14 Environment policy

A healthy and sustainable environment is crucial for economic competitiveness as it supports resource efficiency, enhances resilience to climate-related risks, fosters innovation, and attracts investments while mitigating environmental degradation and associated costs. The chapter analyses the robustness and comprehensiveness of environment policies across four sub-dimensions. The first sub-dimension, climate action, assesses strategies aimed at both mitigating and adapting to climate change. The second sub-dimension, circular economy, focuses on policies promoting waste minimisation, resource efficiency, as well as sustainable production and consumption. The third sub-dimension, protection of ecosystems, explores challenges in managing freshwater, biodiversity and forestry, as well as land-use. The fourth sub-dimension, depollution, analyses policies related to air quality, water supply and sanitation, and industrial risk management, all of which are paramount for enhancing competitiveness while ensuring environmental sustainability.

Key findings

Kosovo's score for environment policy has shown improvement since the last *Competitiveness Outlook* (Table 14.1), although it remains below the regional average. Progress has been noted in strengthening circular economy policies and depollution legislative frameworks. Nonetheless, additional efforts are required to reinforce climate action commitments and improve ecosystem protection.

Table 14.1. Kosovo's scores for environment policy

Dimension	Sub-dimension	2018 score	2021 score	2024 score	2024 WB6 average
Environment	13.1: Climate action			2.3	2.5
	13.2: Circular economy			2.3	2.2
	13.3: Protection of ecosystems			1.8	2.1
	13.4: Depollution			2.3	2.3
Kosovo's overall score		1.8	2.1	2.2	2.3

The key findings are:

- Kosovo's efforts to address climate change have advanced, particularly with the adoption of the Law on Climate Change, which aims to improve institutional co-ordination and establish a system for monitoring, reporting, and verifying greenhouse gas emissions. Nevertheless, the framework lacks decarbonisation targets to achieve net-zero emissions by 2050, and adaptation measures need to be enhanced.
- Kosovo is advancing towards the transition to a circular economy, with the adoption of a
 roadmap and mainstreaming of the concept into relevant sectoral policies. Nevertheless,
 understanding of the concept is still limited and initiatives aimed at raising awareness among
 citizens and businesses remain limited. Moreover, despite improvements in waste collection
 services, recycling rates currently stand at less than 1% of treated waste, underscoring the
 pressing need for enhanced waste management practices to support the transition to a circular
 economy.
- Pollution and illegal activities continue to strain ecosystems in Kosovo, although there have been enhancements to protection frameworks, particularly through the development of new legislation for freshwater, biodiversity, and forestry management. However, the implementation of these policies is limited by resource shortages, inadequate data, and lack of monitoring.
- Kosovo has taken preliminary steps to address air, water, and soil pollution, which remain significant environmental and health challenges. While enforcement efforts need to be intensified, policies for air quality have been strengthened, investments are being made in wastewater treatment, and the legislative framework on industrial pollution has been strengthened.

State of play and key developments

Sub-dimension 13.1: Climate action

From 2011 to 2020, Kosovo witnessed a slight upward trend in greenhouse gas (GHG) emissions; the overall growth of 1.3% is primarily attributed to the prevalent use of fossil fuels in the energy and transport sectors (Eurostat, 2023_[1]). Although the economy's emissions per capita remain lower than the European average, its emissions intensity per GDP unit is notably high, primarily due to reliance on carbon-intensive lignite coal. Kosovo faces significant climate change risks, including droughts, floods and wildfires, which pose substantial threats to both its economy and population. Projections suggest that regional warming could lead to a reduction in snow cover by 50-days annually by 2050, while four out of five water basins may experience increased stress or scarcity. Furthermore, climate change poses a threat to the agriculture sector, which contributes 7% to GDP, potentially exacerbating poverty levels in rural areas (IMF, 2023_[2]).

Kosovo has committed to achieving carbon neutrality by 2050 by endorsing the Green Agenda for the Western Balkans in 2020. Important strides have been achieved in developing a climate change framework, though it remains in its early stages. In addition to the Climate Change Strategy (2019-28), the first Law on Climate Change was adopted in January 2024, harmonising the framework with EU legislation. During the assessed period, the implementation and monitoring of the Climate Change Strategy have, however, been limited. Nevertheless, efforts to co-ordinate climate change measures are anticipated to improve with the re-establishment of the National Climate Change Council in 2021, the aim of which is to mainstream climate action across relevant sectors and enhance public awareness. Since 2021, the Council has also been leading the development of voluntary Nationally Determined Contributions (NDC), with a target to reduce greenhouse gas emissions by approximately 16.3% by 2030 compared to 2016 levels. Moreover, the enactment of Kosovo's Law on Environmental Impact Assessment, adopted in 2023, could represent a crucial measure in climate change efforts if rigorously enforced. The Law mandates comprehensive assessments and corresponding mitigation and adaptation measures for project permits, thereby integrating climate considerations into decision-making processes. The Law on Climate Change also foresees the establishment of a Division for Climate Change with the objective to increase human and technical capacities, notably through training and capacity-building activities. The latter have begun in several municipalities, notably as part of the Global Climate Promise Project of the United Nations Development Programme (UNDP).3

