates, and contacts facilitated by the AKK College, no data was received from 21 municipalities. This situation is highly concerning, as it indicates that some municipalities are not even willing to complete a simple form regarding environmental matters. Municipalities that submitted data: Klina, Kamenica, South Mitrovica, Ferizaj, Deçan, Shtime, Rahovec, Lipjan, Ranillug, Gjakovë, Hani i Elezit, Drenas, Junik, Vushtrri, Fushë Kosovë, Viti, and Obiliq. Municipalities that did not submit data: Dragash, Gjilan, Graçanicë, Istog, Kaçanik, Kllokot, Leposaviq, Malishevë, Mamushë, North Mitrovica, Novobërdë, Partesh, Pejë, Podujevë, Prishtinë, Prizren, Skenderaj, Suharekë, Zubin Potok, and Zveçan.

The failure of these municipalities to report directly affects the ability to create a complete map of existing capacities and to develop harmonized policies. At the same time, the refusal or inability to provide information reveals gaps in the environmental management system and calls into question the readiness of these units to meet national and international environmental objectives.

Organizational structure and staff positioning

Special departments or sectors for the environment: From the 17 municipalities, only 11 have dedicated environmental sectors or directorates. In many cases, the environmental sector is part of the Directorate of Urbanism or Public Services. This means that environmental issues do not have managerial or budgetary independence, which limits the capacity for long-term planning and effective implementation. Municipalities such as South Mitrovica, Obiliq, and Gjakova stand out for having more advanced structures, with dedicated directorates and functional sectors for air, waste, and environmental planning.

Environmental Inspectors: This position is the most widespread among the municipalities that have reported. Only one municipality is in the process of recruitment, while the others

have at least one appointed inspector. Municipalities such as Gjakova and Drenas have two inspectors each, including contracts for specific services. However, there is a complete lack of inspectors specialized in specific fields such as water pollution, air pollution, or hazardous chemicals management.

Environmental Officers: In 13 municipalities, environmental officers have been appointed, usually positioned within the Directorate of Urbanism or the Directorate of Environment. In the absence of dedicated sectors for air or other types of pollution, these officers are responsible for drafting plans, environmental reporting, and implementing legal obligations. Due to functional overload and the lack of technical assistants, their efficiency is often limited.

Waste Management Officers: Only 9 municipalities have appointed waste management officers. In most cases, this responsibility falls to environmental officers or heads of public service sectors. This is a serious indicator of the lack of structural attention to waste management, contrary to EU standards that require functional separation and clear responsibilities in this sector.

Air Quality and Other Specialized Officers: Only Obiliq has certified air quality officers. Other municipalities cover this task through general environmental staff. This shows a deep lack of technical capacities for monitoring and analyzing atmospheric pollutants, despite increasing urban pollution and international reporting obligations.

Recruitment during 2024: From the 17 municipalities that reported, only 4 carried out new recruitments during 2024, mainly for inspector positions. This demonstrates that the environmental sector is not being prioritized in local-level human resource policies, despite the existing environmental challenges.

The analysis of the existing structure of human resources for the environment at the municipal level confirms the need for immediate intervention in several dimensions: legal, institutional, and budgetary. Despite the existence of some

institutional environmental structures in the municipalities that have reported, the gaps in human resources, role division, lack of planning, and the absence of new recruitments show that the environment is not being treated as a real priority. Central institutions must encourage and monitor municipal performance, provide technical and financial support for restructuring, and ensure that the environment is treated with the seriousness required by legislation and the country's ecological reality.

Initiative for assessing the implementation of AI 07/2023 on plastic bags

Within the framework of cooperation between the German GIZ and the Ministry of Environment, Spatial Planning and Infrastructure (MESPI), specifically KEPA, the implementation of an initiative has begun for the development of an Assessment Report on the achievement of targets for reducing the use of plastic bags, as foreseen under Article 42 of Administrative Instruction (AI) No. 07/2023.

This initiative will analyze the period January–December 2024 and will assess:

- The implementation of the technical measures defined in Articles 6 and 8 of AI 07/2023.
- The support provided or planned under Article 45 regarding economic instruments.
- The environmental, social, and economic impacts of the policy implementation.

The activities include a review of the legal framework, data collection from key institutions and stakeholders, focus groups with producers, traders, and inspectors, consumer surveys, field visits to various municipalities, and analysis of comparative trends with the 2022 baseline year.

The results of this process will serve to develop policy recommendations aimed at improving the implementation of AI 07/2023 and advancing reforms in integrated waste management, in line with EU best practices.

10. Financing the environmental protection system

10.1. Environmental financing with capital projects at the Ministry of Environment, Spatial Planning and Infrastructure

Environmental protection is an important factor that directly affects our health and well-being. The continuous increase in the budget by the Government of Kosovo for the environmental protection sector demonstrates its commitment on improving environmental conditions.

The Ministry of Environment, Spatial Planning and Infrastructure recorded an increase in 2024, spending €223,168,016.00 compared to €177,860,044.00 invested in new and existing projects during the previous year, based on the Medium-Term Expenditure Framework financed by the Kosovo Budget.

The total budget for 2024 was €265,445,995.00, compared to €213,484,838.00 in 2023.

As can be seen in the table below, over the last two years the Ministry has had a trend of total budget growth.

Table 45: MESPI's budget for 2023-2024

Linjat buxhetore	2023	2024
Wages and salaries	4.083.931.00 €	5,212.521.00
Goods and services	29.415.559.00 €	34,940,148.00
Subsidies and transfers	1.643.814.00 €	1,643,814.00
Capital expenditure	177.860.044.00 €	223,168,016.00
Municipal expenditure	481,490.00 €	481,490.00
Total budget	213.484.838.00 €	265,445,995.00

Environmental projects supported by the MESPI budget, in contrast to donor-funded projects—especially the portion of new investments during 2024—have been concentrated in the water sector. The implementation of projects from 2023 has continued, with a particular focus on the construction and

regulation of riverbeds, the construction of dams, and alarm systems for existing dams. Investment in the integrated management of water resources has also continued, while support for the construction of municipal landfills and waste management support schemes has decreased.

Part of the environmental projects also includes those financed by the Kosovo budget through MESPI and implemented by municipalities through the respective memorandums. The total budget for environmental capital projects supported by the MESPI budget for 2023–2024 was €9,888,994.00 in 2023, while for 2024 it is €4,545,762.9. This represents a decrease of €5,343,231.10, or a reduction of about 54% compared to the previous year.

The budget for environmental projects in 2024 has been significantly reduced, with a shift in focus from large infrastructure projects toward river cleaning, digitalization, and the improvement of laboratory infrastructure.

While some important projects are a continuation from 2023, a large portion of investments in waste management, water supply, and river regulation have not been included in the 2024 budget.

This change may have implications for environmental development, particularly in waste management and the protection of water resources, as funds for these categories have been significantly reduced.

A list of some of these important capital projects in the field of environment and water is presented in Table 46.

Table 46: Environmental capital projects supported by the budget of MESPI 2023-2024

No.	Project Name	Budget 2023	Budget 2024
1	Construction of a Municipal Landfill in the Peja Region	2,000,000.00 €	
2	Support Scheme for Waste in Kosovo (Container Supply)	2,000,000.00 €	396,666.75

3	Regulation of the Sitnica Riverbed in Vushtrri	200,000.00 €	
4	Regulation of the Drenica Riverbed in Drenas	78,994.00 €	
5	Construction of a Water Supply System in the Village of Orllan - Podujevë	100,000.00 €	
6	Construction of Sewage Sewage in the Villages of Novosello, Radac, Jabllanicë e Madhe, Dubovë e Madhe and Ozdrim	100,000.00 €	
7	Construction of sewage system connecting the villages of Pllacicë - Bubli / Municipality of Malisheva	10,000.00 €	
8	Integrated water resources management in Kosovo (MESPI contribution)	650,000.00 €	
9	Construction of dams	1,500,000.00 €	
10	Alarm system for existing dams	500,000,00 €	
11	Badymetry (Water volume measurement), sediment analysis for 6 dams	300,000,00 €	
12	Construction of the Lumbardhi riverbed in Peja	400,000.00 €	
13	Regulation of the Shtime riverbed	500,000.00 €	
14	Regulation of the water supply network in the municipality of Fushë Kosovë in neighborhood 028 and 029 - Bardhi i Madh and the Village of Sllatinë e Madhe	1,500,000.00 €	
15	Regulation of the Sazli Riverbed in Ferizaj	50,000.00 €	
16	Repair and servicing of KHMI laboratory equipment		45,700.00
17	Marking and digitalization of protected nature areas		12,354.20
18	Updating the register (cadastre) of hazardous waste and chemicals and training operators for data entry		18,188.88
19	Maintenance and servicing of equipment for the hydrometric	1,716,608.00	

	network of groundwater and surface waters		
20	Supply of the KHMI laboratory with equipment and consumables for monitoring surface and groundwater, according to the monitoring program and the requirements of the Environmental Inspectorate		64,000.00
21	Construction of dams - drafting the main project for the construction of the Kuqica - Drenica dam		9,965.00
22	Regulation of the infrastructure for the activation and digitalization of the barriers in the two National Parks		16,394.60
Total budget			4,545,762.9

Environmental capital projects for municipalities supported by the 2024 state budget show a distribution of funds in several key areas of environmental investments across various municipalities in Kosovo, where the main investment priorities are:

- Water management – Numerous projects are focused on the construction of sewerage systems, water supply networks, and collectors for wastewater collection;
- Riverbed regulation – These projects aim to minimize flood risks and improve water quality;
- Development of green areas and parks – Many municipalities have allocated budgets for the creation or improvement of green and recreational spaces;
- Waste management – Some municipalities have planned projects for the construction of landfills, placement of containers, and overall waste management;
- Tourism and urban development – Projects aimed at developing tourism infrastructure.

