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ANNEX

of the Commission Implementing Decision on the financing of the multiannual action plan for an Operational Programme on Environment and Energy in favour of the Republic of Serbia for 2024-2027

MULTIANNUAL OPERATIONAL PROGRAMME

This document constitutes the multiannual work programme in the sense of Article 110(2) of the Financial Regulation, and multiannual action plan in the sense of Article 9 of IPA III Regulation and Article 23 of NDICI-Global Europe Regulation

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1 **Programme synopsis**

1.1 Programme Summary Table¹

Title	Multiannual Operational Programme on environment and energy sectors in favour of the Republic of Serbia 2024-2027				
OPSYS	ACT-62578				
ABAC	ABAC Commitment level 1 number: JAD.1414834				
Basic Act	Financed under the Instrument for Pre-accession Assistance (IPA III)				
Team Europe2	No				
IPA III beneficiaries	The Republic of Serbia				
Programming document	IPA III Programming Framework				
	PRIORITY AREAS AND SECTOR(S) INFORMATION				
Window and	Window 3				
thematic priority3	Thematic Priority 1: Environment and climate change				
	Thematic Priority 2: Transport, digital economy and society, and energy				
Sustainable Development Goals (SDGs)	Main SDG (1 only): Goal 13: Climate Action; Take urgent action to combat climate change and its impacts				
	Other significant SDGs (up to 9) and where appropriate, targets:				
	Goal 5: Achieve gender Equality and Empower all Women and Girls				
	Goal 6: Clean water and sanitation				
	Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all				
	Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation				
	Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.				
	Goal 12: Responsible consumption and production				
	Goal 14: Promote the transition towards sustainable energy sector development				
DAC code(s) ⁴	Main DAC code: 41010 - Environmental policy and administrative management (50%) Sub-code 23110 - Energy policy and administrative management (50%).				
Main Delivery Channel	Recipient Government – 12000				

¹ This section is to be completed by the EU Delegation. ² Please specify if this action is going to be part of the Team Europe approach.

³ Indicate the lead window and thematic priority as identified in the IPA III programming document. Please indicate for each thematic priority

 ⁴ DAC sectors (codes and descriptions) are indicated in the first and fourth columns of the tab 'purpose codes' in the following document: http://www.oecd.org/dac/financing-sustainable-development/development-financestandards/dacandcrscodelists.htm

Targets	x Climate					
	Gender					
	□ Biodiversity					
Markers ⁵ (from DAC form)	General policy objective	Not targeted	Significant objective	Principal objective		
	Participation development/good governance		Х			
	Aid to environment			Х		
	Gender equality and women's and girl's empowerment	Х				
	Reproductive, maternal, new-born and child health	Х				
	Disaster Risk Reduction		Х			
	Inclusion of persons with Disabilities	Х				
	Nutrition ⁶	Х				
	RIO Convention markers	Not targeted	Significant objective	Principal objective		
	Biological diversity		Х			
	Combat desertification	X				
	Climate change mitigation			X		
	Climate change adaptation		X			

 ⁵ For guidance, please see https://www.oecd.org/development/financing-sustainable-development/development-finance-standards/. Go to "Data collection and resources for reporters", select Addendum 2, annexes 18 (policy) and 19 (Rio) of the reporting directive. If an action is marked in the DAC form as contributing to one of the general policy objectives or to RIO principles as a principal objective or a significant objective, then this should be reflected in the Intervention Logic.
 ⁶ Please check the Handbook on the OECD-DAC Nutrition Policy Marker.

Internal markers ⁷ and Tags	Policy objectives	Not targeted	Significant objective	Principal objective
	Digitalisation		Х	
	Tags ⁸	YES	I	NO
	digital connectivity			
	digital governance			
	digital entrepreneurship			
	digital skills/literacy			
	digital services			
	Connectivity		Х	
	Tags	YES		NO
	digital connectivity			
	energy	Х		
	transport			
	health			
	education and research			
	Migration	Х		
	Reduction of Inequalities	Х		
	COVID-19	Х		
	BUDGET INFORM	IATION		1
Amounts concerned	Budget line: 15.020201			
	Total estimated cost for four (2024-2	2027): EUR 325 2	200 000	
 Total amount of EU budget contribution for four (2024-2027): EUR 240 000 000 The contribution from the general budget of the European Union is split per year follows: For 2024 - EUR 30 000 000; For 2025 -EUR 80 500 000; For 2026 - EUR 58 800 000; For 2027 - EUR 70 700 000. 				40 000 000 split per year as
	The contribution from the general by years is subject to the availability of following the adoption of the relevant of provisional twelfths.	budget of the Euron f appropriations nt annual budget,	opean Union for for the respective or as provided f	the subsequent financial years for in the system

⁷ These markers have a different scope/rationale than the DAC codes. They are drawn from the level of budget allocation and emphasise the Programme in terms of main objective(s) selected. The definition of the overall and specific objectives provided in the description of the programme should be in line with this section.
 ⁸ When a marker is "Significant Objective" or "Principal Objective", please indicate the relevant tags by selecting "YES" or "NO".
 5

MANAGEMENT AND IMPLEMENTATION					
Implementation modalities (management mode and delivery methods)	Indirect management with the Republic of Serbia				
Relevant priorities and flagships from Economic and Investment Plan for the Western Balkans [only for the Western Balkans]	FLAGSHIP 4 – RENEWABLE ENERGY FLAGSHIP 5 - TRANSITION FROM COAL FLAGSHIP 7 – WASTE and WASTEWATER MANAGEMENT				
Final Date for conclusion of Financing Agreement	At the latest by 31 December 2025				
Decommitment deadline for each budgetary commitment	Budgetary commitment 2024: by 31/12/2029 Budgetary commitment 2025: by 31/12/2030 Budgetary commitment 2026: by 31/12/2031 Budgetary commitment 2027: by 31/12/2032				
Indicative eligibility period	31/12/2033 from last budgetary commitment				
Final date for implementing the Financing Agreement	12 years following the conclusion of the Financing Agreement				

1.2 Summary of the programme

The Operational Programme (hereinafter: Programme) encompasses two main sectors: Environment and Energy, each with specific focus areas and objectives.

The Republic of Serbia is committed to the EU Green Agenda for Western Balkans, which was signed in 2020. Based on these principles, **new Environmental Strategy – Green Agenda for Serbia for the period 2024-2033** is in preparation and is expected to be adopted in 2024.

In the Environment sector, the Programme primarily concentrates on water and waste management. As regards the waste sector, it aligns with the recently adopted strategic document known as "the Waste Management Programme 2022-2031" and its corresponding Action Plan for 2022-2024. The Programme aims to support the effective implementation of measures that promote the primary separation of municipal waste. Additionally, it seeks to facilitate the construction of waste management facilities and promote the proper treatment of construction and demolition waste.

Within the water subsector, the Programme aligns with the objectives outlined in the Strategy for Water Management in the Republic of Serbia up to 2034. The Programme aims to contribute to the achievement of the Strategy's objectives by focusing on various aspects. It aims to develop drinking water supply systems, expand the coverage of public water systems, and improve water infrastructure. This includes the construction of sewage systems and Wastewater Treatment Plants (WWTPs) in line with the EU Directive on the treatment of urban wastewater. Furthermore, the Programme includes actions aimed at addressing erosion and flood-related issues, emphasizing the importance of managing and mitigating these risks.

In the energy sector, the Programme's interventions have a dual focus. Firstly, it addresses energy efficiency aspects in accordance with the Long-Term Renovation Strategy for Encouraging Investments in the Renovation of the National Building Stock of the Republic of Serbia by 2050. The Programme aims to achieve this by renovating existing public buildings to meet nearly zero energy building (nZEB) standards. This initiative aims to enhance energy efficiency, reduce energy consumption, and promote sustainability in the building sector. Secondly, the Programme aims to improve air quality in targeted municipalities by investing in the transition from fossil fuel boilers to renewable energy sources or connecting buildings to district heating systems.

By targeting these specific sectors and interventions, the Programme strives to contribute to the overall goals of waste management, water management, energy efficiency and air quality in Serbia. It aims to align the country's practices and infrastructure with EU standards and directives, promoting sustainable development, environmental protection, and improved quality of life for its citizens.

The Programme has an additional objective of providing support to relevant bodies in effectively implementing various actions associated with the programming, management, monitoring, evaluation, and control of the Operational Programme. This entails ensuring compliance with current legislation and implementing best practices. The Programme also seeks to disseminate timely and comprehensive information to the public, making them aware of funding opportunities available under the Programme. It aims to promote understanding of the criteria, rules, and procedures for participating in Programme implementation. Moreover, the Programme strives to strengthen the capacity of beneficiaries through a wide range of training and other capacity-building activities, as well as additional compensation to the salaries of selected employees⁹ to prevent employee's turnover and create a stable work environment. To ensure effective management, control, monitoring, and evaluation of the programme, institutions will receive assistance in preparing the technical documentation necessary for programme implementation, designing and implementing communication and visibility activities, preparing evaluation reports, monitoring the results of the Programme on an ongoing basis, and supporting administrative controls and technical audits. Overall, support will aim to facilitate the efficient and transparent implementation of the Operational Programme while providing the necessary resources and support to its beneficiaries.

2 Sector(s) analysis

2.1 National sectoral policies and context

Compliance with EU environmental norms stands as an indispensable prerequisite for EU membership. It entails a multifaceted approach, where prioritizing environmental protection, aligning with the acquis, and fostering public awareness are pivotal steps in fortifying the foundational framework of the environmental sector. This framework, which has been in a constant state of evolution over recent years, is essentially a moving target aimed at reaching EU benchmarks.

The complexity of the environmental sector, in its entirety, necessitates a holistic approach that extends to improving governance, optimizing resource allocation, and enhancing administrative capacity. These endeavours are essential for EU candidate countries including the Republic of Serbia.

The EU accession process is meticulously designed to ensure that candidate countries uphold specific environmental standards geared towards safeguarding both human health and the environment. Adequate waste and water management, complemented by enhancements in air quality and energy efficiency, play a pivotal role in achieving these standards. The ultimate goal is to grant the citizens of Serbia a high quality of life by ensuring access to clean air and safe water.

Environmental challenges transcend national boundaries and by addressing these challenges, Serbia contributes not only to the well-being of its own citizens but also to the overall environmental health of the region. Such collaborative efforts are mutually beneficial for the EU and neighbouring countries alike.

Furthermore, the effective management of waste and water, alongside advancements in energy efficiency and air quality control, underpin the foundation of long-term sustainability. Long-term sustainability is a cornerstone for both EU membership and the comprehensive socio-economic development of Serbia.

Achievement and prioritisation of the selected targets under this Programme are stemmed from the diverse policy framework.

In line with the EU ambition to become climate-neutral by 2050, Serbia has also committed to work on achieving carbon neutrality by 2050, and to aligning with the European Green Deal's key elements by endorsing the **Green agenda for the Western Balkans¹⁰** at the Summit in Sofia in 2020. The **Green agenda and sustainable connectivity** cluster is at the heart of the Green Agenda for the Western Balkans and closely linked to Serbia's Economic Reform Programme and the Commission's Economic and Investment Plan. The cluster and all related chapters were opened in December 2021.

The Economic Reform Programme for the period 2023-2025¹¹ represents one of the key documents in economic dialogue between the Republic of Serbia and EU. Key challenge no. 3: Greening the energy sector and full opening of energy market includes Structural Reform 8: Improvement of Conditions for Enhancing Energy

⁹ The term 'employees,' for the purposes of this document, refers to the entire staff within the system, including individuals engaged under contracts outside of employment relationships.

¹⁰ https://www.mei.gov.rs/upload/documents/eu_dokumenta/2020/deklaracija-iz-sofije-o-zelenoj-agendi-za-zapadni-balkan-srp.pdf

¹¹ https://www.mfin.gov.rs//upload/media/n3g7Ti_63e625c76e357.pdf

Efficiency Through Creating Conditions for Application of Energy Labelling and Eco-Design, as well as through the Incentives for Enhancing Energy Efficiency. Area Green Transition includes Structural Reform 12: Implementation of the Circular Economy in Creating Favourable Environment for the Green Transition. The concept of circular economy, which connects many areas, aims to initiate a green economic transition of the Republic of Serbia, with efficient use of resources and energy and preservation and improvement of the environment and people's health by wastewater treatment and air quality upgrading.

In addition, a **new Environmental Strategy – Green Agenda for Serbia for the period 2024-2033** is under preparation, under the direction of the Ministry in charge of Environmental Protection with wide stakeholder participation; it is expected to be adopted in 2024. The Strategy will define the directions for development of environmental protection and will be aligned with the goals of the Sofia Declaration and five pillars of the Green Agenda for the Western Balkans: decarbonization, circular economy, depollution of the environment, protection and investing in biodiversity, as well as the sustainable food systems for sustainable rural livelihood. The OP will contribute to its implementation.

The interventions envisaged by this Operational Programme are in line with the **Negotiating Position for Chapter 27**, **Environmental Protection and Climate Change**¹² which was been adopted in January 2020 and submitted to EC. The OP is contributing to further harmonization and implementation of the EU *acquis, namely in the area of waste and water management.*

The Gender Equality Strategy 2021-2030¹³ promotes a gender-equal Republic of Serbia, in which women and men, girls and boys, as well as persons of different gender identities are equal, have equal rights and opportunities for personal development, provide an equal contribution to the sustainable development of society and take equal responsibility for the future. The Strategy recognises gender responsive budgeting as a measure to establish a comprehensive and functional system for development and implementation of gender responsive public policies and budget.

The Strategy for Social Inclusion of Roma in the RS 2022–2030¹⁴, based on the Declaration of Western Balkans Partners on Roma Integration within the EU Enlargement Process (Poznan Declaration)¹⁵, adopted by the Western Balkan heads of government, sets specific objectives as the minimum to be achieved before EU membership and provides general guidelines on how to achieve these objectives.

Serbia is implementing the **UN 2030 Agenda for Sustainable Development**, while the Operational Programme will contribute to the achievement of several Sustainable Development Goals (SDGs) goals:

Waste Management

SDG 11 - Sustainable Cities and Communities: Proper waste separation and recycling in urban areas reduce waste generation and promote more sustainable and liveable cities.

SDG 12 - Responsible Consumption and Production: Waste separation and recycling encourage responsible consumption by reducing the volume of waste going to landfills and incinerators, thereby conserving resources. SDG 17 - Partnerships for the Goals: Collaborative efforts between governments, businesses, and civil society are

essential for successful waste management and recycling, aligning with the spirit of partnership encouraged by the SDGs.

Wastewater Treatment

SDG 6 - Clean Water and Sanitation: Effective wastewater treatment ensures the availability of clean water, preventing water pollution and improving access to safe drinking water.

SDG 9 - Industry, Innovation, and Infrastructure: Building and upgrading wastewater treatment facilities require innovative infrastructure solutions and promote economic growth.

SDG 14 - Life Below Water and SDG 15 - Life on Land: Proper wastewater treatment prevents the release of pollutants into oceans and ecosystems, protecting marine and terrestrial life.

Water Supply Systems

SDG 6 - Clean Water and Sanitation: Building and upgrading water supply systems ensure that communities have access to safe and reliable sources of clean water, reducing water scarcity and improving sanitation.

SDG 1 - No Poverty: Access to clean water is crucial in alleviating poverty, as it directly impacts health and productivity, particularly in low-income communities.

¹² https://www.mei.gov.rs/upload/documents/pristupni_pregovori/pregovaracke_pozicije/pg_pozicija_27.pdf

¹³ http://www.pravno-informacioni-sistem.rs/SIGlasnikPortal/eli/rep/sgrs/vlada/strategija/2021/103/1

¹⁴ https://www.minljmpdd.gov.rs/doc/Strategy-for-Social-Inclusion-of-Roma-in-the-Republic-of-Serbia2022-2030-eng.pdf

¹⁵ https://www.rcc.int/download/docs/2019-06-roma-deklaracija-b.pdf/6c1c88584b46c9f5f43c2a5f3937fb48.pdf

Energy Efficiency

SDG 7 - Affordable and Clean Energy: Energy efficiency measures reduce energy consumption, making clean and affordable energy sources more accessible and sustainable. It contributes to decreasing the environmental impact of energy production.

SDG 9 - Industry, Innovation, and Infrastructure: Energy efficiency investments often involve the development and adoption of innovative technologies that enhance industrial processes, infrastructure, and manufacturing, leading to more sustainable production.

SDG 11 - Sustainable Cities and Communities: Improving energy efficiency in buildings and transportation systems in urban areas not only reduces greenhouse gas emissions but also promotes the development of sustainable and resilient cities.

Air Pollution

SDG 3 - Good Health and Well-being: Reducing air pollution levels through cleaner energy sources and emissions control measures can prevent respiratory diseases and improve overall public health.

SDG 13 - Climate Action: Combating air pollution is closely linked to mitigating climate change, as many air pollutants are also potent greenhouse gases. Investments in air quality improvements contribute to climate resilience.

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area: Waste

The most recent strategic document that guides the waste management in Serbia is **Waste Management Programme 2022-2031¹⁶ and the Action plan for 2022-2024**¹⁷, developed with EU and Swedish support, approved on 1 February 2022 and on 28 April 2022, respectively. After 2024 there will be a new Action Plan. The main purpose of the Programme is to improve the waste management hierarchy by identifying and elaborating regional systems with priority infrastructure, including source separation, determining the strategic goals for improvement of the waste management system and setting specific quantitative targets for preparing for re-use, recycling and other recovery of specific waste flows. The Programme foresees a stepwise approach in establishing the required infrastructure in 26 regions, emphasising the reduction of waste going to landfills through separation, reuse and recycling. This is planned to be achieved through measures such as: the extension of collection coverage to 100%, the improvement of the system for separate collection and recycling of municipal waste, the establishment of separate collection of biodegradable waste to reduce its disposal in landfills, the establishment of new regional centres with sanitary landfills, and the introduction of economic instruments to encourage change in the municipal waste management sector among others. The OP is directly contributing to the Waste Management Programme implementation.

The Programme aims at achieving the national policy targets, in particular through measures for the primary separation of municipal waste, as well as the construction of facilities and the treatment of construction and demolition waste. Reuse and recycling of waste have a potential economic value must be recovered and its impact on the environment and on climate change avoided or minimised. The Waste Management Programme envisages the achievement of a goal for recycling of at least 35% of the generated municipal waste by 2030, the reduction of the disposal of biodegradable waste in landfills to 75% of the total amount of biodegradable waste (generated in 2008) by 2028 and the recycling of 40% of construction and demolition waste by 2029. Therefore, investments will be made in order to insure additional recycling capacity. The Programme is expected to contribute to the fulfilment of Serbia's commitments in the waste management sector and to the achievement of targets resulting from the European and national legislation. It is primarily based on the provisions of the EU Waste Framework Directive 2008/98/EC as amended by Directive (EU) 2018/851, the EU Landfill Directive 1999/31/EC as amended by Directive (EU) 2018/850 and the EU Directive for Packaging and Packaging Waste 94/62/EC as amended by Directive (EU) 2018/852.

Serbia is committed to stimulate the minimisation of waste generation and expand the reuse and recycling of waste. For the purposes of the waste prevention, Serbia will develop the Waste Prevention Programme, in line with the Law on Waste Management.

In 2022, Serbia adopted the **Programme for the Circular Economy 2022–2024**¹⁸ to improve the efficiency of resource use in its mostly linear economy, a traditional model where raw materials are collected and transformed into products that consumers use until discarding them as waste, with no concern for their ecological footprint and

¹⁶https://www.ekologija.gov.rs/sites/default/files/2022-02/program_upravljanja_otpadom_u_rs_za_period_2022-2031._god_0_2.pdf
¹⁷https://www.ekologija.gov.rs/saopstenja/vesti/usvojen-akcioni-plan-programa-upravljanja-otpadom-u-republici-srbiji-za-period-od-2022do-2024-godine

¹⁸ https://www.ekologija.gov.rs/sites/default/files/2022-12/program_razvoja_cirkularne_ekonomije_u_republici_srbiji_za_period_2022-2024._godine__0.pdf

consequences; by promoting and raising awareness of circular economy principles, Serbia will accelerate the implementation of the Green Agenda. Serbia's economy had a 1.7% circular material use rate, measuring the contribution of recycled materials to overall materials demand, in 2021, compared to the EU average of 11.7%¹⁹.

The Multiannual Investment and Financing Plan (**MIFP**)²⁰ serves as a framework for planning environmental investment. Its specific objective is to guide the Government on the priorities for sequencing in the three areas demanding significant resources – water, wastewater and waste management subsectors. Multiannual Investment and Financial Plan (MIFP) is part of negotiation position that presents costs and provides sources of funding, based on which projects are defined and applied further to IPA funds, donor community, and development banks. Based on MIFP it is also decided which projects can be financed from the national budget. OP complements the MIFP and the interventions under the OP are part of the MIFP.

The Directive Specific Implementation Plans (DSIPs) for the waste sector are developed for heavy investment directives (Landfill Directive, Waste Framework Directive, Packaging and Packaging Waste Directive, Directive on Waste from Electrical and Electronic Equipment (WEEE), Directive on Batteries and Accumulators), and were used as basic planning documents for the preparation of the MIFP and Waste Management Programme 2022-2031. The DSIPs were approved as annexes of the Negotiating Position for Chapter 27 in January 2020.

Sub-area of support: Water

The national strategy for the water management sector is reflected in **the Strategy for Water Management in the Republic of Serbia up to 2034**²¹ (Water Management Strategy), with defined objectives and priorities. This Strategy ensures continuity in the long-term planning of the functioning of the water sector, based on the principle of sustainable development. The Strategy includes all aspects of water management in its basic areas: the regulation and use of water; the protection of water from pollution; the regulation of watercourses and protection from the harmful effects of water. In accordance with the Law on the planning system, the Strategy for Water Management on the Territory of the Republic Serbia until 2034 is the basic planning document of the water industry, which comprehensively determines the strategic direction of action and public policy in the field of water management and provides the scope for planning and implementation of public policies of the Government.

The achievement of the objectives of the Water Management Strategy is planned and monitored through an Action Plan (2021-2023) for its implementation. One of the key challenges this Strategy identifies is that the main sources of public water supply will continue to be ground water, given their lower sensitivity to pollution, and surface water (rivers, reservoirs) should be used for as the public water supply only if the ground water resources are insufficient or of inadequate quality. When using ground water, the characteristics of these sources must be respected, and determined by detailed hydrogeological research and the preparation of studies on reserves and resources, especially in the case of slowly renewable ground water accumulations (primarily in the territory of AP Vojvodina). Long-term exploitation of these sources can only be ensured by their rational use, with desirable artificial feeding. In addition, alluvial aquifers next to larger rivers (Sava, Danube, Drina, and Morava) are especially important for the development of the drinking water supply, as potential sources for systems of regional importance. An increase in the coverage of public water systems to 93% is planned by the end of the planning period. The construction of sewage systems and WWTP should include all settlements larger than 2,000 Population equivalent (PE). In settlements with less than 2,000 inhabitants that are without public sewerage and have a public water supply, at least secondary wastewater treatment should be provided by individual systems, considering the current decline in the number of inhabitants in those settlements. Exceptions are settlements (mainly suburban ones) where the construction of sewerage facilities has begun, and which can be connected to urban systems. The basic criteria for the selection of priorities for the construction of sewage systems and WWTP in settlements with more than 2,000 inhabitants are the specific load of the recipient (kg of specific pollution per m3 of small or medium water) and its capacity to receive pollution, as well as the degree of construction of the sewage network and connection of the population to the sewage network. The criteria for the selection of priorities for the construction of sewage systems and WWTP in settlements should be changed to more than 1,250 inhabitants to align with EU UWWTD amended in October 2023.

Erosion and flash floods are two interconnected natural phenomena that, each in its own way, cause enormous damage to all areas of life and economic activities in the Republic of Serbia. The intensity and surface distribution of certain types of erosion has been monitored and studied in Serbia for decades, but not continuously. According to the classification of erosion processes (the "erosion potential" method has been used), erosion is grouped into five categories of intensity from very weak to excessive. The map of erosion in the territory of the Republic of Serbia was taken from the Water Master Plan of the Republic of Serbia ("Official Gazette of RS," No. 11/02) and changes were made only where anti-erosion works were carried out after 1993. However, the amendment of the

¹⁹ https://publikacije.stat.gov.rs/G2022/pdf/G20225688.pdf, page 41-42

²⁰ Adopted by the Government in January 2020 and in line with the flagship initiative No7 of the Economic and Investment Plan

²¹Official Gazette of RS," No 3/2017

map for the entire territory of the Republic of Serbia was not prepared. The Water Management Strategy estimated the scope of erosion control work required includes two aspects: 1) the maintenance of the current condition, which implies works without which the calmed erosion processes will be reactivated and 2) the execution of new works, with the goal of achieving a reduction in the intensity of erosion and sediment production. In order to maintain the current state, it is necessary to carry out technical works for a total volume of about 350,000 m3 (about 4 m3/km2), and biological works to cover about 34,000 ha (0.4 ha/km2). To improve the situation in this segment of water protection in the coming period, technical works for the amount of about 1,000,000 m3 (12 m3/km2) and biological works on an area of about 100,000 ha should be carried out.

The River Basin Management Plan until 2027²² takes into account the requirements of the EU directives related to the water sector, primarily the Water Framework Directive (WFD) as the most important act of the European Union in area of water. Pursuant to the provisions of the Law on Water, water management plans are drawn up in accordance with the Water Management Strategy for the Danube River Basin and Water Districts. Given that the Danube River Basin in the Republic of Serbia covers about 93% of the territory and the river basins Lepenca/Pčinje/Dragovištice and Belog Drima/Plavske reke cover only small areas (approximately 2% to 5% of the territory of the Republic of Serbia) it was decided that a single river basin management plan would be developed for the entire territory of the Republic of Serbia. One of the objectives of the Plan is the efficient use of water resources, by undertaking the following two technical measures: the reduction of water losses in the water supply and increasing the collection and treatment of wastewater in line with the goal of Article 9 of the WFD. In addition, an integral implementation of flood and erosion protection measures based on "green solutions" is envisaged.

The draft Flood Risk Management Plan (FRMP) for the territory of the Republic of Serbia by 2027 contains measures focused on prevention, protection and early warning systems against floods, as well as works on water structures. The Preliminary Flood Risk Assessment (PFRA 2019) analysed the floods that occurred in the period from 2012 to 2019 and determined a total of 101 Areas of potentially significant flood risk (APSFR). The FRMP will help Serbia to reduce existing and avoid new flood risks, strengthen resilience, and raise awareness, applying the principle of solidarity. In line with the European Green Deal, the Plan will contribute to restoring the natural functions of ground and surface water. This is essential to preserve and restore biodiversity in lakes, rivers, wetlands and estuaries, and to prevent and limit damage from floods. In addition, the FRMP will set up measures to protect citizens and assets from environment-related risks. A prerequisite for effective and efficient flood management is the in-depth knowledge of the prevailing hazards and risks. This includes information about the type of floods (static, dynamic, coastal etc.), the probability of a particular flood event, the flood magnitude, expressed as flood extent, water depth or flow velocity, and finally, the probable magnitude of damage.

The Sludge Management Programme in the Republic of Serbia for the period 2023-2032²³ (Sludge Programme), is expected to enable the institutional, legal, technical, financial and administrative improvements to meet EU and national standards in urban wastewater sludge management. The Sludge Programme is intended to provide a strategic framework for sludge management in all local self-governments. The overall goal is to establish a safe, sustainable, and cost-effective sludge management system for wastewater treatment plants in accordance with the principles of the circular economy. To achieve this, it is necessary to develop infrastructure for the treatment, use, and final disposal of sludge using the best available technologies and good practices. There are several potential applications for treated sludge: (1) application in agriculture; (2) landfill cover material; (3) energy utilisation through co-incineration in cement plants and in thermal power plants, etc. The Sludge Programme foresees the construction of four incinerators, in Novi Sad, Belgrade, Kragujevac and Nis. There is a plan for the construction of 359 WWTPs in the country. According to the Sludge Programme, the main portion of sludge produced in the WWTPs shall be transported to the incinerators for final treatment.