In addition to enhanced efforts to bolster co-ordination and build capacities, strides have been made in the development of the climate change mitigation framework. While the Climate Change Strategy lacks specific decarbonisation targets to achieve net-zero emissions by 2050, Kosovo has initiated the development of the National Energy and Climate Plan (NECP). The first draft is undergoing revision to incorporate the comments from the Energy Community Secretariat and the legal framework for its adoption has been established by the recently enacted Law on Climate Change. The Law will also regulate a system for monitoring, reporting, and verifying greenhouse gas emissions. Currently, the Kosovo Environmental Protection Agency (KEPA) has prepared a greenhouse gas inventory until 2021, which includes emissions from energy, Industrial Processes and Product Use (IPPU), agriculture, Land Use, Land Use Change, and Forestry (LULUCF), and waste, but this inventory is not publicly available. Kosovo has additionally pledged to decrease emissions from the energy sector through adoption of the new Energy Strategy (2022-31), which targets a 32% reduction in emissions and includes commitments to introduce carbon-pricing instruments by the end of 2025. The definition of vulnerable energy citizens will also undergo revision in 2024, with the aim to guarantee the effectiveness of subsidies and to prevent the energy transition from marginalising the poorest population. Nevertheless, economic instruments and incentives to discourage high-carbon activities remain scarce and are mainly targeted at promoting renewables.

Climate change adaptation policies are gaining momentum, though the overall framework remains limited. The recently enacted Law on Climate Change aims to bolster national capacity to adapt to the adverse effects of climate change and proposes the establishment of a Scientific Advisory Board. Tasked with assessing vulnerabilities, overseeing implementation and enhancing co-ordination, the Board would involve stakeholders from central, local, and non-governmental sectors. In this regard, Kosovo intends to update its 2016 Disaster Risk Assessment, albeit without a specific timeline. Despite limited considerations for adaptation in the Climate Change Strategy, efforts are under way to develop a National Adaptation Strategy, focusing on disaster risk reduction and climate change vulnerabilities; drafting is planned for the end of 2024. Additionally, adaptation measures encompassing water, agriculture, forestry, land use, biodiversity, and health sectors are planned for inclusion in the voluntary NDC. Some municipalities have established Municipal Directorates for Protection and Rescue to address natural hazards, but they face challenges related to competencies and capacities. Furthermore, some municipalities affected by floods in 2023 are in the process of formulating emergency response plans to enhance preparedness. Considerable progress has been achieved in increasing resilience to floods, with advancement in mapping flood risks with the support of international partners. A flood risk management plan is also due to be developed to better guide infrastructure investments and reduce risks to human, ecological and economic health. Nevertheless, Kosovo's Early Warning System remains incomplete and data collection on climate is limited, hampering effective readiness and management of climate-related risks.

Sub-dimension 13.2 Circular economy

Transitioning to a circular economy requires implementing measures that encompass the entire life cycle of products, spanning from design and manufacturing to consumption, repair, reuse, recycling, and the reintegration of resources into the economy. In an effort to promote sustainable practices and improve resource management, Kosovo adopted a circular economy roadmap in 2023. This roadmap identifies six key areas for action, encompassing food and forest systems, the creative and retail sectors, the built environment, and manufacturing. Recognising the interconnectedness of these sectors, the roadmap also includes horizontal areas to facilitate the transition to a circular economy, such as waste and water management, transport, green public procurement, digitalisation and information and communication technology (ICT), energy, and education for sustainable and circular practices. Moreover, circular economy principles have been increasingly integrated into relevant sectoral policies. For instance, the Integrated Waste Management Strategy (2020-29) prioritises promoting circular economy in waste practices. The Strategy for Agriculture and Rural Development (2022-28) addresses sustainable agriculture and food production and mentions principles of the circular bioeconomy. Additionally, the Strategy for Industrial Development and Business Support (2023-30) includes objectives aimed at advancing the circular economy; these involve supporting businesses in increasing recycling, promoting circular practices in the manufacturing, production and consumption of green products, and enhancing technological efficiency. Efforts to raise awareness about circular economy concepts have been initiated as part of the Integrated Waste Management Strategy, including activities to reduce plastic bag usage and promote waste utilisation. Although there are plans to increase awareness of circular concepts among the private sector, particularly through seminars on circular economy business models for manufacturing in 2023-24 as outlined in the Economic Reform Programme, such activities had not been initiated at the time of writing. Nevertheless, international partners are increasingly collaborating with civil society organisations and businesses to promote circular practices. This support includes providing acceleration services for SMEs offering green solutions⁵ and grants for reuse services.⁶

Waste management continues to pose a significant environmental challenge in Kosovo, with over 99% of municipal waste ending up in landfills. Waste separation at source remains largely nonexistent and recycling activities are minimal, primarily carried out by the informal sector. However, notable progress has been made in expanding the coverage of waste collection and treatment services. From 2015 to 2019, there was a reported 40% increase in total municipal solid waste treatment, largely due to a rise in the