10.2. Financing the environment with capital projects at the local level

This total budget of €22.73 million for 2024 reflects the commitment of institutions on improving environmental infrastructure and ecological sustainability in the municipalities of Kosovo. However, some municipalities received significantly smaller amounts, raising questions about the equity of budget distribution and the priorities.

Municipalities with the highest budgets: Prishtina (€2.33 million), Dragash (€2.68 million), Prizren (€5.21 million), Peja (€1.96 million), Gjakova (€1.27 million). Municipalities with smaller budgets: Ranillug (€14,525), Klllokot (€62,992), Zveçan (€75,000), Hani i Elezit (€102,824), as presented in Annex X – Environmental capital projects for municipalities supported by the state budget 2024.

A detailed overview of the projects and investments in the environmental sector implemented by the municipalities is presented in Annex 6.

10.4. Environmental financing with donor projects

Support from donors has not been lacking either during 2024, where they have begun implementing several new projects and at the same time have continued to implement projects from previous years.

The following table presents data on some of the largest projects supported by donors for the water and environment sector. From the table below it can be concluded that the water sector has been with the highest priority for investments in the Republic of Kosovo, followed by air and waste.

Table 47: Donor projects in the environment and water sector 2024

No.	Project Name	Donor	Project Value	Implementation Period
1	"Air Quality Programme for the Balkans" (regional project)	SIDA and UNICEF	Project fund for all Balkan countries	September 2022 December 2024
2	Project "Capacity Development for Air Pollution Control" Phase 2	JICA-Japanese Government	Around 3.000.000.00 €	2021- 2026
3	EU4Green: Support for the implementation of the Green Agenda for the Western Balkans (IPA II)	Source: EU, Government of Austria Amount:	11,000,000 €	2024-2025
4	Promoting and implementing opportunities for Water Security (FLOWS)	WBIF, IDA	1,000,000 € 25,100,000 € (Kredi)	2021-2025
5	Firajë Dam	WBIF	1.8 M EUR	2022 2024
6	Integrated Water Resources Management in Kosovo	Source: Swiss Government	24,000,000	2024-2031
7	Integrated Water Resources Management in Kosovo (IWRM-K)	SDC-Swiss Government	8.7 M CHF + 1.5 M EUR co-financing	2020-2031
8	Building capacities for the use of environmental data. Cooperation project between KEPA and the Swedish Environmental	SIDA	2.262.400.00 SEK (Swedish Krona)	2022-2025

	Protection Agency			
9	Promoting and leveraging opportunities for water security (FLOWS)	WBIF, IDA	1,000,000 € 25,100,000 € (loan)	2021-2025
10	Hazard and Flood Risk Mapping	WBIF, EIB & CEB	25,100,000 € Donation and loan	2022-2024
11	Integrated Water Resources Management in Kosovo - Phase 1	Swiss Government	7,700,000	2024-2027
12	Firajë Dam	BE/WBIF	1,800,000 €	2024
13	Participation in the work and program of the European Environment Agency (regional project)	EU-IPA	BE IPA -IPA Fund	2019-2022 Continuation expected 2023-2027
14	Developing capacities for air pollution control in the Republic of Kosovo - Phase II	Government of Japan	2,800,000.00€	2024-2026
15	EU4Green	EU and ADA	BE 10.000.000.00 € ADA 1.000.000.00 €	2022-2025
16	ADAPTATION - sustainable based solutions for Nature communities in the Western Balkans.	Government of Sweden	2,480,202.00 €	2026
17	Hazard Maps and Flood Risk Maps	EU/WBIF	2,500,000.00 €	2024

18	Institutional Development for Modernizing Waste Management in Kosovo	EU/IPA	3,000,000.00 €	2024
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11. Recommendation

Air quality and air emissions

- Responsible institutions, particularly inspectorates at the central and local level, should conduct continuous monitoring of polluting operators to ensure compliance with air emission standards.
- Municipalities should develop and implement local plans for air pollution protection, in accordance with the specific conditions in their territories.
- Polluting operators that are not yet equipped with environmental permits should obtain them within the shortest possible timeframe.
- The use of fossil fuels should be reduced as much as possible in households, schools, preschool institutions, and by economic operators.
- The district heating cogeneration system in the city of Prishtina should be expanded, and similar systems should be applied in other cities in Kosovo.
- Vehicle technical inspection centers should be more rigorous in verifying compliance with allowed pollutant gas emission standards.
- Public urban transport should be promoted and used more, reducing individual car usage.
- Burning of waste in any form should be strictly prohibited, except in cases specifically authorized.
- The number of green areas in urban zones and degraded spaces should be increased.
- Investments in the air quality sector should be increased, with special support from the Kosovo budget.
- The National Institute of Public Health of Kosovo (NIPHK) should carry out regular annual assessments of the impact of air pollution on public health, based on air quality monitoring data.

Water

- Expansion of wastewater treatment capacities – currently, only 11% of wastewater is treated; this number needs to be significantly increased.
- Strengthening of monitoring – several main rivers (e.g., Prishtevka, Graçanka) show severe pollution; a wider measurement network and active inspections are needed, including continuous reporting of key parameters such as total nitrogen and phosphorus at all treatment plants, to provide a clearer overview and support effective decision-making.
- Implementation of measures to prevent pollution from agricultural sources, through the promotion of sustainable farming practices and limitation of chemical fertilizer use.
- Improvement of public institutions' capacities in water resources management, including technical training, inter-institutional cooperation, and strengthening of legal oversight.
- Development of long-term plans for the protection of river basins, focusing on the White Drin, Iber, and Lepenc rivers, to prevent riverbed degradation and ensure sustainable water resources for the future.

Earth/soil

Establishing a national soil monitoring system – currently there is no permanent system.

- Prepare a national land value map;
- Conduct continuous monitoring of exploitable land;
- Rigorously implement legal infrastructure for land management;
- To stop the use and return of land without legal criteria;
- Investigate and assess the intensity and trend of land loss due to construction, erosion, and degradation;
- Prohibit the discharge of polluting emissions into land by economic operators, agribusinesses, mines, urban and industrial waste landfills, households, etc., without prior treatment;
- Stop physical degradation of agricultural and exploitable lands;

- Promote sustainable agriculture – controlled use of chemical fertilizers/pesticides and expansion of irrigated lands with high standards.

Wastes

- Expand waste collection services coverage in all urban and rural areas. This includes building adequate infrastructure, such as collection points and transport vehicles for dispersed settlements.
- Invest in source separation and recycling, starting with pilot projects in larger municipalities and expanding them by sustainable foundations. Placing separate containers for different waste categories and raising citizen awareness are essential.
- Improve and construct infrastructure for treatment and disposal, including: expanding the capacity of the Mirash landfill; gradual closure of uncontrolled landfills; building transfer stations and composting and processing plants.
- Strengthen the Hazardous Waste Management Information System, including hospital, industrial, and electronic waste, by creating special capacities for treatment and disposal according to standards.
- Enhance inspection and law enforcement, including sanctions for polluters and strict control of illegal landfills. Coordination between the Environmental Inspectorate, municipalities, and regional enterprises should be improved.
- Strengthen the capacities of regional enterprises through training, increasing professional staff, and securing funds for operation and maintenance.
- Engage citizens and the private sector in the management system through awareness campaigns and financial incentives for source separation and recycling.
- Ensure sustainable financing through budgetary mechanisms, international funds, and public-private partnerships, to support long-term investments in this sector.

- Integrate circular economy objectives into national and local policies in accordance with European and EU standards.

Nature protection and biodiversity

Strengthening legal and institutional protection:

- Strict implementation of the Law on Nature Protection (No. 03/L-233) and harmonization with EU directives.
- Increasing the capacities of the Environmental Protection Agency for active monitoring and management.
- Drafting and implementing management plans for each protected zone.

Sustainable management of protected zones:

- Strict control over construction and infrastructure, prohibiting any intervention that violates biodiversity and the natural landscape.
- Placing restrictions on mass tourism and focusing on sustainable and educational tourism.
- Recovering degraded areas through reforestation, habitat restoration and erosion control.

Prevention of fires and anthropogenic pressures:

- Investment in advanced monitoring and early warning systems for forest fires.
- Training and mobilization of local volunteer teams for rapid response to fires.
- Strengthening campaigns against illegal forest cutting and illegal hunting.

Science and education:

- Creation of a national inventory of flora and fauna with detailed data on species, populations and habitats.
- Promotion of scientific research and involvement of universities and institutes in biodiversity monitoring.