During the 2014 – 2020 financing period, Serbia concentrated on the development of **sub-sectoral policy documents and Directive Specific Implementation Plans including DSIP for Urban Wastewater Treatment Directive and Drinking Water Directive as recast by Directive 2020/2184/EU on the quality of water intended for human consumption**. These documents provide the strategic framework for approximation and transposition, institutional development and investment management, thus contributing to the alignment with EU rules and standards and corresponding to the IPA III Programming Framework. The Multiannual Investment and Financing Plan (MIFP)²⁴ version 2 serves as a framework for planning in the area of water management, particularly for the subsector of wastewater and drinking water management. The MIFP contains the Priority Investment Plan for measures; until 2027, two separate project directions for priority investments have been set, including deadlines and cost estimates for: (1) 25 priority projects, from the "municipal wastewater direction" which are distributed according to different sizes agglomeration, with total estimated costs of EUR 1 289 million and (2) 81 priority projects from the "direction for drinking water", grouped into 11 priority groups, based on the

²² Official Gazette of RS," No 33/2023

²³ Adopted by the Government, September 2023

²⁴ Adopted by the Government January 2020 and in line with the flagship initiative No7 of the Economic and Investment Plan.

type of need, technical intervention (chlorination, water tanks, PPV, network, expansion of the source) or according to the regional approach. The total estimated costs of these projects are EUR 510 million.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

Sub-area: Air quality

Total emissions of SO2 in 2019 amounted to 395.4 kt SO2, which represents 8,6% increase of emissions compared to the year 2015 and decreased for 11.2% compared to 2005. **Public electricity and heat production is by far the biggest source of SO2 emissions** accounting for 91.5% of the overall emissions. SO2 emissions are driven by the consumption of domestic lignite in thermo-power plants and the sulphur content of the domestic lignite. It has to be noted that according to NERP²⁵ emissions in 2018 and 2019 should already be significantly lower; in 2018 and 2019 54.6 kt instead of 310.3 kt and 361.8 kt respectively.

When it comes to NOx emissions in the Republic of Serbia, Public Electricity and Heat production is with 53.8% share a predominant source of emissions.

Emissions of PM2.5 in 2019 amounted to 45,6 kt PM2.5 which represents a 2.3% increase since 2015 and 5.7% decrease since 2005. Total PM2.5 Emission have an increasing trend since 2015. Predominant source of emission of PM2.5 is Other stationary combustion with 67.4% of emissions (where emission of PM2.5 from biomass and lignite burning in households represents 99.3% of PM2.5 emissions), followed by Agriculture waste burning (field burning) with 14.2% and Industry with 7.3%. The increasing trend of emissions since 2016 is driven by the Road Transportation sector.

In order to address the problem of air pollution, several local communities and cities in the Republic of Serbia have already prepared or initiated the preparation of local air protection plans. On January 30, 2020, the Government adopted the **National Plan for the reduction of emissions of major pollutants originating from old large combustion facilities (NERP)** with the aim of addressing emissions issues from the largest sources of pollution in the country. However, as solving this issue requires additional activities at the national and local levels, the Republic of Serbia has, for the first time, adopted the **Air Protection Program in the Republic of Serbia for the period from 2022 to 2030, along with an Action plan²⁶**. that defines the measures and activities that will be implemented in the upcoming period to improve air quality.

General objective of this programme is: "To reduce the health damage due to poor air quality by half by 2030 compared to 2015 by reducing exposure to air pollution while also enabling the Republic of Serbia to harmonize with the regulatory limitations prescribed in the European Union for air pollution, therefore limiting the damage on ecosystems." In order to achieve general objective, the Republic of Serbia will need to significantly reduce emissions of SO2 by 92%, NOx emissions by 60.6%, PM10 by 50.9 PM2.5 by 58.3% VOC by 28.3% and NH3 by 20.5% by 2030, compared to 2015.

Sub-area: Energy efficiency (EE)

Energy demand in the building sector is a major challenge for Serbia. More than 50% of the total building stock in Serbia is more than 50 years old. It is estimated that the building sector consumes about 34% of the total final energy, of which about 70% in residential buildings, 18% in commercial buildings and 12% in public buildings. The greatest potential for energy savings is estimated to be 35-40% in public buildings.

In 2022, the electricity production mix in Serbia was: 65% coal, 26.3% hydropower, 3.62% natural gas and 2.7% wind²⁷.

The main objective of the intervention under this area of support is to reduce energy consumption in the national building sector and increase the use of Renewable Energy Sources (hereinafter: RES) in public and private single family and multifamily buildings.

The Energy Development Strategy until 2025 with projections until 2030^{28} is the overarching national document with three major priorities: energy security, energy market development and sustainable energy. The Strategy follows the Scenario with the application of energy efficiency measures which promote energy efficiency as a "new energy source" and provides a strong basis for the entire energy policy to be aimed at final energy consumption in the Republic of Serbia. It also defines the following strategic objectives for District.

Heating systems: the provision of heat energy for a secure supply to a broad market and industry, in strict compliance with environmental protection norms; increasing energy efficiency in heat energy production, distribution and use; greater use of RES; and the sustainable management of heat energy production companies.

²⁵ National Emission Reduction Plan

²⁶ https://www.ekologija.gov.rs/sites/default/files/2023-03/en_aq_programme_adopted_version.pdf

²⁷ Energy Balance of the Republic of Serbia for the year 2022, Official Gazette of RS, No 4/22

²⁸ Official Gazette of RS, No. 101/15.

The reduction of energy losses in networks and the introduction of consumption-based billing are mentioned as priority measures, but they have not been introduced, although the introduction of consumption-based billing is a prerequisite to attract large-scale investments in retrofitting the building stock (EC Serbia 2022 Report²⁹⁾.

The Government of the Republic of Serbia adopted the Long-Term Renovation Strategy for Encouraging Investments in Renovation of the National Building Stock of the Republic of Serbia by 2050³⁰ (hereinafter: LTRS) in February 2022 in order to implement Directive 2010/31/EU on the energy performance of buildings (hereinafter EPBD). In May 2023 MoCTI formed Working Group for monitoring drafting of the Action plan for implementation of LTRS which clearly indicates that Serbia needs to set stricter requirements for the energy performance of buildings, i.e. new minimum energy performance requirements, definition of nZEB, the use of RES in a higher percentage, the amendment of the Law on Planning and Construction to strengthen the system of independent professional controls, and the introduction of penal provisions and sanctions for the improper certification of the energy performance of buildings.

The LTRS sets targets for the:

- annual renovation of 3.3% of the area of existing public building stock to nZEB standards by 2050 (about 354,648 m² per year) with the goal that all public buildings are classified as nZEB buildings by 2050,
- renovation of other building types (commercial, multi-family and single-family) to a cost-optimal level, with the ambition to achieve a 31% reduction in CO₂ emissions by 2050 compared to emissions in 2020,
- introduction of the obligation to implement nZEB standards for all new buildings,
- and includes energy-saving targets with projections for investments until 2050.

Following the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (the 'Paris Agreement') and the climate goals that were adopted in 2015 in Paris, the EU adopted Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action³¹ which sets out the necessary legislative foundation for the reliable, inclusive, cost-efficient, transparent and predictable governance of the Energy Union and Climate Action (the governance mechanism), which shall ensure the achievement of the 2030 and long-term objectives and targets of the Energy Union. As one of the signatories of the Energy Community, the Republic of Serbia is also obliged to meet the obligations of governance mechanism which was confirmed by the Decision of the Ministerial Council of the Energy Community³².

Targets for energy efficiency, RES and GHG reduction for the period to 2030 will be set in **the Integrated National Energy and Climate Plan of the Republic of Serbia** (INECP) which is being developed by the Ministry in charge of Energy (hereinafter: MoME) in accordance with Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action. The INECP will define the measures to be implemented so that the Republic of Serbia can meet the EE, RES and GHG reduction targets by 2030.

The LTRS represents one of the basic documents for INECP development and the measures foreseen in the LTRS will be very important for the achievement of the goals of the INECP as regards energy efficiency (EE) in buildings. The objectives of the Strategy will be integrated into the future INECP strategic goals and reports on the achievement of its objectives in accordance with the EPBD and Regulation (EU) 2018/1999.

Bearing in mind EU policy in the field of energy and climate action, the Paris Agreement and the Sofia Declaration on the Green Agenda for the Western Balkans, the MoME works in parallel on several key strategic documents in order to define the energy policy and process of energy transition:

- The New Energy Strategy until 2040 with projections until 2050,
- The Programme for the implementation of the new Energy Strategy
- Integrated national energy and climate plan
- A Study Diagnostic of the Just Transition for Serbia.

After the adoption of the **new Energy Strategy**, the **Programme for the implementation of the energy strategy** will be prepared.

²⁹ <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32004R0882</u>

³⁰ Official Gazette of RS, No. 27/22.

³¹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0001.01.ENG

³² Decision of the Ministerial Council of the Energy Community 2021/14/MC-EnC: amending Article 20 and Annex I to the Treaty establishing the Energy Community and incorporating Directive (EU) 2018/2001,

Directive (EU) 2018/2002, Regulation (EU) 2018/1999, Delegated Regulation (EU) 2020/1044, and Implementing Regulation (EU) 2020/1208 in the Energy Community acquis communautaire

2.2 Legal framework

The Law on Environmental Protection (Official Gazette of the RS, No. 135/04, 36/09-other law, 72/09-other law, 43/11 (CC), 14/16, 76/18 and 95/18-other law) provides for an integrated environment protection system, including action plans, conditions and instruments for sustainable management and the preservation of natural balance, integrity, diversity and quality of natural values and conditions for the survival of living beings, prevention, control, reduction and remediation of all forms of pollution, promotion and use of products, processes, technologies and practices that have a less harmful impact on the environment, the application of special rules of conduct in waste management from waste generation to disposal, i.e. the prevention or reduction of waste generation, reuse and recycling, the separation of secondary raw materials and the use of waste as fuel, import, export and transit of waste, the competencies of the Environmental Protection Agency, the training of employees to improve knowledge and raise awareness, access to information and public participation in the decision-making process. In addition, the law provides for a rule of hierarchy in waste management, from generation to final disposal, including prevention, reuse and recycling and transboundary movements of waste. Based on this law, bylaws were adopted. In respect to water sector, water can be used and loaded, and wastewater can be released into the recipients with the application of appropriate treatment, in a way and to a level that does not pose a treat to natural processes or to the restoration of the quality and quantity of water The protection and use of water is achieved within the framework of integral water management by undertaking and implementing measures for the preservation of surface and ground water. Air quality protection is explicitly mentioned in Article 24 which provides guidelines to achieve air quality protection, namely prescribing measures such as systematic air quality monitoring, reduction of air emissions that rise above defined limit values and the application of technical and technological solutions for pollution reduction. It also states that air protection measures ensure the preservation of the atmosphere as a whole with all its processes and climatic characteristics³³

The Law on Strategic Environmental Assessment (Official Gazette of the RS, No. 135/04 and 88/10) determines the relations between environmental policy and other sectoral policies currently being developed, as well as the development of new plans and programmes in areas of spatial and urban planning or land use, agriculture, forestry, fisheries, hunting, energy, industry, transport, waste management, water management, telecommunications, tourism, conservation of natural habitats and wild flora and fauna, establishing a framework for the adoption of future development projects. In addition, this law regulates the conditions, manner and procedures for conducting the strategic environmental assessment of the impact of certain plans and programmes on the environment in the phases of their preparation and adoption, as well as the content of reports on strategic environmental assessment, its verification and public involvement and participation in the report of the evaluation process.

The Law on Environmental Impact Assessment ("Official Gazette of RS," No 135/2004 and 36/2009) regulates the impact assessment procedure for projects that may have significant effects on the environment, the contents of the EIA Study, the participation of the authorities and organisations concerned, public participation, transboundary exchange of information for projects that may have a significant impact on the environment of another state, supervision, and other issues of relevance to an impact assessment.

The Law on Determining the Competences of the Autonomous Province of Vojvodina (Official Gazette of the RS, No. 99/09, 67/12 - CC decision, 18/20-other law and 111/21-other law) determines the competencies of the Autonomous Province, especially in areas where the Republic regulates the system, such as: culture, education, health care, sanitary inspection, environmental protection and improvement, urban planning, construction, the economy and privatisation, mining and energy, agriculture, forestry and the like.

The Law on Integrated Pollution Prevention and Control (IPPC) ("Official Gazette of the RS", No. 135/04, 25/15 and 109/21) lays down the conditions and procedure for issuing an integrated permit for plants and activities that may have negative impacts on human health, the environment or material goods, types of activities and plants, supervision and other issues of importance for preventing and controlling environmental pollution. According to the preliminary list of existing facilities created on the basis of the Regulation on types of activities and facilities that require issuance of the integrated permit ("Official Gazette of the RS", No 84/05), there are 227 facilities in the Republic of Serbia covered by the Law; however, only 39 integrated permits were issued by the end of 2020. The Law on Integrated Prevention and Control of Environmental Pollution establishes the division of competencies regarding the issuing the integrated permits (national level, provincial level and local level).

The Law on Local Self-Government (Official Gazette of the RS, No. 129/07, 83/14, 101/16 and 47/18) prescribes the rights and responsibilities of local self-government units (LSGs) determined by the Constitution of the Republic of Serbia, law, other regulations and LSGs statutes (key and delegated affairs), and the possibility of cooperation and association of LSGs in order to achieve common goals, plans and development programmes, as well as other activities of common interest.

³³ https://ekologija.gov.rs/dokumenta/zastita-zivotne-sredine

The Law on Public Companies ("Official Gazette of RS," No. 15/2016, 88/2019, and 95/2018) defines public companies as legal entities established by the state, autonomous province, or local self-government units to carry out activities of public interest. Such activities can also be performed by other forms of companies in public ownership, such as joint stock and limited liability companies. The Law regulates the management bodies of the public companies (Director and Supervisory Board) and their responsibilities, as well as the conditions for appointing their members. It defines the relations between the public company and its founder(s) and the procedures for its business planning and reporting.

The Law on the Capital City (Official Gazette of the RS, No. 129/07, 83/14-other law, 101/16-other law, 37/19 and 111/21-other law) regulates the position, competencies and powers of the City of Belgrade, the capital of the Republic of Serbia.

The Law on Planning and Construction (Official Gazette of the RS, No. 72/09, 81/09-correction, 64/10 - CC decision, 24/11, 121/12, 42/13 - CC decision and 50/13 – CC decision, 98/13 – CC decision, 132/14, 145/14, 83/18, 31/19, 37/19-other law, 09/20, 52/21 and 62/23) prescribes the procedure for the construction of waste management infrastructure. It also determines the conditions and manner of spatial planning, arrangement and purpose of construction land and the construction and use of facilities. This Law also regulates energy efficiency of buildings through its secondary legislation: the Rulebook on the energy efficiency of buildings³⁴ and the **Rulebook on the conditions, content and manner of issuing certificates on the energy properties of buildings**³⁵. The Rulebook on the energy efficiency of buildings from 2011 prescribe the methodology for calculating the energy efficiency of buildings; however, the methodology for calculation is still in the process of full alignment with the EPBD, under the responsibility of the Ministry in charge of Construction, Transport and Infrastructure (hereinafter: MCTI) including the development of the standard for Nearly Zero Energy Building level (hereinafter: nZEB). The provisions of Art. 4 of the Law on Planning and Construction represent the legal basis for the adoption of the LTRS (see section 2.1 National sectoral policies and context).

The **Law on Communal activities** (Official Gazette of the RS, No. 88/11, 104/16, 95/18) determines communal services and regulates the general conditions and manner of their provision, enables the organisation and provision of communal services for two or more municipalities and/or cities, under the conditions provided by law and agreements between municipal assemblies. Water supply and wastewater management are listed as number one and two, respectively, while municipal waste management is number four, out of 14 communal activities listed. The LSGs are responsible for securing organisational, material and other conditions for the construction, maintenance and operation of the infrastructure, technical integrity of the systems and provision and the development of utility services within its territory.

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area: Waste

Whilst there is good level of alignment with the EU acquis and there are ongoing efforts to improve the enforcement of legislation in the waste management subsector, challenges in the development of infrastructure remain at the forefront.

The Law on Waste Management (Official Gazette of the RS, No. 36/09, 88/10, 14/16, 95/18-other law, 35/23) and the Law on Packaging and Packaging Waste (Official Gazette of the RS, No. 36/09 and 95/18-other law) set the conditions for the establishment and development of an integrated waste management system in Serbia, in accordance with the standards of relevant EU legislation in this area. In 2023, Serbia adopted amendments to the Law on Waste Management in order to further harmonize it with the EU Directives and the Circular economy package. The Law on Waste Management regulates the types of waste and its classification, waste management planning, stakeholders, obligations and responsibilities regarding waste management, the management of special waste streams, permission requirements and procedures, cross-border movement of waste, reporting, the financing of waste management, supervision and other relevant aspects of waste management. Waste management consists of a set of activities of common interest that include the implementation of prescribed action plans implemented in the processes of collection, transport, storage, treatment and disposal of waste, including the supervision of these activities and the responsibility for waste management facilities after their closure. Based on this law, a number of bylaws³⁶ have been adopted for its implementation, which define in detail the framework for waste management, including the management of special waste streams (WEEE, waste oil, waste tyres, end-of-life vehicles, asbestos, PCB, POPs, medical and pharmaceutical waste, etc.). In addition, these bylaws further align

³⁴ Official Gazette of RS, No. 61/11.

³⁵ Official Gazette of RS, No. 69/12 & 44/18 – other Law

³⁶ <u>https://ekologija.gov.rs/dokumenta/upravljanje-otpadom</u>

national legislation with EU regulations in this area. In addition, Serbia recently adopted Regulation on construction and demolition waste management (Official Gazette of the RS, No. 93/23, 94/23 -corr.).

Regarding waste management, Serbia has a good level of alignment with the EU acquis³⁷, however, further harmonization is needed.

Sub-area of support: Water

The Law on Water ("Official Gazette of RS," No. 30/2010, 93/2012, 101/2016 and 95/2018) is the main legal document for water management. It is consistent with international good practices and trends in water utilisation and protection (e.g., it is not fully aligned with the EU Water Framework and EU Flood Directives). This law governs the requirements for design, construction, operation, and financing of water management activities. It regulates the protection of waters; protection from the detrimental effects of waters; water as an asset of direct concern in land management; and requirements for and ways of carrying out the regulations related to water management and inspection. It thus regulates the legal status of waters, integrated water management, the management of hydraulic structures and riparian areas, methods and sources of funding for water sector activities, oversight of how this law is applied, and related matters of importance.

The Law on Water applies to all surface and ground waters within the Republic of Serbia, excluding ground water from which useful mineral raw materials or geothermal energy can be extracted. It also applies to watercourses that define or cross RS borders and associated ground waters, unless regulated otherwise by a specific law, and to the extraction of river deposits that do not contain admixtures of any useful mineral raw materials. The law stipulates that waters can be used only in ways that do not threaten their natural characteristics, do not endanger the life and health of people, and do not threaten wild plant and animal species, natural resources, and immobile.

The Law on Disaster Risk Reduction and Emergency Management ("Official Gazette of RS," No. 87/2018) regulates disaster risk reduction, the prevention and strengthening of resilience and readiness for flood protection of individuals and communities to respond to the consequences of disasters, the protection and rescue of people, material, cultural, and other assets, the rights and obligations of citizens, legal entities, local self-governments, autonomous provinces, and the Republic of Serbia, emergency management, civil protection, early warning, alerting and alarming, international cooperation, inspection, and other issues of relevance for the organisation and functioning of the disaster risk reduction systems and emergency management. The Law defines resilience as the ability of a community exposed to risks to respond to them and recover from the consequences of disasters in a timely and effective manner, which also includes the preservation and restoration of basic functions.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

Sub-area: Air quality

The Law on Air protection ("Official Gazette of the Republic of Serbia", No. 36/09, 10/13 and 26/21-as amended) regulates air quality management and determines the measures, method of organization and control of the implementation of protection and improvement of air quality as a natural value of general interest that deserves special protection. It controlling of the air quality is conducted through identifications of zones and agglomerations and prescribed actions for the assessment of the air quality in such zones and agglomerations for the selected air pollutants. Law also provides legal background for the air quality monitoring system at the state and local level and defines responsibilities for the institutions involved. Furthermore, it defines and specifies requirements for air quality, air quality categories, timelines for exceedance and exceptions and provide for procedures for informing the public in the event of threshold exceedance. The law also regulates the matters of measurement the emissions and level of the pollutants in the air and issues relating to the Informing and reporting and on the content of the air quality information system and funding the protection and improvement of the air quality.

Sub-area: Energy efficiency (EE)

The **Law on Energy Efficiency and Rational Use of Energy** (Official Gazette of RS, No. 40/21) (hereinafter: LEERUE) regulates the conditions and manner of efficient use of energy and energy sources; energy efficiency policy; energy management system; energy efficiency policy measures: use of energy in buildings, in energy activities and end customers, for energy facilities and energy services; energy labelling and eco-design requirements; financing, incentives and other measures in this area, as well as other issues of importance for the rights and obligations of individuals and legal entities related to energy efficiency. The Law also defines the legal basis the establishment of an Administration for Financing and Promotion of Energy Efficiency as a separate legal entity within the MoME instead of the Budget Fund for Energy Efficiency, which was just a budget line operated by the MoME since 2014. The establishment of the Administration enabled subsidies for the improvement of energy efficiency in the buildings sector and other energy consumption sectors.

 $^{^{37}} https://www.mei.gov.rs/upload/documents/eu_dokumenta/godisnji_izvestaji_ek_o_napretku/ec-report-2022.pdf$

The Law on use of Renewable energy sources (Official Gazette of RS no. 40/2021) regulates renewable energy sources, including their utilization, targets, the method for calculating their share in Serbia's energy consumption, integration into the market, incentive systems for renewable electricity production, guarantees of origin, self-consumption of renewable electricity, use in thermal energy and transportation, construction and connection procedures for renewable energy facilities, cooperation mechanisms with other countries, and monitoring of law implementation, among other significant matters. The new Law on RES enables further reduction of the emissions by promoting use of renewable energy for electricity production in the buildings and creating conditions for nearly zero-energy buildings.

The Law on Housing and Building Maintenance (Official Gazette of RS, No. 104/16 and 9/20) outlines the legal framework for the maintenance and management of residential buildings and the rights and responsibilities of both individual apartment owners and homeowners' associations. The Law covers various aspects related to housing and building maintenance, including the establishment and functioning of homeowners' associations, financial contributions, maintenance plans, and dispute resolution mechanisms. It also addresses issues such as repair and renovation of common areas, dispute resolution, and other matters relevant to the upkeep of residential buildings. The law also prescribes the obligation of municipalities to provide advisory assistance for improving the energy efficiency of the building to the owners of apartments or to the housing association at least once a week, in order to achieve public interest in terms of improving the properties of the building.

The Law on Fees for the Use of Public Goods (Official Gazette of RS, No. 95/2018, 49/2019, 86/2019, 156/2020 and 15/2021) regulates fees and charges associated with the use of public goods and resources. Public goods in this context refer to natural resources and assets that are owned by the public or the state. The law governs various aspects related to fees and charges for utilizing these resources. The Law introduced a fee for the improvement of energy efficiency, the collection of which began in July 2019. Fee payers are entities that perform energy activities of electricity supply, natural gas supply and public supply of natural gas and have a license to perform those activities, and entities that perform energy activities of production of petroleum products and trade in oil, petroleum products, biofuels and compressed natural gas, and have a license to perform these activities in accordance with the law governing energy.

The Law on Energy (Official Gazette of RS, No. 145/2014, 95/2018 (other law), 40/2021, 35/2023 (other law), 62/2023) is the central piece of legislation governing the energy sector in Serbia. It covers various aspects of energy production, transmission, distribution, and consumption. The law outlines the principles of energy market liberalization, environmental protection, and energy efficiency. Among other things this Law closely defines the services of production, distribution and supply of heat energy from district heating systems and transfers the obligation of arranging these services to the municipalities.

2.3 Institutional setting, leadership, and capacity

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

The Ministry in charge of Environmental Protection (MoEP) is the key institution in the field of waste management, responsible for policy making, legislation and enforcement for waste management. The Ministry, in accordance with the Law on Ministries, performs state administration tasks which, among other things, relate to: waste management, including hazardous waste, except radioactive waste; approval of cross-border movement of waste, and other activities determined by law. The Ministry proposes a strategy and national waste management plans to the Government, coordinates and performs waste management activities of importance to the Republic, approves regional waste management plans, except for plans in the territory of the Autonomous Province, issues permits as prescribed by the law, supervises and controls the application of waste management measures and undertakes other measures and activities, in accordance with international treaties and agreements. The MoEP also approves Construction and Demolition waste management plans for the infrastructure development for which MoCTI is issuing Construction permit. The MoEP supervises the work of the Serbian Environmental Protection Agency, the autonomous province, LSGs, as well as the authorised legal entities in performing of delegated tasks. The MoEP performs state administration tasks related to environmental protection; cross-border water pollution; and protection of water from pollution in order to prevent the deterioration of the surface and ground water quality. MoEP is in charge of establishing a network to monitor the quality of air, the authorisation for air quality measurement and the determination of zones and agglomerations, as well as to provide consent for air quality plans and short-term action plans, cooperate with other countries and implement the Law on Air Protection.

The Serbian Environmental Protection Agency (SEPA), as an administrative body within the Ministry in the capacity of a legal entity, performs state administration tasks related to maintaining and updating the database on waste management in the environmental protection information system, in accordance with the law governing environmental protection. The SEPA cooperates with the European Environment Agency and the European Environment Information and Observation Network (**Eionet**). In addition, SEPA, performs state administration

tasks related to: the implementation of state monitoring of air and **water quality**, including the implementation of prescribed and agreed programmes for the control of air quality, **surface water and ground water** (first aquifer) **and rainfall**; the management of the National Laboratory; the collection and consolidation of environmental data, their processing and preparation of reports on the state of the environment and the implementation of environmental protection policy as well as other tasks specified by law. **SEPA** is the competent authority that implements the monitoring of ambient air quality and the reporting and establishment, maintenance and operational functioning of the Automatic Air Quality Monitoring Network (AAQMN) that contains 37 stations to perform monitoring according to the reference methods of standard pollutants: SO2, NO/NOx/NO2, CO, O3, PM2.5, PM10 and heavy metals in PM10) including Quality Assurance/Quality Control (QA/QC) procedures of reference methods for AQ monitoring and the co-ordination of quality assurance programmes.

The Ministry in charge of Water Management is responsible for integrated water resources management in the Republic of Serbia. The Republic Water Directorate conducts activities in water management policy; multipurpose water usage; water supply, excluding water distribution; water protection; the implementation of water protection measures and planned water consumption optimisation; water regime organisation; the monitoring and maintaining of regimes of cross-boundary waters of the Republic of Serbia; and water management inspection.

The Ministry in charge of Health (MoH) performs tasks related to the public water supply of the population with hygienic drinking water and other areas specified by law.

The Ministry in charge of Construction, Transport and Infrastructure performs state administration tasks related to: construction; building land; urban planning; spatial planning; the determination of conditions for the construction of facilities; but also related to communal infrastructure and communal activities, with the exception of the production, distribution and supply of thermal energy as well as inspection supervision over communal infrastructure facilities and the performance of communal activities. MCTI conducted a public call in 2018, for co-financing the development of technical documentation for improving the EE of public buildings owned by LSGs. This Ministry is tasked with the initiation and preparation of the strategic and legal framework in the area of EE renovation of the buildings.

The Ministry in charge of Finance (MoF) performs state administration tasks related to: the budget of the Republic of Serbia; the determination of the consolidated balance of public revenues and public expenditures; the system and policy of taxes, fees, fees and other public revenues; the basis of the system of contributions for social insurance and provision of financing of mandatory social insurance; the regulation of source revenues of the autonomous province and local self-government units; public expenditure policy; the management of available means of public finances of the Republic of Serbia; and the coordination of the system of management and implementation of programmes financed from the funds of the European Union. The MoF also coordinates the Public Investment Management (PIM) system, receives requests for capital project financing, and submits the proposal of the list of priority project ideas, with an opinion on financial and implementation aspects, to the Republic Commission for Capital Investments.

Decree on Capital Projects" (hereinafter: Decree) adopted in September 2023 (Official Gazette of RS, No.79/2023) regulates the content, methods of preparation, assessment, evaluation, and selection of capital projects, monitoring of their implementation, reporting on its performance, and assessment of positive and negative effects of capital projects, with the aim of effective and efficient management of public funds.