percentage of the population connected to waste collection services (EEA, 2022_[3]). By 2021, coverage reached 90% of the population, a 5% increase from the previous year, meeting the initial target outlined in the Kosovo Integrated Waste Management Strategy (KIWMS) (2021-30) (Kosovo Environmental Protection Agency, 2021_[4]). Despite its recent adoption, the KIWMS is undergoing revisions to further align recycling targets with those of the EU, and is planned to be approved in the second half of 2024. The waste management legislative framework was strengthened with the revision of the Waste Law, amended in 2022 to align with the EU Waste Framework Directive. The revised Law specifically focuses on circular economy, introduces the legal basis for the Deposit Refund System (DRS) and extended producer responsibility (EPR), and prescribes sanctions on waste dumping. In line with the revised Law and with the support of international partners, Kosovo is working on a business case for DRS implementation for bottles and cans⁸ and conducting a pre-design study for EPR across four waste streams. Additionally, in 2023 Kosovo took steps towards aligning with EU Directives on Packaging and Packaging Waste by adopting the Administrative Instruction on Packaging and Packaging Waste. This regulation aims to mitigate the environmental impact of certain plastic products by focusing on prevention and enhanced recycling practices, although it does not include a prohibition on single-use plastics. 10 Efforts were also undertaken to address the proliferation of illegal landfills, driven by performance-based grant schemes for municipalities. This initiative, led by the government of Kosovo and financed by international partners between 2017 and 2021, tasked municipalities with identifying and mapping out the locations and categories of illegal dumpsites. 11 In 2022, a total of 736 illegal landfills were recorded across all 38 municipalities, marking a reduction by almost half compared to the number recorded in 2020. Additionally, waste disposal to sanitary landfills increased by 9% during the same period.

While some investments are planned for the construction of landfills and closure of non-sanitary landfills in several cities through EU funding, ¹² further efforts are required to increase investments in new integrated waste management facilities and infrastructure to ensure proper waste disposal and boost recycling activities. Encouraging progress has been made in bio-waste management, with home-composting systems introduced in 18 out of 38 municipalities and the operationalisation of a composting plant in 2021 for garden and park waste in Pristina. Moreover, while challenges persist in the planning and enforcement of waste management, the quality of waste data collection and comparability was strengthened since the last assessment. With the support of an EU-funded project, KEPA has significantly enhanced its monitoring efforts. Data collection and processing now occur on an annual basis, and the reporting system has undergone digitalisation, facilitated by the National Waste Management Information System. In 2022, 33 municipalities reported their waste data, a notable increase from just 3 municipalities in 2021.

Sub-dimension 13.3 Protection of ecosystems

Kosovo has low renewable water resources, which stood at 1 600 m³ per person per year compared to the regional average of 9 805 m³ in 2018 (World Bank, 2018_[5]). With heavy reliance on internal sources, including limited inflow from the Ibër/Ibar River into Gazivoda Lake, and low externally provided water resources, Kosovo is particularly vulnerable to water scarcity. Compounding the challenges are high surface water pollution in urban areas, insufficient wastewater treatment infrastructure, and a lack of effective monitoring systems. These issues are further exacerbated by increasing demand for water resources, driven by pollution and the impacts of climate change. The **freshwater management** framework in Kosovo was further developed to address these challenges in the assessed period, although implementation has remained limited. Efforts are ongoing to strengthen the legislative framework, with the development of the Law on Water Resources and the Law on Financing the Management of Water Resources, scheduled to be adopted in 2024. Moreover, more responsible water management practices within the agricultural sector are expected to be enhanced with amendments to the Law on the Irrigation of Agricultural Lands, adopted in 2022. The amendments provide for increased punitive measures for illegal use of irrigation systems and damages resulting from negligent water usage. The First Review of the State Water Strategy (2017-36) for the period 2023-27 with a corresponding Action Plan for 2023-25

were adopted, aimed at providing clearer guidelines for consolidating the legal and institutional framework governing water management. While implementation has been limited in the first phase of the strategy due to limited capacities, funds have been secured from international partners for the enforcement of the subsequent phase. The delayed development of river basin management plans for the four main river basins ¹³ poses considerable challenges for freshwater management, particularly in establishing water protection zones. Without these zones, there are limitations in addressing cumulative impacts that economic activities, such as the development of hydropower plants, may have on freshwater resources. While KEPA regularly collects basic data on water resources and uses them to inform water management decisions, there is a notable absence of comprehensive data and forecasting measures. This gap hampers efforts to provide effective guidance for managing water resources, especially in safeguarding Kosovo's freshwater ecosystems against competing demands from agriculture, industry, and private households. Additionally, Kosovo has yet to establish a transparent water monitoring system accessible to the public.

Although relatively small in size, Kosovo is distinguished by rich biodiversity and a high rate of endemism. Moreover, forests accounted for 44.7% of Kosovo's total territory according to the 2012 inventory, a higher share than the EU average's 39.9% (World Bank, 2023[6]). However, over the past decade, forests have been excessively exploited for heating purposes and industrial activities, leading to concerns about illegal logging for timber sales, which persist as a serious issue. Since the last assessment, the **biodiversity and** forestry management framework has shown improvements, but implementation remains limited. Efforts are under way to develop a Nature Protection law aligned with the post-2020 UN Convention on Biological Diversity, Additionally, a new Forestry Law adopted in 2023 aims to promote sustainable forestry resource utilisation. Apart from the establishment of a Task Force for the Protection and Legal Use of Forests in 2021, progress in implementing measures outlined in the Forestry Sector Development Strategy 2021-30 has been slow due to reported resource shortages, particularly in addressing illegal logging. The absence of a recent economy-wide forest inventory since 2012 also hampers efforts to assess sustainable forest management. On nature conservation, while Kosovo has initiated inventories of natural habitats and species, little progress has been made in expanding protected areas. Although twelve new areas have been added to the national register - covering 11.6% of the territory in 2021, up slightly from 11.5% in 2019 - detailed regulatory plans for national parks remain incomplete. Efficient management of protected areas and prevention of illegal actions such as construction, hunting, and logging persist and require addressing (KEPA, 2022_[7]). Moreover, the absence of dedicated programmes for systematic biodiversity monitoring, including specific species, poses a barrier to effective conservation efforts, policy formulation, and sustainable resource management.