- Education and awareness of the public, especially young people, about the importance of preserving nature and ecosystem services.

Community funding and involvement:

- Creation of dedicated funds for protected zones, through the state budget and international donors.
- Involving local communities in the management of the zones, creating economic benefits for them through sustainable tourism and traditional products.
- Promotion of co-management models between public and private institutions.

Environmental impacts on population health

Improving monitoring and reporting:

- Development of an integrated national system for monitoring air, water and soil pollution, linked to health indicators.
- Regular periodic reporting by the MH and NIPHK on the health impacts of pollution.

Reducing air pollution:

- Investments in clean public transport (electric buses, bicycle network) and promotion of vehicles with higher Euro standards.
- Modernization of industry and gradual ban on the use of coal for household heating.
- Awareness campaign to reduce the burning of wood and waste.

Public health and infectious diseases:

- Increase laboratory capacities for rapid diagnosis of viral and bacterial infections.
- Special program for the control of pertussis, brucellosis and HIV/AIDS, increasing vaccination and public awareness.

- Strengthen epidemiological surveillance and create an open database on environmental diseases.

Drinking water quality:

- Investments for the modernization of the water supply network in rural areas and villages with amortized infrastructure.
- Mandatory controls for private wells and bottled water before entering the market.
- Achieving the strategic objective by 2027: 99.5% water quality and 90% population coverage with safe water.

Integrating health with environmental policies:

- Implementation of the principle “health in all policies”, linking environmental decision-making to its impact on health.
- Drafting a National Strategy for Health and Environment, in line with EU and WHO standards.
- Involving the community and NGOs in citizen monitoring of pollution and public health.

The state of endangered environments

Pollution management caused by KEK:

- Urgent investments in gas and dust filtration equipment (electrostatic systems and desulfurization);
- Safe management of ash and hazardous waste, through controlled landfills and possible recycling; and
- Daily monitoring of air quality and publication of data in real time.

Hazardous waste treatment:

- Implementation of systems for the collection and treatment of used oils and batteries in accordance with EU standards; and
- Construction of a national plant for the treatment and disposal of hazardous waste.

Ferronickel and mining dumps:

- Development of a rehabilitation plan for abandoned slag and abandoned mines;
- Stabilization of contaminated areas and monitoring of groundwater and surface waters; and
- Activation of special funds for the rehabilitation of the mining environment.

Support for good industrial practices:

- Encourage industries to apply clean technologies and comply with IPPC standards; and
- Strengthen control and regular inspections by environmental authorities;
- Illegal waste landfills;
- National campaigns for the closure and rehabilitation of illegal landfills;
- Installation of cameras and inspection patrols in affected areas; and
- Raise awareness among citizens and businesses about the importance of waste management.

Institutional strengthening:

- Increasing the technical and financial capacities of environmental institutions for monitoring and enforcing laws; and
- Creating public-private partnerships for investments in environmental infrastructure.

The implementation of these measures would enable the gradual reduction of pollution, the improvement of air, water and soil quality, and the protection of public health.

Implementation of the strategy, action plan and environmental remediation plans

Finalization of strategic documents in process:

- Accelerate the adoption of the Strategy for Environmental Protection and Sustainable Development and the National Energy and Climate Plan; and
- Include measurable objectives, timelines and monitoring mechanisms.

Strengthening Municipal Capacities:

- Support for municipalities that do not have environmental plans through central funds and technical assistance; and
- Training for local officials on the drafting and implementation of action plans.
- Identification of sustainable financial resources:
- Linking strategic plans with annual budgets and donor funds; and
- Creation of a dedicated fund for the implementation of environmental plans at the local level.

Measures taken to protect the environment, the successes of the measures taken and their effect on economic development

- Strengthening the enforcement of legislation – although the legal framework has improved significantly, a stronger mechanism is needed to ensure its effective implementation, through more frequent inspections and stricter penalties for violators.
- Inclusion of all municipalities – only 15 from 38 municipalities have reported on environmental inspections. It is recommended to build municipal capacities and establish a mandatory reporting mechanism for all municipalities.
- Digitalization of the permitting process – procedures for issuing environmental permits and consents are often lengthy and complex. An integrated digital system is needed to shorten review times and increase transparency.
- Interinstitutional cooperation – strengthening coordination among MESPI, MAFRD, ME and other institutions for the

implementation of strategies and action plans, so that legislation does not remain only on paper.

- Education and awareness – promoting educational campaigns for citizens and businesses on the importance of environmental protection and compliance with laws, including incentive mechanisms for green practices.
- Improvement of monitoring and reporting – increasing transparency in the public reporting of environmental data (inspections, permits, fines) by creating an online platform for open access by citizens and civil society organizations.
- Investments in clean energy – strengthening financial and legal support for investments in renewable energy, ensuring a gradual transition toward a green and sustainable economy.

The way of managing natural resources and protecting the environment

- More efficient management of industrial and drinking water – Monitoring of water use by large operators should be strengthened, water-saving technologies should be implemented in industry, and investments should be made to improve the water distribution network in order to reduce losses.
- Prevention of forest damage – There is a need to increase the budget for afforestation and maintenance, create a modern system for preventing forest fires, and engage local communities in forest protection.
- Fight against illegal logging (cutting trees) – It is recommended to strengthen field controls, increase the number of forest inspectors, and use monitoring technologies (drones, GIS) to stop illegal activities.
- Diversification of energy sources – Although lignite remains the main source, investments in renewable energy should be increased to reduce dependence on coal and its negative environmental impact.

- Sustainable use of construction minerals – It is recommended to set extraction quotas and rehabilitate areas affected by excavations to minimize environmental damage.
- Increasing transparency – A public online platform should be created where data on the use of water, forests, and minerals are regularly reported, ensuring access for citizens and civil society organizations.
- Interinstitutional cooperation – Coordination should be strengthened among the Ministry of Environment, the Forest Agency, the Commission for Mines and Minerals, and municipalities, to ensure more integrated management of natural resources.

Financing the environmental protection system

- Increase the budget for environmental capital projects:
Ensuring a sustainable percentage of the state budget for specific environmental projects, especially for waste management, air and biodiversity, which are currently underfunded..
- More balanced distribution of funds between municipalities:
Establish clear criteria for allocating the municipal budget based on population, pollution levels, and urgent environmental needs, to avoid significant inequalities.
- Diversification of funding sources:
Creating mechanisms to attract private investments, public-private partnerships and international green funds, reducing dependence solely on the central budget and donors.
- Strengthening cooperation with international donors:
Negotiating longer-term and integrative projects with the EU, SIDA, GIZ, JICA, etc., orienting them towards Kosovo's strategic priorities and not just fragmented interventions.
- Increasing financial transparency and accountability:

Publishing regular reports on the expenditures and results of environmental projects in the environmental web application, to increase the reliability and efficiency of funds.

- Focus on long-term and sustainable projects:
Avoiding funding scattered across many small projects, focusing on large, integrated programs for water management, waste recycling, and clean energy.
- Creation of a special fund for the environment:
Establish a National Environmental Fund, to be financed by environmental taxes, pollution fines, and donor contributions, to ensure financial sustainability.

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28. The data presented in this table refers to the amount of waste collected for the reporting year 2024 for the Municipality on the online platform.
29. During 2024, preliminary data from the population census in Kosovo were published, which may have influenced the calculation of indicators for 2024. As a result, differences between 2023 and 2024 may be significant, especially due to changes in the population base used for the calculation.

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13. Annexes

Annex 1: Air quality monitoring stations - AKS 1 Agglomeration and MZK Zone 1

Agglomeration	Naming of the monitoring station	Station Sign (Code)	Location	Parameters measured	Station type	Operationalization date
Agglomerati - AKS 1	KHMI	KS0101	Prishtinë	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , O ₃ , CO.	Sfondi urban	09.01.2009
	Rilindja	KS0102	Courtyard of the Rilindja building	PM ₁₀ , PM _{2.5} , O ₃ , SO ₂ , CO, NO ₂ .	Urban background	06.05.2010
	Obiliq	KS0110	QKMF	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , O ₃ , CO.	Urban background	01.03.2013
	Dardhishtë	KS0111	Sh.M.U Lower Secondary School "Abdurrahmon Gërguri"	PM ₁₀ , PM _{2.5} , O ₃ , SO ₂ , CO, NO _x .	Urban background / industrial	01.03.2013
	Palaj	KS0112	Object "Kosova Montim"	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , O ₃ , CO.	Urban background / industrial	01.03.2013
	ZONE - ZKS 1	Pejë	KS0305	L.S.S. "Lidhja e Prizrenit"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Urban background
Prizren		KS0406	L.S.S. "Abdyl Frashëri"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Urban background	01.04.2012
Hani i Elezit		KS0508	L.S.S. "Ilaz Hallaqi"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Urban background / industrial	05.04.2012
Gjilan		KS0609	L.S.S. "Selami Hallaqi"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Urban background	01.04.2012
Drenas		KS0103	Adresa Rr. "Beqir Sinan"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Urban background	05.04.2011
Mitrovicë		KS0204	L.S.S. "Eqrem Qabej"	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO	Urban background	06.2013
Brezovicë		KS0507	Ski center	PM _{2.5} , PM ₁₀ , NO _x , O ₃ , SO ₂ , CO.	Rural	