It applies to capital projects financed or co-financed from public revenues and receipts, capital projects for which Republic of Serbia grants guarantees, capital projects funded or co-funded by EU funds or other state or international institution, capital projects for which subsidies from Republic of Serbia are requested or granted, and capital projects implemented through public-private partnerships or concessions as defined by appropriate law. Ministry in charge of Finance establishes and manages PIMIS (Public Investment Management Information System) which is centralized capital projects database for entering project documentation in all phases of the project cycle, for the purpose of identification, record-keeping, assessment, selection, and monitoring of capital projects. The Commission for Capital Investments, as Government working body, assesses national capital projects in the context of their significance for economic development of Serbia and decides on inclusion of costs of national capital projects implementation in the budget. It is worth to mention that the Sub-commission, will be formed by Government which preliminarily selects project ideas or projects proposed for financing or co-financing from the EU funds or other donor or international institution, The Co-Chairs of the Sub-commission are National IPA Coordinator (NIPAC) and Minister in charge of Finance.

The Autonomous Province of Vojvodina has the responsibility for inspections and enforcement on its own territory. The key responsibility in the field of environmental protection lies with the **Provincial Secretariat for Urbanism and Environmental Protection**, based on the competencies transferred to AP Vojvodina by the Law Determining the Competences of the Autonomous Province of Vojvodina. The Provincial Secretariat participates in the development of the Programme and national waste management plans, performs waste management activities of importance for the province, approves regional waste management plans on its territory, issues

permits, consents and other acts in accordance with the law, supervises and controls the measures of waste management on its territory and carries out other activities determined by law. **The Secretariat and Local self-government units** are responsible for implementation of current legislation at the corresponding level, with the same duties as the national level organisations, with additional reporting obligations to MoEP and SEPA. The autonomous province and LSGs, within their respective jurisdictions determined by law, ensure the monitoring of air quality. For the purpose of air quality monitoring, they establish a local network of measurement stations and/or measurement sites. Air quality monitoring in the local network is conducted according to a programme established by the competent authority of the autonomous province and the competent authority of the LSG. The competent authority of the autonomous province and the competent authority of the Agency with data on air quality obtained from air quality control in the national and local networks, as well as the results of specific-purpose measurements. The competent authority of the autonomous province and the competent authority of the LSG are obliged to adopt short-term action plans in the zone or agglomeration within their territory in case there is a risk of pollutant levels in the air exceeding one or more concentrations hazardous to human health.

The Provincial Secretariat for Agriculture, Water Management and Forestry of Vojvodina (PSfAFWM) manages water within its administrative boundaries, including the adoption of planning documents (water management plans, flood risk management plans) and administrative acts.

The Republic Hydrometeorological Institute (RHMI) performs professional and state administration tasks related to: the meteorological, hydrological observation and analytical-prognostic system; hydrological measurements and observations; the bank of observed and measured hydrological and meteorological data; operational observation and announcement of disasters in the atmosphere and hydrosphere; anti-hail protection; cooperation in the field of international hydrological and meteorological information systems; and the execution of international obligations in the field of meteorology and hydrology, as well as other tasks determined by law.

The institutions responsible for policy implementation in the water management subsector are the **Public Water Management Companies (PWMCs)** - **Serbia Waters and Vojvodina Waters**. They are responsible for integrated water management in their respective territories covering the preparation of technical documentation as well as the implementation and supervision of infrastructure projects. Additionally, they are responsible for the maintenance of the Water Information System, the organisation and implementation of measures regarding protection against harmful effects of water, and the regulation of water-use on their territory.

The Local self-government (LSG) units have competencies in the field of communal activities and are responsible for municipal waste management. According to the Law on Waste Management, the LSG adopts a local management plan waste and takes care of its implementation, conducts management of non-hazardous (including municipal) and inert waste on its territory, regulates the procedure for charging for services, issues permits and other acts; and supervises and controls waste management measures, as well as other tasks determined by law. The LSGs approve Construction and Demolition waste management plans for developments for which LSGs is issuing construction permit. **LSG Units** have responsibilities for communal infrastructure, including water and wastewater infrastructure. The practical implementation of wastewater collection and treatment and drinking water supply are vested with the LSGs (provided by the PUCs).

Public Utility Companies (PUCs) are established by the local self-government units for providing services, thus are directly involved in implementing waste management legislation. They are obliged to provide organisational, material and financial conditions for the provision of waste management services. PUCs in smaller municipalities are multi-purpose, providing more than one utility service. In larger LSGs there are specialised PUCs for waste collection, transport and/or disposal. LSGs/PUCs are responsible for planning and implementation of municipal waste collection and transport on the whole territory of the LSG as well as for the implementation of primary separation of municipal waste. In larger LSGs there are specialised PUCs for water and sewerage.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

One of the main routes to achieving reduced CO_2 emissions sustainably whilst unlocking the economic potential of the sector is to enable households to invest in energy saving measures.

The Ministry in charge of Mining and Energy (MoME) is the body responsible for defining the energy policy of the Republic of Serbia. Among other jurisdictions, the MoME is responsible for state administration affairs related to rational energy use and energy efficiency; the implementation of energy management systems; monitoring of energy savings and the contribution to achievement of energy efficiency goals; and the provision of some of incentives for energy efficiency improvement. The MoME is responsible for the transposition of the main EU regulations in the area of energy efficiency, including energy labelling and eco-design, with the exception of the EPBD, where it is responsible only in the part related to the control of heating and air conditioning systems.

The MoME operated a Budgetary Fund for Energy Efficiency (hereinafter: Budgetary fund) in the period 2014-2021 in accordance with the Annual Programme of Financing, adopted by the Government, while the procedures and method of funds distribution, as well as the method of supervising the correct use of the fund and contractual rights and obligations are regulated by the regulations that are linked with annual programmes.

The Ministry in charge of Environmental Protection (**MoEP**) is the key institution in the field of air quality, responsible for policy making, legislation and enforcement for air quality. The Ministry, in accordance with the Law on Ministries, performs state administration tasks, which, among other things, also include: air protection, protection of the ozone layer and climate changes. The MoEP supervises the work of the Serbian Environmental Protection Agency, the autonomous province, LSGs, as well as the authorised legal entities in performing of delegated tasks.

The Serbian Environmental Protection Agency (SEPA), as an administrative body within the Ministry of Environmental Protection, with the capacity of a legal entity, performs state administration tasks related to: development, harmonization and management of the national information system for environmental protection (monitoring of the state of environmental factors through environmental indicators environment; register of polluting substances, etc.); implementation of state monitoring of air quality; including the implementation of prescribed and agreed programs for the control of air quality; collection and consolidation of environmental data, their processing and preparation of reports on the state of the environment and the implementation of the environmental protection policy; development of procedures for processing environmental data and their assessment.

In April 2021, the newly adopted LEERUE established the **Administration for Financing and Promoting Energy Efficiency** (acting as the EE Fund, hereinafter: EE Administration). It started its operation at the beginning of 2022 as an administrative body within the MoME but as separate legal entity unlike the previous Budgetary Fund, which was just a budget line. The tasks of the Administration are to provide financial incentives for all sectors of energy consumption, with focus on the building sector and particularly households. The beneficiaries of these incentives can be state institutions and organisations; municipalities; housing associations; households, etc.

In 2020, as stated in the Law on Ministries³⁸, the **Ministry in charge of Management of Public Investments** was established to continue the operations of the former Public Investments Office Management. This was a government body, established in 2014, with the task to manage reconstruction projects and provide assistance after natural and other disasters, primarily reconstruction projects of thousands of preschools, school, health, and social welfare institutions. The Decree on the Establishment of the Office for the Management of Public Investments³⁹ established that the Office carries out professional, administrative and operational tasks for the needs of the Government which relate to the coordination of the implementation of projects for the reconstruction and improvement of public buildings, as well as other tasks determined by law or Government decision⁴⁰.

The Provincial Secretariat for Energy, Construction and Transport (hereinafter: PSEV) monitors the situation in the energy and mineral resources sector on the territory of the autonomous province of Vojvodina. It monitors the security of the supply of energy and energy products; the development and application of all types of primary and secondary energy, investment and development-research programmes in the field of coal, oil, oil derivatives and biofuels, natural gas, heat and electricity, geothermal and mineral waters and all types of renewable energy sources, energy efficiency and rational use of energy; the current policy of development of energy and mineral resources and functioning of the energy system, and production and consumption of all types of energy. The PSEV co-finances projects in the field of energy which are particularly related to the application of renewable energy sources and energy efficiency, as well as projects in the field of the use of mineral resources in the territory of the Province, informs and educates within its scope by organising meetings, conferences and fair events, and cooperates with potential investors and institutions within its scope of responsibilities.

The operator is any company, legal entity, or entrepreneur that, in accordance with regulations, manages, controls, or is authorised to make economic decisions regarding the technical functioning of a facility. The operator is obliged to develop an Emission Reduction Plan for stationary installations in order to take measures to reduce air pollution, implement specific technical and technological solutions, and plan emission reduction costs. If there is a malfunction of devices that ensure the implementation of prescribed protection measures or a disturbance in the technological process resulting in exceeding the emission limit values, the operator is obligated to repair or adjust the malfunction or disturbance, or suspend the technological process to bring the emissions within the permitted limits as soon as possible.

Environmental protection inspectors, which are part of MoEP, are responsible for conducting inspection supervision. The tasks of inspection supervision regarding the implementation of air protection measures against

³⁸ Official Gazette of RS, No 128/20 & 116/22

³⁹ Official Gazette of RS, No 95/15

⁴⁰ http://www.obnova.gov.rs/latinica/kancelarija

pollution in facilities for which the competent authority of the autonomous province issues construction permits or usage permits are entrusted to the autonomous province. The tasks of inspection supervision regarding the implementation of air protection measures against pollution in facilities for which the competent authority of the LSG issues construction permits or usage permits are entrusted to the LSG.

The **LSG**s a crucial role in the implementation of projects of EE renovation of public buildings and residential buildings. The energy management system is still not fully established in the LSGs, many have not even appointed an Energy manager responsible for the implementation of this type of projects, while the implementation of EE renovation projects in residential buildings is not systematically organised due to the lack of human resources, the lack of a specific department and, in most cases, the hiring of Energy managers. LSGs also have a specific role in the policy making and implementation of energy policy, which is defined through the institutional framework of the Republic of Serbia and the legal framework. Accordingly, LSGs may establish an energy entity on their territory for performing the activity of heat energy production, distribution and supply to customers, where a local ordinance shall determine the conditions and manner of performing each of these activities. Local energy planning is the focal point for the transition to green, climate friendly, socially inclusive and economically sustainable decentralised energy production⁴¹. Hence, LSGs and PUCs are an important part of the public administration with broad competences in communal energy and energy efficiency. They lack both financial and administrative capacity to deal with all responsibilities within the current legal framework as well as the additional responsibilities resulting from the EU accession process⁴² and their capacities should be strengthened.

2.4 Sector(s) and donor coordination

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

The coordination of international assistance, especially IPA, is ensured through the Sector Working Group (SWG) for the Environment and Climate Sector that includes relevant national institutions and representatives of the donor community supporting the sector. The Ministry in charge of Environmental Protection is the lead institution within the Environment and Climate Change Sector with respect to sector policy coordination, while the planning, programming and monitoring of EU funds and other assistance is led and coordinated by the Ministry in charge of European Integration. The primary role of the SWG for the Environment and Climate Sector is to ensure an adequate forum for sector policy dialogue and a reliable basis for effective planning and programming, enabling strategic focus and prioritisation, the complementarity of various interventions and the optimisation of different sources of funds. It thus improves the coordination and management of international development assistance and increases its effective absorption while ensuring a transparent and inclusive dialogue among all relevant stakeholders.

The lead donor of the SWG for Environment is Sweden, committed to supporting the Chapter 27 reform process focusing on implementation and enforcement (central, local level and NGO, business) and the EU Green Agenda.

During the preparation of the Strategic Response (2021-2024), comprehensive consultations were organised in the format of SWG which also involved representatives of national institutions, donor community and civil society.

The last SWG was convened in June 2023 with 32 participants, it included the most relevant stakeholders in the sector, including the donor community and CSOs that are actively taking part in Working Groups of the National Convent on the European Union covering Chapter 27 of the negotiations framework. The Ministry in charge of Environmental Protection (MoEP) is the lead institution in the Negotiating Group for Chapter 27 - Environment and Climate Change, and thus responsible for reporting to the European Commission on the overall progress during EU negotiations process and it also coordinates activities with other institutions involved in environmental and climate change acquis implementation. In addition, the MoEP is responsible for the process of implementing, monitoring /reporting on EU assistance in the Environment and Climate Change Sector. The MoEP is the key institution in the Environment and Climate Change Sector, responsible for policy making, legislation and enforcement for, inter alia, waste management. The consultation and coordination process in policy and strategic planning involves relevant national and local stakeholders, institutions, Civil Society Organisations (CSOs) and other partners assuring the shared ownership over the identified policy objectives across the sector.

The Negotiating group 27 for the environment and climate change is in charge of activities related to participation in screening, preparation of proposals for negotiating positions for accession to the European Union, drafting, revision and monitoring of the implementation of the National Programme for the adoption of the legal acquis of the European Union, the division of competences for the transposition and implementation of the requirements of the European Union, as well as preparation of proposals for planning communication activities for the

⁴¹ Local programmes of energy efficiency, Case studies and lessons learned, Publication prepared within the Project "Advocacy NGOs networks for sustainable use of energy and natural resources in the Western Balkans and Turkey – ETNAR", 2017 ⁴² Situation analysis of the energy sector 2019-2025

corresponding chapters of negotiations on accession to the European Union. The Negotiating group 27 for the environment and climate change consists of representatives of 32 ministries, institutions and organisations and more than 110 different experts. In order to facilitate the assessment of the state of the environment and ways to bring it closer to EU standards, 10 sectoral working groups were formed within the Negotiating Group 27, which cover the following areas: Horizontal legislative; Air quality; Waste management; Water quality; Protection of Nature; Control of industrial pollution; Chemicals; Noise protection; Climate change and Civil protection.

The National Council for Climate Change has been established by the Government of the RS and it is led by the Ministry in charge of Environmental Protection; its members are representatives of other ministries, state institutions, academia, governmental and CSOs, and other institutions: Ministry in charge of Agriculture, Water Management and Forestry, Ministry in charge of Mining and Energy, Ministry in charge of Finance, Ministry of in charge Economy, Ministry in charge of Construction, Transport and Infrastructure, Ministry in charge of Interior, Ministry in charge of Education, Science and Technological Development, Ministry in charge of Health, Ministry in charge of Foreign Affairs, Environmental Protection Agency, Ministry in charge of European Integration, Office for Cooperation with Civil Society, Republic Hydrometeorological Institute, Provincial Secretariat for Urbanism and Environmental Protection, Provincial Secretariat for Energy, Construction and Traffic, Secretariat for Environmental Protection of the City of Belgrade, Republican Bureau of Statistics, Institute for Nature Protection, Local governments and Civil society organisations represented by the Green Chair Network, which consists of: the Centre for environmental improvement, Young Researchers of Serbia, the Centre for Modern Skills and the Belgrade Fund for Political Excellence.

The National Council has an important role in the implementation of the communication strategy in the field of climate change. The members of the National Council are actively involved not only in finding solutions to problems related to climate change, but in communication activities. The first meeting of the NCCC was held on September 21, 2021, the second was held on September 12, 2022 and reports from both meetings are available on the MoEP⁴³website.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

As sector lead institution, the MoME leads and coordinates the relevant sector institutions in the process of policy planning, implementation, monitoring/reporting on sector policies in line with the Sector strategy, and relevant corresponding action plans as well as obligations under the Energy Community Treaty. Beside the Ministry, other relevant sector institutions, the PSEV in AP Vojvodina, and municipalities within their mandates are responsible for the Action Plans' implementation. The LSGs hold the responsibility for policy elaboration and implementation in the field of heat energy.

The policy chain of energy efficiency planning and implementation does not have enough experienced and trained employees at all levels, and capacities need to be increased in quantity, knowledge and experience. Consequently, the collection of energy data is problematic, let alone acquiring solid and comprehensive information related to EE parameters of buildings. This hampers proper evidence-based policy impact assessments in the energy efficiency sector and makes the fulfilment of reporting obligations throughout the hierarchy of policy documents rather difficult. Moreover, bearing in mind the difficulties in mapping the building stock, including a large portion of illegal construction, the implementation of the LTRS is of great importance. Some progress in this respect is evident through the implementation of the energy management system and the Energy management information system – ISEM - which might be used to establish a national database on the actual consumption of energy, energy sources and water in public buildings.

The **MoME** is leading the Republic of Serbia EU Negotiating Group on Energy - Chapter 15 and under the process led by Ministry in charge of European Integration, it is also involved in coordinating relevant sector institutions in terms of strategic investment planning and the identification of candidate projects for the Single Project Pipeline (SPP) in the energy sector, in accordance with the Methodology for prioritisation and selection of priority infrastructure projects, later endorsed by National Investment Committee (NIC). The NIC coordinates activities based on the SPP of priority infrastructure projects, i.e. presents plans for the implementation of the SPP and consider proposals and views of the development partners and international financial institutions in relation to those projects, and especially options and modalities for their financial support

Special working groups are important for the coordination of activities related to some of major energy topics. As such, the **Working Group on Security of Supply** reviews and monitors the situation regarding the security of energy and fuel supply in Serbia, given that the Ministry produces energy reports on the security of supply every year. It consists of the representatives of all major sector players: the Ministry in charge of energy, national companies for production, transport, distribution and supply of electric energy, the Public Enterprise Srbijagas, the National Oil Industry (NIS), the Serbian Association of heating plants, the Provincial Secretariat for Energy

 $^{^{43}\} https://www.ekologija.gov.rs/dokumenta/klimatske-promene/nacionalni-savet-za-klimatske-promene/naci$

and Mineral Resources, The Energy Administration of the City of Belgrade, the Agency for Energy of Republic of Serbia and Belgrade heating plants.

Sector Donor Coordination is ensured through the **Energy Sector Working Group (ESWG)**. The last ESWG was convened in June 2023 with 29 participants, it included the most relevant stakeholders in the sector, including the donor community and CSOs that are actively taking part in Working Groups of the National Convent on the European Union covering Chapter 15 of the negotiations framework. Germany is the lead donor for the energy sector with the German Development Bank (KfW) and Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) having a significant portfolio of support Programmes/projects in energy sector stretching over almost two decades of development assistance in Serbia. EU support to energy sector is of utmost importance in energy policy guidance, restructuring and sustainability, especially related to EU accession requirements.

The scope of work related to alignment with the new EU strategic framework for a more integrated planning system with the INECP, as well as challenges in view of the implementation of the "Clean Energy"⁴⁴ package require adequate institutional capacities. The MoME and other relevant sector institutions are significantly under-capacitated. The capacities of the Ministry in terms of number of employees are critical⁴⁵, with almost half of the employees positions unfilled.

According to the LEERUE, **LSGs** with populations exceeding 20,000 are mandatory reporting entities of the energy management system, meaning that they are obliged to appoint the necessary number of energy managers, adopt energy efficiency plans and programmes, implement energy efficiency measures, submit annual reports on primary energy consumption and achieve the targets for energy savings as prescribed by the Decree on determining the annual energy saving targets. The energy efficiency programmes and plans adopted by LSGs are part of the hierarchical planning acts, which determine energy efficiency policy implementation.

2.5 Mid-term budgetary perspectives

Mid-term budgetary planning has been instituted in the Republic of Serbia, as determined by the Law on the Budget System and the Law on the Planning System. Line ministries have initiated the practice of adopting mid-term plans that present a three-year perspective of planned activities as well as mid-term expenditure frameworks.

Since 2015, all line ministries have been required to produce programme budgets but there is a need for significant improvement in this process, since programme budgets need to be fully integrated within improved medium term budgeting exercise. Budget beneficiaries are obliged to submit three-year projections in the course of the annual budget cycle. Fiscal strategy sets the medium-term budget limits per budget beneficiary which allows for the estimates of sector budgets on the basis of individual annual budgets for the institutions.

The programme budgeting mechanism developed in instructing and coordinating with the budget beneficiaries can already be considered as very instrumental for consolidating fiscal discipline and for the transparency of public expenditure. The plans contain budget allocations for each individual activity and indicators to monitor progress in implementation. Plans for the 2021-2023 perspective are currently being implemented and plans for the 2024-2026 timeframe are being drafted. Nonetheless, the proposed Law on Budget for 2024 offers a summary of the program activities planned for funding in the upcoming year. It also includes a forecast of the financial resources designated for capital investments in projects encompassed by the support areas of this Operational Programme. Refer to the following table:

Area and sub-area of support	Budgetary funds as per the Law on the Budget of the Republic of Serbia for 2024 ("Official Gazette of RS", No. 92/2023)					
	Programme budget 2024 (EUR)	Capital investments 2024 – 2026 (EUR)				
Waste and Water Management						
Waste*	58,756,299.00	51,455,494.00				
Water*	26,303,529.00	44,044,673.00				
Water**	35,848,923.00	18,544,810.00				
Air Quality and energy efficiency						
Air quality***	11,205,982.00	52,991.00				
Energy efficiency****	26,124,595.00	112,095,71.00				

* Ministry in charge of Environmental Protection

⁴⁴ A package of measures includes 8 different legislative proposals covering: Renewable Energy, Governance, Energy Efficiency, Electricity Market Design (the Electricity Regulation, Electricity Directive, and Risk-Preparedness Regulation), and Rules for the regulator ACER.

⁴⁵ Ministry of Mining and Energy, Work Informer (July 2022)

** Ministry in charge of Agriculture, Forestry and Water Management *** Ministry in charge of Environmental Protection **** Ministry in charge of Mining and Energy

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area of support: Waste

One of the strategic priorities which require high environmental investments is the waste sector. According to the **Waste Management Programme 2022-2031**, total investment costs envisaged for the implementation of the measures foreseen by the Landfill Directive are EUR 1 051 million until 2049, of which EUR 823 million until 2031. Total investment costs for the Waste Framework Directive (excluding the double counting of costs related to the Landfill Directive) is EUR 76 million until 2049, i.e. EUR 42 million until 2031.

The budget based on the MIFP version 2 indicate investments for the sector interrelated strategies. The total indicative budget refers to the following environmental sub-sectors: horizontal (INSIPRE), air protection (including AQP), waste management, water management and industrial pollution. The MIFP project pipeline provides cost assessments for: the preparation, construction, supervision, contingencies and institutional support for accession-relevant infrastructure in waste management. The waste subsector pipeline includes 123 projects, out of which 98 are expected to start implementation by 2029, with a total implementation cost of EUR 997.6 million (based on the real price in 2021). Estimated preparation costs of these projects total EUR 63.5 million, bringing their total investment cost to 1 061 million EUR. During the MIFP priority investment period, preparation activities of approx. EUR 3 million will start for an additional 13 projects that will be implemented after 2029.

The largest part of the assistance is committed to contributing to the Government efforts for the improvement of waste management in line with the priorities identified for financing from the budget of the Republic of Serbia.

Ongoing and planned international assistance in the waste management sector is EUR 42.2 million, according to the Ministry of European Integration.

Sub-area of support: Water

The Action Plan 2021-2023 for the implementation of the Water Strategy represents the improved medium-term budgeting exercise in the area of water management. The River Basin Management Plan envisages basic and priority measures where the largest investments are of a technical nature and refer to the Municipal Wastewater Directive totalling EUR 1,289 million and the Directive on the Quality of Water Intended for Human Consumption EUR 510 million. Capacity building measures are a necessary prerequisite for all technical and organisational measures. Administrative costs are defined as the costs of administration at the national, provincial and local levels. The costs of strengthening the institutional capacities for the implementation of the WFD are mainly due to the need for additional personnel at a cost of EUR 11 929 451, training costed as EUR 4 380 489 and equipment for EUR 326 824, in total EUR 24 063 297 for the period 2020-2025. Additional operating costs are mainly related to the establishment and operation of monitoring networks according to monitoring programmes for water bodies: (1) operational costs for surface water monitoring (SEPA and RHMI) and (2) costs related to the extension of the groundwater monitoring networks (RHMI) with a total estimated budget of EUR 5 540 000.

The budget based on the MIFP version 2 indicates investments for the sector-interrelated strategies equal to EUR 12,455 million. The total indicative budget refers to the following environmental sub-sectors: horizontal (INSIPRE), air protection (including AQP), waste management, water management and industrial pollution. From the total in water sector, the budget related to the Drinking Water Directive as recast by Directive 2020/2184/EU on the quality of water intended for human consumption implementation is estimated at EUR 1,550 million while investment needed for the Urban Wastewater Treatment Directive is EUR 4,280 million.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

According to the Long-Term Renovation Strategy for Encouraging Investments in Renovation of the National Building Stock of the Republic of Serbia by 2050 which was adopted by the Serbian Parliament in February 2022, five different referent scenarios for the renovation of buildings were identified and presented with all of necessary indicators in order to select the one to be adopted.

Scenario 4 was selected to be implemented; it includes renovations in three groups of the established building stock:

- For existing multi-family buildings: renovation to the level EE+ with an annual rate of renovation of 1.0% for existing buildings built pre-1960 and a rate of 1.5% for existing buildings built in the period 1961-2012,

- For existing commercial buildings: renovation to the cost-optimal level with an annual rate of renovation of 1.5% for existing buildings built before 1960, and a rate of 2.5% for existing buildings built in the period 1961 -2012,
- For new residential and commercial buildings: nZEB Level is adopted in this scenario.

The total initial investment costs (and reinvestment costs for the equipment and installations with a lifespan shorter than the period until 2050) for the selected scenario 4 according to the Renovation buildings strategy amounts to more than EUR 40 billion until the year 2050.

The same documents show the amounts of initial investment costs for separate periods of the implementation of the Strategy, and accordingly, for the first period (2021 - 2025) the initial investment is estimated to be above EUR 6.5 billion and for the next period (2026 - 2030) more than EUR 6.6 billion.

The detailed mid-term budget will be presented in the National Action Plan for the realisation of the Strategy and this document is currently (as of May 2023) being developed by the Ministry in charge of Construction, Transport and Infrastructure.

According to the **Budget of the Republic of Serbia**⁴⁶ for the next programming period (2023 - 2025), the **Ministry in charge for Management of Public Investments** is planning more than 0.5 billion EUR for investment in the renovation of the public buildings. The Ministry for the Management of Public Investments has a much wider scope with obligations to manage reconstruction projects and the provision of assistance after natural and other disasters, and above all the reconstruction projects of thousands of preschools, schools, health, and social care institutions.

In the area of energy efficiency, as already mentioned EE Administration collects the energy efficiency fee in accordance with the Law on Fees which was adopted in the end of 2018. Based on this fee, about EUR 10 million is collected annually. The budget of the EE Administration in 2023 is secured at about EUR 4.3 million.

Prior to the establishment of the EE Administration, as part of the activities of the MoME, public calls, under the Budgetary Fund, for (co)financing EE improvement projects in LSGs have been implemented for almost 10 years and more than 100 contracts have been concluded. The projects mainly included measures to improve energy efficiency on the thermal envelope of buildings and measures to improve thermo-technical systems. They were most often implemented in public facilities such as: preschool institutions, health centres, primary and secondary schools and municipal administrative buildings. In 2021, MoME launched two public calls for co-financing the energy renovation of residential buildings: the first awarded around EUR 1.9 million from the Budgetary Fund to 67 LSGs and second (the installation of solar panels) awarded around EUR 832 000 to 37 LSGs.

In 2022, after its establishment, the EE Administration launched a public call for (co)financing the energy renovation of residential buildings and signed contracts with 151 municipalities for a total programme value of around EUR 34 million with the co-financing from the EE Administration of EUR 8.8 million and EUR 8.2 million from LSGs while the participation of the households amounted to around EUR 17 million.

In 2022, the EE Administration launched a public call for (co)financing projects to improve energy efficiency in public buildings and signed contracts with 38 LSGs with total programme value of around EUR 9.56 million with co-financing from the EE Administration of EUR 5.85 million and EUR 3.81 million from LSGs.

In 2023, the EE Administration launched a public call for (co)financing projects to improve energy efficiency in public buildings and signed contracts with 21 LSGs with total programme value of around EUR 5.66 million with co-financing from the EE Administration of EUR 3.4 million and EUR 2.26 million from LSGs.