In Kosovo, approximately 5% of the land is designated as constructed area, while forests and semi-natural areas account for 57%, and agricultural land covers 38% (KEPA, 2022_[7]). However, due to incomplete building legalisation processes and ongoing construction without permits, official data on land occupation by the construction industry remain unavailable, particularly in rural areas (KEPA, 2022[7]). Other factors contributing to land degradation include soil pollution from industries, lack of environmental policies to reduce chemical use, and inadequate enforcement and assessment of land loss from construction, erosion, and degradation (KEPA, 2022_[7]). The land-use management framework remains underdeveloped, and limited progress has been achieved since the last assessment to address these challenges. The government established a Task Force for the Protection of Agricultural Land in July 2021, ¹⁴ demonstrating its commitment to regulate unplanned urban constructions and combat land degradation. Furthermore, amendments to the Laws on Land Regulation, Agricultural Land, and Treatment of Construction without a Permit were adopted in 2023, aimed at readjusting punitive measures and defining clearer responsibilities at both ministerial and local levels. However, implementation is hampered by the lack of data collection on land use and soil quality, despite some progress made through an ad hoc project in 2020 by the MAFRD, which trained farmers in soil analysis. The monitoring of environmental aspects related to land use is also hindered by the lack of personnel.

Sub-dimension 13.4 Depollution

Air quality continues to be a major health threat in Kosovo, with annual average concentrations of fine particulate matter (PM_{2.5}) reaching 16.4 micrograms per cubic metre air (µg/m³) in 2021, more than three times higher than WHO recommended levels of 5 μg/m³ (EEA, 2023_[8]). Air pollution in Kosovo stems from various sectors including energy, industry, transport, and domestic heating, and is exacerbated by the two ageing and highly polluting lignite-fired power plants, Kosovo A and B, situated a few kilometres from Pristina. Nonetheless, the air quality legislative framework has been enhanced with the enactment of the new Law on Air Protection from Pollution (2022), which defines institutional capacities and responsibilities to enhance air quality management and sets limits for air quality pollutants, in line with the EU Ambient Air Quality Directive. Air monitoring and reporting practices are also expected to improve with the adoption of the bylaw outlining criteria and methodology for air quality monitoring. 15 Air quality is currently monitored by 12 stations across two zones, but continuous monitoring at major industrial installations is not ensured for all types of pollutants. Moreover, maintenance of measuring devices is frequently challenging due to limited human and financial resources. Despite mandated under the Law on Air Protection from Pollution, several municipalities with heavily polluted zones have not yet developed local action plans on air quality. Such municipalities could take inspiration from the city of Pristina, which adopted its Air Quality Plan in June 2023 for a five-year period, although tangible progress of the plan's implementation is yet to be seen (Box 14.1).

Box 14.1. Pristina's Air Quality Plan 2023-28

The air quality in Pristina remains consistently poor, largely attributed the to two ageing and highly polluting lignite-fired power plants mentioned above, Kosovo A and B, located just a few kilometres from the city. Additionally, emissions from domestic heating and older diesel vehicles contribute to the problem, further exacerbating the pollution levels.

Air quality assessment in Pristina employs two monitoring stations to measure pollutants, including sulphur dioxide, nitrogen oxides, and particulate matter. Despite improvements, seasonal spikes in pollution underscore the ongoing need for targeted actions.

Strategic documents, such as the Municipal Development Plan, underscore Pristina's commitment to sustainable development, environmental preservation, and public health. In line with this commitment, the city has taken a proactive approach to addressing environmental concerns and mitigating air pollution, with the adoption of an Air Quality Plan for the 2023-28 period.

The Plan for Pristina includes a comprehensive set of six measures across different categories aiming to address pollution from various sources:

- 1. Cleaner vehicles for Pristina:
 - o Installation of particulate reduction filters on existing buses a programme to equip buses with selective catalytic reduction systems for nitrogen oxide by mid-2024.
 - Electric buses introduction of electric buses and replacement of older buses by the end of 2024, with financial support from the European Bank for Reconstruction and Development (EBRD).
 - Cleaner municipal vehicles modernisation of the municipal vehicle fleet, including waste collection and other service vehicles and the transition to electric vehicles where possible.
- 2. Promotion of local public transport and public green spaces:
 - Dedicated bus lanes and expansion of the bus network implementation of dedicated lanes for buses and expansion of the city's bus network to improve public transport efficiency.

- Public spaces and parks creation of new public spaces and parks, planting of seedlings, and creating green corridors to improve the urban climate and air quality.
- 3. Promotion of walking and cycling:
 - New pedestrian and cycling infrastructure development of new paths, safe environments for cycling, bicycle parking spaces, and a digital cycling map to encourage active transport modes.
- 4. Creation of a low emission zone (LEZ):
 - Designation and criteria for LEZ establishment of a low emission zone with defined criteria for vehicles allowed to enter, aimed at reducing emissions from older motor vehicles in the busiest parts of the city.
 - Identification and monitoring of vehicles use of cameras and vehicle licensing databases to monitor vehicles in the LEZ and detect those that do not comply with the standards.
- 5. Supplying cleaner heat:
 - Change of heating equipment improvement and replacement of heating equipment using wood or lignite with electric heat pumps or air-conditioned equipment, and thermal insulation of houses in the urban area of Pristina to reduce emissions from domestic heating.
 - Cleaner heat with solar energy introducing solar thermal energy for heating and hot water in residential units, targeting approximately 4 000 homes in Pristina and reducing over 13 500 tonnes of CO₂ equivalent (tCO₂eq) emissions annually.
- 6. Air quality monitoring in Pristina:
 - Enhanced monitoring system improvement of the air quality monitoring system with additional sensors and real-time data availability, aiming to better identify sources of emissions and manage air quality.