**Annex 2: Air quality standards according to Administrative
Instruction No. 02/2011**

Parameter	Limit values	Unit of measurement	Limit value (limit) $\mu\text{g}/\text{m}^3$	Permitted exceedances within the year
NO ₂	Limit value for 1 hour, for the protection of human health	$\mu\text{g}/\text{m}^3$	200	18
	Annual limit value, for the protection of human health	$\mu\text{g}/\text{m}^3$	40	Not expected
	Annual limit value, for the protection of vegetation	$\mu\text{g}/\text{m}^3$	30	Not expected
SO ₂	Limit value for 1 hour, for the protection of human health	$\mu\text{g}/\text{m}^3$	350	24
	Limit value for 24 hours, for the protection of human health	$\mu\text{g}/\text{m}^3$	125	3
CO	Limit value for the daily average of the 8-hour maximum, for the protection of human health	mg/m^3	10	Not expected
PM ₁₀	Limit value for 24 hours, for the protection of human health	$\mu\text{g}/\text{m}^3$	50	35
	Annual limit value, for the protection of human health	$\mu\text{g}/\text{m}^3$	40	Not expected
PM _{2.5}	Annual limit value, for the protection of human health	$\mu\text{g}/\text{m}^3$	25	Not expected
O ₃	Long-term objective, for the protection of human health	$\mu\text{g}/\text{m}^3$	120	Not expected

**Annex 3: Physical, chemical, and heavy metal parameters monitored
by the KHMI⁵¹**

Indicators	Symbol	Unit	Measurement frequency/year
PHYSICAL PARAMETERS			
Time	h	0:00	11

⁵¹ Only the parameters shaded in blue are evaluated and presented in this report..

Weather	M	observation	11
Water temperature	Tu	0C	11
Air temperature	TA	0C	11
Aroma	Ar	smelling	11
Color	Ngj	Co/Pt	11
Turbidity	Tur	NTU	11
Electrical conductivity	χ	$\mu\text{Scm-1}$	11
Soluble solids	M.tert.	mg/l	11
Hydrogen ion concentration	pH	0-14	11
CHEMICAL PARAMETERS			
Dissolved oxygen	OT (DO)	mg/l O ₂	11
Oxygen saturation	NgO	%	11
Chemical oxygen demand	SHKO (COD)	mg/l O ₂	11
Chemical oxygen demand with dichromate	SHKO-Cr (COD-Cr)	mg/l O ₂	11
Biochemical oxygen demand	SHBO5 (BOD5)	mg/l O ₂	11
Biochemical oxygen demand	SHBO7 (BOD7)	mg/l O ₂	11
Total organic carbon	KOT (TOC)	mg/l C	11
Total suspended solids	MTS (TSS)	mg/l	11
Detergents	DET	mg/l	11
Nitrate ions	NO ₃ -	mg/l	11
Nitrogen nitrates	N-NO ₃ -	mg/l N	11
Nitric ion	NO ₂ -	mg/l	11
Nitrate nitrogen	N-NO ₂ -	mg/l N	11
Ammonium ion	NH ₄ ⁺	mg/l	11
Ammonium nitrogen	N-NH ₄ ⁺	mg/l N	11
Total inorganic nitrogen	ATI	mg/l N	11
Unionized ammonium	NH ₃	mg/l	11
Unionized ammonium nitrogen	N-NH ₃	mg/l N	11
Total organic + inorganic nitrogen	AT	mg/l N	11
Total organic nitrogen	ATO	mg/l N	11
Ortho phosphates	PO ₄ ³⁻	mg/l	11
Ortho phosphate phosphorus	P - PO ₄ ³⁻	mg/l P	11
Total phosphorus (poly + ortho)	Ptot.	mg/l	11
Sulfate ion	SO ₄ ²⁻	mg/l	11
Total hardness	Fp	0dH	11

Calcium hardness	Fca	mg/l	11
Magnesium hardness	FMg	mg/l	11
Calcium ions	Ca+	mg/l	11
Magnesium ions	Mg+	mg/l	11
P-Alkalinity	Pa	ml 0.1 e HCl	11
M-Alkalinity	Ma	ml 0.1 e HCl	11
Total alkalinity	AT	mmol/l HCl	11
Bicarbonates	HCO ₃ ⁻	mg/l	11
Free chlorine	Cl ₂	mg/l	11
Chlorides	Cl ⁻	mg/l	11
Silicates	SiO ₃ ²⁻	mg/l	11
Silica in silicates	Si - SiO ₃ ²⁻	mg/l Si	11
Chlorophyll a	Chlorophyll a	µg/l	11
Phenols	C ₆ H ₅ OH	mg/l	11
HEAVY METALS			
Chromium	Cr ³⁺	µg/l	2
Cadmium	Cd ²⁺	µg/l	2
Nickel	Ni ²⁺	µg/l	2
Zinc	Zn ²⁺	µg/l	2
Manganese	Mn ²⁺	µg/l	2
Copper	Cu ²⁺	µg/l	2
Iron	Fe ²⁺	µg/l	2
Lead	Pb ²⁺	µg/l	2

Annex 4: Codes of stations monitoring the physico-chemical quality of surface waters - rivers

Code	Location	River	Discharge-site
RV01_011	Radavc	Drini i Bardhë	Mediterranean / Adriatic Sea
RV01_012	Klinë	Drini i Bardhë	Mediterranean / Adriatic Sea
RV01_013	Gjonaj	Drini i Bardhë	Mediterranean / Adriatic Sea
RV01_014	Vermicë	Drini i Bardhë	Mediterranean / Adriatic Sea
RV01_021	Istog	Istogu	Mediterranean / Adriatic Sea
RV01_022	Zllakuçan	Istogu	Mediterranean / Adriatic Sea
RV01_031	Stërnac i ulët	Klina	Mediterranean / Adriatic Sea
RV01_032	Klinë	Klina	Mediterranean / Adriatic Sea

RV01_041	Drelaj	Lumbardhi i Pejës	Mediterranean / Adriatic Sea	Sea
RV01_042	Pejë, dalje	Lumbardhi i Pejës	Mediterranean / Adriatic Sea	Sea
RV01_043	Grabanicë	Lumbardhi i Pejës	Mediterranean / Adriatic Sea	Sea
RV01_051	Banjë e Malishevës	Mirusha	Mediterranean / Adriatic Sea	Sea
RV01_052	Volljakë	Mirusha	Mediterranean / Adriatic Sea	Sea
RV01_061	Deçan Hyrje	Lumbardhi i Deçanit	Mediterranean / Adriatic Sea	Sea
RV01_062	Kralan	Lumbardhi i Deçanit	Mediterranean / Adriatic Sea	Sea
RV01_071	Jasiq	Ereniku	Mediterranean / Adriatic Sea	Sea
RV01_072	Ura e Terzive	Ereniku	Mediterranean / Adriatic Sea	Sea
RV01_081	Zhdrellë	Rimniku	Mediterranean / Adriatic Sea	Sea
RV01_082	Xërxë	Rimniku	Mediterranean / Adriatic Sea	Sea
RV01_091	Buqallë	Toplluha	Mediterranean / Adriatic Sea	Sea
RV01_092	Piranë	Toplluha	Mediterranean / Adriatic Sea	Sea
RV01_101	Prevallë	Lumbardhi i Prizrenit	Mediterranean / Adriatic Sea	Sea
RV01_102	Vllashnje	Lumbardhi i Prizrenit	Mediterranean / Adriatic Sea	Sea
RV02_011	Kushtovë	Ibri	Black Sea	
RV02_012	Mitrovicë	Ibri	Black Sea	
RV02_013	Kelmend	Ibri	Black Sea	
RV02_021	Bablak	Sitnica	Black Sea	
RV02_022	Lipjan	Sitnica	Black Sea	
RV02_023	Vragoli	Sitnica	Black Sea	
RV02_024	Plemetin	Sitnica	Black Sea	
RV02_025	Nedakovc	Sitnica	Black Sea	
RV02_026	Mitrovicë	Sitnica	Black Sea	
RV02_031	Marincë	Llapi	Black Sea	
RV02_032	Podujevë	Llapi	Black Sea	
RV02_033	Millosevë	Llapi	Black Sea	

RV02_041	Bresje	Prishtevka	Black Sea
RV02_051	Vragoli	Graçanka	Black Sea
RV02_061	Pjetërshticë	Drenica	Black Sea
RV02_062	Vragoli	Drenica	Black Sea
RV02_062B	Drenicë	Çikatovë e Vjetër	Black Sea
RV02_071	Devetak	Shtime	Mediterranean Sea / Adriatic Sea
RV02_072	Vojnovc	Shtime	Black Sea
RV03_011	Korbuliq	Morava e Binçës	Black Sea
RV03_012	Kllokot	Morava e Binçës	Black Sea
RV03_013	Ranillugë	Morava e Binçës	Black Sea
RV03_014	Domoroc	Morava e Binçës	Black Sea
RV03_021	Marec	Kriva reka	Black Sea
RV03_022	Domoroc	Kriva reka	Black Sea
RV04_011	Prevallë Subain	Lepenci	Mediterranean Sea / Aegean Sea
RV04_012	Kaçanik	Lepenci	Mediterranean Sea / Aegean Sea
RV04_013	Hani i Elezit	Lepenci	Mediterranean Sea / Aegean Sea
RV04_021	Jezerc	Nerodimja	Mediterranean Sea / Aegean Sea
RV04_022	Bifurcation	Nerodimja	Mediterranean Sea / Aegean Sea
RV04_023	Gërlicë	Nerodimja	Mediterranean Sea / Aegean Sea
RV04_024	Kaçanik	Nerodimja	Mediterranean Sea / Aegean Sea