The Ministry in charge for Environmental Protection is conducting the procurement, replacement, reconstruction and repair of boiler rooms for the heating of buildings and has budgeted around EUR 1.85 million in the budget for the year 2023. The same ministry invested around EUR 3 million for the development of the district heating system in Kragujevac. The MoEP is currently preparing a Programme of boiler rooms replacement in public buildings) which is focused on reducing of the air pollution in municipalities and removal of the old coal and heavy fuel oil boilers with new natural gas, biomass boilers or connecting public buildings to the district heating.

A number of **LSGs** are also developing their long-term and mid-term Programmes and Plans for EE. Those LSGs that have adopted Programmes and Plans for EE have made estimations of the investments for the improvement of EE in municipal buildings in the area under their responsibility. In order to apply for the funds available from the EE Administration, the LSGs have to provide the appropriate financial sum in their annual budget so that they can meet the obligation of co-financing set in the public calls. Public calls of the EE Administration for public buildings oblige municipalities to provide at least 30% of financing of the total works (except for the

⁴⁶ Law on Serbian Budget for the year 2023, Official Gazette of RS, No 138/22

underdeveloped LSGs, while for calls that target co-financing of EE measures in households, LSGs are obliged to provide at least the same amount as that applied for from the EE Administration. Some LSGs have shown much greater enthusiasm by signing up to the Covenant of Mayors⁴⁷ – an initiative launched by European Commission in 2009. By doing so they took on the obligation to prepare and adopt their Sustainable Energy and Climate Action Plans (SECAP) and to plan a reduction of CO_2 emissions for at least of 40% by 2030 compared to the baseline year.

The City of Belgrade adopted its SECAP in 2021 and accordingly, the city is planning to provide investment of around EUR 350 - 400 million for the development and improvement of the district heating distribution network until 2030. The investments required for the renovation / Energy efficiency and use of RES in municipal buildings is assessed at EUR 200 - 300 million, while for energy efficiency and use of RES in residential buildings EUR 930 million until 2030, and for regulations and incentive measures for new residential buildings total EUR 540 million.

In order to give a perspective of EE planning at municipal level in Serbia, a few examples of the assessed levels of investments are presented: according to the EE Programme of the city of **Pirot** around EUR 770,000 are planned for EE investment in municipal buildings for the period 2022 - 24; investments of around EUR 420 000 are planned in the municipality of **Ćuprija** for the same period; and investment of around EUR 390 000 in the city of **Bor** for the period 2021 - 2023.

2.6 Performance assessment framework

The performance assessment framework for monitoring and reporting on implementation of national strategies is defined by the Law on the Planning System. Every strategy contains the institutional framework and plan for implementation monitoring, performance evaluation and reporting on implemented measures, achieved goals and performance of public policies set or elaborated by the strategy, specifying the institution responsible for monitoring the strategy implementation. The performance assessment framework that will enable monitoring and reporting on policy outputs, outcomes and impacts throughout the Serbian system of policy documents, including the local level. All actions planned through the IPA must be embedded into Action and mid-term plans of budget beneficiaries and as such will also be included in the he Single Planning Information System (SPIS) and consequently reported upon through the system. The IPA Committee and the individual Sector Monitoring the progress of EU-funded IPA initiatives. The ministry in charge of European Integration engages other ministries, other IPA beneficiaries to provide updates in specific reports, which are shared with SMC participants and discussed in meetings.

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area of support: Waste

The Ministry in charge of Environmental Protection leads and coordinates the relevant sector institutions in the process of policy planning, implementation, and monitoring/reporting on sector policies. The Ministry in charge Environmental Protection is responsible for establishing a comprehensive monitoring system. A significant role in the process of monitoring and data collection is played by the Serbian Environmental Protection Agency and the Statistical Office of the Republic of Serbia, as well as other institutions and associations that conduct these activities. The line ministries, as well as state organisations and institutions, are responsible for achieving the results and monitoring the activities as determined by the Waste Management Programme and the accompanying Action plan. The basis for monitoring the implementation of the Waste Management Programme. The Ministry in charge of Environmental Protection is institutionally responsible for reporting on the progress in the implementation of the Waste Management is not available yet. The Statistical Office of the Republic of Serbia publishes an annual Eco-bulletin, which contains data on generated and treated waste at national level, collected according to the Regulation on waste statistics EC 2150/2002. The data in this bulletin are also published in the Statistical Yearbook of the Republic of Serbia.

Regarding information on the implementation of IPA financed programmes in the waste sector, monthly management meetings as well as quarterly steering committee meetings are held regularly, with all relevant actors involved – the Beneficiary, Contracting Authority, End Beneficiary and others. Reporting obligations of the Beneficiary towards the NIPAC TS are respected both in technical and qualitative manner. Cooperation and collaboration among all actors is efficient, and all issues noted within a reporting period are resolved efficiently with the active involvement of all relevant actors.

⁴⁷ https://eu-mayors.ec.europa.eu/en/home

Sub-area of support: Water

The Water Management Strategy and its Action Plan envisage that monitoring of the implementation of activities and the achievement of planned results and specific goals is carried out through a set of indicators determined at the level of each individual goal, measure and activity. The institution responsible for monitoring and controlling implementation is the Ministry in charge of Water Management. The implementation of the Action Plan is monitored by the Working Group formed for the purpose of drafting the Action Plan. Members of the Working Group prepare annual Reports on the implementation of the Action Plan for measures and activities, the implementation of which is the responsibility of the institution from which they come, and the Ministry in charge of Water Management coordinates the preparation of the Report and submits it to the Government. The report is available to the general public through publication on the official website of the Ministry.

The mechanism for monitoring the implementation of the River Basin Management Plan will be in accordance with the requirements of the WFD and will depend directly on close cooperation and consistent action at the national and at the local level, as well as information, consultation and engagement of the public. This information relies on a considerable amount of data for which it is important to have appropriate databases not only for data storage, but also for their analysis (for example, to calculate ecological status), mapping and reporting in formats suitable for exchanging data with competent authorities, the European Commission and interested parties and the public, as provided by the Directive on public access to environmental information (2003/4/EC).

Institutions in charge of water monitoring are the SEPA, responsible for water quality (surface and ground water, first aquifer), the RHMI for the water regime and water balance – water quantity, and the Institute for Public Health of Serbia, which monitors the quality of drinking water (physical and chemical and microbiological parameters).

The Flood Risk Management Plan requires that the Ministry in charge Water Management assesses the progress made towards implementing the measures and makes a statement of the reasons why any measures proposed in the flood risk management plan have not been implemented within the planning period.

The Ministry in charge of Environmental Protection is responsible for coordinating implementation and monitoring progress in the implementation of the Sludge Management Programme. Reports on progress in the implementation System for Planning, Implementation Monitoring, Coordination of Public Policy and Reporting, are submitted by all authorities and organisations responsible for the implementation of measures and activities, in accordance with the Law on planning system and by-laws regulating the manner of reporting and the mandatory elements of the report. The preparation of the annual report on the implementation of the action plan and its submission to the Government is carried out in accordance with the deadlines established by the Law on the Planning System. The Ministry will prepare a report on the results in achieving the established goals of the Programme based on the ex-post analysis of the effects, after every three years of the implementation of the submitted to the Government for approval after the expiration of the Programme, in accordance with the law. Evaluation of the Programme's performance is carried out by analysing whether and to what extent the achieved results are in accordance with the effect indicators at the level of individual measures.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

The INECP is the document that will define goals in terms of EE, RES and GHG reductions by 2030. The competent authority for the coordination of implementation and monitoring of the results is the MoME. The competent authority for coordinating the implementation and monitoring the effects of the LTRS is the MCTI.

Implementation of the LTRS will be monitored based on the Plan for implementing and monitoring the effects of the measures which also provides an overview of performance indicators for monitoring the implementation of the Strategy, based on specific objectives. For the implementation of the LTRS, a 4-year National Plan for the implementation needs to be adopted and the monitoring of the effects is based on monitoring & verification methodology that follows LEERUE where the methodology for calculation of the energy savings is defined. However, the above-mentioned National Plan is not approved yet.

The Republic of Serbia reports to the Energy Community on the implementation of the Strategy by submitting an updated version of the Strategy to the Energy Community Secretariat every three years.

Bearing in mind that the LTRS findings will be integrated in the future INECP strategic goals and reports on the implementation of its objectives in accordance with the EPBD and Regulation (EU) 2018/1999, the reports on the achievement of the goals of LTRS must be compatible with INECP's reports on the realisation of its goals. MoME is responsible for reporting on the INECP implementation, achievements of the targets and update of the INECP under the Governance Regulation.

The Government submits an annual Report on the implementation of the Energy Development Strategy and Programme for its implementation to the National Assembly, no later than June 30 of the current year for the previous year, and based on the Report, it makes a proposal to update the Strategy and Programme in accordance with real needs.

According to the LEERUE, the MoME monitors the achievement of energy efficiency goals from the INECP and Energy Development Strategy by collecting data on implemented measures, achieved energy savings, as well as other necessary data, and performs analysis and checks. State administration bodies, other bodies of the Republic of Serbia, bodies of autonomous provinces, municipalities, public companies and other users of public finances are obliged to submit the data to the Ministry.

The Environmental Protection Agency, in accordance with legal provisions, maintains the National Register of Pollution Sources (hereinafter: NRPS). The NRPS is a set of systematised information and data on the sources of environmental pollution, that is, it is a register of all human activities that can have a negative impact on the quality of the environment in a certain area. The main function of the NRIZ is to collect and process data and maintain and update a number of databases related to industrial and communal pollution.

2.7 Socio-economic analysis (including SWOT analysis)

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area of support: Waste

According to the 2022 Census, the Republic of Serbia has 6,647,003 inhabitants, and 62% of the population lives in urban areas. Slightly more than half of the total population is made up of women (51.4%), while men make up 48.6%. Whilst there is a good level of alignment with the acquis, there are ongoing efforts to improve the enforcement of legislation in the waste management sector.

Serbia generated 2.87 million tonnes of municipal waste in 2021, only a part of which is managed in an environmentally safe manner. The organised collection coverage for municipal solid waste currently covers only about 88% of the Serbian population according to the SEPA report. Organised waste collection is provided mainly in urban areas, with particularly limited collection in non-urban areas. Non-collected waste, therefore, ends up in illegal dumpsites. Waste collection needs to be increased up to 100% coverage. In general, municipal waste collection fees are based on the number of square meters of living space or household members, rather than on the quantity of the waste generated, which do not correspond to the operating costs.

The average daily amount of municipal waste is 1.17 kg/inhabitant, or 430 kg/year/inhabitant, which is below the EU average (530 kg) but more than Poland and Romania and close to Croatia (446 kg) (Eurostat, 2021). However, data reliability is questionable. The disposal of one ton of untreated waste at the landfill contributes to the emission of 0.83 t CO2 eq.

	Strengths	Weaknesses		
1.	The legal and strategic framework on waste is in place.	1.	The integrated municipal waste management system is not fully implemented.	
2.	Regional approach in municipal waste	2.	Separate collection of recyclables and bio-waste	
	management is established in Serbia.		is not yet implemented adequately.	
		3.	Low recycling rate.	
		4.	Lack of infrastructure for waste treatment	
			(secondary separation, composting of green	
			waste, CDW treatment, etc.).	
		5.	Insufficient institutional capacity for project	
			preparation and implementation.	
		6.	Insufficient capacity for monitoring and	
			reporting.	
		7.	Waste management in the Republic of Serbia	
			needs further alignment with the EU acquis	
	Opportunities		Threats	
1.	Further harmonisation with EU waste	1.	Lack of investment for the development of	
	management standards.		waste management infrastructure.	
2.	EU integration process and use of EU and other	2.	Insufficiently developed public awareness of	
	funds for waste infrastructure.		the necessity to treat waste properly.	
3.	Unused potential for waste recycling.	3.	Inability of citizens to pay the real, economic	

SWOT analysis – Waste

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4.	Existing and planned infrastructure.		price for waste management services.
5.	Contribution to employment and opening of	4.	Weak absorption capacities at local level.
	new jobs.		
6.	New tariff system - charging by quantity of		
	generated municipal waste.		
7.	National policy aligned with the EU acquis.		

Sub-area of support: Water

In Serbia, approximately 1 515 790 households (62.2% of the total population) were connected to public sewage systems by 2017. The networks are 35-40 years old on average and close to the end of their operational lifetime. The maintenance of these sewerage systems is a growing problem, and significant environmental problems are linked to leakages in existing systems. In addition, data from the Directive Specific Implementation Plan (DSIP) for the Waste Water Treatment Directive shows that there are 39 Waste Water Treatment facilities in the country and several are mentioned as non-functional. There are a number of existing municipal wastewater treatment plants that already generate sludge and dispose sludge through their own efforts, in accordance with their local physical and financial conditions with inadequate environmental protection measures. Based on data from the Statistical Office of the Republic of Serbia, the rate of connection to the public water supply managed by the PUCs has increased in recent years to 85% of the population. Water losses in the distribution system networks make up a significant share of the total amount of captured water. The remaining population is provided with drinking water supply schemes operated by local communities or individual wells. The highest coverage with a regularly managed and monitored centralised water supply is recorded in Vojvodina Region (91%), while the lowest coverage is recorded in Central Serbia Region (71%). The OECD analysis for 2021⁴⁸ stated that while a large share of the population has access to drinking water, water quality is low and poses a threat to the health of citizens. OECD Multi-dimensional Review of the Western Balkans for 2022⁴⁹ stated that the Roma have a very low level of access to public services and infrastructure, such as piped water, particularly in rural areas. Most Roma live in informal settlements in extremely impoverished conditions; in many cases without proper access to safe water. Furthermore, many Roma cannot access services because they live in informal settlements and do not have the necessary papers to register with the municipalities there.

In 2021, there were 15 thousand ha of flooded area by surface and ground water, of which 52.9% was utilised agricultural land. The area of eroded land in 2021 amounted to 3,912 km2. The irrigated area in 2021 was 52,236 ha, and the most frequent type of irrigation was, as in the previous year, sprinkling irrigation. The geo-space of the Republic of Serbia is characterised by the presence of a large number of surfaces dominated by erosion processes of varying intensity. Geological-geomorphological specificities, hydrological, pedological and climatological characteristics, the condition of the forest fund and different ways of land use are prerequisites for the development of erosion processes.

Based on RBMP until 2027, the main factors of climate change in terms of impact on water management are an increase in the average temperature of air and water, as well as an increase in intensity, duration and frequency of two extreme hydrological events, drought and flood. Higher average air temperature and more severe droughts may, at least temporarily, increase the demand for water for public water supply and irrigation in agriculture, and thus significantly can increase groundwater abstraction. Second, the increased risk of flooding leads to greater technical protection against floods, and thus to significant hydro-morphological changes watercourse.

Strengths	Weaknesses
1. National legal and strategic framework for water management in place.	 Limited capacity of the national institutions to manage the preparation and implementation phase of investments. Limited capacity of the LSGs and PUCs to manage investment projects in the water sector. Low capacities at national and local levels for the establishment and implementation of monitoring process. The level of alignment with the EU acquis on water sector is moderate.
Opportunities	Threats
1. Decreased pollution of surface and	1. Unstable market for works execution with a
groundwater.	trend of increasing prices.

SWOT analysis – Water

⁴⁸ https://read.oecd.org/10.1787/8824c5db-en?format=pdf

⁴⁹ https://read.oecd.org/10.1787/8824c5db-en?format=pdf

 Improved drinking water services for citizens.
 Increased capacities at all levels for preparation, implementation and operation water management infrastructure and services.
 Planned infrastructure speeds up the implementation of the green agenda.
 Adaptation of the water sector to the climate change in place.

6. National water policy aligned with EU acquis.

Population changes in the areas where the interventions are planned.
 Effects of the climate change to the water

3. Effects of the climate change to the wate resources considered.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

Sub-area of support: Air Quality

Emissions of PM2.5 in 2019 amounted to 45,6 kt PM2.5 which represents 2.3% increase since 2015 and 5.7% decrease since 2005. Total PM2.5 Emissions have seen an increasing trend since 2015. The predominant source of emission of PM2.5 is Other stationary combustion with 67.4% of emissions (where the emission of PM2.5 from biomass and lignite burning in households represents 99.3% of PM2.5 emissions), followed by Agriculture waste burning (field burning) with 14,2% and Industry with 7.3%. The increasing trend of emissions since 2016 is driven by Road Transportation sector where emission of PM2.5 have since 2016 increased for as much as 23.7% driven by increase in diesel fuel sales and on increased old diesel vehicle fleet in the Republic of Serbia. Due to increased total mileage driven by cars vans and heavy-duty vehicles PM2.5 emissions from tyre and break wear is also steadily increasing (since 2005 those emissions are increasing in average for 4.6% a year and between 2005 and 2019 therefore increased for as much as 187.5%).

PM2.5 Emission from households' biomass burning show no significant improvement since 2005, which reflects poor technological improvement regarding biomass and other solid fuels burning, which can be attributed also to the lack of relevant legislation stimulating producers of biomass boilers, cookers and other appliances using solid fuels to improve emission performance through the improved design of their products dedicated to the domestic market.

The Air Quality (AQ) Index allows for a better understanding of the current state of local air quality and reflects the potential impact of air quality on human health. The index can change from hour to hour, and is based on preliminary, unverified data available in real time and indicates the short-term state of air quality. The European Environment Agency uses six index classes, three for clean air ("good", "acceptable" and "moderate") and three for polluted air ("polluted", "very polluted" and "extremely polluted"). The number of cities in Zone of Serbia and Vojvodina and agglomerations with poor air quality is increasing since 2013 when 26,7% of all the populations lived in cities and agglomerations with category III air quality, while in 2019 this number has increased to 44%. When observing only agglomerations and cities with AQ measurements in zone Serbia and zone Vojvodina it can be observed that air quality is deteriorating. In 2019 92.4% of the population living in those agglomeration (3,053 Mio.) where ambient air was too polluted and where tolerant values for one or more pollutants are exceeded, where in 2014 this share was 57.5%. The assessment of the composition of the exceedances of limit values show that the main source of exceedances is due to exceedances in PM10. Number of calendar days where limit values for the protection of human health of 50 µg/m3 can be exceeded is 35. This requirement was exceeded in 28 out of 32 locations included in the national network where this parameter is measured. According to the Air Protection Program in the Republic of Serbia for the period from 2022 to 2030 by far the highest impact on health are observed due to PM2.5, where for the modelling reference year 2015 the estimated premature deaths amount to 9,773 premature deaths and more than 92 thousand life years lost. Due to PM2.5 concentrations in ambient air it is estimated that the Republic of Serbia in 2015 lost over 2.1 million working days. Considering the fact that ambient air quality has been deteriorating since 2015, the negative effects of air pollution are even higher.

Strengths			Weaknesses	
1.	The legal and strategic framework on the air	1.	Prevalence of inefficient and polluting devices	
	pollution is in place.		for space heating.	
2.	The monitoring system for air quality is well	2.	Insufficient awareness of the negative impact of	
	designed.		bad air quality.	
3.	The general public is more aware of the problem	3.	Low awareness of harmful impact of heating	
	of air quality.		devices using solid fuels.	
Opportunities			Threats	

SWOT analysis - Air Quality

 Presence and in organisations to renovation prog National air qua with EU acquis 	terest of IFIs and donor support the implementation of rammes. lity policy to be further aligned	1. 2. 3.	Consumption-based billing not implemented in the majority of District Heating systems. Low Institutional and operational capacities for the energy labelling regulation of the appliances and heating devices on the market not fully developed and unavailability of necessary technical staff for the replacement of the heating devices. Growing air pollution from the increasing activity of sectors of transport, agriculture and
			activity of sectors of transport, agriculture and industry.

Sub-area of support: Energy efficiency (EE) in buildings

The building sector (public, commercial and private) is one of the largest consumers of energy and that with highest potential for energy savings. At EU level, the annual unit of overall consumption for buildings is around 220 kWh/m², with a large gap between residential (200 kWh/m²) and non-residential buildings (295 kWh/m²)⁵⁰.

From the perspective of EE in buildings, the greatest problems is in the old building stock with specific heating energy demand higher than 200 kWh/m²/year⁵¹, with insufficient thermal insulation, where energy losses are enormous, and where energy efficiency could be improved up to 40-70%, depending on the volume of investments.

Bearing in mind the huge need across Serbia, investments in energy efficiency in this sector would bring benefits to LSGs in terms of savings in local budgets, the improvement of citizens' comfort and the improvement of services. Tangible results in terms of energy efficiency are also expected from the ESCO⁵² mechanism in buildings. To address these needs, a sustainable financing mechanism for energy efficiency should be established and implementation of new concepts, norms, standards and targets according to the Energy Performance in Buildings Directive (EPBD).

The great majority (around 99% of family houses, more than 90% of multifamily residential and more than 96% of commercial and public buildings) of all types of buildings were built before 2013 (when new regulations for energy certification of buildings was introduced) with most of them dating from the period 1961 to 2012 (more than 70% of family houses, around 80% of multifamily and around 79% of commercial and public buildings)⁵³. During this period construction standards were rather lax as regards energy efficiency and all these buildings have very low energy efficiency standards and a very high consumption of energy.

Regarding the aspect of ownership of buildings, based on the data presented in the Building Renovation Strategy, only 1.69% of apartments are in public or other forms of ownership than private, while the rest are privately owned. This structure represents a special challenge from the aspect of the management of the construction fund and potential financial models that must be developed in order to adequately achieve the planned goals for renovation.

In the segment of residential buildings, the results of the Census from 2011 can be used as a basis for assessing the structure of energy supply, which more precisely processed this area as well. The list distinguishes three basic ways of supplying heat energy: using a district heating system, using an individual central heating system and without central heating installations. The structure of installed energy systems indicates that 57.22% of apartments are heated using individual heating appliances, while the share of central heating systems is 22.10% for district heating systems, and 20.59% for individual central heating.

It is noticeable that the dominant energy source in use is firewood, which is used inefficiently, and, in addition to questions related to the sustainability of use and the reduction of the total forest fund, also has significant environmental implications.

The distribution of certain heating systems is different territorially and is directly related to the prevailing type of settlement, so that e.g. in Belgrade, district heating dominates with a 50.25% share, while district heating accounts for only 12.1% in the region of Southern and Eastern Serbia.

From the available data on public buildings, it could be concluded that district and central heating systems represent the dominant forms in schools and in kindergartens with 65% and 84% respectively, which represent the highest number of municipal public buildings. In the structure of energy sources, there is a noticeable difference

⁵⁰ Situation analysis of the Energy sector 2019-2025

⁵¹ National Typology of Residential Buildings, Faculty of Architecture, University of Belgrade GIZ - Deutsche Gesellschaft für

Internationale Zusammenarbeit, IIE Project TABULA

⁵² ESCO – Energy Service Companies

⁵³ Long-Term Renovation Strategy for Encouraging Investments in Renovation of the National Building Stock of the Republic of Serbia by 2050

between these two types of facilities, which occurs primarily as a consequence of their relation to the degree of urbanity, because kindergartens are mostly found in urban settlements.

Given that the sector of public buildings was the subject of a large number of reconstruction and revitalization projects in the past, which, as a rule, also included the improvement of the heating system, the situation in this segment of the building stock is better than in the case of residential buildings, although there is no precise data.

Strengths		Weaknesses	
1. 2. 3.	The existing legal and strategic framework for the renovation of the buildings in place. Existing experience in the implementation of co- financing programmes for the renovation of public and private buildings. Established EE Administration as a body for financing and promoting EE.	 Lack of workforce/human resources for construction works, project design and supervision. Missing secondary legislation, national calculation methodology and nZEB standar Insufficient data on public, commercial and residential buildings and their energy performance. Insufficient number of staff in the EE Administration with low capacities. 	rd. 1
	Opportunities	Threats	
 1. 2. 3. 4. 	Significant potential for the development of the building renovation market. Opportunity to leverage and build on experiences from the implementation of renovation programmes in other countries. Presence and interest of IFIs and donor organisations to support the implementation of renovation programmes. Multiple positive effects of the projects for the improvement of EE in buildings.	 Low prices of electricity. Consumption-based billing not implementer majority of District Heating systems. Frequent issues with unclear property issue buildings. The full harmonisation with the EPBD still needs to be finalised. 	ed in es of

SWOT analysis - Energy Efficiency in Public Buildings

AREA OF SUPPORT: OTHER SUPPORT

Transitioning to the revised EU enlargement methodology necessitates significant investment in order to meet the requirements of the enlargement process and effectively implement reforms and legislation from all clusters. Assuming the obligations of membership in almost all areas of the acquis requires that the alignment and harmonisation of legislation be accompanied by its effective implementation and enforcement. To ensure the compatibility of national legislation with EU legislation, the fulfilment of EU negotiation process requirements entails specific capacities, knowledge, and expertise in a variety of fields. In addition, Serbia must implement fundamental reforms in such areas as the rule of law, democratic institutions, and good governance.

At the same time, in terms of institutional capacities, Serbia is implementing the Instrument for Pre-accession Assistance (IPA) funds through indirect management. Even though the indirect management and operating structure is well set up in general, the main shortcomings remain, namely the relatively weak administrative and absorption capacities, as well as the anticipated increase in workload required for the implementation and coordination related to the Programme.

This workload will be additionally reflected in the difficulty of ensuring all the conditions arising from the entrustment of budget implementation tasks to IPA III beneficiaries are met, including challenges related to the implementation of the Programme, such as project preparation, contract management, evaluation and selection of actions, etc. The Managing Authority designated for the OP will be responsible for setting up the implementation structure, the detailed description of administrative processes and setting up management and control systems throughout the implementation structure. This will create pressure on the capacity of personnel, the amount of documentation required, the inspections carried out, professional and professional consultations, expert training and more.

The substantial employee turnover and migration to the private sector throughout the programming period 2014-2020 posed a challenge to the development of administrative capacities. The causes lie in inadequate legislative measures, low financial rewards, heavy workloads, and unfavourable environments for the achievement of professional potential. From the perspective of implementing two programming periods simultaneously (2014-

2020 and 2021-2027) and increasing demands as regards the quality of implementation processes on the side of the European Commission, the new period will be more challenging than the previous one.

A challenge for the effective utilisation of available IPA fund resources is the insufficient capacity of the national administrations, both at central and local level, for strategic design, planning, permitting, inspection, enforcement, monitoring, and project management of large investment projects. In order to overcome this obstacle, the "EU Project Preparation Facility" (EU PPF) Programme was established as a technical assistance facility financed by the European Commission to strengthen the technical and administrative capacities of the Republic of Serbia's administration, with regard to the management and use of EU funds and other international financial assistance, as well as to support the preparation of infrastructure projects. In order to facilitate implementation of this Programme, it is of utmost importance to continue the support for the EU PPF programme in the targeted sectors.

The objectives of the IPA Bodies are derived from their responsibilities outlined in the Financial Framework Partnership Agreement (FFPA) and the financing agreement. These responsibilities are further translated into the national IPA system through the IPA III Decree, inter-institutional agreements, and the IPA Bodies' internal manual of procedures. The Rulebooks for the organisation and systematisation of the IPA Bodies reflect their mission and objectives in a general manner.

SWOT analysis – Other support

Strengths	Weaknesses		
 National legal framework for IPA III management is in place. Experience in carrying out annual programmes financed from IPA in indirect management. 	 High turnover rate of employees in IPA bodies. High workload and limited knowledge of the implementation of multiannual programmes. 		
Opportunities	Threats		
 Achieve full absorption of EU funds allocated in the OP. Achieve a high level of public awareness of EU support. 	 Potential problems related to coordination and collaboration between the two OPs and within sectors of the OP with annual programmes. Insufficiently skilled personnel to process the additional financial resources of operational programmes. 		

3 Overall Objective(s) and Specific Objective(s) of the Operational Programme

The Overall Objective (Impact) of this Operational Programme is to promote the green agenda by reinforcing environmental protection, contributing to mitigation to climate change, increasing resilience and adaptation to climate change and accelerating the shift towards a socially responsible and inclusive, low-carbon, blue and circular economy.

The Specific Objective 1 (Outcome 1) of this Operational Programme in the Area of support Waste and Water management is to improve integrated and sustainable waste management system in line with national requirements and EU environmental acquis.

The Specific Objective 2 (Outcome 2) of this Operational Programme in the Area of support Waste and Water is to advance Serbia's water management by integrating mitigation and adaptation measures in accordance with national standards and the EU environmental acquis.