Source: City of Pristina (2023[9]).

While the revision of the Strategy on Air Quality (2013-22) is yet to be conducted, priorities to combat air pollution will be outlined in the upcoming Strategy for Environmental Protection and Sustainable Development (2022-31), still in the drafting process. The strategy's implementation has advanced at a limited pace, mainly supported by the Japan International Cooperation Agency (JICA), with a focus on addressing pollution stemming from the energy and transport sectors. Efforts have included initiatives to mitigate household pollution, raise awareness among citizens, and enhance technical and human capacities for controlling pollution from transportation. Ongoing activities at the time of writing include the development of a database and training sessions on measures to be implemented when pollution levels from the transport sector exceed limits.

The **water supply and sanitation** system in Kosovo is underdeveloped, with supply services reaching 79% of the population and sanitation services covering only 25% of total wastewater in 2022 (Water Services Regulatory Authority, 2023_[10]). Despite this share of wastewater covered by sanitation services increasing from 11% in 2021 due to new investments and the operationalisation of wastewater treatment plants, ¹⁶ untreated sewage discharge remains the primary cause of water pollution, particularly in rivers. To address this challenge, the regulatory framework for water supply and sanitation was amended between 2021 and 2022; three administrative instructions were adopted, pertaining to the payment structure for water use, wastewater discharges, and the sanitary protection zones of water resources. However, these adjustments only partially transpose the EU Framework Water Directive (European Commission, 2023_[11]). Improved planning and enhanced institutional capacities necessary to strengthen water resource management are supported by the first phase (2020-24) of the 12-year Integrated Water Resources Management Programme (2020-32). ¹⁷ In 2021, the installation of 15 new rural water supply systems was

completed, and an additional 93 systems are expected to become operational. This expansion will potentially increase the percentage of the population with access to water supply systems. However, interruptions in drinking water supply for all consumers continue to be common, partly due to high levels of non-revenue water. According to the monitoring report of the Strategic Plan for Regional Water Companies (2018-22), non-revenue water decreased only marginally from 58% in 2018 to 55% in 2021, and unbilled water as a percentage for the sector has remained largely unchanged for 15 consecutive years. This challenge is planned to be addressed in a specific objective outlined in the State Water Strategy 2023-27 to reduce water losses in the public water supply system.

While there have been some improvements in the legislative framework for industrial risk management since the last assessment, implementation remains limited. The adoption of the Law on Integrated Prevention and Control of Pollution in 2023 is a positive development, but it does not fully align with key EU directives such as the Industrial Emissions Directive and Seveso III, 18 and issuance of permits for large installations has remained limited (European Commission, 2023[11]). Amendments to the Law on Chemicals and related regulations adopted in 2022 have enhanced chemicals' market entry governance and permitting processes, partially aligning with the REACH Directive. 19 These changes also seek to facilitate the implementation of a mandatory system for harmonising criteria related to the classification, labelling, and packaging of substances. However, the general register for chemicals, planned for 2022. has yet to be established. Issues persist with hazardous mine waste, industrial discharge into rivers, and industrial dumpsites, posing significant threats to soil, water, and human health. Kosovo lacks disposal facilities for hazardous waste, with EU funding for their establishment cancelled due to disagreements among municipalities over their location.²⁰ Although the Strategy (2021-30) and Action Plan (2021-23) for Integrated Waste Management in Kosovo outline the development of an Industrial Waste Management Plan, including provisions for hazardous waste and site-specific plans for large industries, no progress has been reported in this regard and efforts to clean up industrial sites remain limited. Implementation is further hampered by inadequate data collection on industrial waste and contaminated sites.

Overview of implementation of Competitiveness Outlook 2021 recommendations

Kosovo's progress on implementing past CO Recommendations has been mixed. Below, Table 14.2 shows the economy's progress on implementing past recommendations for environment policy.

Table 14.2. Kosovo's progress on past recommendations for environment policy

Competitiveness Outlook 2021 recommendations	Progress status	Level of progress
Advance waste management by enforcing measures to separate and reduce waste, and increase recycling and recovery in line with circular economy principles	While there has been an increase in waste collection, the treatment of waste remains underdeveloped, with the majority still ending up in landfills. Despite some initiatives targeting illegal landfilling, implementation of the waste management strategy is limited, and it is unlikely that recycling targets will be met. However, the adoption of the circular economy roadmap is expected to bolster recycling and recovery practices.	Limited
Improve air quality by decreasing dependence on fossil fuels in the energy mix, improving household heating systems, and reducing emissions from the transportation sector	Air pollution remains an important environmental and health concern in Kosovo. The legal framework for air quality did see improvement with the adoption of the Law on Air Protection from Pollution (2022), which establishes limits for air quality pollutants. However, the policy framework for air quality has not been revised for the upcoming period. Some progress has been achieved to address pollution stemming from the energy and transport sectors with the support from international partners. The city of Pristina has also developed an Air Quality Plan, with specific measures being planned.	Moderate

The way forward for environment policy

While Kosovo has strengthened its regulatory and policy frameworks in several areas of environment policy, overall implementation could be further improved. Some of the priorities are as follows:

• Ensure implementation of the Integrated Waste Management Strategy, particularly by increasing waste recycling rates. Although there have been advancements in enhancing waste collection services, Kosovo still faces a major environmental challenge regarding waste treatment, as more than 99% of municipal waste is currently disposed of in landfills. To improve recycling rates, the adoption of EPR take-back schemes, as outlined in the revised Waste Law, could be instrumental. To shift end-of-life management costs of products from the public sector to producers and consumers, Kosovo can follow the guiding principles laid out in Box 14.2.