Annex 5: River water quality trend 2023-2024

Monitoring stations	Dissolved oxygen / mg/l O ₂	Biochemical oxygen demand / mg/l O ₂ (SHBO ₅)	Chemical oxygen demand / mg/l O ₂ (SHKO)	Total organic carbon / mg/l C	Total phosphorus / mg/l P	Total suspended matter / mg/L (TSM)
RV01_011	↑	↓	↓	↓	↓	↑

RV01_012	↓	↑	↑	↓	↑	↓
RV01_013	↑	↑	↑	↑	↓	↓
RV01_071	↑	↑	↑	↑	↑	↑
RV01_072	↑	↓	↑	↓	↓	↓
RV02_011	↑	↓	↓	↓	↓	↓
RV02_012	↑	↑	↑	↑	↑	↑
RV02_013	↑	↑	↑	↑	↓	↓
RV02_023	↔	↔	↔	↔	↓	↑
RV02_024	↑	↑	↑	↑	↓	↓
RV02_026	↑	↓	↓	↑	↑	↑
RV02_041	↑	↓	↓	↓	↓	↓
RV02_051	↑	↓	↓	↓	↔	↓
RV02_061	↑	↑	↑	↑	↓	↓
RV02_062	↓	↓	↓	↑	↓	↓
RV03_011	↑	↑	↑	↑	↑	↑
RV03_012	↓	↓	↓	↑	↓	↓
RV03_013	↓	↑	↑	↑	↓	↓
RV03_014	↑	↑	↑	↑	↓	↓
RV04_011	↑	↓	↓	↓	↓	↔
RV04_012	↓	↓	↓	↓	↓	↑
RV04_013	↓	↑	↓	↑	↓	↓
RV04_021	↑	↓	↓	↓	↓	↓
RV04_023	↓	↑	↓	↑	↑	↓
RV04_024	↓	↑	↑	↑	↓	↓

Annex 6: Environmental capital projects for the Municipalities supported by the 2024 state budget

No.	Project name	Budget 2024
1	Glogovc -Regulation of the Drenica and Verbica riverbed	25,000.00
2	Glogovc - Capacity building of the water supply in Drenas	200,000.00
3	Glogovc - Construction of the park and pedestrian and bicycle paths in the Drenas park	156,804.00
4	Glogovc - Construction of collectors for the collection of wastewater Drenas-Dobroshec	400,000.00
5	Glogovc - Construction of the expansion and reconstruction of the sewage network in Drenas	500,000.00

6	Gllgovc - Opening of drainage channels along the roads Drenas, Komoran, Arllat, Terstenik, Dobroshec and Baice	75,000.00
7	Gllgovc Construction of a dam for the watershed in the village of Verboc	5,000.00
8	Gllgovc Infrastructure arrangement in the Pine Park in Komoran-Fushticë	5,000.00
9	Gllgovc - Greening of public spaces planting of perennial ornamental trees Drenas	43,000.00
Total Gllgovc		1,409,804.00
1	Fushë Kosovë-Co-financing of various projects according to the municipality's priority, wastewater plant, and projects from donors and line ministries	60,000.00
2	Fushë Kosovë- Construction of parks, new recreational spaces, and playgrounds on Besa Besë, Dardania, Pajazit Islami, Nora Kelmendi, neighborhood 029, Theranda, 17 ShRWC ti, Abedin Sogojeva, Hysen	100,000.00
3	Fushë Kosovë- Planting decorative trees, and placing baskets in settlements, on the streets: 17 Shkurti, Abedin Sogojeva, Nora Kelmendi, Theranda, Hysen Xhakoli, Nena Terezë, Complex 300	40,000.00
4	Fushë Kosovë-Regulation of recreational parks in Bardhë te madh, Sllatin e Madhe, Sllatin e Vogël and Harilaq GQ 0 0	10,000.00
5	Fushë Kosovë-Construction of bridges, riverbeds: Miradi e Epërme Bylmeti Street, Lower Miradi, Street: Përtej Lumit	40,000.00
6	Fushë Kosovë-Construction of sewerage and water supply: Nakarade, Pajazit Islami Street, Highway bridge access, Lismir, Ternava Street, Sll.V, Shpati Street, Sll.M, Hani Street, Rruga e Pejës, Henc, rruga e Pejës, Muzhaku	20,000.00
7	Fushë Kosovë-Construction of sewerage and water supply: Nakarade, Pajazit Islami Street, Highway bridge access, Lismir, Ternava Street, Sll.V, Shpati Street, Sll.M, Hani Street, rruga e Pejës, Henc, Peja Street, Muzhaku	70,000.00
Total Fushe Kosove		340,000.00
1	Lipjan Construction of the city's central park and underground parking in Lipjan	1,319,783.00
2	Lipjan-Construction of the sewage network and asphaltting of the streets in Klecke	59,000.00

3	Lipjan-Annex of the water supply network in the neighborhoods of Slovi, Konjuh and Akllapi.	10,000.00
Total Lipjan		1388783
1	Obiliq-Construction of bicycle paths and sidewalks on Hasan Street Prishtina- Obiliq	290,000.00
2	Obiliq-Construction of sewage in Lajthishte	100,000.00
Total Obliq		390.000.00
1	Podujevë-Widening and regulation of the Llap River bed in the city	466,870.00
2	Podujevë-Establishment of tourism infrastructure in the area of Orllani and Kërpimeh, (in the pine forests of Kërpimeh, Orllani and Šakovica)	100,000.00
3	Podujevë-Construction of a jogging path in the Peace Park in the city	50,000.00
Total Podujevë		616,870.00
1	Prishtina-Construction of the park in the "Kalabria" neighborhood, phase III	300,000.00
2	Prishtina-Construction of the park at the intersection of "Mic Sokoli" and "Jakup Ferri" streets	100,000.00
3	Prishtina-Construction of the park at the memorial park in the "Bregu i Diellit" neighborhood	100,000.00
4	Prishtina-Construction of irrigation system in green spaces, opening of wells zone 1-center- Mother Teresa Square, Zahir Pajaziti Square George Bush Boulevard, Luan Haradinaj Street	200,000.00
5	Prishtina-Construction of park with green spaces in Zones 1 & Zone 2 park in 'Dëshmorët e Kombit Street', Tirana Street, Bill Klintoni Street, Uçk Street, Agim Ramadani Street, Rustem Statovci street,	400,000.00
6	Prishtina - Construction, reconstruction and repair of sewage defects in Bardhosh, Barilev etc.	200,000.00
7	Prishtina - Construction of green markets - (Ulpian and the existing green market behind the municipality)	105,434.00
8	Prishtina - Construction of the collector in the village of Shkabaj	200,000.00
9	Prishtina - Construction of above-ground and underground containers, supply and expansion Zone 1: center - Tophane, Dodona etc.	500,000.00
10	Prishtina - Construction of fountains and adjustment of water supply pumps - Zone 1: center - Tophane, etc.	50,000.00
11	Prishtina - Purchase of a tanker truck for drinking water for the capital	100,000.00

12	Prishtina - Construction of public agricultural gardens at the Agricultural High School	80,000.00
Total Prishtinë		2,335,434.00
1	Shtime-Construction of parks in the city and villages: Muzeqinë, Rashinë, Godanc i Poshtëm and i Epërm	75,000.00
2	Shtime - Arrangement of the pine park in Shtime phase IV	20,000.00
3	Shtime - Arrangement of professional cycling and motocross trails in the tourist areas of Mollopolc, Llanisht	35,000.00
4	Shtime - Sewerage in the business area of the municipality of Shtime	30,000.00
5	Shtime - Signage of tourist areas, Mollopolc, Llanisht, Rance, Topille, Devetak and Shtime	10,000.00
6	Shtime - Arrangement of sewage in Shtime Str. Willian Voker, Str. Ernest Koliqi	33,190.00
7	Shtime- Arrangement of the cycling polygon in the Pine Park	35,000.00
8	Shtime- Arrangement of road segments and lighting, sewage and asphaltting in Str. Smajl Gorani, sidewalk in Str. Ibrahim Rugova, Str. Emini, Str. Imer Syla	15,000.00
9	Shtime -Regulation of some road segments, lighting and sewage network, sidewalk on Muhaxheria, Topilla, Dardania streets	20,000.00
10	Shtime -Regulation of some road segments and sewage network - sidewalk on Xhemshir Xhemshiri, Mehdi Korrani, Nazmi Bakiu streets	25,000.00
11	Shtime -Regulation of roads and lighting on some road segments - sewage on Sopiani, Arsim Zeqiri, Idriz Rexhepi, Qadraku streets, lighting on Agron Ramadani streets	20,000.00
12	Shtime -Regulation of some road segments and sewage network on Aziz Dugolli, Shaqe Dugolli and Maliqi streets	15,000.00
13	Shtime -Regulation of some road segments and sewage network on Besim Sopa streets, asphaltting - cemetery road, Hoxhë Sinani - asphaltting and lighting	15,000.00
Total Shtime		348,190.00
1	Graçanicë- Construction and reconstruction of the sewage and water supply network in the settlements: Graçanicë, Llaplasselë, Çagllavice, Preoc, Badovc, Uglar, Kishnice and Sushicë	85,000.00