The Specific Objective 3 (Outcome 3) of this Operational Programme in the Area of support Energy Efficiency (EE) and Air quality is to reduce air pollution (and GHG emissions) through energy efficiency-enhancing renovation of old buildings as well as improvement of energy efficiency in heating and cooling systems and other energy related products.

The Specific Objective 4 (Outcome 4) of this Operational Programme in the Area Other Support is to strengthen administrative capabilities essential for the successful realization of the Operational Programme's goals, by offering comprehensive support to Operational Programme bodies and Partners, while concurrently strengthening the institutions' capacity to implement and enforce acquis

3.1 Coherence with the IPA III Programming Framework and with the specific policy instruments of the enlargement process

The **Economic and Investment Plan (EIP) for the Western Balkans** aims to spur the long-term economic recovery of the region, support a green and digital transition, and foster regional integration and convergence with the European Union. The EIP was adopted in order to back the enlargement package and is centred around 10 flagship projects. In the environment sector, Flagship 7 proposes investment projects on Waste Management. Its

objective is to introduce sustainable and reliable ways of managing waste disposal systems, which are crucial for environmental protection. It anticipates support for Integrated regional waste management, going hand-in-hand with the closure of non-compliant landfills. Flagship 7 also proposes investment projects on wastewater management. Support is foreseen for the construction of sewage networks and WWTPs. Decarbonisation is a key pillar of the Economic and Investment Plan in line with the aims of the European Green Deal. Enhanced connectivity and extension of the Energy Union⁵⁴ to the Western Balkans will also be instrumental for a successful clean energy transition in the region⁵⁵.

In the EU Progress Report for Serbia 2022, it is stated that Serbia has achieved a moderate level of alignment with the EU acquis on water quality. In the area of environment and climate change, according to the Report, Serbia made limited progress during the reporting period. Overall, Serbia should considerably step up ambitions towards a green transition. As regards the waste sector, Serbia should focus on intensifying implementation and enforcement work, such as closing non-compliant landfills, increasing investing in waste reduction. Serbia's inspection capacity in the waste sector is insufficient to increase investing in waste reduction, separation and recycling and to close non-compliant landfills. In the water sector, Serbia should focus on improving water quality, enhancing administrative and financial capacity of central and local authorities, further improving interinstitutional coordination, further raising staff levels, continuing to raise environmental investments as well as further improving strategic investment planning and management including transparency of procedures. Recommendations from the EU Progress Report for Serbia 2022 regarding the water sector are to address river pollution more rigorously and start implementing measures after conducting trans-boundary consultations for rivers such as the Danube, Drina, Dragovištica and Pek and to improve local governance, in particular for operating and maintaining water and wastewater facilities, which remains a priority. The same Report underlines that Serbia has continued to progress in aligning with the EU acquis on energy efficiency by adopting implementing legislation under the new LEERUE. However, Serbia still needs to adopt further primary and implementing legislation to achieve full alignment with the Directive on the Energy Performance of Buildings, including defining the NZEB standard. In its NECP, Serbia should follow the 'energy efficiency first' principle and set ambitious targets for energy efficiency and annual building renovation. In July 2022, Serbia submitted the sixth annual report to the Energy Community Secretariat. Human resource capacity in the newly established Administration for Energy Efficiency needs to double, its institutional role needs to be strengthened and energy efficiency financing increased to take the sector forward decisively in this crisis situation. Serbia expanded its housing renovation programme in 2022, which is a positive development. However, Serbia did still not manage to roll out consumption-based metering and billing in district heating, a precondition to attract large-scale investments in retrofitting the building stock.56

Serbia endorsed the 2020 Sofia Declaration - Green Agenda for the Western Balkans⁵⁷ focused on the carbon neutral and circular economy. It foresees actions around five pillars. These are: (i) climate action, including decarbonisation, energy and mobility; (ii) circular economy, addressing in particular waste, recycling, sustainable production and efficient use of resources; (iii), biodiversity, aiming to protect and restore the natural wealth of the region, (iv), fighting air, water and soil pollution and (iv) sustainable food systems and rural areas. The objectives under pillar Depollution are aligning with EU standards related to air quality, water and waste management modernising air and water monitoring; investing in wastewater management; promoting water reuse in agriculture which are reflected in the Operational Programme.

In line with the European Green Deal, this Programme will contribute to circular economy principles and sustainable waste management. Under the IPA III Programming Framework, the specific objective of IPA III related to this Area of Support is the protection of the environment, improve its quality and contribute to actions and policies against climate change to accelerate the shift towards a low-carbon economy.

To support their intention, in the context of the EU Green Deal, European Commission expanded the Flagship "EU renovation wave⁵⁸" to the Western Balkans. Bearing in mind that the building sector accounts for over 40% of total energy consumption⁵⁹ in the Western Balkans, renovating public and private buildings to meet minimal energy performance standards can make a very significant contribution to the reduction of greenhouse gas emissions and improve the living standards of citizens, as well as their health. A building renovation wave implemented with the help of the Energy Community will assist the Western Balkans in the decarbonisation of public and private building stock, with a strong emphasis on digitalisation and taking into account energy poverty.

⁵⁴ https://energy.ec.europa.eu/topics/energy-strategy/energy-union_en

⁵⁵ Economic and Investment Plan for the Western Balkans https://www.wb6cif.eu/wp-

content/uploads/2020/10/communication on wb economic and investment plan october 2020 en.pdf ⁵⁶ Serbia Annual Report (October 2022) <u>https://neighbourhood-enlargement.ec.europa.eu/serbia-report-2022 en</u>

⁵⁷https://www.rcc.int/download/docs/Leaders%20Declaration%20on%20the%20Green%20Agenda%20for%20the%20WB.pdf/196c92cf053 4f629d43c460079809b20.pdf

⁵⁸ https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en

⁵⁹ Energy Community Secretariat - WB6 Energy Transition Tracker, July 2020: <u>https://www.energycommunity.org/dam/jcr:2077a2ba-805a-</u> 4ca2-afcb-91c90ecc0878/EnC_WB6_072020.pdf

The EU, together with international financing institutions, will support the efforts of the Western Balkans partners to triple the current renovation rate and energy savings in existing buildings and achieve nearly-zero energy and emission standards in new buildings. For this purpose, the EU will use, among others, the existing platforms such as **Green for Growth Fund**⁶⁰ (GGF) and the Regional Energy Efficiency Programme⁶¹ (REEP) which have so far enabled green investments of a total of EUR 700 million⁶².

The **EU-Serbia Stabilisation and Association Council** (SA Council) agreed on the importance of the Green Agenda for the Western Balkans. In line with the recommendations from the Economic – financial dialogue between the EC and the Republic of Serbia, coherent investment planning, streamlining the use of budgetary resources for strategically significant and mature projects listed in the Single Project Pipeline, is needed in accordance with a single mechanism for project prioritisation, regardless of the source of financing. The OP will cover all phases of preparatory activities, as required, to deliver a project with a prospect to receive co-financing. Assistance may also cover support for implementation to ensure that projects reach the construction stage as rapidly as possible.

The National Plan for Adoption of the *Acquis* 2022-2025 specifies the obligations concerning the incorporation of EU law into the domestic legal system to fulfil criteria for accession. This primarily concerns the Circular economy package Directives (Directive 2018/851 amending Directive 2008/98/EC on waste (Text with EEA relevance), Directive 2018/849 amending Directives 2000/53/EC on end-of-life vehicles, 2006/66/EC on batteries and accumulators and waste batteries and accumulators, and 2012/19/EU on waste electrical and electronic equipment, Directive 2018/850 amending Directive 1999/31/EC on the landfill of waste, Directive 2015/720 amending Directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags, Directive 94/62/EC on packaging and packaging waste.

At the same time, greater circularity and more efficient use of materials present new opportunities for further reducing greenhouse gas emissions in buildings. Hence, comprehensive approaches targeting materials efficiency along the entire lifecycle of buildings should be encouraged and supported, for example during renovation efforts.⁶³

Obligations regarding the transposition of EU law in the national legal framework in the area of water management primarily concerns Directive 2000/60/EC establishing a framework for Community action in the field of water policy, Directive 2020/2184EC on the quality of water intended for human consumption (recast) (Text with EEA relevance), Directive 2006/118/EC on the protection of groundwater against pollution and deterioration and Directive 2008/105/EC on environmental quality standards in the field of water policy.

4 Operational features of the programme

4.1 Interaction of the programme with IPA III annual action plans or measures and interventions from other donors/International Financial Institutions

The various components of the IPA Programme will be closely coordinated to maximise impact and ensure optimal use of resources and overall coherence among all forms of assistance. This requires effective co-ordination among the various investment programmes and includes both investment programmes implemented by (1) national institutions, and (2) IFI supported operations that contribute to the construction of environmental infrastructure.

Coordination within the Window 3 will be particularly important for maximising delivery of the Programme. The NIPAC is responsible for ensuring regular dialogue and exchange of information between institutions responsible for preparing, implementing, and monitoring activities. The NIPAC put in place mechanisms for coordination which will ensure that key institutions involved in the implementation of projects selected under the Programme have access to capacity building assistance implemented under the Area of support.

Coordination with Windows 1, 2, 4 will have a positive effect on achieving environmental targets by supporting fundamental reforms in the country based on EU values and standards.

Concretely, reforms within Window 1: Rule of Law, fundamental rights and democracy, thematic priority 1 aimed at support to the judiciary sector will contribute to increased capacities of courts and prosecutors' offices to manage cases related to environment protection and energy efficiency.

Interventions under Window 2: Good governance, acquis alignment, good neighbourly relations, and strategic communication will continue to support the reforms to create accountable, transparent and functional public

⁶⁰ https://www.eib.org/en/products/equity/funds/green-for-growth-fund

⁶¹ <u>https://www.wbif.eu/reep</u>

⁶² Economic and Investment Plan for the Western Balkans <u>https://www.wb6cif.eu/wp-</u>

content/uploads/2020/10/communication on wb economic and investment plan october 2020 en.pdf ⁶³ Green Agenda for the Western Balkans <u>https://ec.europa.eu/neighbourhood-enlargement/system/files/2020-</u>

^{10/}green agenda for the western balkans en.pdf

administration at all levels and public financial management, while thematic priority 2: Administrative capacity and acquis alignment will provide flexible support to contribute to bringing Serbia's policies and legislation in line with the EU policies and the EU acquis, and building administrative and institutional capacities to fully and effectively implement sector policies and the adopted legislation, enhancing the ability to take on the obligations of membership.

Window 4: Competitiveness and inclusive growth will contribute through interventions targeting SME development that will include access to finance to SMEs for purchase of equipment and capacities necessary for technological modernisation, industrial, green and digital transformation with a further focus on the reduction of energy consumption and waste generation.

In the **Strategic response of the Republic of Serbia**, the proposed actions within Window 3 thematic priority 1 will support the green agenda by improving environmental protection infrastructure and increasing institutional capacities for environmental protection and climate change management. The interventions will support the promotion of waste recycling, circular economy principles and investments in facilities for treatment of construction and demolition waste. Equally, the proposed actions will support the structural reform processes in the areas of environment and climate change (chapter 27 of the EU *acquis*), as envisaged in the IPA III Programming Framework.

Thematic Priority 2 is proposed to be addressed by the actions interacting with the area of support Energy Efficiency (EE) for the period 2021-2024.

In the energy sector, the interventions will include capacity building of relevant implementation bodies to improve the enforcement of different aspects of energy policy. The actions will support the realization and monitoring of energy policy in accordance with the relevant strategic improvement of energy efficiency measures which will reduce dependence on energy imports, emissions, and drive jobs and economic growth. Reducing energy use and eliminating environmental pollution is one of the main goals of the energy policy. In addition, the implementation of energy efficiency will ensure competitiveness and security of energy supply. Further investments in use of renewable energy and depollution will contribute to reduction of greenhouse gas emissions and the diversification of energy Efficiency Acquis and the implementation of the EU acquis provisions related to the national regulatory authority (NRA) tasks, such as the legislative Package "Clean Energy for All Europeans (hereinafter: CEP)". The Energy Community adopted the CEP in 2021, whereby the Contracting Parties (including Serbia) would have to transpose the new directives and regulations into the national law until 2023.

The interventions under Window 3 - TP 1 (Environment and Climate Change) in the Operational Programme are coherent with the following ongoing/planned actions under the annual action programmes:

IPA III Annual Action Programme for 2021

Action Document for EU for Connectivity and Green Agenda is promoting the following projects:

- Construction of Regional waste management centre in Novi Sad (total budget for works, supply and service EUR 75,000,000 with EU contribution of EUR 37,500,000)
- Improving Chapter 27 planning and implementation (technical assistance EUR 2,000,000)
- For the IPA 2021 programme, the project proposal "Support for operation of Energy Efficiency Fund" was supported in the amount of € 5,000,000. Concerning current status, the Financial Agreement for Annual Action Programme for IPA 2021 was signed on 20th December 2022. Contribution Agreement between EU and EBRD was signed on 01 June 2023.

IPA III Annual Action Programme for 2022

Action Document for EU Support to Speed up the Implementation of the Green Agenda in Serbia is promoting the following projects:

- Technical assistance to awareness raising circular economy principle (EUR 1,000,000)
- Technical assistance for introduction of source separation (bio waste) in 5 waste management regions (EUR 14,100,000)
- Technical assistance for preparation of investments in infrastructure (EUR 10,000,000).
- Zlatibor and Moravica Districts Regional Waste-Water Management Project Sad (total budget for works, supply and service EUR 74,400,000 with EU contribution of EUR 39,700,000)
- Technical assistance to develop 2nd River Basin Management Plan and 2nd Flood Risk Management Plan, and technical assistance for the capacity of the Republic Water Directorate (total budget of EUR 3,000,000)

IPA III Annual Action Programme for 2023

• EU support to energy and climate planning and further energy market reforms and regional integration - This Action consists of three components. Component 1 encompasses support to
monitoring, reporting and updating National Energy and Climate Plans in order to implement the Energy Union Strategy and full implementation of the adapted EU Regulation 2018/1999 in the field of NECP.

The EU as the largest donor, contributes with more than 80% of the total planned and ongoing assistance in the sector.

The following interventions, through loans in the field of waste management, will create synergy with the EU support and contribute to a significant acceleration of the implementation of the EU *acquis* in the field of waste management:

- The loan signed with the EBRD and French Development Agency (AFD) for EUR 150 million will be used for construction of the regional waste management centres in Sombor, Nova Varos and Novi Pazar, and for additional waste management infrastructure in Pirot, Pancevo, Uzice and Srem-Macva.
- Clean Serbia project⁶⁴ (loan from the Republic of China) for the construction of the municipal (sewage) infrastructure and infrastructure for the disposal of solid waste with a budget in a total of EUR 3.2 billion is ongoing. It will support the construction of the regional waste management infrastructure in Kraljevo, Niš and Kragujevac.
- The KfW Development Bank signed financing agreements with the Republic of Serbia for two regional landfills in Kruševac and Vranje for a total of EUR 33 million, out of which EUR 10 million is a donation.

The following interventions, covering the Area of Support Water through grants and loans in the field of water management will create synergy with the EU support and contribute to a significant acceleration of the implementation of the EU *acquis* in the field of water management:

- Clean Serbia project⁶⁵ (loan by the Republic of China). The Project for the construction of the municipal (sewage) infrastructure and infrastructure for the disposal of solid waste with a budget in a total of EUR 3.2 billion, is ongoing and the goal is to respond to the need for increased environmental protection of soil and water.
- The EIB channels EUR 12.7 million in grants to improve the water supply, sewage and inland waterway network. The EIB has channelled a EUR 10 million grant to finance the water supply and sewer systems in Serbian municipalities. The EIB grant is the first signed in Serbia under the Economic Resilience Initiative (ERI) and the biggest grant signed to date in the Western Balkans. The grant is a donation from eight EU member states, channelled through the EIB's Economic Resilience Initiative (ERI) and Municipal Infrastructure Resilience Framework. This is a part of a EUR 80 million investment in Serbian water supply and sewers, financed by a EUR 40 million loan signed in May 2019; the remaining the investment will be provided by the State and municipal budgets. Serbian partners from local municipalities will contribute to the project by developing relevant project documentation.
- The Council of Europe Development Bank (CEB) with a EUR 200 million Programme loan⁶⁶ will partfinance the partial rehabilitation and the implementation of priority measures to protect water quality and reduce water losses in approximately 60 municipal water supply systems throughout Serbia, as well as the construction of several wastewater treatment plants and related sanitation networks.
- The EBRD is considering the provision of a loan of up to MEUR 13 to the Public Utility Company Belgrade Waterworks and Sewerage (the "Company" or "BVK"), to finance the refurbishment of the Jezero Water Treatment Plant ("WTP"), which forms part of the Belgrade's main water treatment complex "Makis", comprised of Makis 1, Makis 2, and Jezero WTPs. In addition, the Project foresees the construction of facilities for the collection and treatment of waste and process waters and sludge treatment to be financed with a Western Balkans Investment Framework ("WBIF") investment grant of EUR 2.9 million.

The following interventions, covering loans in the field of energy efficiency in buildings will create synergy with the EU support and contribute to a significant acceleration of the implementation of the EU acquis in the field of EE in buildings:

• **Rehabilitation of the district heating system in Serbia - Phase V** - implemented with the support of the German Development Bank – KfW with a total budget of EUR 32 million (with a EUR 30 million development loan from KfW and EUR 2 million donation from the Government of Federal Republic of Germany through KfW), for investments in 7 heating plants participating in the Project (Belgrade, Bor, Jagodina, Leskovac, Negotin, Niš and Senta). The project started in 2020 and was due to end by the end of 2024 but it is estimated that the completion deadline for the implementation will have to be extended by at least one year. As of May 2023, the Project is in the tendering phase of some of the works. The

⁶⁵ https://cistasrbija.rs/en/home-page/

 $^{^{66}\} https://coebank.org/en/news-and-publications/news/serbia-ceb-approves-240-million-to-support-protection-of-the-environment/$

financed activities are the rehabilitation of 23.4 km of heating pipes, the rehabilitation of 106 substations, and the rehabilitation and construction of boiler houses with a total capacity of 155.3 MW.

- Solar energy in district heating systems in Serbia in preparation continuing the successful cooperation between Germany and Serbia. Long-standing partners the Republic of Serbia, German Federal Ministry for Economic Cooperation and Development and the German Development Bank KfW are ready to support Serbia in the further development of the sub-sector of district heating and the efforts that MoME invests in increasing the share of renewable energy sources in the overall energy mix and process decarbonization of Serbia. The introduction of solar energy sources in district heating systems and the construction of appropriate supporting infrastructure have been identified as activities that can contribute to this goal. 5 Serbian municipalities (Belgrade, Užice, Leskovac, Bor, Senta) are selected for the support and currently the consultant is finalising the technical-economic analysis.
- Renewable energy sources in district heating systems in Serbia Phase 1 The European Bank for Reconstruction and Development (EBRD) established the Fund for Renewable Energy Sources in the sector of district energy systems for the Western Balkans whose main objective is to provide support to Western Balkans countries in their transition to a green economy. The Fund provides support in recognising the potential for the application of renewable technologies in district heating, the preparation of project-technical documentation and investment financing. For the purpose of providing technical assistance to Serbia in these areas, the EBRD secured a donation from the Swiss Confederation (State Secretariat for Economic Affairs of the Swiss Confederation SECO) worth EUR 8.5 million. Additionally, part of a € 4 million grant provided by the Government of Austria to the Western Balkans through the EBRD, is directed to Serbia, and funds for technical support and investment grants will be determined from Regional Energy Efficiency Programme (REEP) funded by the European Union. The investments will be mostly financed through a loan approved by the EBRD to the Republic of Serbia for this Programme, the right of use of which will be further transferred by the Republic of Serbia to the heating plants and/ or LSGs.
- Renovation of public buildings Programme by the Public Investments Management Office During the past period, a large number of public buildings were renovated through the Public Investments Management Office, namely: primary schools, secondary schools, kindergartens, health, cultural and sports facilities. Funds for reconstruction were provided by the EU, the World Bank, the Bank of the Council of Europe, the German Development Bank, the Norwegian government, as well as by other donors - the Ana and Vlade Divac Foundation, the Novak Djokovic Foundation, B92 and French foundations. The selection of facilities for renovation and improvement of EE was made by the Working Group of the Government of the Republic of Serbia based on the priorities submitted by the municipalities, and the Operational Manual of the Programme, which defines all procedures, was prepared in cooperation with the World Bank. Energy Efficiency Programme in Public Buildings in Serbia - This intervention provides EU-funded measures approved and implemented in the Republic of Serbia under the WBIF (Energy Efficiency Programme in Public Buildings in Serbia) which targets selected schools, and Regional Efficiency Programme for the Western Balkans (REEP plus) which supports state entities, cities and municipal companies in improving energy efficiency in public buildings such as schools, hospitals or government buildings; 80 public buildings in 20 municipalities in Vojvodina including educational, health, sports, cultural and administrative facilities, with the aim of enabling significant heating and electricity savings; renovation of four buildings in the City of Belgrade (the City Library built in 1922; the Student Healthcare Centre built in 1923/24; the Student Hospital built at the beginning of the 20th century, and the City of Belgrade Emergency Medical Institute built in 1957)⁶⁷.
- **Project of Energy Efficiency and Energy Management in Municipalities** The Project of Energy Efficiency and Energy Management in Municipalities in Serbia has been implemented since 2017 supported by the Swiss Confederation (SECO), with MoME as the national partner. The project aims to achieve comprehensive energy management at local level through the introduction of the European Energy Award certificate and the improvement of the energy efficiency of public buildings in the municipalities of Kruševac, Užice, Paraćin and Vrbas. The project includes the rehabilitation of 17 public buildings, of which 11 are primary schools and six are kindergartens.
- **Development of the biomass market in the Republic of Serbia (Component 1)** The goal of the Programme is the use of renewable energy sources in selected district heating plants in the Republic of Serbia for the production of heat energy or combined production of heat and electricity energy, to enable the switch from fossil fuels to biomass and the use of geothermal energy sources. Heating plants that

⁶⁷ https://www.wbif.eu/project/PRJ-SRB-ENE-004

switch to using biomass should reduce their emissions of CO_2 by at least 70%. Funds for the first phase of the Programme were secured from a loan from the German Development Bank KfW in the amount of EUR 20 million at a subsidized interest rate. In addition, the Programme is financed by donations from the Swiss Confederation in the amount of EUR 5 million and from the Federal Republic of Germany of EUR 2 million. The investment in biomass heating plants is EUR 23.1 million, and the remaining funds are for consulting services, work and supervision. 3 heating plants in Priboj, Mali Zvornik and Novi Pazar are already operating while a further plant in Majdanpek will be finished in 2024.

- Energy efficiency in public buildings and renewable energy sources in the sector of district heating ("Greening the public sector") As part of this project, the Military Medical Academy (VMA) will be reconstructed in Belgrade. For the purposes of preparing the rehabilitation of the VMA hospital, it was done by experts who were hired by KfW. The project applied for the WBIF fund for technical support. At the meeting of the European Commission for the WBIF fund, in April 2020, a grant in the amount of € 5 million for the technical support of this project was officially confirmed. The project is still in the preparation phase.
- Improvement of the energy management system in order to increase investments in energy efficiency of public buildings in Serbia the goal of the Project is the further development of the energy management system, especially related to energy inspections and the training system for energy advisors, and in support of the implementation of the LEERUE. The Project is financed by the Global Environment Facility (GEF) with a budget of USD 1.45 million.
- Energy efficiency in central government buildings The project includes improving the energy efficiency of 28 out of a total of 56 central government buildings. In these 28 buildings, energy rehabilitation will be carried out through the reconstruction of the thermal envelope (replacement of joinery and installation of insulation), reconstruction of the heating system and installation of energy-efficient interior lighting, which will achieve energy savings of about 30%. The realization of the project will contribute to the fulfilment of obligations towards the Energy Community. The total value of the project is estimated at EUR 46.75 million, € 42.5 million works, but the true cost will be determined in the project preparation phase. For the implementation of the project, loan funds in the amount of EUR 40 million have been secured from Council of Europe Development Bank (CEB) and grants of EUR 1.02 million from Slovak Account for Inclusive growth and the Spanish Account for Social Cohesion.
- Energy Refurbishment of multi-family residential buildings connected to the district heating systems Public ESCO Project The project to be financed through an EBRD loan will enable the improvement of energy efficiency in buildings connected to district heating systems with a special focus on multi-family buildings. The project should enable the conditions for switching to consumption -based billing (CBB) in those cities and district heating systems that still charge for heat on a lump sum basis. A significant part of the project will be financed from the savings achieved by the energy rehabilitation of the buildings and the transition to billing according to consumption. The EBRD, together with the City of Šabac and Šabac District heating company, is implementing a project based on the "Public ESCO" concept, which foresees the energy rehabilitation of 40 buildings. An EBRD loan in the amount of € 50 million for the first phase of the project is included in the budget of the Republic of Serbia for 2023, and the signing of financial agreements is expected in the second half of the year. The EBRD plans to secure grant funds from the REEP in the form of an investment grant of up to 20% of the investment value and technical assistance for the implementation of the Project. The expected amount of grants would be proportional to the total investment.

In addition, coordination will be ensured between this Operational Programme and the relevant 2021-2027 Interreg programmes (Romania-Serbia, Bulgaria-Serbia, Hungary-Serbia, Croatia-Serbia, IPA Adrion, URBACT and Interreg Europe), as well as the EU Macro-regional Strategy for the Danube Region and the EU Macro-regional Strategy for the Adriatic-Ionian Region through its embedding processes.