Box 14.2. Guidance on implementing extended producer responsibility take-back schemes

OECD EPR Guidance

To effectively implement EPR take-back schemes to shift end-of-life management costs of products from the public sector to producers and consumers and to increase the collection and recycling rates of these waste streams, economies should ensure the application of the following principles (a selection of principles is based on the OECD EPR Guidance):

- Clear legal framework The legislation should be clear on the definitions and responsibilities of all actors involved in EPR. There needs to be a legal framework for the operation of producer responsibility organisations. The EPR targets should be periodically reviewed.
- Transparency The governance of EPR systems needs to be transparent to provide more
 effective means for assessing the performance of the actors involved and holding them
 accountable for their activities. This will require collecting both technical and financial data and
 setting up registers of producers, accreditation of producer responsibility organisations, and
 appropriate sanctions.
- Sufficient existing waste management capacity For EPRs to work effectively, adequate waste
 infrastructure needs to be in place across the economy, including infrastructure for waste
 separation at source, collection and treatment (ideally recycling).
- Administrative oversight capacity for better enforcement This concerns enforcement capacity
 to prevent unauthorised facilities and collection points from operation. This should also minimise
 free-riding and noncompliance.
- Stakeholder engagement Platforms for dialogue among stakeholders need to be established.

Prevent Waste Alliance EPR Toolbox

To facilitate the adoption of general good practices and OECD guidance on EPR, authorities and other relevant actors could make use of the EPR Toolbox developed by Prevent Waste Alliance, to consult other international practices and participate in knowledge exchange in order to enhance the functioning of the domestic EPR system. The EPR Toolbox contains three modules that span more general aspects of an EPR, including the monitoring of financial flows, but also focus on concrete actions, such as the integration of the informal sector or the creation of a market for recycled plastics.

Data collection and processing for EPR schemes – example of the Czech Republic

While certain technical requirements must be met, the first step towards ensuring transparency of EPR schemes is effective co-ordination and compliance with reporting obligations under applicable legislation. The Czech Republic's electronic registry for waste is an exemplary model for a successful national waste information database. Recently rated as the best European system for waste data management and evaluation by the European Topic Centre for Circular, it employs two distinct systems. One handles the mandatory data reported by entities subject to relevant legal acts (Information System for Reporting Obligations), while the other manages the subsequent verification, processing and evaluation of the reported data (Information System for Waste Management). This streamlined process is further enhanced by extending verification authority to municipal and regional authorities, with the Environmental Information Agency functioning as the central data hub. By engaging a diverse array of stakeholders, including the statistical office, the information system becomes a catalyst for the development and implementation of evidence-based waste management policies.

Sources: OECD (2016[12]); Prevent Waste Alliance (2023[13]); Tuscano et al. (2022[14]).

• Strengthen collaboration among relevant stakeholders and partnerships between public and private organisations to ensure a transition to a circular economy. While Kosovo has adopted its roadmap for a circular economy in 2023, promoting inter-sectoral, cross-agency and interdepartmental collaboration would help scale up innovative circular business models, as the circular economy concept cuts across economic sectors and value chains as well as the competencies of public authorities. Kosovo could establish a circular economy stakeholder/business platform to strengthen collaboration, information exchange and the exchange of good practices. Such platforms may also facilitate synergies and knowledge sharing across the different parts of the value chain. Most European countries have established national circular economy stakeholder platforms or hubs that serve as fora for information exchange, peer learning, multi-stakeholder co-operation, and a depository of information, data and other relevant material (see Box 14.3 for a few examples).

Box 14.3. Examples of circular economy platforms/hubs

- Slovak Circular Economy Platform (Circular Slovakia) established in 2019 in the form of a public-private partnership by the Slovak Ministry of Environment, the Embassy of the Kingdom of the Netherlands, the Institute for Circular Economy, PwC Slovakia, the Slovak Business Agency and the Slovak Environment Agency. Its main goals are to promote circular economy to businesses as an approach that provides economic benefits and opportunities, exchange, information and experience; help build business partnerships and new projects; inform businesses about the latest legislation in the area; and support their participation in the policy-making process. The platform also helps increase discussion between the public and private sectors as well as among businesses themselves.
- Circular Glasgow hosted since 2015 by the Glasgow Chamber of Commerce, Zero Waste Scotland and the Glasgow City Council (United Kingdom). Circular Glasgow aims to build best practices and capacity on the circular economy across Glasgow businesses, helping them identify opportunities to support and implement circular ideas. This is done through workshops and events: a series of knowledge-sharing business-to-business networking events; a circle