2	Gracanica-Regulation of the Sitnica Riverbed Phase II	120,000.00
3	Gracanica-Regulation of river beds in Gracanica, Llapllaselle, Gushterica e Poshtme, Gushterica e Eperme, Dobrotin, Sushica, Uglar, Preoc and Livagje	150,000.00
4	Gracanica-Regulation of public spaces and parks in the settlements: Skullan, Gushtericë e Poshtme, Gushtericë e Epërme, Kishnica, Livagje and Çagllavica	28,000.00
Total Graçanicë		298.000.00
1	Dragash-Construction of the park in Dragash	25,500.00
2	Dragash-Construction of the sewage system in the village of Buqe	6,119.00
3	Dragash-Construction of the water supply in the Kukuljane area in the village of Kukajan	18,430.00
4	Dragash-Construction of the roads and construction of the sewage system on the Jarilice road in the village of Zlipotok	20,000.00
5	Dragash-Renovation of the spring and the catchment and the water supply on the Destanofci road in the village of Vranic	15,000.00
6	Dragash-Regulation of the water supply on the Dielli road within the village of Brrut	7,000.00
7	Dragash-Construction of the sewage system and the construction of the Brezne-lake road in the village of Brezne	104,072.00
8	Dragash-Construction of the main water supply in Dragash, Xerxë, Rrencë, Kapre, Bellobradë, Brutë, Zgatar, Krstec, Rapqë, Plavë, Brezne	1,896,050.00
9	Dragash-Construction of the water purification and filtration plant at the source of the Radesha River in the village of Radesh	500,000.00
10	Dragash-Regulation of water catchments and renovation of water catchments in the places Gjybra e Pasha and Brezhda in the village of Blaç	15,000.00
11	Dragash-Construction of water supply on the Qendra street in the village of Orqusha	10,000.00
12	Dragash-Construction of sewage on the Imamaj street and repair of the old water reservoir in the Kaboja place in the village of Bresane	15,000.00
13	Dragash-Construction of water catchments in the places Guri Gat, Del Uji and Gurost e Pordardhom in the village of Kuk	20,000.00
14	Dragash-Construction of sewage, cubication on the Ogradja street in the village of Brrut	18,000.00

15	Dragash-4 Construction of a park on the Shkëndija street, Pifte neighborhood in the village of Blaç	15,000.00
Total Dragash		2,685,171
1	Prizren-Construction of sewage in Hoçë e Qytetit	70,000.00
2	Prizren-Regulation of infrastructure in Zym, sewers and roads	50,000.00
3	Prizren-Construction of fecal and atmospheric sewage along the old transit (KFOR)	100,000.00
4	Prizren-Construction of infrastructure (roads, sewers, water supply, etc.) in the "Jeta e re" neighborhood	150,000.00
5	Prizren-Construction of infrastructure (roads, sewers, water supply, etc.) Tusus	150,000.00
6	Prizren-Construction of the water supply in Lubizhda of Prizren, construction of a new basin	200,000.00
7	Prizren-Regulation of the riverbed in Lutogllavë	70,000.00
8	Prizren-Construction of the Lumbardhi riverbed from the bridge near the University Campus, continuation of the flow	200,000.00
9	Prizren-Construction of infrastructure (roads, sewage, water supply, etc.) in Kobaja	50,000.00
10	Prizren-Installation of water-mesures and manholes for consumers on public property-Zhur Dobrushtë, Vërmicë, Shkozë, Vlashnje, Muradem, Kobaja and Nashec	500,000.00
11	Prizren-Rehabilitation of the water supply network on the "Mother Teresa" street	100,000.00
12	Prizren-Construction of sewage in Landovicë	50,000.00
13	Prizren-Construction of infrastructure in Malësia i Re - sewage and alleys and water supply and construction of sewage in Lutogllavë	100,000.00
14	Prizren-Construction of infrastructure in Zojz, roads and sewerage	100,000.00
15	Rehabilitation of the water supply network in the "Kurilla" neighborhood	100,000.00
16	Prizren-Regulation of roads, sewerage, water supply and public lighting in the "Dardania II" neighborhood	800,000.00
17	Prizren-Construction of roads and sewerage in Grazhdanik	50,000.00
18	Prizren-Construction of roads, sewerage and public lighting in Krajk	70,000.00
19	Prizren-Construction of open sewerage, protective walls and regulation of alleys in the village of Krushë e Vogël	70,000.00

20	Prizren-Construction of sewerage, roads and regulation of the ravine in Jeshkovë	150,000.00
21	Prizren-Construction of road and sewerage in Poslisht	100,000.00
22	Prizren-Construction of roads and sewerage in the "Bajram Curri" neighborhood in the city of Prizren	150,000.00
23	Prizren-Construction of roads and sewerage in the "11 Marsi" neighborhood of the city of Prizren	70,000.00
24	Prizren-Construction of roads and sewerage in the village of Kushnin -Has	50,000.00
25	Prizren-Construction of roads and sewage in the "Arbana" neighborhood in the city of Prizren	100,000.00
26	Prizren-Construction of roads and sewage in the villages of Zhupa	100,000.00
27	Prizren-Construction of roads and sewage in Piran	50,000.00
28	Prizren-Construction of roads and sewage in Lubizhda i Hasit	50,000.00
29	Prizren-Construction of roads and sewage in Skorobisht	130,000.00
30	Prizren-Expansion of the water supply network in the "Hoxhaj" and "Xhahaj" neighborhoods in Petrova	50,000.00
31	Prizren-Regulation of sidewalks and sewage in Bregdri	50,000.00
32	Prizren-Construction of roads and sewage in Mazrek	20,000.00
33	Prizren-Construction of sewage in Srbica e Epërme	70,000.00
34	Prizren-Increasing the drinking water capacity in Nashec-construction of a water reservoir	70,000.00
35	Prizren-Construction of sewage in Nashec	70,000.00
36	Prizren-Construction of sewage in village of Shkozë	40,000.00
37	Prizren-Renovation of the park in Lubinje i Poshtme	40,000.00
38	Prizren-Renovation of the park and bicycle lane in Gërnqare	60,000.00
39	Prizren - Rehabilitation of infrastructure (paving, sewage, water supply, etc.) in Shadervan	100,000.00
40	Prizren- Construction of sewage in Jeshkovë	50,000.00
41	Prizren- Rehabilitation of sewage and water supply in the main parts of the city: Shadervan, Ortokoll, Bajram Curr, Arbane, etc.	250,000.00
42	Prizren- Rehabilitation of water supply on "Edit Durham" street in Prizren	150,000.00

43	Prizren- Rehabilitation of irrigation canals and drainage of agricultural lands-Korishe, Velezh, Nashec, Hoça e Qytetit, Vlashne, Romaje	80,000.00
44	Prizren- Construction of infrastructure (roads, water, sewage) in two water sources in the village of Vërmicë	50,000.00
45	Prizren- Construction of infrastructure (roads, sewage, environment) of mountain roads in the region of Sharr (Zhupa), Zhur, Vërrinit, Hasi and Kabash-Korishë	50,000.00
46	Prizren- Construction of infrastructure (roads, water, sewerage) Church of Saint Peter - Kabashe in Korishe and the Kallugjerit Stone in Jeshkove-Billushe	80,000.00
Total Prizren		5,210,000.00
1	-Rahovec-Regulation of river beds, streams Krushë e Madhe, Polluzhe, Radoste, Dejnë, Celin, Sapnic	350,000.00
2	Rahovec- Creation of green spaces Rahovec-Xerxe-Kramovik-Drenoc-Opterush-Krushë e Madhe	21,120.00
Total Rahovec		371,120.00
1	Suharekë- Construction of the "Toplluha" river beds and their reconstruction	70,000.00
2	Suharekë - Construction of green and recreational areas in Mushtisht, Samadraxha, Suhareka, etc.	104,458.00
3	Suharekë-Construction of the wastewater plant in Dubrava	90,000.00
4	Suharekë--Construction of the dam on the "Toplluha" riverbed in the city of Suhareka	80,000.00
5	Suharekë- Construction of the wastewater plant in Sllapuzhan	90,000.00
6	Suharekë- Construction of the water supply network in Sllapuzhan and the city of Suhareka	100,000.00
7	Suharekë- Construction of irrigation systems for agricultural areas in Reshtan, Studenqan, Samadraxha, Neperbisht, Mushtisht, Vraniq, Suhareka, Gelance	40,000.00
Total Suharekë		574,458.00
1	Malishevë-Regulation and cleaning of the Mirusha River	30,000.00
8	Malishevë-Water supply in the villages: Bellanicë, Bubavec, Marali, Gajrak, Gurishtë, Dragobil and Pagarushë	30,000.00
3	Malishevë-Regulation of the main sewage collector - PHASE I Bubël - Lubizhdë, 2.5 km	100,000.00