4.2 Description of the programme

4.2.1. Intervention Logic

Results	Results chain	Indicators	Assumptions
Overall	To promote the green agenda by	Composite indicator on	
Objective of	reinforcing environmental	Union acquis alignment in	/
this action is	protection, contributing to	chapter 27	

	mitigation to climate change,	(waste and water	
	increasing resilience and	management)	
	adaptation to climate change and		
	accelerating the shift towards a	Composite indicator on	
	socially responsible and	Union acquis alignment in	
	aircular aconomy	chapter 15	
	circular economy	(energy efficiency and an quality)	
Specific		Number of people	Continued political
Objectives		benefiting from the EU	support for harmonisation
(Outcomes)		compliant regional waste	with the EU waste acquis.
1. Area of		management	 Institutions at all levels
support Waste		infrastructure supported	are willing to cooperate in
and Water		by the investment	designing actions for
Management		and age where relevant	integrated waste
		and age where relevant.	management system
		Number of people	National financing is
		benefiting from the EU	available to co-fund
		compliant construction	investments and ensure
		and demolition waste	maintenance in waste
		(CDW) recycling	management required to
		supported by the	funds. The necessary
		hy gender and age where	national financial and
		relevant	administrative resources
			are effectively and
			efficiently mobilized.
			• The Government is fully
			committed to implement
	1 To improve integrated and		project designs for
	sustainable waste management		establishment of waste
	system in line with national		management
	requirements and EU		infrastructure on regional
	environmental acquis		level.
			• The main national and
			local authorities dedicate
			employees at all levels
			to participate in
			establishment of the
			integrated waste
			management system.
			• LGSs in the regions are
			and successfully
			participate in waste
			management on regional
			level. Full support of LSG
			leadership and involved
			authorities for efficient
			project implementation is
			National and local
			administrations are
			committed to participate
			in training and capacity
			building.
	2. To advance Serbia's water	Capacity of WWTPs with	• The Government is fully
	management by integrating	tertiary treatment in	committed to implement

Specific	mitigation and adaptation measures in accordance with national standards and the EU environmental acquis	selected agglomeration Population that will benefit from introduction of Non-Revenue Waters measures and (re)construction of water supply pipes	 the water infrastructure investments. National, regional and local authorities in charge of water management are committed to participate in training and capacity building. The Government is fully.
Objectives (Outcomes) 2. Area of support Air Quality and Energy Efficiency	3. To reduce air pollution (and GHG emissions) through energy efficiency-enhancing renovation of old buildings as well as improvement of energy efficiency in heating and cooling systems and other energy related products	Reduction of SO2, NOx, PM in municipal buildings refurbished through IPA III support Greenhouse gas (GHG) emissions avoided with IPA III support	 The Government is fully committed to implement the Buildings Renovation Strategy. The Government is fully committed to GHG reduction goals. The Government is fully committed to Air Pollution goals.
Specific Objectives (Outcomes) 3. Area of support Other support	4. To strengthen administrative capabilities essential for the successful realization of the Operational Programme's goals, by offering comprehensive support to Operational Programme bodies and Partners, while concurrently strengthening the institutions' capacity to implement and enforce acquis	Percentage of Funds disbursed from the Operational Programme	 Continuous support of the Government for the European Integration process. The National Investment Committee identifies project pipelines. Line ministries are committed to the preparation of implementing documents (OIS, Tender dossiers, etc). Willingness of local authorities to dedicate employees and resources to infrastructure projects implementation. Line ministries are committed to implementation of the EU agenda in their sectors
Outputs to Specific Objective 1	 1.1. Waste management infrastructure improved in selected regions. 1.2. Institutional capacities for waste management strengthened at all levels 	Amount of solid waste separated at source for recycling out of total waste generated in selected regions, per year Amount of construction and demolition waste recycled/recovered out of total waste generated in all regions, per year Number of individuals from key national and local authorities trained on waste management disaggregated by gender.	Assumptions to outputs are elaborated in detail in section 4.2.2
Outputs to Specific Objective 2	2.1. Infrastructure for water management improved in selected LSGs	Length of new or upgraded pipes for the public network for	

		collection of wastewater	
		in selected agglomeration	
		in selected aggiomeration	
		Length of new or	
		ungraded pipes for the	
		distribution systems of	
		multic water in calacted	
		public water in selected	
		Numericanty	
		Number of employees in	
		institutions in charge of	
	2.2. Effective planning and	water management	
	management of the financial and	disaggregated by gender	
	human resources available for		
	water management enhanced.	Erosion map of the	
		Republic of Serbia in	
		place and in line with EU	
		requirements.	
Outputs to	3.1. Renovation of the worst	Net floor of public and	
Specific	performing buildings to a	residential buildings with	
Objective 3	highest possible energy class at	improved energy	
	the cost-optimal level.	performance	
		r	
	3.2 Heating/cooling systems and	More efficient and less	
	other energy related products in	polluting generation	
	buildings replaced with more	capacity installed with EU	
	efficient and less polluting ones	support	
	enterent and less ponduing ones	support	
	2.2 Incomentation from	Number of employees in	
	5.5 Improved capacities for	Number of employees in	
	implementation of public	institutions in charge of	
	policies and investments in	energy efficiency, air	
	energy efficiency, air quality and	quality and eco-design	
	eco-design	disaggregated by gender	
Outputs to		Number of Infrastructure	
Specific	4.1. Preparation of financially	projects from Single	
Objective 4	viable projects for financing	Project Pipeline prepared	
	supported.	and ready to tender	
		Employees of national	
		institutions partners and	
		hanaficiarias supported	
		through training and other	
	1.2 Administrative conscition	forms of canacity building	
	for the management of the	(gender disaggragated)	
	Operational programme	(genuer uisaggregateu).	
	reinforced	Number of systematised	
	iemioieeu.	work positions supported	
		with compensation of	
		salaries (gender	
		disaggregated)	
		uisaggiegateu).	

4.3 Administrative capacities for the implementation and enforcement of the acquis improved	Number of institutions whose capacity is strengthened and which directly facilitate prospects for future public expenditure/investment.	
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Waste and Water management

The intervention under the Area of support Waste and Water management will contribute to promoting the green agenda by reinforcing environmental protection, contributing to mitigation, increasing resilience to climate change and accelerating the circular economy by investments in municipal waste management system through an increased recycling rate, reduced disposal of biodegradable waste on the landfills and reduced disposal of waste in unsanitary landfills, as well as by an increased rate of collection, reuse and recycling of special waste streams and along with investments in water infrastructure and enhancing the national and local capacities for effective planning and management of the financial and human resources. These specific objectives can be achieved only by securing national financing to co-fund investments, commitment by the Government to implement the feasibility studies and project designs for establishment of waste management infrastructure on regional level, as well as with commitment by municipalities in the regions are committed to cooperate and successfully participate in waste management on regional level and administration on national and local level to participate in trainings and capacity building. Furthermore, continued political support for harmonisation with the EU water *acquis* and commitment to continuation of water sector reform and increasing competitiveness of the environment and climate change sector are the most important assumptions for the implementation of this OP and for establishing a sustainable and integrated water management.

Air Quality and Energy Efficiency

The intervention under the Area of support Air Quality and Energy Efficiency will contribute to promoting the green agenda by reinforcing environmental protection, mitigation and resilience to climate change through reduction of GHG emissions, improved policies and measures for investments in energy efficiency of the buildings and accelerated circular economy. This will contribute to a lower energy consumption of the buildings and replacement of inefficient heating/cooling systems and other energy-related products in the buildings with more efficient ones. Also, replacing fossil fuel boilers with renewable energy sources or connecting to district heating systems will demonstrate the Government commitment to implement the Renovation Strategy, achievement of the of the GHG reduction and Air Pollution goals set in relevant planning documents.

Other support

The intervention under the Area of support Other will contribute to promoting the green agenda by reinforcing environmental protection, contributing to mitigation, increasing resilience to climate change and accelerating circular economy through adequate administrative capacity supporting achievement the objectives of the Operational Programme which would lead to increase the IPA III funds' absorption capacity, only if Government is committed to the European Integration process, the Republic Commission for Capital Investments identifies pipelines of projects and line ministries are committed to preparation of the implementing documents (OIS, Tender dossiers, etc).

4.2.2. Detailed description of each area of support

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area of support: Waste

Rationale:

The Waste Management Programme foresees a stepwise approach in establishing the required infrastructure in 26 regions, emphasising the reduction of waste going to landfills through separation, reuse and recycling. The further development of integrated waste management will contribute to the quality of environment and living standards in Serbia. This requires the establishment of efficient and sustainable waste management system and adequate capacities for the management of large infrastructure projects in this area. The establishment of regional waste management systems continues to be a priority for the Government of Serbia as described in the Waste Management Programme 2022 – 2031 which includes separate collection at source, a network of recycling yards and transfer stations, secondary separation of recyclable products with appropriate secondary separation lines, small composting lines (at municipality level), and home composting (in rural areas), other treatment plants an regional sanitary landfill.

The investment activities address the identified weaknesses, i.e. the not fully implemented integrated waste management system, the limited separation of waste and the lack of waste treatment infrastructure. It will focus on promoting an efficient and improved integrated waste management system consistent with EU policy and principles. As the gap on waste management investments is indicated for certain on-going projects in the regions of Belgrade and Novi Sad, the interventions will also focus on co-financing the completion of the waste management infrastructure and optimisation of the waste collection by using all means to reduce the quantity of waste to be landfilled. Sustainable waste management will be supported through investments in additional waste recycling and re-use capacity which will contribute to the achievement of recycling objectives under the Waste Management Programme. Activities related both to capacity building and investment will be conducted. The City of Belgrade is in the process of preparation of technical documentation to establish a fully compliant and integrated waste management system for collection, separation, transport and recycling for 14 municipalities, while three municipalities belong to the Kalenic waste management region. A Feasibility Study (FS) is under development and Conceptual Designs for each facility identified in the FS as part of the Priority Investment Project. This will indicatively include nine or more facilities (transfer stations, civic amenity sites, material recovery facilities, construction and demolition treatment facility, bulky waste treatment facility, biodegradable waste treatment facility, green waste treatment facility, etc.) to be financed, but the final number will be established in the approved FS. Waste-to-Energy plant with a capacity of 340,000 t/year has been constructed and is in trial operation. The new sanitary landfill started receiving municipal waste since 2021. The RWMC Novi Sad which includes 8 municipalities will be supported by IPA 2021 to introduce waste management infrastructure in line with EU standards, however there is a lack of funds for equipment for separate collection and treatment of waste.

In addition to regional sanitary landfills, there are more than 136 municipal landfills that do not comply with environmental standards and that accept municipal waste that is collected in an organised manner. Once the regional sanitary landfill is constructed, local non-compliant landfills have to be closed and remediated. Furthermore, the informal sector has been collecting quality packaging waste for decades. According to some estimates, informal waste collection in the Republic of Serbia consists of 30,000 to 50,000 individual collectors, mostly Roma population, who perform their activities as part of the informal economy.

Construction and demolition waste is one of the priority waste streams. Existing data on the annual quantity of construction and demolition waste is not reliable. According to the data of the Statistical Office of the Republic of Serbia, in 2020, 729,000 tons of construction and demolition waste was generated in Serbia. However, if a comparison with the quantities of construction and demolition waste generated in EU countries is applied, a potential amount of 1.6 million tons seems to be the most likely estimate. The objective in the Waste Management Programme 2022-2031 is to increase the recycling/recovery rate of non-hazardous construction and demolition waste to 40% of construction and demolition waste by 2029 and to 70% in 2034. The target will be achieved by establishing treatment facility in each waste management region. Appropriate locations need to be provided by the local self-governments. There is only one CDW facility recently opened in Belgrade at Vinča with a capacity of 200,000 t/y. Most of the waste from construction and demolition is disposed of or more often disposed of together with municipal waste in municipal unsanitary landfills.

In addition to the construction of the waste management infrastructure, the efficient and effective operation and management of this type of infrastructure requires adequate capacity within the entities responsible for service delivery, the PUCs. All the beneficiary institutions will be provided with institutional support designed to sustain the benefit of the investment. Institutional strengthening will target the Ministry as well as municipal administrative employees. This action will be provided through service (covering the supervision of the works as well as providing capacity building services, including public procurement assistance and advice as appropriate) or twinning contracts. The adoption of measures to enhance their resilience to the impacts of climate change will be a requirement to be considered for the design and implementation of all investment activities. Therefore, increasing capacity of institutions at both central and local level should be ensured.

Applicable EU legislation: the action will contribute to the implementation of the following:

- Directive 2008/98/EC as amended by Directive 2018/851 Waste Framework Directive
- Directive 1999/31/EC on the Landfill of waste
- Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) and amendments by Directive 2018/849/EU
- Directive 2006/66/EC on batteries and accumulators and waste batteries and accumulators and amendments by Directive 2018/849/EU (WBA Directive)
- Directive 94/62/EC on Packaging and Packaging Waste as amended by Directive 2018/852.

Outcome 1 (Specific objective 1): the specific objective of the Area of Support Waste is to contribute to integrated and sustainable waste management system in line with national requirements and EU environmental acquis.

Typologies of outputs:

Output 1.1 - Waste management infrastructure improved in selected regions

The Action will support the implementation of models for integrated municipal waste management in the waste regions, following a regional approach and the selected options as in the feasibility studies. This activity will also provide an example to other municipalities on steering their path towards a circular economy. The introduction of the know-how and best practices employed in the EU countries will be pursued. The integrated waste management systems in the waste regions will be further developed, through investments in equipment for primary (green waste and recyclables) and secondary separation, municipal composting and other biodegradable waste treatment, transfer stations and recycling yards. The aim of these investments is to increase the recycling rate, reduce the disposal of biodegradable waste in landfills and reduce the disposal of waste in unsanitary landfills and shift the focus from the waste disposal perspective to the recycling perspective, with waste seen as a material to be re-injected in the production cycle. Green waste will be used to produce compost. Public campaigns and awareness raising in two waste management regions (Belgrade and Novi Sad) will be conducted. Recycling activities will follow the circular economy principle that can generate economic opportunities for women and Roma in recycling and waste management, while helping to tackle the risks of informal waste picking and manual recycling.

Furthermore, investment support will be provided to increase the rate of collection, reuse and recycling of special waste streams, including investments in plants in waste management regions to achieve construction and demolition waste management targets. Infrastructure for processing of CDW or mobile treatment facility for CDW is needed in each waste management region.

Output 1.2 - Institutional capacities for waste management strengthened at all levels

The Action will be directed to strengthening the capacity of waste management authorities at central and local levels, and will provide them with the tools to implement, monitor and enforce the waste management system. An increased technical and administrative capacity of institutions at both central and local levels will be ensured.

There is a need for support in preparation and implementation of investment projects in the waste sector in particular due to the lack of capacities at local and central level. The activities may include technical assistance to support LSGs and their utility companies in managing the new infrastructure, investments in terms of works and supplies, supervision etc. Infrastructure design will be supported to move towards higher recycling and reuse, creating green jobs, while lowering pressure on the environment and climate. Completion of designs, tender documents, procurement for the regional waste treatment facilities.

The Action will also focus on the development of necessary capacities, improvement of legislation and institutional organisation of relevant bodies in order to ensure sustainable and functional management systems. Furthermore, implementation of this measure will contribute to ensuring a stable financing system through establishment of model for financing large infrastructure projects as well as an operational model for implementation of heavy investment projects. Therefore, support provided through this action will include support for regional waste management companies and PUCs in order to increase their efficiency and improve quality of service delivery. In addition, support will be provided for improvements to the operational models for regional waste management centres, harmonisation with circular economy package, improving monitoring and reporting in the field of waste management and further development of the information system, introduction of economic measures aimed at reducing landfilling and promoting waste reduction and recycling, improvement of current system of data collection, and education and awareness-raising of the control and enforcement system for the implementation and promotion to a circular economy.

Results	Indicator	Measurement Unit	Baseline	Target
Impact: To promote the green agenda by reinforcing environmental protection, contributing to mitigation to climate change, increasing resilience and adaptation to climate change and accelerating the shift towards a socially responsible and inclusive, low-carbon, blue and circular economy.	Composite indicator on Union acquis alignment in chapter 27 (waste and water management). Composite indicator on Union acquis alignment in chapter 15 (energy efficiency and air quality).	Level of acquis alignment	Partly aligned (2023)	Fully aligned (2032)

Table 8. Impac	t, outcome and o	output indicators	(incl. baselines and	targets).
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Results	Indicator	Measurement Unit	Baseline	Target
Outcome 1: To improve integrated and sustainable	Number of people benefiting from the EU compliant regional waste management infrastructure supported by the investment disaggregated by gender and age where relevant.	Number of people benefiting	0.5 million (2023)	1.9 million* (2032)
waste management system in line with national requirements and EU environmental acquis	Number of people benefiting from the EU compliant construction and demolition waste (CDW) recycling supported by the investment disaggregated by gender and age where relevant.	Number of people benefiting	1 million (2023)	3 million* (2032)
Output 1.1 Waste management infrastructure	Amount of solid waste separated at source for recycling out of total waste generated in selected regions.	Tons of solid waste separated out of total waste generated	4% 25,000t out of 830,000t (2023)	20%* 181,000t out of 905,000t** (2032)
regions.	Amount of construction and demolition waste recycled/recovered out of total waste generated in all regions	Tons of CDW recycled/recov ered out of total waste generated	4% 40,000t out of 1,000,000t (2023)	40 %* 480,000t out of 1,200,000t (2032)
Output 1.2 Institutional capacities for waste management strengthened at all levels	Number of individuals from key national and local authorities trained on waste management disaggregated by gender	Number of individuals trained	0 (2023)	220** (2032)

Source of verification is:

*MEP report on implementation of the Action plan for the Waste Management Programme 2022-2031, SEPA Annual report on status of the environment, Annual report of the Republic Statistical Office **Final project Report

Type of activities

An **indicative** list of the type of activities which could be supported includes, but is not limited to:

The Action will support the achievement of **Outputs 1.1 and 1.2** (related to **Outcome 1**) with works that will cover the following:

 Construction of regional waste management system components (e.g. transfer stations, civic amenity sites / recycling yards, material recovery facilities, CDW treatment facilities, bulky waste treatment facilities, biodegradable waste treatment facilities, green waste treatment facilities, etc.).

Outputs 1.1 and 1.2 (related to Outcome 1) will include the supply of equipment needed for waste management:

- Introduction of home composting and separate collections of recyclables and "green" waste (supply of home composters, bags, bins and vehicles etc.),
- Necessary equipment for separate collection of waste at source (containers and bins for separate collection of waste, vehicles etc.),
- Necessary equipment for the composting facility for green waste,
- Adequate equipment for construction and demolition waste treatment.

The Action will support the achievement of **Outputs 1.1 and 1.2** (related to the **Outcome 1**) with technical assistance activities that will cover the following:

- Support in preparation and management of investment projects,
- Supervision/supervisory engineering,
- Technical assistance in preparation of regional and local waste management plans,
- Development of economic instruments,
- Preparation of guidance and plans for special waste streams management,
- Capacity building for end recipients of design and operation of waste management systems as well as any necessary field assistance to implement the EU programmes,
- Improvement of waste management monitoring and reporting at all levels including SEPA, further development of the information system,
- Plans/projects for engagement of informal waste pickers, mostly Roma population,
- Gender responsive public awareness, inclusive education initiatives and other communication tools, including public procurement assistance and advice as appropriate,
- Technical preparatory studies, feasibility studies, CBA, EIA, socio-economic analysis, design, technical specifications and tender dossiers, livelihood restoration plans etc.

Delivery methods:

These activities will be delivered through service, twinning, supply and works contracts.

- Service contracts for technical assistance and capacity building
- Works contracts for projects for investment in waste management infrastructure
- Supply contracts for purchasing of equipment for regional waste management companies and PUCs
- Twinning contract(s).

End recipients and target groups:

- The MoEP IBPM, Waste Department
- Relevant LSGs and PUCs, other relevant partners

Conditions:

- Project documents, such as the Feasibility Study including Cost-Benefit Analysis, Environmental Impact Assessment, Preliminary Design, Design for construction permit, and Design for the execution of works are prepared in line with national and EU requirements.
- Co-financing from the national budget available
- Maturity of the projects for implementation
- No substantial price escalations (e.g.: inflation) or economic crises impacting upon present and future investments
- Capacities at national level for smooth procurement and implementation management
- Necessary resources by the final beneficiaries to operate the environmental infrastructure properly
- Smooth adoption of the necessary legislation if required at national and local level
- Employees (technical and management level) remaining at their posts following the termination of activities able to contribute to the relevant subsequent work through the skills and information obtained during the activities
- The willingness and active participation of related stakeholders to the studies within the activities
- Satisfactory level of access to required data
- Quality employees assigned who are able to contribute to the relevant activities through the skills and information obtained during the activities.

Failure to comply with the requirements set out above may lead to a recovery of funds under this OP and/or the re-allocation of future funding.

Sub-area of support: Water

Rationale:

The concept of water management is based, first of all, on the natural characteristics of the territory of the Republic of Serbia, the current state of water and water management, the necessity to meet water needs, the need to protect water from pollution and defence against the harmful effects of water. The adopted concept is based on the priority solution of key problems in the water sector, aligned with the long-term strategic goals of all areas of water activity which is to achieve and maintain a good status of water bodies of surface water and groundwater, to protect human health, preserve water and meet the needs of water users.

Given that the largest part of the territory of the Republic of Serbia belongs to the Danube Basin (the Black Sea Basin), which has been declared a sensitive area, Serbia will, after joining the EU, be obliged to ensure the degree of treatment of municipal wastewater that applies to these areas (removal of nutrients, tertiary treatment).

Construction of the WWTP and (re)construction of the sewerage network is one of the most important activities to achieve good status of water bodies of surface water and groundwater. Preventing uncontrolled discharge and the collection and treatment of wastewater will significantly improve water quality. Under this Operational Programme, investment in wastewater infrastructure will be supported based on the advancement in the preparation and maturity of technical documentation Due to the need to solve issues of sludge management in Serbia, Appraisal Reports were prepared for the construction of infrastructure for sewage sludge treatment for five, EU co-financed, recently built WWTPs.

In order to increase the coverage of public water systems from the current 85% to 93% by 2034, it is necessary to complete the existing network for public water supply in settlements, with its extension to suburban areas; and build a water supply network and other necessary infrastructure in settlements without a public water supply. An insufficient quantity of drinking water, which is most pronounced in dry periods, is the key issue. This is complex and challenging to solve because it is necessary to harmonise ambiguous jurisdiction, address large losses in distribution networks, ensure the reliability of water supply (in terms of time, quantity and quality), take into account the impact of climate change and make available the financial resources required for implementation.

As regards the development of an erosion map of the Republic of Serbia, it is necessary to collect relevant data on the state of erosion processes, the extent and intensity of water erosion in the watersheds and, consequently, determine the criteria for defining erosion areas. When the criteria of the erosion areas are defined, the borders of the erosion areas should be determined and in accordance with the requirements of the environment and in accordance with the River basin management plan, a basis will be obtained for defining the conditions for its use, and the necessary measures and works for each water district.

In addition, a further strengthening of capacities and administrative support for the Ministry in charge of Water Management and PWMCs Srbijavode and Vode Vojvodine is needed to ensure sound implementation of the Operational Programme and achieve strategic and planning obligations and requirements. Integrated water management requires a legislative framework; institutional and organisational solutions, with sufficient and competent professional employees; an appropriate financing system, with defined sources of funds and possible dynamics of their provision; and the establishment of a balance at the central and local levels of water management. Support in the preparation and revision of strategic planning documents, preparation of technical documentation, and feasibility studies are envisaged under the Operational Programme.

Applicable EU legislation

The Area of Support Water, contributes to the implementation of the following EU water acquis:

- Urban Waste Water Treatment Directive (91/271/EEC)
- Sewage Sludge Directive (86/278/EEC)
- Water Framework Directive (2000/60/EC)
- Drinking Water Directive (98/83/EC) as recast by Directive 2020/2184/EU on the quality of water intended for human consumption
- Bathing Water Directive (76/160/EEC)
- Directive on the assessment and management of flood risks (2007/60/EC)
- Directive environmental quality standards in the field of water policy (2008/105/EC)
- Directive on the protection of groundwater against pollution and deterioration (2006/118 / EC)
- Directive laying down technical specifications for chemical analysis and monitoring of water status (2009/90 / EC)
- Directive establishing a framework for the protection of soil (2004/35/EC)

Outcome 2 (Specific objective 2): to advance Serbia's water management by integrating mitigation and adaptation measures in accordance with national standards and the EU environmental acquis.

Typologies of outputs

To achieve the stated outcome within this area of support, two outputs will be accomplished:

Output 2.1 - Infrastructure for water management improved in selected LSGs

The output will support Serbia to improve investments in sustainable water-related infrastructure. The envisaged output will plan and sequence investments to maximize social and economic returns, strengthen financial and operational performance of the selected PUCs as well as increase benefits from interlinkages across sectors. This output will be achieved by investments in water infrastructure by increasing secure access to water resources and ensuring the reliable provision of sustainable and affordable water and wastewater services to promote resource efficiency (energy, chemicals, water). In order to maximise benefits in the wastewater sector improvement, the output is also focused on energy and materials recovery, through investment in sound sludge management.

Output 2.2 - Planning and management of the financial and human resources available for water management enhanced

The output will support water management institutions in aligning national policies with EU requirements and enhance the investment planning process that provides the framework for making the necessary investment and securing compliance with all relevant directives in the water sector. It is foreseen to develop and improve appropriate analytical tools and data to assess complex water related issues such as erosion maps, providing assistance using remote sensing, GIS and hydraulic modelling techniques and cost benefit analysis.to make different scenarios for flood risk management. In addition, the output will promote the preparation of viable, investment mature, and high impact projects. Moreover, the output includes technical assistance for the relevant water management institutions to build their administrative capacities for the absorption and management of the available funds, including the implementation of infrastructure projects within this OP.

Relevant indicators in the IPA III Results Framework are:

- Wastewater treated (Population equivalent "p.e.") (Ind. 3.1.7.2)
- Length of new or upgraded pipes for the distribution systems of public water supply (Ind. 3.1.7.3)
- Length of new or upgraded pipes for the public network for collection of wastewater (Ind. 3.1.7.4)

Baseline Indicator Measurement Target Unit **Impact:** To promote the green agenda by Composite indicator reinforcing environmental on Union acquis protection, contributing to alignment in chapter mitigation to climate 27 (waste and water change, increasing management) Level of acquis Partly aligned Fully aligned resilience and adaptation alignment (2023)(2032)to climate change and Composite indicator accelerating the shift on Union acquis alignment in chapter towards a socially responsible and inclusive, 15 (energy efficiency low-carbon, blue and and air quality) circular economy Capacity of WWTP 0 with tertiary Population 40,000* **Outcome 2** To advance (2023)treatment in selected Equivalent (2030)Serbia's water management agglomeration by integrating mitigation and adaptation measures in Population that will accordance with national benefit from standards and the EU introduction of Non-Number of 142,000* 0 environmental acquis. **Revenue Waters** (2023)inhabitants (2032)measures and (re)construction of water supply pipes Length of new or upgraded pipes for 22* the public network 0 for collection of (2023)(2030)km wastewater in Output 2.1 Infrastructure selected for water management agglomeration improved in selected LSGs Length of new or upgraded pipes for 92* 0 the distribution (2023)(2032)km systems of public water in selected municipalities **Output 2.2** Effective 80** Number of Number of 0 planning and management employees in (2023)(2030)employees

Table 9: Impact, outcome and output indicators (incl. baselines and targets):

	Indicator	Measurement Unit	Baseline	Target
of the financial and human resources available for water management enhanced	institutions in charge of water management disaggregated by gender			
	Erosion map of the Republic of Serbia in place and in line with EU requirements	Level of alignment	Not aligned (2023)	Fully aligned*** (2030)

* Final project Report at the end of the defects liability period

** Final project Report and Report on implementation of Action Plan for the Water Management Strategy on the territory of the RS until 2034

***Final project Report

Type of activities

The type of activities envisaged for implementation under the OP are: (i) works in the targeted LSGs that are at the most advanced level of readiness, in line with the water sector priorities and fulfil the selection criteria; (ii) procurement of supplies for targeted PUCs and LSGs and (iii) technical assistance and capacity building activities based on justified needs within the water sector.

Eligible activities including under major projects

Eligible activities:

- Preparation of technical documentation and Feasibility Studies with Cost Benefit and socio-economic analysis for improving sustainable water management and its adaptation to the climate change by creating conditions for new investments in water management
- Construction works for the reconstruction, rehabilitation and extension of water supply system and wastewater treatment facilities including collectors and sewage network
- Construction of infrastructure for sewage sludge treatment for selected WWTPs
- Supervision of works contracts
- Procurement of needed equipment for sustainable water and wastewater management PUCs
- Assistance to PUCs in improving their Financial and Operational Performance
- Assistance to institutions in charge for water management in raising capacities and human resource management.
- Technical assistance for the implementation of infrastructure projects
- Support to develop the Erosion map of the Republic of Serbia and to use remote sensing, GIS and hydraulic modelling techniques.

Delivery method

These activities will be delivered through service, twining, supply and works contracts.

- Service contracts for technical assistance and capacity building
- Twining and twinning light instruments
- Works contracts for projects for investment in water supply and wastewater treatment system
- Supply contracts for purchasing of equipment for PUCs

End recipients and target groups

The end recipients and target group of this activity are the following institutions:

End recipients

- Ministry in charge of Agriculture, Forestry and Water management-Sector for International Cooperation and European Integration (MoAFWM)
- Ministry in charge of Environmental Protection (MoEP)
- Public Water Management Companies (PWMCs) Srbijavode and Vode Vojvodine
- LSGs
- PUCs

Target groups

- Local communities: The projects will benefit the local communities living in the targeted local selfgovernments by improving their access to drinking water supply systems and surface water quality.

Conditions

General:

- MoAFWM and MoEP shall ensure that project documents, such as the Feasibility Study including Cost-Benefit Analysis, Environmental Impact Assessment, Preliminary Design, Design for construction permit, and Design for the execution of works are prepared in line with national and EU requirements.
- The project documents must also respect the special requirements deriving from national legislation and relevant standards requested by the legislation, including by-laws.
- MoAFWM and MoEP shall, in close cooperation with the MoF and the targeted LSGs, ensure national co-financing for appropriate year allocation.
- MoAFWM, MoEP and targeted LSGs must coordinate activities in obtaining relevant permits, and approval to ensure smooth implementation.
- For project with an estimated budget of over EUR 20 million, MoAFWM and MoEP need to ensure that Major Project Applications are prepared in the prescribed template with the respective IPA Financing Agreement, as required by EU, and State aid compliance is certified by the national State aid authority.
- A sufficient number of employees dedicated to work in the water management sector are available for capacity building and assistance for the implementation of infrastructure projects.
- 1) For Output 2.1 (investment projects)
- Projects included in the Single Project Pipeline;
- Relevance to the National Water Management Strategy and draft Sludge Management Programme
- Relevance to the objectives of the Directive Specific Implementation Plan for EU UWWTD and Directive Specific Implementation Plan for EU DWD
- Relevance to EU, national and regional (Western Balkans) policies;
- Project mature for implementation;
- Positive impact on population and environment;
- Adequate management capacity of the final beneficiary and end recipients;
- Sufficient financial ability of the beneficiary and available co-financing.
- 2) For Output 2.2 (soft projects)
- Novelty of the IPA III Managing Authority tasks
- Shortcomings of the necessary techniques, maps and plans for the further development of the water sector clearly identified in national strategies, programmes and plans
- Lack of water relevant plans and/or institutional capacities stressed in EU Progress Reports for Serbia
- Evidence based track record of lack of documentation and/or adequate legal framework and capacities that creates implementation problems with infrastructure projects
- Training need assessment in place
- EU and other donor reports indicate insufficient capacity for implementation and management of infrastructure projects

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

Rationale:

The intervention in the Area of Support Air Quality and Energy Efficiency in Serbia, based on Serbia's EU accession process and membership in the Energy Community, can be approached from several perspectives.