- assessment, a tool that helps businesses understand opportunities to become more circular; and the Circle Lab, an online hackathon event to find a circular solution to local challenges.
- The Italian Circular Economy Stakeholder Platform established in 2018 by the National Agency for New Technologies, Energy and Sustainable Economic Development, as a mirror initiative of the European Circular Economy Stakeholder Platform. It acts through six working groups: 1) research and eco-innovation; 2) policy and governance; 3) measuring the circular economy; 4) sustainable and circular design, production, distribution and consumption; 5) cities and territory; 6) good practices. The platform aims to foster synergies between relevant stakeholders, overcome the fragmentation of initiatives at the national level, map good practices, and promote the Italian way for the circular economy at the national and international level.
- Türkiye Circular Economy Platform established in 2020 by the Business Council for Sustainable Development of Türkiye. The platform aims to provide practical solutions, incentives, news and opportunities in the field of circular economy. It includes a knowledge hub, an e-commerce platform for industrial symbiosis (as part of the Türkiye Materials Marketplace established in 2016), and measurement tools, and offers training, financial opportunities, and consultancy services for companies that are looking to accelerate their circular transition.

Sources: BCSD (2024[15]); ICESP (2024[16]); OECD (2021[17]).

- Ensure the preservation of forestry resources by reducing illegal logging, notably by strengthening stakeholder collaboration. Despite recent progress in establishing a Task Force for the Protection and Legal Use of Forests, forests in Kosovo continue to face significant exploitation, with illegal logging remaining a major challenge. Sustainable forest management is crucial as forests harbour rich biodiversity and act as vital carbon sinks, playing a pivotal role in global climate regulation. In order to reduce dependence on logging, Kosovo should prioritise empowering local communities through alternative livelihood opportunities, such as agroforestry, eco-tourism, and non-timber forest products. Kosovo could follow Indonesia's Illegal Logging Monitoring and Environmental Protection Programme to implement such measures (see greening cluster under the CO2024 regional profiles).
- Adopt the Land Regulation Concept Document and strengthen institutional co-ordination between different ministries responsible for land use issues related to climate, biodiversity and agriculture, both horizontally (at national level) and vertically (between different levels of government) to achieve a more holistic governance of land use. The document should have a particular focus on reducing illegal construction and unauthorised development in environmentally sensitive areas, which remains a significant challenge in Kosovo. The land use nexus involves multiple issues and affects multiple actors from both the public and private sectors, and requires a whole-of-government approach to co-ordinate policies across all relevant stakeholders, which Kosovo currently lacks. One good practice example that provides such co-ordination is the Austrian Conference on Spatial Planning (see Box 14.4).

Box 14.4. Enhancing land use co-ordination with the Austrian Conference on Spatial Planning

The Austrian Conference on Spatial Planning (ÖROK, Österreichische Raumordnungskonferenz) is an organisation dedicated to co-ordinating spatial planning policies between the three levels of government in Austria (the national level, the states and the municipalities). Its decision-making body is chaired by the Federal Chancellor and its members include all federal ministers, the heads of all federated states.

and representatives of associations of local governments. Furthermore, business and labour organisations are represented on the body as consulting members. The work of the decision-making body is supported by a permanent secretariat with a staff of approximately 25-30.

One of the central tasks of the ÖROK is the preparation of the Austrian Spatial Development Concept (ÖREK, Österreichisches Raumentwicklungskonzept). The current Austrian Spatial Development Concept ("ÖREK 2030") was published in 2021 and covers a planning period of around ten years. Guided by the key theme of "Need for Transformation", it is a strategic instrument for overall spatial development in Austria. Beyond the preparation of the Spatial Development Concept, the ÖROK also monitors spatial development across Austria. It has developed an online tool that provides a mapping function of a variety of important indicators at the municipal and regional level, and releases a report on the state of spatial development every three years.

The ÖROK is also the co-ordinating body for structural funds provided by the European Union. It manages the integration of these funds into broader spatial strategies and was directly responsible for the programming work related to 1 of the 11 Thematic Objectives of the programming period 2014-20. The ÖROK also serves as National Contact Point within the framework of European Territorial Cooperation.

Sources: OECD (2017[18]); ÖROK (2024[19]).

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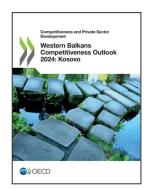
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Notes