4	Malishevë-Regulation of sewerage in the villages: Bubavec, Kijevë, Drenoc, Banjë and in the "Mirëdita" neighborhood in Malishevë	30,000.00
5	Malishevë-Construction of roads, atmospheric sewage, and public lighting in the "Mirëdita" neighborhood - Malishevë	291,401.00
6	Malishevë-Construction of a park in the village of Mirushë	100,000.00
7	Malishevë-Regulation of sewerage in the villages of: Banjë, Mirushë, Kërvasari, Temeqinë, Nguncat, Senik, Pagarushë, Kijevë, Gurbardhë and Shkarashnik	100,000.00
Total Malishevë		681,401.00
1	Mamushë-Asphalting, sewerage and paving of Mamushë-Medvec-Neperbisht roads and Jenimahale-Ortamahale-Schitlermahale neighborhoods	48,000.00
2	626000 - Mamushë-Renovation of asphalting, sewerage and paving of roads on Kisla-Cumuryet-Bahcelik-Huryet-Asler-Demirci and Kultur roads	100,268.00
Total Mamushë		148,268.00
1	Deçan -Construction of the Lumbardhi riverbed in Deçan phase II	60,000.00
2	Deçan- Construction of sewage system in the village of Dranoc phase II	90,000.00
3	Deçan Mamushë-Water supply in `Bjeshkë e Madhe` and other mountains phase II	70,000.00
4	Deçan - Construction of sewage system on `Elena Gjika` street in Deçan	50,000.00
5	Deçan- Construction of irrigation canals in Deçan, Carrabreg, Beleg, Kodrali, Irzniq	50,000.00
Total Deçan		320.000.00
1	Gjakova-Regulation of the Krena Riverbed	500,000.00
2	Gjakova-Remediation and construction of parks - Qerim, Piskotë, Berkoc, Blloku i Ri, Has, Rekë e Mirë, Rekë e Keqe, Dushkaj	250,000.00
3	Gjakova-Rehabilitation of wastewater and atmospheric waters in the city-Rekë Keqe, Rekë e Mire, Dushkaj, Has	150,000.00
4	Gjakova-Remediation of dams and irrigation canals in the Has, Rekë e Keqe, Rekë e Mirë and Dushkaj regions	100,000.00
5	Gjakova-Construction of irrigation canals in the Has, Rekë e Keqe, Rekë e Mirë and Dushkaj regions	200,000.00
6	Gjakova-Construction of the path and the `Shkugëza e Sfidave`	70,000.00

Total Gjakovë		1,270,000.00
1	Istog-Construction of sewerage Kaliqan-Orroberrdë-Studenicë-Kaliqan, Phase III	50,000.00
2	Istog-Construction of sewerage in the village of Mojstir	15,000.00
3	Istog-Construction of sewerage in the village of Drejë	10,000.00
4	Istog-Construction of sewerage Prigodë	20,000.00
5	Istog-Construction of infrastructure on the Qaush river	50,000.00
6	Istog-Construction of sewerage in the village of Zallq	20,000.00
7	Istog-Construction of sewerage in Shushicë e Ulët neighborhood "Alijaj, Nimanaj, Nekaj, Ademaj and Jahaj"	20,000.00
8	Istog-Construction of sewerage in Istog e Poshtëm neighborhood "Dëshmorët e Kombit"	10,000.00
9	Istog-Construction of sewerage in Lluga - Llukavc, Curraj neighborhood	29,000.00
10	Istog-Construction of sewerage in Prekallë-Maxharraj, Osmanaj neighborhood	5,000.00
11	Istog-Construction of irrigation canal "Kloka" Muzhevënë- Lluga	20,000.00
12	Istog-Concreting of irrigation canal Ahmet Cani neighborhood	25,000.00
13	Istog-Concreting of the irrigation canal Prigod-Blakaj neighborhood	25,000.00
14	Istog-Concreting of the irrigation canal in the "Bajramaj" neighborhood in Gurrakoc	40,000.00
15	Istog-Concreting of the irrigation canal "Ahmet Aga" line in Vrellë	60,000.00
16	Istog- Irrigation canal Istog i Poshtëm-segment	29,000.00
17	Istog- Concreting the Baice-Kashice irrigation canal	29,000.00
18	Istog- Renovation of sidewalks in the urban areas of Banje, Vrellë, Gurrakoc and Istog	40,000.00
19	Istog- Construction of parks and infrastructure in Banje	76,000.00
20	Istog- Renovation of the Istog riverbed, from the water source to the Trofta Hotel bridge (first phase)	120,000.00
	Istog- Construction of a new water supply, greening and lighting system in the center of Istog	
Total Istogu		856,300.00

1	Klina-Construction of green areas (parks) Zajm, Caravik, Poterq, Zllakuqan, Shtupel, Jashanice, Gllareve, Volljake, Budisalce	70,000.00
2	Klina-Construction of wastewater treatment plants in Zllakuqan, Jashanice, Shtarice, Gllareve, Radulloç	70,000.00
3	Klina-Construction of irrigation canals Budisalc-Jagode-Radulloç, Poterq-Dollove	130,000.00
4	Klina-Construction of water supply network in the neighborhoods of Arberia, Tigvesh, Sheshi Nena Tereze, Dollc-Dresnik, Grabanicë, Gremnik, Drenoc	30,000.00
5	Klina-Construction of an accumulation lake for drinking water supply in Klina	80,000.00
6	Klina-Construction of the riverbed of the Lumbardhi River of Peja in Drenoc-Grabanic	50,000.00
7	Klina-Construction of the riverbed of the Klina River, neighborhood Arbëri, Jarina Spring-Pograxhe	280,000.00
8	Klina-Construction of hiking trails and road infrastructure in the Jarina Gorge-Pograxhe-Jashanicë	80,000.00
Total Klinë		760,000.00
1	Peja-Water supply for the villages of Lugut Barani	400,000.00
2	Peja- Riverbed regulation, transit bridge to the village of Zahaq	100,000.00
3	Peja-Water supply construction in Stankaj, Bogë, Shkrel, Pepaj, Malaj, Shtupeq i Madh, and Kuqishtë	150,000.00
4	Peja-Construction of the Raushiq-Loxhë Sewerage - plant	176,374.00
5	Peja-Construction of the Sewerage in the Kapeshnice, Lagje e Gurit, Lagje Kristal, Baran Village	150,000.00
6	Peja-Reconstruction of the River Wall and covering the wall with stones	100,000.00
7	Peja-Construction and regulation of green spaces on the edge of Lumbardhi and in the Asllan Çeshme neighborhood	250,000.00
8	Peja-Construction of the plant in Jabllanicë of Leshan	179,271.00
9	Peja-Purchase of a pickup truck for the Municipal City Cleaning Team	60,000.00
10	Peja-Construction of an irrigation canal in the villages of Poçestë, Dobërdol and Graboc	52,000.00
11	Peja-Construction of an irrigation canal in the villages of Pavlan, Qyshk, Ramun and Llabjan	79,000.00

12	Peja-Construction of an irrigation canal in the villages of Gllavigjicë of Kisha, Leshan and Kliqinë in the Desku neighborhood	41,500.00
13	Peja-Construction of irrigation canal in the villages of Trestenik, Ruhot, Nabërgjan and Nakëll	82,000.00
14	Peja-Construction of irrigation canal in the villages of Nepole to Mulliri, Kosuriq, Baran and Çallapek	37,000.00
15	Peja-Construction of irrigation canal in the villages of Raushiq, Loxhë and Broliq	17,000.00
16	Peja -Construction of irrigation canal in the villages of Ozdrim, Dubovë and Podgur	92,000.00
Total Pejë		1,966,145.00
1	Junik -Regulation of infrastructure for the inert waste landfill	10,000.00
2	Junik -Reconstruction of the Erenik River bed	100,000.00
3	Junik -Construction of irrigation canals in the Pepsh, Krraku, Arifaj neighborhoods	10,000.00
4	Junik -Sewerage of wastewater in the Moronicë location and the Krasniq neighborhood	9,326.00
Total Junik		129,326.00
1	Leposaviq-Regulation of the Bistrica River	250,000.00
Total Leposaviq		250,000.00
1	Mitrovica-Construction of the Panoramic Park in the village of Zasella	5,000.00
2	Mitrovicë-Opening and marking of tourist trails in the area of Shala and the Iber River belt	50,000.00
3	Mitrovicë-Regulation of points for placing waste containers on the streets: Mbretëresha Teutë, UÇK, Ahmet Selaci, Sasli Çeku	50,000.00
4	Mitrovicë-Regulation of the Iber River bed	100,000.00
5	Mitrovicë-Regulation of the Trepça River bed	110,000.00
6	Mitrovicë-Expansion of the sewage network and manholes in Shala i Bajgora, Koshtovë, Broboniq, Zhabar,	70,000.00
Total Mitrovicë		385,000.00
1	Skënderaj-Rehabilitation of sewage in the villages of BL Klina e Epërme, Runik, Turiqefc, Prekaz, Polac, Qirez, Likofc and Rezallë	15,000.00
2	Skënderaj-Purchase of motorized equipment for cleaning the city	50,000.00