Taking into account energy efficiency standards, the EU places a strong emphasis on energy efficiency as a means to reduce greenhouse gas emissions and achieve energy security. As part of the EU accession process, and as an Energy Community signatory, Serbia is obliged to align its policies and standards with EU regulations, including those related to energy efficiency in buildings. By adopting and implementing EU standards, nZEB standards first of all, Serbia can benefit from an improved energy performance, a reduced energy consumption, and lower carbon emissions.

Enhancing energy efficiency in buildings can have significant economic benefits. Energy-efficient buildings consume less energy, leading to reduced energy bills for occupants and owners. This can result in increased disposable income for households and reduced operational costs for businesses. Additionally, energy efficiency measures and policies can stimulate the local economy by creating jobs in areas such as construction, engineering, and energy auditing and improve the market of the energy-related products.

As regards environmental concerns, improving energy efficiency in buildings is crucial for addressing environmental challenges, including climate change and air pollution. The EU has set ambitious targets to reduce greenhouse gas emissions, and energy efficiency plays a key role in achieving these goals. By promoting energy-

efficient buildings, Serbia can contribute to global efforts to mitigate climate change, improve air quality, and preserve natural resources.

Enhancing energy efficiency in buildings can contribute to energy security by reducing dependence on external energy sources. Energy-efficient buildings require less energy for heating, cooling, and lighting, decreasing reliance on imported fossil fuels. This can enhance Serbia's energy independence, reduce vulnerability to price fluctuations, and strengthen energy resilience.

As for the legal commitments as a member of the Energy Community, Serbia has voluntarily committed to implementing and enforcing EU energy legislation. This includes the Energy Performance of Buildings Directive (EPBD) which sets out requirements for energy performance certificates, energy-efficient renovations, and minimum energy performance standards for buildings. Aligning with EU directives on energy efficiency is essential for Serbia to fulfil its obligations and ensure harmonisation with EU policies.

By doing so, Serbia shall secure much better access to funding and technical assistance. EU interventions in energy efficiency offer opportunities for Serbia to access funding and technical assistance through various programmes and initiatives aimed at promoting energy efficiency and sustainable development. Alignment with EU standards and regulations will increase Serbia's eligibility for funding and facilitates cooperation in sharing best practices, knowledge, and expertise in the field of energy efficiency.

In short, the interventions in the Area of Support Air Quality and Energy Efficiency in Serbia, driven by the country's EU accession process and membership in the Energy Community, aim to promote sustainable development, achieve energy security, reduce carbon emissions, and unlock economic and other benefits. By aligning with EU standards and regulations, Serbia can enhance its energy performance, contribute to environmental goals, and access funding and technical support for implementing energy efficiency measures.

Applicable EU legislation

The Area of Support EE in buildings, contributes to the implementation of the following EU acquis:

- Directive 2018/2002 (the amended Directive on energy efficiency)
- Directive 2018/844/EU (energy performance in buildings EPBD)
- Directive 2017/1369 EU (setting a framework for energy labelling and repealing Directive 2010/30/EU labelling and standard product information of the consumption of energy and other resources by energy-related products)
- Directive 2009/125/EC (recast) (establishing a framework for the setting of eco-design requirements for energy-related products)
- Directive 2018/2001/EU (recast) on of the use of energy from renewable sources
- Regulation 2018/1999 (Governance of the Energy Union and Climate Action)
- Ambient air quality and cleaner air Directive 2008/50/EC and Directive 2004/107/EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air
- Directive 2016/2284 on the reduction of national emissions of certain atmospheric pollutants
- Directive 2016/802 relating to a reduction in the sulphur content of certain liquid fuels and Directives 2005/33/EC, 2009/30/EC and 2012/33/EU for marine fuels
- Directive 98/70/EC relating to the quality of petrol and diesel fuels
- Directive 94/63/EC on the control of volatile organic compound (VOC I) emissions and Directive 2009/126/EC on Stage II petrol vapour recovery (VOC II)
- Climate Change:
- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community

Specific Objective (Outcome) 3: To reduce pollutants in the air (as well as GHG emissions) through (1) renovation of public buildings so as to make them more energy efficient, and (2) improvement of energy efficiency policies and measures promoting eco-design, replacement of inefficient heating and cooling systems and other energy related products in buildings with more efficient and less polluting ones.

Typologies of outputs

To achieve the stated outcome within this area of support, three outputs will be accomplished:

Output 3.1: The worst-performing buildings renovated to a highest possible energy class at cost-optimal level

The output will support net floor area of **public buildings** which achieve better energy performance due to the support received. Improved energy performance is to be understood in terms of an improvement in the energy classification of the public building by at least one energy class, and it is to be documented based on energy performance certificates (EPC). The energy classification considered follows the definition in the national Energy

Performance Certificate, in line with the Directive 2010/31/EU. The focus will be on the worst-performing buildings where significant energy savings could be achieved, contributing more to the GHG emission reduction.

Output 3.2 Heating/cooling systems and other energy-related products replaced with more efficient and less polluting ones.

The output will promote the use of more efficient and less polluting heating and cooling systems in the buildings and equipment that achieve significant reduction of energy consumption. The output should wherever feasible enable the fuel-switching in the buildings to energy from renewable sources and support energy efficiency improvement of the system, including substations and other installations. The output will also support connection of the buildings to more efficient and less polluting district heating systems where technically, functionally, and economically feasible, and reflecting the results of the cost-optimal calculation carried out. The output will support further development of policies, measures and capacities for improved market of the energy-related products and investments in energy efficiency.

Output 3.3 Improved capacities for implementation of public policies and investments in energy efficiency, air quality and eco-design.

The output will support energy efficiency, air quality and eco-design in aligning national policies with EU requirements and enhance the investment planning process that provides the framework for making the necessary investment and securing compliance with all relevant directives in this sector.

Impact	Indicator	Measurement Unit	Baseline	Target
Impact: To promote the green agenda by reinforcing environmental protection, contributing to mitigation, increasing resilience to climate change and accelerating the shift towards a socially responsible and inclusive, low-carbon, blue and circular economy	Composite indicator on Union acquis alignment in chapter 27 (waste and water management) Composite indicator on Union acquis alignment in chapter 15 (energy efficiency and air quality)	Level of acquis alignment	Partly aligned (2023)	Fully aligned (2032)
Outcome 3 To reduce air pollution (and GHG emissions) through energy efficiency-enhancing renovation of old buildings	Reduction of SO2, NOx, PM in municipal buildings through IPA III support	%	0 (2024)	30 (2032)*
renovation of old buildings as well as improvement of energy efficiency in heating and cooling systems and other energy related products .	Greenhouse gas (GHG) emissions avoided with IPA III support	tonnes CO ₂ eq/year	0 (2023)	200.000 (2032)*
Output 3.1 Renovation of the worst performing buildings to a highest possible energy class at the cost-optimal level	Net floor of public and residential buildings with improved energy performance	square meters	0 (2023)	3.800.000 (2032)*
Output 3.2 Heating/cooling systems and other energy related products in buildings replaced with more efficient and less polluting ones.	More efficient and less polluting generation capacity installed with EU support	MW	0 (2023)	280 (2032)*

Table 10: Impact, outcome and output indicators (incl. baselines and targets):

* Final project Reports

Type of activities

The type of activities envisaged for implementation under the OP are:

- Works for the improvement of energy efficiency in buildings;
- Works for the replacement of boilers in district heating systems with the implementation of energy efficiency measures;
- Technical assistance and capacity building activities based on justified needs within the buildings sector.
- Assistance to institutions in charge for energy efficiency, air quality and eco-design disaggregated by gender in raising capacities and human resource management.

Eligible activities including under major projects

Eligible activities:

- Preparation of technical documentation and Feasibility Studies with Cost Benefit analysis for improving the energy efficiency of buildings and creating conditions for new investments in the reconstruction of buildings
- Construction works on reconstruction, rehabilitation and replacement of boilers in district heating and improvement of the network
- Supervision of works contracts
- Procurement of needed equipment for construction works and sustainable district heating management in district heating companies
- Assistance to institutions in charge for reconstruction works in raising capacities
- Technical assistance for implementation of infrastructure projects
- Support to develop energy audits of buildings in order to define the needs for the implementation of energy efficiency measures
- Service contracts for technical assistance and capacity building
- Twining and twinning light instrument

Delivery method

These activities will be delivered through service, supply and works contracts.

- Service contract(s) for technical assistance and capacity building
- Supply contracts which will contribute to higher energy efficiency
- Works contract for projects for construction works on buildings and works on district heating systems

Selection Criteria

- 1) For Output 3.1 (investment projects)
- Projects included in the Single Project Pipeline
- Relevance to the Building Renovation Strategy
- Relevance to EU, national and regional (Western Balkans) policies;
- Project mature for implementation;
- Positive impact on population and environment;
- Adequate management capacity of final beneficiary and end recipients;
- Sufficient financial ability of the beneficiary and available co-financing.
- 2) For Output 3.2 (investment projects)
- Projects included in the Single Project Pipeline;
- Relevance to the Energy development strategy
- Relevance to EU, national and regional (Western Balkans) policies;
- Project mature for implementation;
- Positive impact on population and environment;
- Adequate management capacity of final beneficiary and end recipients;

- Sufficient financial ability of the beneficiary and available co-financing.
- 3) For Output 3.3
- Smooth adoption of the necessary legislation if required at national and local level;
- Employees (technical and management level) remaining at their posts following the termination of activities able to contribute to the relevant subsequent work through the skills and information obtained during the activities;
- The willingness and active participation of related stakeholders to the studies within the activities
- Satisfactory level of access to required data;
- Quality employees assigned who are able to contribute to the relevant activities through the skills and information obtained during the activities.

End recipients and target groups

The end recipients and target groups of this activity are the following:

End recipients:

- MoME
- MoEP
- MCTI
- District Heating Companies
- Municipalities
- Building owners
- Households

Target groups

- Local communities: The projects will benefit the local communities living in the municipalities by improving their living conditions and providing savings in energy consumption and costs.

Conditions

- MoME, MoEP, MCTI and municipal departments shall ensure that project documents, such as Feasibility Study including Cost-Benefit Analysis, Environmental Impact Assessment, Preliminary Design, Design for construction permit, Design for execution of works are prepared in line EU requirements.
- The project documents must also respect the special requirements deriving from national legislation and relevant standards requested by the legislation, including by-laws.
- MoME, MoEP shall in close cooperation with the MoF and the targeted municipalities ensure national co-financing for the appropriate year allocation.
- MoME, MoEP, MCTI and targeted municipalities must coordinate activities in obtaining relevant permits and approvals to ensure smooth implementation.
- For a project with an estimated budget of over € 20 million, MoME and MCTI need to ensure that Major Project Applications are prepared in the template prescribed with the respective IPA Financing Agreement, as required by EU, and State aid compliance is certified by the national State aid authority.
- Sufficient number of employees dedicated to work in the EE building sector available for capacity building trainings and assistance for the implementation of infrastructure projects.
- Using "Green procurement" approach should be considered in order to promote EU Green Agenda.

AREA OF SUPPORT: OTHER SUPPORT

Rationale:

In the Republic of Serbia, most of the structures and authorities responsible for managing IPA III programmes have similar roles and responsibilities as in IPA II. When designing the IPA III organisational setup, the national authorities aimed to maximize the use of existing capacities and ensure continuity in their functioning. While there are a few exceptions, such as the designated Managing Authority (MA) and the new assigned terminology for the Implementing Bodies (IBs), the majority of structures and authorities remain the same as in IPA II. Detailed structures and bodies have been appointed by the Government of the Republic of Serbia by the Decision on the Appointment of the Responsible Authorities, Bodies and Persons in the Management of EU Pre-Accession Assistance Programmes for the Period 2021-2027, published in the Official Gazette of the Republic of Serbia no. 34/23 on 28 April 2023.

The units and working posts within the IPA III Structures have been meticulously designed to ensure compliance with all the requirements outlined in the Financial Framework Partnership Agreement (FFPA). These requirements have been translated into practice through the IPA Decree, inter-institutional agreements, and IPA III manuals of procedures. The design of these structures ensures the implementation of practices such as appropriate segregation

of duties, the four-eye principle, and management supervision. These measures are put in place to ensure accountability, transparency, and effective management within the IPA III programmes. Still one of the main challenges that remain within the system is the number of employees in the institutions and high turnover rate.

Efforts have been invested in recent to address employees retention issues within the IPA bodies. The National Authorizing Officer (NAO) joined a regional initiative aimed at improving and strengthening retention policies. In addition to retention initiatives, there have been several salaries increases in recent years to align with the requirements of IPA and future cohesion funds usage. In January 2023, a 12.5% salary increase was implemented for all public administration employees, continuing the trend of salary increases observed in previous years. In January 2022, salaries rose by 7%, followed by increases of 1.5% in May 2021, 3.5% in 2020, and 7% and 8% in 2019. Still, a recent survey conducted by the Government HR Service on the status of civil servants in 2019 revealed a high level of job dissatisfaction among employees. The survey report highlighted two main factors contributing to this dissatisfaction. Firstly, civil servants expressed dissatisfaction with significantly lower salaries compared to similar positions in private companies. Secondly, employees were dissatisfied with the complexity of procedures and the associated workload.

It is important to note that higher managerial positions within the civil service are directly linked to the composition of the government. Ministers have the authority to make decisions regarding the appointment or dismissal of state secretaries and assistant ministers.

The survey findings shed light on the challenges faced by civil servants in terms of compensation and administrative processes. These insights serve as valuable information for decision-makers to address these concerns and work towards improving job satisfaction within the civil service.

Applicable EU legislation

The Area of Support Other, contributes to the implementation of the following EU acquis:

- Regulation (EU) 2021/1529 of the European Parliament and of the Council1 ('IPA III Regulation')
- Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council3 ('the Financial Regulation')
- Commission Implementing Regulation (EU) 2021/2236 on the specific rules for implementing Regulation (EU) 2021/1529 of the European Parliament and of the Council establishing an Instrument for Pre-accession Assistance (IPA III)

Outcome 4 (Specific objective 4): to provide administrative capacity required to achieve the objectives of the Operational Programme through support to Operational Programme bodies and Partners, as well as to increase the IPA III funds' absorption capacity.

Typologies of outputs

To achieve the stated outcome within this area of support, two outputs will be accomplished:

Output 4.1 - Preparation of financially viable projects for financing supported

The output will support the Ministry in charge of European Integration (MEI) acting as the technical secretariat for the National IPA Coordinator (NIPAC TS) to address the continuous need for preparing a national portfolio of strategically relevant investments, namely continuing the Project Preparation Facility (PPF) to assist the MEI and relevant national institutions to support project preparation including feasibility studies, cost benefit analyses, and environmental impact assessments, as well as all other needed relevant documentation in line with the Law on Planning and Construction and EU Best Practices to ensure fully-fledged documentation ready for tendering/procurement related but not limited to this Operational Programme, as well as to deliver training workshops and/or ad hoc trainings.

Output 4.2 - Administrative capacities for the management of the Operational programme reinforced

The output will focus on the implementation of measures to achieve the effective and efficient implementation of actions related to the programming, management, monitoring, evaluation and control of the OP in accordance with the current legislation and existing best practices, as well as to provide adequate and timely information and raising public awareness of the funding opportunities under the OP, the criteria, rules and procedures for participation in its implementation and communication of its results, as well as measures directed to strengthening the capacity of the beneficiaries of the OP through the provision of appropriate compensation as regards the salaries of selected employees due to their increased workload for the OP implementation.

Output 4.3 - Administrative capacities for the implementation and enforcement of the acquis improved

This output entails a targeted and comprehensive effort to strengthen the ability of relevant institutions and stakeholders to effectively implement EU laws and regulations in these chosen areas, such as biodiversity, nature protection, etc. The scope of this output encompasses the following key aspects: identification of gaps in the areas

in need of improvement. To address identified shortcomings, the output could include a series of initiatives designed to build and enhance administrative capacities. This may involve training programs, workshops, knowledge sharing, and technology upgrades. Also output seeks to strengthen the legal and institutional frameworks. This may involve legislative reforms, policy adjustments, and the establishment of clear procedures for implementation and enforcement.

	Indicator	Measurement Unit	Baseline	Target
Impact: To promote the green agenda by reinforcing environmental protection, contributing to mitigation, increasing resilience to climate change and accelerating the shift towards a socially responsible and inclusive, low-carbon, blue and circular economy	Composite indicator on Union acquis alignment in chapter 27 (waste and water management) Composite indicator on Union acquis alignment in chapter 15 (energy efficiency and air quality)	Level of acquis alignment	Partly aligned (2023)	Fully aligned (2032)
Outcome 4 To provide administrative capacity required to achieve the objectives of the Operational Programme through support to Operational Programme bodies and Partners, as well as to increase the IPA III funds' absorption capacity.	Funds disbursed from the Operational Programme	Percentage	0% (2023)	100% (2032)
Output 4.1 Preparation of financially viable projects for financing supported	Infrastructure projects from Single Project Pipeline prepared and ready to tender	Number	0 (2023)	5* (2032)
Output 4.2 Administrative capacities for the management of the	Employees of national institutions, partners, and beneficiaries supported through training and other forms of capacity building.	Number	0 (2023)	250* (2032)
Operational programme reinforced	Number of systematised work positions supported with compensation of salaries.	Number	0 (2023)	190* (2032)
Output 4.3 Administrative capacities for the implementation and enforcement of the acquis improved	Number of institutions whose capacity is strengthened and which directly facilitate prospects for future public expenditure/investment	Number	0 (2023)	5* (2032)

Table 11: Impact, outcome and output indicators	s (incl. baselines and targets):
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*MA report

Type of activities

The type of activities envisaged for implementation under this area of support are: (i) technical assistance and capacity building activities based on justified needs.

Eligible activities including under major projects

Eligible activities:

- Preparation of the tender dossiers for the selected infrastructure projects
- Preparation of technical/spatial planning documentation and Feasibility Studies with Cost Benefit and socio-economic analysis
- EIA and Climate change risk assessment
- Assistance to institutions in charge of OP implementation in raising capacities and human resource management
- Technical assistance for the implementation of the OP
- Top up of the salaries
- Public awareness activities

Delivery method

These activities will be delivered through service contracts and direct assistance to the institutions.

- Service contracts for technical assistance and capacity building
- Twinning contracts for technical assistance and capacity building

End recipients and target groups

The end recipients and target groups of this activity are the following:

End recipients:

- NAO Support Office (NAOSO)-Ministry in charge of Finance
- Accounting Body (AB) -Ministry in charge of Finance
- Audit Authority (AA)-Governmental Audit Office of EU Funds
- Managing Authority (MA)-Ministry in charge of Mining and Energy for this Operational programme
- Intermediate Body for financial management (IBFM)-Ministry in charge of Finance/CFCU
- Intermediate Bodies for policy management (IBPM) for this Operational programme
- Ministry in charge of Environment Protection
- Ministry in charge of Agriculture, Forestry and Water management

Target groups

- Civil servants in selected institutions
- General public

Conditions

General:

- Annual budget allocation by the government of appropriate funds for financing of the of human resources;
- Sufficient dedicated and qualified employees available at beneficiary institutions.

4.2.3. Indicative List of major projects per each area of support

A Major Project comprises a series of works, activities or services and is intended, in itself, to accomplish a definite and indivisible task of a precise economic or technical nature, which has clearly identified goals and which has a total cost exceeding EUR 20 million as specified in Article 16(6) of the Financial Framework Partnership Agreement (FFPA) and in the respective financing agreement between the Commission and the Republic of Serbia.

Project title:	Wastewater collection and treatment system in the City of Loznica
Area of support	WASTE AND WATER MANAGEMENT
Lead project Beneficiary:	The Ministry in charge of of Agriculture, Forestry and Water Management (MoAFWM) - Republic Water Directorate (RWD)
Institution that is the author of the project proposal	MoAFWM/RWD
Location/Map	The City of Loznica and the municipality of Banja Koviljaca

Table 12: The indicative list of	major pro	jects is as	follows:
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	The project will contribute to meeting the requirements of the EC water related directives, in particular 2000/60/EC Water Framework Directive, UWWTD (91/217/EEC) by construction of WWTP and extension of the sewage network in the the City of Loznica urban agglomeration and the municipality of Banja Koviljaca. The proposed new wastewater treatment plant has the capacity of 40,000 PE and is intended to provide tertiary treatment. The plant is designed to receive loads from domestic and industrial consumers. The design of the wastewater treatment plant follows DWA Guidelines (German Association for Water, Wastewater and Waste).
	Although a treatment process is not pre-selected the preference is CAS with sludge digestion. The final decision on technology depends on the outcome
	of the tender process (FIDIC Yellow Book). The proposed treatment plant capacity of 40,000 PE is appropriate and should
	be able to cope with the projected loads (domestic + non-domestic + septic).
Brief description of its aim	environmental authorities and will meet the discharge standards applicable
and intended results	for sensitive water bodies. The proposed solutions are seen as feasible given
	cost effective solution.
	For sludge management, solar drying of sludge (green house) is foreseen with,
	and rehabilitation of the existing Loznica landfill in accordance with the
	National Sludge Management Strategy (NSMS). In the long term, dried sludge would be transported to a regional incineration facility is foreseen
	Options for management of dewatered sludge are also considered resulting in the selection of solar drying.
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	Scope of works:
	• Pressure mains from Pumping Station (PS) Loznica and PS Banja
	Koviljaca to WWTP, L ₁ =2,636.7 m, L ₂ =4,632.0 m Pressure mains from PS Loznicko polie to WWTP L 1=638 m –
	wastewater pressure main, L2=147 m – storm water pressure main
	 Storm water network in Vuka Karadzica, Pasiceva, Vojvode Putnika and Bakal Milosava streets. L=1.746.1 m
	 Storm water network in Njegoseva, General Zdanova, Partizanska, Zikice Jovanovica, Jovana Cvijica and Gimnazijska streets,
	L=1,068 m Westewater network in Dringle street L 241 m.
	• wastewater network in Drinska street, $L_1=241$ m – wastewater pressure main, $L_2=1,253$ m – wastewater collectors
	• Wastewater network in Loznicko polje - connection to collector 1,

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• Wastewater network in Loznicko polje - connection to collector 3, L=3,702 m

	 Wastewater network in Loznicko polje - connection to collector 4, L₁=9 m – wastewater pressure main, L₂=1,047 m – wastewater collectors Wastewater network in Klupci, L₁=22 m – wastewater pressure main, L₂=744 m – wastewater collectors Supply collector to PS Banja Koviljaca, L=636 m PS Loznica, Q₁=300 l/s – wastewater pumping station, Q₂=1,730 l/s – storm water pumping station PS Banja Koviljaca, Q₁=80 l/s – wastewater pumping station PS Loznicko polje, Q₁=80 l/s – wastewater pumping station, Q₂=300 l/s – storm water pumping station 			
Project Value and funding sources	Total Project Value: EUR 31 000 000			
Implementation period	2024- 2027			
Stage of preparation	The tender documentation was prepared by the EU PPF 6 project and it is being reviewed and revised by the Technical assistance to the IPA Unit in the Ministry in charge of of Agriculture, Forestry and Water Management			
Maturity level	Ready for tendering, subject to review			

Project title:	Kolubara regional water supply system (KRWSS)			
Area of support	WASTE AND WATER MANAGEMENT			
Lead project Beneficiary:	The Ministry in charge of of Agriculture, Forestry and Water Management (MoAFWM) - Republic Water Directorate (RWD)			
Institution that is the author of the project proposal	MoAFWM/RWD			
Location/Map	City of Valjevo and Municipalities Lazarevac, Lajkovac, Ub, Mionica, Ljig and Koceljeva,			
Brief description of its aim and intended results	The investing purpose is to establish full functionality of the Kolubara RWSS in order to provide missing drinking water to the consumers in the City of Valjevo and Municipalities Lazarevac, Lajkovac, Ub, Mionica, Ljig and Koceljeva, bearing in mind the needs of other users for raw water from "Stubo-Rovni" reservoir (e.g. water supply for the industry/commerce, use of hydropower, irrigation, requirements for ecological flow, etc.). The phase I includes preparation of technical documentation and the implementation of measures to reduce non-revenue water in 7 municipalities with in Kolubara RWSS , namely the City of Valjevo and Municipalities Lazarevac, Lajkovac, Ub, Mionica, Ljig and Koceljeva.			
Project Value and funding sources	Estimated value for the PHASE I regarding non-revenue water EUR 26 000 000			
Implementation period	2026 - 2031			
Stage of preparationWithin the EU PPF programme, EU PPF 6 is working on com Feasibility Study.				
Maturity level	In the preparation phase, not ready for tendering.			

Project title:	Integrated waste management system in the City of Belgrade			
Area of support	WASTE AND WATER MANAGEMENT			
Lead project Beneficiary:	Ministry of Environment Protection (MoEP)			
Institution that is the author of the project proposal	MoEP			
Location/Map	14 municipalities of the City of Belgrade waste management region. Obrenovac, Barajevo and Lazarevac belong to a separate waste management region "Valjevo/Kalenić". Population benefiting the project is 1.4 million.			
Brief description of its aim and intended results	 In 2017, the City of Belgrade signed a Public-Private Partnership (PPP) agreement with the company "Beo Čista Energija" d.o.o, providing the private partner with a role to design, build and manage a new infrastructure and services for receiving, treating and disposal of waste (around 510,000 t/a) for a period of 25 years. The new sanitary landfill started receiving municipal waste in 2021, while the Waste-to-Energy (WtE) plant is operational from 2023. The project will contribute to establishing a fully compliant, integrated and sustainable waste management system for the City of Belgrade waste management region aligned with national requirements and EU environmental acquis. The project indicatively includes the following, but the final details will be established in the FS: Establishment of source separated systems for different waste fractions Construction of recycling yards (civic amenity sites), construction of waste transfer stations with sorting facilities for dry recyclables Green waste treatment facility Bulky waste treatment facility Procurement of vehicles and containers for waste transport from transfer stations to Vinča. 			
Project Value and funding sources	Total Project Value: EUR 30 000 000			
Implementation period	2026–2029			
Stage of preparation	The completion of FS and Conceptual Design is expected in April 2024. After that technical assistance will be needed to develop tender dossiers for each component – CD for separate procurement, in order to reach the required maturity of the project for implementation			
Maturity level	In the preparation phase, not ready for tendering			

4.3 Mainstreaming

4.3.1. Environmental Protection, Climate Change and Biodiversity

This Operational Programme is geared to supporting the implementation of the main priorities of the Green Agenda in Serbia. All the envisaged activities will have a strong positive environmental impact which will improve environmental conditions in the short and long term and will contribute to meeting the conditions set out in key EU environmental Directives including but not limited to the Urban Waste Water Treatment Directive (91/271/EEC), the Sewage Sludge Directive (86/278/EEC), the Water Framework Directive (2000/60/EC), the Drinking Water Directive (98/83/EC)Framework Directive on Waste (amended Directive 2008/98/EC), Landfilling of waste (amended Directive 1999/31/EC) and the Energy performance of Buildings Directive (EU) (amended 2018/844/EU).

The most significant environmental impacts are listed below.