- ¹ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.
- ² While Kosovo is not a party to the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, and therefore is not required to submit NDCs, it started to draft its voluntary NDCs in 2021, with the support of the United Nations Development Programme (UNDP).
- ³ The first phase of the Climate Promise has supported Kosovo in raising its ambition with regard to reducing greenhouse gas emissions, and building resilience to the impacts of climate change. For instance, together with the Austrian Development Agency and UNDP, the municipalities of Prizren and Suhareke/Suva Reka are implementing the "Strengthening Local Climate Action Project" (2021-24). The aim of the project is to bolster local capacities for setting and achieving ambitious mitigation targets through gender-responsive measures; promote innovative finance for the green transition; and accelerate the shift to more sustainable food systems. In 2022, the Municipality of Prizren also developed an Intervention Plan for Rural Development to Mitigate and Adapt to Climate Change, outlining 14 measures for mitigation and adaptation for the period 2021-24.
- ⁴ Since 2021, Watershed-Based Implementation Funding (WBIF) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) have implemented the project Flood Risk Maps and Flood Hazard Maps for all river basins in Kosovo. In the studies undertaken, potential high flood risk areas were identified, resident vulnerability was assessed, and key industrial risks were mapped. The study will continue assessing medium and lower risk areas until the completion of the project, foreseen in 2024.
- ⁵ As part of UNDP's Climate Promise project, through BOOST x Kosovo a business acceleration for start-ups UNDP is supporting 50 women and men-helmed SMEs on green business practices, while providing mentorship, matchmaking with global companies, and grants for the best green solutions.
- ⁶ For instance, the association Let's Do It Peja has received a grant from the EU to expand its textile reuse network to all cities of Kosovo.
- ⁷ Informal waste pickers play an important role in the collection of recyclable waste throughout Kosovo (mainly plastics, metals, paper, waste electrical and electronic equipment [WEEE], and selling them for export), but there are no data or official measurements of the waste quantities collected this way.
- ⁸ Several roundtables and meetings have been convened with stakeholders from the private sector (including producers, importers and retailers), municipalities, and other relevant institutions. These aim to facilitate the exchange of views and opinions and gather reliable market data on potential implications associated with the establishment of the system.
- ⁹ A pre-design study is under way for four distinct waste streams: WEEE, Batteries and Accumulators, End-of-Life Vehicles (ELV), and Oils. From these, three will be chosen for the implementation of EPR schemes. This process entails the development of secondary legislation and is projected to be operationalised by 2026.
- ¹⁰ Nonetheless, following roundtable consultations involving relevant stakeholders (institutions, manufacturers and importers of plastic bags, retailers), a draft document outlining recommendations to reduce the use of single-use plastic bags in Kosovo was developed.

- ¹¹ The Municipal Performance Grant Clean Environment (MPG-CE), introduced in 2017 until 2021, was a performance-based grant scheme owned by the government of Kosovo and jointly designed and co-financed with the EU and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), where municipalities were assessed and awarded based on their performance. Through the implementation of the MPG-CE, municipalities have successfully identified and mapped out the exact locations and categorised illegal landfills with advanced technological means. This allows them to better approximate the costs of removal and monitor whether the number of illegal landfills is increasing or decreasing over time.
- ¹² These initiatives encompass various projects, such as the construction of a new landfill for the Pristina Region, the extension of landfills in Gjilan/Gnjilane and Prizren, the closure of the landfill in Podujeva/Podujevo along with the construction of a transfer station, the upgrade of the Ferizaj/Uroševac transfer station, the construction of a landfill in Peja/Peć and the closure of the Istog/Istok landfill, and the development of waste management infrastructure for the Peja/Peć region.
- ¹³ White Drin, Ibër (including Sitnica), Morava e Binçës, and Lepenc.
- ¹⁴ It is co-ordinated by the Ministry of Agriculture, Forestry and Rural Development (MAFRD), and further consists of the Prime Minister's Office, the Ministry of Environment, Spatial Planning and Infrastructure (MESPI), the Ministry of Administration and Local Government, Ministry of Justice, Ministry of Finance, Labour and Transfers and the Association of Municipalities of Kosovo. It met for the first time in 2022.
- ¹⁵ The Administrative Instruction on the Method of Air Quality Monitoring, Data Collection, Criteria, and Methodology (2023) establishes standards for various aspects of air quality monitoring. This includes specifying the minimum number of measurement locations, outlining measurement methods, validating air quality measurements and data, ensuring conformity of data processing and reporting with local norms, and verifying the calibration and accuracy of measuring devices.
- ¹⁶ The wastewater treatment plants (WWTPs) of Peja/Pec, Prizren, Gjavoka/Djakovica, Skenderaj/Srbica, and Junik were operationalised between 2021 and 2022. WWTPs in Gjilan/Gnjilane, Pristina, Fushe-Kosova/Kosovo Polje, Obiliq/Obilić, and Mitrovica/Kosovska Mitrovica are currently being operationalised, while the WWTPs for Podujeva/Podujevo and Ferizaj/Uroševac are in the planning phase. In the next five-year period, a new plant is additionally planned for the municipality of Gracanice/Gračanica, and feasibility studies are drawn up for the municipalities of Vushtrri/Vučitrn, Malishevë/Mališevo, Drenas/Glogovac, Lipjan/Lipljan, Rahovec/Orahovac, Therandë/Suva Reka, Viti/Vitina, Istog/Istok, Deçan/Dečani, Klinë/Klina, and Kamenicë/Kamenica.
- ¹⁷ The "Integrated Water Resources Management in Kosovo" is a 12-year transformational programme of the Swiss Agency for Development and Cooperation (SDC) and the government of Kosovo. Its implementation has been entrusted to the Consortium of Skat Consulting Ltd., St. Gallen, Switzerland, and Environment Agency Austria. By working with decision makers, civil society and citizens on tackling key water challenges, this programme will help replace an outdated, traditional, and fragmented approach with more comprehensive and dynamic ways of managing water resources at river basin scale, in line with the principles of the EU Water Framework Directive.
- ¹⁸ The Seveso III Directive (Directive 2012/18/EU) on the control of major-accident hazards involving dangerous substances provides for the relevant framework on risk management measures to prevent major accidents and to limit their consequences.

- ¹⁹ The Regulation on the registration, evaluation, authorisation and restriction of chemicals (REACH) (EC 1907/2006) is the main EU law to protect human health and the environment from the risks that can be posed by chemicals.
- ²⁰ Planning of a central disposal facility for hazardous waste started in 2018. However, EU IPA funds of EUR 12 million were cancelled in 2019, after institutions were unable to find an alternative location to the pre-identified plot in Fushë Kosovë/ Kosovo Polje whose municipality assembly had rejected the project within its territory.



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