3	Skënderaj-Fecal sewage in the village of Klina e Ulët	70,000.00
4	Skënderaj-Sewerage in the villages of BL Likovc	23,639.00
5	Skënderaj-Sewerage in BL Qirez	95,000.00
6	Skënderaj-Fecal sewage Syrigane- Bajë	15,000.00
7	Skënderaj-Regulation of the park at the Center for Social Work	5,000.00
Total Skënderaj		273,639.00
1	Vushtrri-Main collector Nadakoc-Studime	86,795.00
2	Vushtrri-Main collector Sfaraqak	66,008.00
3	Vushtrri-Construction of sewage system in Dumnica	35,000.00
4	Vushtrri-Construction of sewage system in Pestovo	20,000.00
5	Vushtrri-Construction of sewage system in Gojbula	13,000.00
6	Vushtrri-Construction of sewage system in Reznik	4,000.00
7	Vushtrri-Sewerage system in Zhilivoda-Bivolak	20,000.00
8	Vushtrri-Construction of sewage system in Stanoc e Epërm - Stanoc e Poshtëm Vushtrri-Construction of sewage system in Mihaliq	40,000.00
9	Vushtrri-Construction of sewage system in Shitarica	30,000.00
10	Vushtrri-Construction of sewage system in Akrashticë - Balincë	25,000.00
11	Vushtrri-Main collector Nadakoc-Studime	25,000.00
12	Vushtrri-Construction of sewerage in Str., "Nimon Ferizi"	2,000.00
13	Vushtrri-Construction of sewerage in Stroc	9,000.00
14	Vushtrri-Construction of sewerage in Bruznik	20,000.00
15	Vushtrri-Construction of sewerage in Bequk	15,000.00
16	Vushtrri-Construction of sewerage in Pantinë- "Lagja Shaqiri"	25,000.00
17	Vushtrri-Construction of sewerage in Glovotin	10,000.00
18	Vushtrri-Construction of sewerage in Galicë	4,000.00
19	Vushtrri-Construction of sewerage in Panitinë-Oshlan	20,000.00
20	Vushtrri-Construction of sewerage in Liqej	35,000.00
21	Vushtrri-Construction of sewerage in Duboc	7,000.00
22	Vushtrri-Construction of sewerage in Smrokonica	10,000.00
23	Vushtrri-Construction of sewerage in Bukosh	35,000.00
24	Vushtrri-Regulation of the riverbed of the Terstena, Podrança and the rivers in Studime and Smrekonica	280,000.00
25	Vushtrri-Construction of sewerage in Kollë	35,000.00
26	Vushtrri-Construction of sewerage in Maxhunaj Dolak	25,000.00

27	Vushtrri-Regulation of the Tërstena-Silnica river continued	8,000.00
28	Vushtrri-Regulation and cleaning of the Llap-Silnica river	150,000.00
29	Vushtrri-Planting of ornamental trees	35,000.00
Total Vushtrri		1,089,803.00
1	Zveçan-Regulation of sewage in the villages of Boletin and Zhazhe	75,000.00
Total Zveçan		75,000.00
1	North Mitrovica-Construction of the water supply network towards the Brdjani settlement in North Mitrovica	140,000.00
Total Mitrovica Veriore		140,000.00
1	Gjilan-Construction of atmospheric sewage in a part of Str. Lidhja e Prizerenit, Str. Ahmet Malisheva, a part of Str. Mulla Idrizi and Mergimtarët e Gjilanit	150,000.00
2	Gjilan-Construction of atmospheric sewage in the "Baja" park - Gjilan	31,705.00
3	Gjilan-Construction of roads and fecal sewage in the "Eighth Neighborhood" - Gjilan	100,000.00
Total Gjilan		281,705.00
1	Kaçanik- Construction of irrigation canals in the villages of Biqec, Kovaqec and Dubravë	50,000.00
2	Kaçanik- Construction of a recreational park in the tourist area of Shtrazë	45,000.00
3	Kaçanik- Construction of river beds and streams in the neighborhood of Zeneli, Dema-Bob, Rakoc, Mejdi Dalloshi-Kaçanik city and in the village of Stagovë	130,000.00
Total Kaçanik		225,000.00
1	Kamenicë-Construction of sewage system in Kamenicë and villages-Shipashnice, Karacave, Busavatë, Kopernicë, Koretin, Topanicë	195,401.00
2	Kamenicë- Construction of automatic irrigation system for the city park	5,000.00
3	Kamenicë- Construction of solid waste landfills in Berivojce, Topanicë, Kolloleq and Novoselle.	10,000.00
4	Kamenicë-Construction of drinking water reservoir in Berivojce	30,000.00
5	Kamenicë- Construction of drinking water system in the villages of Muqivërc, Rogane, Novoselle, Hodonoc, Petrit, Dajkoc, Hogosht and Shipashnice	10,000.00

6	Kamenicë-Construction of parks in Kamenicë-park in the old city center, park at the boulevard amphitheater, park behind the house of culture in the city	30,000.00
Total Kamenicë		280,401.00
1	Novoberdë - Construction and rehabilitation of sewages-Koretiste, Kusce, Stanisor and Prekovce	7,000.00
2	Novoberdë - Construction and rehabilitation of sewages Bajrovit	5,000.00
Total Novoberdë		12,000.00
1	Shtërpcë -. Construction of the water supply network in the upper part of the village of Sevcë	15,000.00
2	Shtërpcë -Construction of the water supply network in the village of Popovcë	15,000.00
3	Shtërpcë -Construction of fecal and atmospheric sewage on the Milutina Bojica street, in the village of Berevcë	15,000.00
4	Shtërpcë -Construction of drinking water reservoirs in the village of Gotovushë	5,000.00
Total Shtërpcë		50,000.00
1	Ferizaj-Regulation of river beds and water channels in Talinovc, Koshare, Tern, Pleshinë, Gremë, Gaçkë	100,000.00
2	Ferizaj- Regulation of solid waste disposal sites in public spaces in Ferizaj, Komogllavë, Manastircë, Neredime, Mirashë, Rahovicë.	20,000.00
3	Ferizaj- Regulation of the sewerage and water supply network in Ferizaj, Komogllavë, Greme, Neredime, Fsh. i Vjetër, Bibaj, Dardani, Rakaj, Gaçkë, Tern, Varrosh	300,000.00
4	Ferizaj- Regulation of the sewage network on Sadik Bega Street	50,000.00
5	Ferizaj- Regulation of the sewage system and roads in the Mehaj neighborhood, Dremjak village	50,000.00
6	Ferizaj- Regulation of the sewage system on Naim Frashëri Street in Ferizaj	75,000.00
7	Ferizaj- Construction of the sewage system and relocation of the water supply pipe in the village of Surqinë	100,000.00
8	Ferizaj- Regulation of the water supply in the village of Greme	100,000.00
9	Ferizaj- Construction of the water supply in the village of Gaçkë	30,000.00

10	Ferizaj- Northern sewage collector from the village of Talinoc i Muhaxherëve to the village of Babush i Ri, continuation of the existing collector	30,000.00
Total Ferizaj		855,000.00
1	Viti- Construction of waterworks Ramjan - Novoselë	60,000.00
2	Viti- Construction of waterworks Devajë - Radivojc	40,000.00
3	Viti- Construction of sewerage in Viti, Kabash, Binçë, Gërmovë, Drobesh, Beguncë, Gjylekar, Budrika	50,000.00
4	Viti- Construction of sewerage in Trestenik, Radivojc, Pozheran, Sllatinë e Poshtme Vërban	100,000.00
Total Viti		250,000.00
1	Hani i Elezit- Construction (erection of landfill) for solid (inert) waste	10,000.00
2	Hani i Elezit- Regulation of the water reservoir in the village of Seçishtë	5,000.00
3	Hani i Elezit- Increasing water capacities in the New Neighborhood and in Han i Elezit	23,000.00
4	Hani i Elezit Regulation of sewerage in Hani i Elezit on Str. Isa Berisha and rural areas in the villages: Paldenicë, Seçishtë, Pustenik, Gorancë, Dermjak, Krivenik, Dimcë	23,000.00
5	Hani i Elezit- Water plant from the Dimcë water supply, House of Culture - Imri Curri, City Stadium - Suad Brava- Expropriation	41,824.00
Total Hani i Elezit		102,824.00
1	Kllokot - Regulation of the riverbed of the Old Morava in Kllokot	62,992.00
Total Kllokot		62,992.00
1	Ranillug- Construction of a park in the place called "kameniqe" in the village of Ranillug	14,525.00
Total Ranillug		14,525.00
Total environmental capital projects for municipalities supported by the state budget 2024		22,733,381.00 Euro

The annual report on the state of the environment in Kosovo 2024,
is prepared by the Directorate for Environmental Assessment of
KEPA,
with the support of other units of the Kosovo Environmental
Protection Agency.

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Prishtinë, October 2025