Support for integrated waste and water management will increase environmental sustainability and improve the overall resilience of the country to climate change effects. Investments in the regional and local water systems will

address the insufficient quantity of drinking water, which is most pronounced in dry periods. Extending the public water supply to settlements currently not connected will improve the availability of safe drinking water, taking into account climate change impact. The European Commission's technical guidance on the climate proofing of infrastructure (2021/C 373/01) integrates climate change mitigation and adaptation measures into the development of infrastructure projects and shall be followed as appropriate. The Climate Risk Assessments (CRA) should be applied for relevant investments, as a part of SEA or EIA, or as a dedicated study. Investments in wastewater infrastructure will have a significant environmental impact contributing to the good ecological status of water bodies by preventing the uncontrolled discharge of untreated wastewater. In the phase of preparation of the erosion map, the criteria of the erosion areas will be defined to serve as a basis for defining the conditions for the necessary measures and carry out necessary anti-erosion works thereby contributing to environmental protection.

Special attention will be paid on the selection of proper location for investment, in order to avoid adverse impact eg on sensitive habitats, altogether or minimized through the implementation of mitigation measures or alternative solutions. Appropriate assessment of the potential adverse effects of a plan or project (in combination with other plans or projects) on Special Areas of Conservation and Special Protection Areas need to be a part of the EIA studies following the two main EU Nature Directives: the Habitats Directive (Directive 92/43/EEC) and the Birds Directive (Directive 2009/147/EC).Strategic Environmental Assessments (SEAs) are required in connection with investment or strategic plans in waste management, water management and when developing regional plans for integrated waste management. An Environmental Impact Assessments (EIA) are required for the investments in waste management water and wastewater, in accordance with the relevant Serbian legislation on the EIA. For the purposes of the SEA and the EIA, consultations will be carried out with the public, the affected interested authorities and third parties identified.

Investments in energy efficiency in the buildings will reduce greenhouse gas emissions and the overall dependency on fossil fuels and oils.

Further mainstreaming of environment impact and climate change will be ensured by promoting green public procurement, the use of Best Available Technologies and life cycle costing as appropriate for physical investments. Also, a set of environmental, including climate change, criteria should be developed and applied by the implementing agencies when evaluation and selecting the investment projects to be supported within the OP.

4.3.2. Gender equality and empowerment of women and girls

As per the OECD Gender DAC codes identified in section 1.1, this programme is labelled as G0. However, gender equality is mainstreamed throughout the Operational Programme following a gender analysis and impact assessment in the relevant sectors.

In the water sector, key gender-related issues are: inadequate participation of stakeholders in decision-making; water shortages, the lack of access to potable water and poor sanitary practices which can place more stress on women than men in households; and limited access of women to job opportunities in the sector. At activity level, specific attention will focus on ensuring all interventions in the sector create opportunities for women's empowerment and gender equality related to decision making and stakeholder engagement, business and employment opportunities for women will be promoted and any gender-related aspects of access to infrastructure and public utility services will be addressed.

In the waste sector, key gender-related issues are: the availability of knowledge and information; the availability of financial resources for investments and employment opportunities in the sector (in the circular economy); and participation in decision making (particularly at the level of households and in the local community). At the local level, given that traditional gender roles are strong and only 13% of members in LSG councils are women, there is a risk that women will be excluded from decision-making processes on infrastructure projects and priorities in local communities. Consequently, specific attention will be paid to ensuring concrete opportunities for women's empowerment related to decision making (including capacities for informed decision making) and ensuing that the consultation processes are fully inclusive, taking on board women's concerns and addressing any gender aspects of access to infrastructure and public utility services. The circular economy can open up economic opportunities for women while helping to tackle the health and safety risks of informal waste picking and manual recycling. Furthermore, public campaigns and awareness raising on waste separation and management will also take on board women's perspectives. Leveraging these opportunities requires the consideration of a gender perspective in the development of national and local circular economy strategies and measures, as well as economic initiatives.

Addressing the gender dimension and ensuring the same opportunities are available to women as well as men will therefore have a key role in leveraging the full potential of these activities.

Additionally, the Programme's activities shall ensure the prevention of discrimination and harassment of women both as employees and consumers; any harmful practices of stereotypical gender representation in advertising shall be prevented and addressed.

As regards investments on energy efficiency in the buildings, positive outcomes as regards air quality and health shall be of particular benefit to women and girls.

The activities fully reflect the priorities in the National Gender Equality Strategy for the period from 2021 to 2030 which also focuses on the improvement of public policy planning with regard to gender mainstreaming and the implementation of gender-responsive policies.

4.3.3. Human Rights

The activities planned under this OP will address a fundamental human right to which all people are entitled without discrimination. The right to water entitles everyone to have access to sufficient, safe, acceptable, physically accessible, and affordable water for personal and domestic use. The right to sanitation entitles everyone to have physical and affordable access to sanitation, in all spheres of life, that is safe, hygienic, secure, and socially and culturally acceptable and that provides privacy and ensures dignity.

Furthermore, the OP seeks to promote mainstreaming, equal opportunities and non-discrimination by considering the needs and rights of diverse groups. This involves addressing with concrete actions and measures any barriers and inequalities that different groups may face in accessing the identified benefits and opportunities.

All the investments envisaged under the OP shall actively seek approaches that reflect the needs of minorities and vulnerable groups; the improvements in health and the quality of life in Serbia shall impact positively on minorities and vulnerable groups.

As regards the Roma community, specific attention shall be paid to ensuring their rights are respected, especially in the waste sector where the Roma community has a specific role in the informal recycling economy. A GIZ Study in 2022 estimated that Roma men and women account for up to 80 per cent of Serbia's overall recycling effort, which means that they recycle between 10 to 30 per cent of the total garbage created. Their labour has immediate positive environmental, economic, and social impacts on cities and towns. Therefore, the affected Roma waste pickers will be consulted about the intervention in a timely and transparent manner and the potential effects for Roma women and men on extracting, cleaning, transporting and marketing recyclables will be properly assessed and given proper consideration through formalised participatory dialogue mechanisms. Business opportunities for the Roma community in the circular economy shall be promoted to foster their entrance into the formal economy and avoid the eventual displacement of Roma settlements in the vicinity of closed landfills. The measures envisaged are in line with the National Strategy for Social Inclusion of Roma for the period from 2022– 2030 which includes a focus on the participation in the formal labour market, and the increase of Roma representation in employment and economic development policies at the local level.

4.3.4. Disaster Risk Reduction

The Programme envisages support in creation of the erosion map for the territory of Serbia. Having in mind that erosion and flash floods as interconnected natural phenomena that cause extensive damage, by understanding these hazards is a critical first step in disaster risk reduction because it allows for proactive measures to be taken to mitigate their impact. The Programme should support through usage of remote sensing, GIS and hydraulic modelling techniques provide the opportunity to make different scenarios for flood risk management. This will allow for decisions to select optimal flood mitigation and river training measures which will contribute to protecting lives and property and enhance the potential of socio-economic development.

4.4 Risks and Assumptions

AREA OF SUPPORT: WASTE AND WATER MANAGEMENT

Sub-area: Waste

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium/ Low)	Mitigating measures
3	Limited commitment by municipal authorities/PUCs to implement primary separation and recycling schemes	L	L	Official commitment of the selected local self- governments towards the introduction of source separation. Availability of relevant employees closely regulated in End Recipient Agreements to ensure relevant employees are available from the LSGs and PUCs for implementation. End Recipient Agreements signed and in place prior to the start of the tendering procedure.

2	Lack of timely and high quality technical and tender documentation	L	L	Employees appointed from the relevant national and local authorities and project PIU established promptly. Relevant employees well trained and involved in all the steps during the preparation of the technical and tender documentation. Use of TA for the preparation of documentation with sufficient quality control mechanisms by the contracting authority, beneficiary and/or other project stakeholders. Better forecasting, procurement planning and higher institutional capacity in the national and local authorities managing the funds.
3	Unsuccessful tendering procedure due to insufficient funds/bids over budget	М	Н	Estimates of the investment costs based on up-to- date market research. Develop contingency plans for addressing budget shortfalls, which may include reallocating funds, seeking additional financing, or modifying project scope.
2	Lack of available funding for the co-financing contribution from LSGs, and the financing of local activities	L	н	End Recipient Agreement signed prior to the start of the tendering procedure to closely regulate the rights and obligations of the parties in connection with the project. Inclusion of the co-financing contribution in annual and multi-annual LSG budget planning.
1	Issues with the sustainability of the PUC and CDW operations	L	М	FS should analyse the financial effects of the considered CDW options and give guidance regarding the company's financial performance. Regional waste management plan revised with adopted solutions for CDW management.
2	Limited absorption capacity, lack of human resources to carry out technical and organisational processes, and frequent employees turnover	М	М	Alternative representatives within the institutions will be recommended at inception to ensure continuity. Technical guidelines will be developed in English and Serbian to guide new staff that become involved.

Sub-area: Water

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium/ Low)	Mitigating measures
2	Delays in finalisation or deficiencies in the technical documentation and/or studies	L	Н	Use of TA for the preparation of technical documentation, with sufficient quality control mechanisms by the contracting authority, beneficiary and/or other project stakeholders.
1	Unsuccessful tendering procedure due to insufficient	М	н	Estimates of the investment costs based on up-to- date market research. Allocation of the budget with sufficient contingency to account for projected price changes

	funds / bids over budget			until the expected date of procurement and/or identify in advance the options if there is a need for additional funds.
3	Critical issues causing delays or additional costs during construction	L	М	Effective contract management and supervision, with the active involvement of all key stakeholders
2	Issues in operation due to financial and/or technical capacity of the LSG/PUC	L	Н	Ensure support to the LSG/PUC in business planning and organisational improvements.

AREA OF SUPPORT: AIR QUALITY AND ENERGY EFFICIENCY

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium / Low)	Mitigating measures
3	The cost of renovation may exceed the allocated budget, leading to financial strain and potential project delays, as well as unexpected technical challenges, such as structural issues, which can delay completion and increase costs	L	Н	Use of TA for the preparation of technical documentation, with sufficient quality control mechanisms by the contracting authority, beneficiary and/or other project stakeholders. Conduct thorough due diligence on the building's condition and structural integrity before the renovation project begins. This can help identify potential challenges in advance.
2	Delays may occur due to difficulties in obtaining permits or meeting regulatory requirements, impacting project timelines and budgets.	М	Н	Initiate discussions with relevant regulatory authorities issuing permits at the project's outset to understand their requirements and expectations. Establish a clear line of communication with these authorities to address issues proactively. Develop a detailed project timeline that includes the permitting process, allowing for ample time to acquire permits before construction begins.
2	Changes in government leadership shifts can affect the continuity and effectiveness of policies.	М	н	Engage with a broad range of stakeholders, including industry representatives, civil society, and the public, during the policy development process. Creating a sense of ownership among stakeholders can deter new governments from making rapid changes.
2	Resistance from stakeholders, including industry, can hinder the adoption of new policies.	L	Н	Develop and implement public awareness and education campaigns to inform stakeholders about the benefits of the new policies. These campaigns can help counter resistance by demonstrating the positive impact on the industry and the broader community.

		Base policy proposals on strong, evidence-
		backed research and data that clearly
		demonstrate the necessity and benefits of the
		proposed changes. Transparency in the
		decision-making process can reduce
		resistance

AREA OF SUPPORT: OTHER SUPPORT

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium / Low)	Mitigating measures
3	Insufficient number of employees and high turnover rates of staff affect absorption capacities in line ministries and relevant bodies.	L	н	The government has made a strong commitment to implementing public administration reform policy. Designing financial and non-financial support mechanisms targeting employees affected by higher workloads.
2	Relevant ministries and other beneficiaries are reluctant to devote the necessary human resources to the development of appropriate documentation (implementationM		н	Continuous assistance in the development of all institutions' competence to prepare high- quality documentation. The Ministry in charge of Finance should be involved early on in order to plan adequate resources for relevant authorities in a sustainable manner.

External Assumptions

Assumptions for Outcome 1

- Continued political support for harmonisation with the EU waste acquis.
- Institutions at all levels are willing to cooperate in designing actions for implementing the integrated waste management system.
- National financing is available to co-fund investments and ensure maintenance in waste management required to complement the EU funds. The necessary national financial and administrative resources are effectively and efficiently mobilized.
- The Government is fully committed to implement the feasibility studies and project designs for establishment of waste management infrastructure on regional level.
- The main national and local authorities dedicate sufficient time and employees, at all levels, to participate in establishment of the integrated waste management system.
- LGSs in the regions are committed to cooperate and successfully participate in waste management on regional level. Full support of LSG leadership and involved authorities for efficient project implementation is assured.
- National and local administrations are committed to participate in training and capacity building.

Assumptions for Outcome 2

- The Government is fully committed to implement the water infrastructure investments.
- National, regional and local authorities in charge of water management are committed to participate in training and capacity building.

Assumptions for Outcome 3

- The Government is fully committed to implement the integrated national energy and climate plan
- The Government is fully committed to implement the Buildings Renovation Strategy.
- The Government is fully committed to GHG reduction goals.
- The Government is fully committed to Air Pollution goals.

Assumptions for Outcome 4

- Continuous support of the Government for the European Integration process.
- The National Investment Committee identifies project pipelines.
- Line ministries are committed to the preparation of implementing documents (OIS, Tender dossiers, etc).
- Willingness of local authorities to dedicate employees and resources to infrastructure projects implementation.
- Line ministries are committed to continue alignment with the acquis.

5 Overview of the consultation process for the preparation of the Operational Programme

This Operational Programme has been prepared in compliance with the European Code of Conduct of Partnership [Commission Delegated Regulation (EU) No 240/2014 of 7 January 2014 on the European code of conduct on partnership in the framework of the European Structural and Investment Funds] on the basis of the Methodology for the application of the partnership principle and the selection of partners developed for the Operational Programmes 2024-2027 in the Republic of Serbia under IPA III.

The partnership for the Operational Programme includes representatives from:

- Relevant public authorities including regional and national representatives of local authorities
- National public authorities responsible for the application of the horizontal principles
- Economic and social partners
- Bodies representing civil society.

Where appropriate, umbrella organisations were included in the partnership.

The partnership was established by the Ministry in charge of European Integration which, as the NIPAC Office, is coordinating the programming process for IPA III.

The scheduling of the drafting of the Operational Programme was conceived to allow for the full participation of the partnership at different stages of the process in order to facilitate the co-drafting process. At the same time, given that some of the Partners had no experience in the preparation and implementation of IPA funds, a training needs analysis was carried out and initial training delivered during the programming process to maximise their participation. This process was supported by UN Women.

A first workshop was organised with the Partners on 7 June 2023, attended by 36 participants to discuss the sectoral analysis which allowed for the definition and validation of the SWOT.

A second workshop was organised with the Partners on 13 June 2023, attended by 40 participants to discuss the intervention logic and the scope of the areas of support and the expected achievements.

In accordance with the methodology and timetable established for drafting of the Operational Programmes, draft documents were sent to the Partners in advance of the workshops to enable effective participation.

The Partnership workshops were assisted by sectorial experts.

Written comments were received from the Partners and were taken into consideration during the drafting of the Operational Programme.

6 Implementation arrangements

6.1 Financing Agreement

In order to implement this programme, it is envisaged to conclude a financing agreement between the Commission and the Republic of Serbia.

6.2 Methods of implementation

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the programme with EU restrictive measures⁶⁸.

Indirect Management with an IPA III beneficiary

This programme will be implemented under indirect management by the Republic of Serbia.

⁶⁸ <u>www.sanctionsmap.eu</u> Please note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy between the published legal acts and the updates on the website it is the OJ version that prevails.

The managing authority responsible for the execution of the programme is the Ministry in charge of Mining and Energy in the line with "Regulation on the Management of Pre-accession Assistance Programs of the European Union within the Instrument for Pre-accession Assistance (IPA III) for the period 2021-2027³⁶⁹.

The managing authority shall rely on sectoral expertise and technical competence of the following intermediate bodies for policy management:

- Ministry in charge of Environment Protection.
- Ministry in charge of Agriculture, Forestry and Water management and

Relevant institutions shall ensure sound financial management of the programme.

Budget implementation tasks such as calls for tenders, calls for proposals, contracting, contract management, payments, and revenue operations, shall be entrusted to the following intermediate body for financial management: the Ministry in charge of Finance/CFCU. It shall ensure legality and regularity of expenditure.

In the implementation of this Operational Programme, the Managing Authority shall introduce and emphasise wherever possible the principles of partnership (as in the European code of conduct on partnership) and multi-level governance, which are key for the implementation of Cohesion policy.

6.3 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of the place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this programme impossible or exceedingly difficult (Article 28(10) NDICI-Global Europe Regulation).

7 Financial tables by areas of support and by year (including co-financing rates if applicable)

⁶⁹ https://www.pravno-informacioni-sistem.rs/SIGlasnikPortal/eli/rep/sgrs/vlada/uredba/2023/29/3/reg

	Year 2024		Year 2025		Year 2026		Year 2027			TOTAL					
	EU contribution	IPA III beneficiary co-financing	Total expenditure	EU contribution	IPA III beneficiary co-financing	Total									
Waste and Water Management	25 000 000	14 400 000	39 400 000	40 500 000	9 500 000	50 000 000	16 000 000	3 000 000	19 000 000	27 500 000	6 000 000	33 500 000	109 000 000	32 900 000	141 900 000
Air Quality and Energy Efficiency	-	-	-	30 000 000	16 000 000	46 000 000	31 000 000	13 000 000	44 000 000	33 200 000	16 800 000	50 000 000	94 200 000	45 800 00	140 000 000
Other support	5 000 000	500 000	5 500 000	10 000 000	2 000 000	12 000 000	11 800 000	2 000 000	13 800 000	10 000 000	2 000 000	12 000 000	36 800 000	6 500 000	43 300 000
TOTAL	30 000 000	14 900 000	44 900 000	80 500 000	27 500 000	108 000 000	58 800 000	18 000 000	76 800 000	70 700 000	24 800 000	95 500 000	240 000 000	85 200 000	325 200 000

Note: The IPA co-financing rate is maximum 85% at the level of each individual Area of Support Expenses related to Strategic Communication and Public Diplomacy, Audit and Verifications and Evaluation may be covered by another decision.

8 Performance Measurement

8.1 Monitoring and reporting

Monitoring the implementation of the Operational Programme will aim at collecting and analysing data to inform on progress towards achievement of planned results, to feed decision-making processes and to report on the use of resources.

The day-to-day technical and financial monitoring of the implementation of this Operational Programme will be a continuous process, and part of the implementing partner's responsibilities. To this end, the Managing Authority shall establish a permanent internal, technical and financial monitoring system for the programme and elaborate regular progress reports (not less than annual) and final reports.

Every report shall provide an accurate account of the implementation of the Operational Programme, any difficulties encountered, the changes introduced, as well as the degree of achievement of its Outputs and contribution to the achievement of its Outcomes, and if possible at the time of reporting, contribution to the achievement of its Impacts, as measured by corresponding indicators.

The Commission may undertake additional monitoring visits both through its own employees and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

Roles and responsibilities for data collection, analysis and monitoring

As envisaged under the IPA III Results framework, institutions will report values for all relevant indicators as part of the annual data collection exercise. A variety of tools and methods will be used as sources of information for the indicators, as indicated in Section 4.2.2. Where surveys, tracer studies or similar are required they shall be financed through the Operational Programme.

The collection of data related to achievement of the OP targets is under the responsibility of several ministries/institutions under each Area of Support.

At the level of the Operational Programme, an internal monitoring system will be established by the Managing Authority which will allow the progress of implementation to be monitored, allow for the systemised and timely collection of data on the indicators and support annual reporting. A Programme implementation dashboard will provide the basis for communicative and results-oriented reporting and allow for implementation progress and achievements to be presented visually.

The Sectoral Monitoring Committee (SMC), as foreseen in Article 53 of the Financial Framework Partnership Agreement, plays a key role in monitoring and reporting of the implementation of the Operational Programme. The Sectoral Monitoring Committee will include representatives from the partners in compliance with the European Code of Conduct of Partnership [Commission Delegated Regulation (EU) No 240/2014 of 7 January 2014 on the European code of conduct on partnership in the framework of the European Structural and Investment Funds] on the basis of the methodology for the application of the partnership principle and the selection of partners developed for the Operational Programmes 2024-2027 in the Republic of Serbia under IPA III.

The partnership for the Operational Programme includes representatives from:

- Relevant public authorities including regional and national representatives of local authorities
- National public authorities responsible for the application of the horizontal principles
- Economic and social partners
- Bodies representing civil society.

Where appropriate, umbrella organisations were included in the partnership.

The Managing Authority will act as the Secretariat for the OP Sectoral Monitoring Committee.

The active and meaningful participation of the stakeholders will be ensured through:

- Channels for stakeholder engagement identified by area of support and where applicable formalised.
- Participation of stakeholders in Monitoring Committees.
- Participation of stakeholders in field visits.
- Regular provision of information to stakeholders.
- In case of localised investment, local beneficiaries will be involved.

As regards the **accountability mechanisms**, a Grievance Redress Mechanism shall be established (if not already regularly in place) and provide information on:

• Accessibility of channels to submit grievances.

- Publicization of the grievance mechanism.
- How any grievance shall be handled.
- Monitoring cases and grievance redress mechanism effectiveness.
- Supporting the functioning of grievance redress mechanisms.

Gender equality will be monitored through the collection of disaggregated data as envisaged by national law, as well by ad-hoc data collection for specific indicators. Since case gender equality is not targeted but has been mainstreamed, a mechanism shall be in place to monitor and report on it. Gender disaggregated statistics will be collected under activities where this is made possible.

On the basis of the reports provided by the Managing Authority prior to the meetings, the Sectoral Monitoring Committee shall in particular:

- Review the effectiveness, efficiency, quality, coordination and compliance of the implementation of the programmes;
- Review the progress towards meeting the objectives, achieving the planned outputs and results, and assessing the impact and sustainability of IPA III assistance, while ensuring coherence with the policy dialogue, the related central and regional sector strategies and multi-country or regional activities in the IPA III beneficiary;
- Review annual implementation reports, including financial execution of the programmes;
- Examine relevant findings and conclusions as well as proposals for remedial follow-up actions stemming from the on-the-spot checks, monitoring, evaluations and audits if available;
- Discuss any relevant aspects of the functioning of the management and control systems;
- Discuss any problematic issues and actions;
- If necessary, consider or make proposals to amend programmes and take any other corrective action to ensure the achievement of the objectives and enhance the efficiency, effectiveness, impact and sustainability of IPA III assistance;
- Review information, publicity, transparency, communication and visibility measures taken.

8.2 Evaluation

Having regard to the importance of the programme, a mid-term and a final (ex-post) evaluation will be carried out for the areas of support falling under this Operational Programme contracted by the IPA III beneficiary.

The evaluations will be carried out by experts or bodies, internal or external, functionally independent from the management and control system. Their aim will be to improve relevance, quality, efficiency and impact of the Operational Programme, and in particular to assess:

- the performance of the Operational Programme implementation,
- the achievement of the planned results of the Operational Programme,
- drawing lessons aiming at improving the quality and design of future policies,
- the achievements in the implementation of areas of support (sub-areas of support), according to the needs.

The mid-term evaluation will be carried out for problem solving and learning purposes, in particular to assess the achievement of its results as specified in the Operational Programme as well as implementation arrangements.

Final (or ex-post) evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision), taking into account in particular the relevance of the Programme achievements for the implementation of the national and EU policy objectives.

The Sectoral Monitoring Committee for the project shall examine the findings of the evaluations and conclusions of the evaluation reports and the proposals for remedial follow-up actions shall be taken into account.

The evaluation reports shall be shared with all relevant parties. The IPA III beneficiary and the Commission shall analyse the conclusions and recommendations of the evaluations jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the support.

Indicative Evaluation Activity	Timing
Mid-term evaluation of the Operational Programme	2027
Ex-post evaluation of the Operational Programme	2032

8.3 Audit and Verifications

Technical audits for major projects are mandatory during the implementation.

Financial provisions related to audit and verifications, including technical audits if applicable, carried out by the IPA III Beneficiary should be included in the Area of support "Other support" as indicated in Section 4.2.2.

Without prejudice to the obligations applicable to contracts concluded for the implementation of this programme, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

9 Strategic communication and public diplomacy

All entities implementing EU-funded external actions have the contractual obligation to inform the relevant audiences of the Union's support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. To that end they must comply with the instructions given in the 2022 guidance document <u>Communicating and raising EU visibility: Guidance for external actions</u> (or any successor document).

In particular, the recipients of EU funding shall acknowledge the origin of the EU funding and ensure its proper visibility by:

- providing a statement highlighting the support received from the EU in a visible manner on all documents and communication material relating to the implementation of the funds, including on an official website and social media accounts, where these exist; and
- promoting the actions and their results by providing coherent, effective, and proportionate targeted information to multiple audiences, including the media.

Visibility and communication measures shall be implemented, as relevant, by the national administrations entrusted entities, contractors, and grant beneficiaries. Appropriate contractual obligations shall be included, respectively, in financing agreements, delegation agreements, and procurement and grant contracts.

Visibility and communication measures specific to this programme shall be complementary to the broader communication activities implemented directly by the European Commission services and/or the EU Delegations and Offices. The European Commission and the EU Delegations and Offices should be fully informed of the planning and implementation of the specific visibility and communication activities, notably with respect to the communication narrative and master messages.

An Operational Programme strategic communication plan will be prepared and agreed with the EU Delegation in line with the Commission Guidance for external actions on Communicating and raising EU visibility. This will set out the responsibilities of the Operational Programme implementing bodies and the NIPAC as regards communication.

The Operational Programme strategic communication plan will identify the key messages, the communication objectives, the communication audiences (including multipliers), the approach, envisaged communication activities, RACER key communication indicators and targets, the risks and the envisaged budget. Annual Communication Plans will be drawn up and discussed with the EU Delegation in advance to coordinate activities and maximise reach.

The NIPAC and the Managing Authority will be responsible for press engagement and managing press and media contacts.

In line with the Operational Programme strategic communication plan, a dedicated webpage and social media channels will be set up. Standards for social media use and management and the social media plan will be coordinated between implementing bodies and the NIPAC.

10 Sustainability

Programme level sustainability. The Operational Programme has been designed in order to ensure the sustainability of the benefits/results achieved beyond its implementation. Key factors impacting on sustainability are the level of ownership of the end recipients, their institutional and operational capacities and their financial and human resources for the operation and maintenance of the results. The Managing Authority will put in place a system to monitor the sustainability of the assistance under the Operational Programme during the sustainability period defined as the period between the end of the implementation period of an action and the final date for implementation of the corresponding Financing Agreement. The NIPAC and the Managing Authority will monitor sustainability within their respective scope of responsibility through the Sectoral Monitoring Committee (FFPA Article 53(4)(b)) and jointly with the Commission within the IPA Monitoring Committee (FFPA Article 52(3)).
The assessment of OP sustainability will be a standard agenda item in Sectoral/OP Monitoring Committee meetings and will be included in OP evaluations.

Sustainability of Operations. End recipients shall ensure that the contracts are implemented in line with the objectives defined for the projects/contracts and that the results are measured using the indicators applicable to the projects/contracts as defined in the relevant documents. To ensure that results generated by projects/contracts financed under the Operational Programme last after the implementation period of projects/contracts has come to an end, the Managing Authority jointly with the Intermediate Body for Policy Management (if designated) and the Intermediate Body for Financial Management, shall establish the sustainability conditions applicable to tangible and intangible outputs as appropriate.

In the case of directly contracted works and supplies, cooperation mechanisms will be established between the Managing Authority and the end recipients for the planning and implementation of the envisaged actions, and responsibilities of the end recipients to ensure the sustainability of the IPA III assistance. The transfer of ownership shall be established in a formal agreement which shall also provide their commitment to provide the financial and human resources for the operation and maintenance of the results after completion. In the case of Major Projects, the Major Project Application will set out all the conditions for ensuring sustainability, including financial sustainability. In the case of public bodies, the sustainability of the financed operations will be assured through inclusion in the medium-term budget framework. In the case of grant schemes, sustainability will be a guiding principle for the selection of the operations. The grant contract will include specific provisions to ensure sustainability. The Intermediate Body for Financial Management will carry out sustainability checks on completed operations in line with their procedures.

The end recipients are obliged to ensure the sustainable use of the outputs in line with the Operational Programme, the contract or equivalent. The end recipients are obliged to allocate budget for ensuring the functioning and maintenance of the outputs and cover the costs of their operation and maintenance. The end recipients should recover the outputs to their initial condition in case of their damage or replace the outputs with those of minimum equal quality and functionality in case of their destruction.

The breach of the conditions for sustainability may lead to refund of the EU contribution in case the end recipients fail to take the necessary corrective measures for removing the deficiencies occurred.