

³ The economic contribution of the tourism sector through indirect multiplier effects is estimated at US\$3.4 billion, which represents 26.2 percent of the GDP.

⁴ The economic impact of COVID-19 has underscored the need for Albania to rebalance its approach to tourism development, as part of a strategy to build back better.

Accession to the EU and its continued commitment to a Green Deal are strong incentives for the country to boost its reform agenda including better stewardship of natural resources, environmental protection, and addressing of climate change.

Since 2011, Albania has achieved significant progress in the adoption of new, modern environmental legislation and initiated steps toward introducing circular economy and green growth actions. This process was driven by the efforts to approximate the EU environmental acquis, as the country was granted candidate status in 2014. However, implementation is slow due to the absence of subsidiary regulation and bylaws and a lack of institutional and financial capacity.

Several tourist centers such as Himara, Saranda, and a few smaller ones along the coast are facing issues related to municipal waste management, particularly associated with increased tourism and construction and plastic litter.

The delivery of efficient waste management and sanitation services and pollution control are limited by infrastructure deficiencies, insufficient financial resources, inconsistent monitoring data, weak enforcement, and low public awareness. Waste management is still dominated by a linear collect-and-dispose approach. Currently, the pollution prevention approach in the solid waste management (SWM) system still does not include reducing pollution at source. Specific areas of concern in the purview of the project which need technical assistance (TA) and investment support include waste management and water pollution.

The collection infrastructure is poor, and the number of containers is often insufficient, resulting in a lack of cleanliness and poor service efficiency.

Albania is enhancing the legal framework for waste management by aligning it with the EU acquis. Currently, there are several legal and economic instruments in place to regulate, fund, and incentivize waste management efforts, including to protect the marine environment.

The National Integrated Waste Management Plan divides the country into waste zones which are different from regional administrative boundaries.

At present, municipalities are responsible for the management of municipal waste, but they often lack capacity to deliver on their responsibilities.

Added benefits could be derived from strengthened waste management capacities and include cleaner landscapes, enhanced resilience, reduced land erosion, and avoided siltation and pollution.

Weak implementation and enforcement of waste management regulations is related to low financial sustainability, lack of equipment, limited technical capacity, absence of consistent data, and insufficient public awareness.

The funding system needs to be improved to cover all expenses arising from waste management, including for the introduction of separate collection, treatment, and safe disposal of waste for most areas. The average cost recovery of municipal waste management services at the national level is 73 percent for collection and disposal.¹⁶ Fiscal transfers from the central government to the municipalities often cover the gap, but as the system is modernized, higher cost recovery will be required for investment and higher operational expenses.

Albania is committed to improving recycling of municipal waste and is planning to introduce Extended Producer Responsibility (EPR). The new law on EPR is anticipated to place administrative and financial responsibility on producers to collect and recycle or manage the waste from products they are placing on the market. While there is no plan for construction waste minimization, reuse, and recycling, the Government intends to develop a circular economy approach with regard to the sector.

To transition to a functional waste management system, working toward meeting the targets of the National Waste Management Plan will require an introduction of enforcement mechanisms and improved public awareness.

supply up to 20 percent of the N and P transported to river catchments.

It is estimated that these sources

Investments in the treatment of agriculture waste and the education of farmers, as well as the enforcement of legislation, are priorities.¹⁹ Additionally or equally important are the incentives to adopt sustainable land management practices that can protect soil and water resources and reduce sedimentation.

The changes in the institutional arrangements were aiming to improve service delivery and local oversight. Following the 2013 Territorial Administrative Reform, 16 WSS services were reorganized under municipally owned water companies serving around 70 percent of the population. The regulatory framework established a clear division of roles: the central government is responsible for sector strategies and policy development, while local governments are responsible for service provision and independent tariff setting. The financial viability of most WSS utilities is very low, in part due to politically driven low tariff levels, which limits the overall availability of sector funding sources to improve and expand WSS service delivery.

More investments are needed to expand the sewage network and wastewater treatment to cover a higher share of the population and bridge the urban-rural divide.

A broad spectrum of green infrastructure/nature-based solutions (NBS) can be deployed to address key water management challenges, including both point and diffuse/nonpoint sources (NPSs) pollution, alongside grey infrastructure, or as self-standing solutions. Investing in NBS can help wastewater treatment operators lower their operational costs, access new revenue streams, increase customer engagement, and provide public environmental goods and services. Operation and maintenance (O&M) costs, as well as initial investments, are often lower than conventional activated sludge systems, depending on land costs, technologies used, and availability of resources.

In response, the proposed operation is designed to reduce environmental impacts and enhance the resilience of aquatic resources through improved SWM and sanitation services and the implementation of approaches that prevent NPS pollution runoffs.

Additional climate benefits would be derived by steering the transition of waste management systems toward more circularity.

The project contributes to the Albanian National Adaptation Plan 2021 (NAP) by integrating adaptation measures for coastal ecosystems (e.g., control contamination and pollution, encourage afforestation and restoration) and agriculture (e.g., practices of fertilizers use).

² 5 Nature-Based Solutions for Wastewater Treatment.

The project will support Albania in furthering specific policies and their implementation in line with EU Waste Framework and Nutrient Directives. The proposed activities are fully aligned with the approach supported in the EU Waste Framework Directive and its targets as well as the Circular Economy Action Plan²⁷ for a cleaner and more competitive Europe

The project is expected to benefit from and complement other World Bank-financed programs. The project will support complementary activities to the Albania National Water Supply and Sanitation Sector Modernization Program (P170891), the Albania First Resilience and Green Development Policy Financing (DPF) (P178202), and the Integrated Urban and Tourism Development Project (P155875).

Key results toward the specific PDO will be measured with the following indicators:

- (a) Population covered by municipal waste collection service (percentage)
- (b) Wastewater flows from urban agglomerations safely treated (percentage)
- (c) Nutrients pollution filtered and avoided (percentage)

B.

The dual focus on investments in solid waste and sewage encompasses the foremost defense against pressures on water bodies and coastal landscape on which the local economy depends. In the context of the integrated approach to pollution prevention, the outcomes of these investments are mutually reinforcing.

Planned activities have been designed to meet the technical standards and requirements of the EU Waste Framework and the EU Urban Wastewater Treatment Framework Directives and their targets.

This component will support the implementation of local solutions for protection of valuable landscapes and water resources within the Vlora South-Gjirokastrë Waste Zone (map 4 in annex 4).

Subcomponent 1.1: Institutional support for sustainable performance, enhanced monitoring and transition to circular economy (EUR 1.04 million (USD 1.10 million equivalent))

32. This subcomponent aims to improve the enabling environment for operational sustainability and more circularity in waste management. This will be achieved through technical assistance and capacity support for filling specific technical gaps for effective implementation of solid waste management policies. The following sustainability and circularity priorities are identified for the subcomponent: (i) support for data management and performance monitoring, including a fully supported management information system (MIS) for data management and verification systems at the municipal level for monitoring performance and this would be achieved through technical assistance and capacity building; (ii) improved performance in waste management aims to improve the enabling environment for operational sustainability and more circularity gaps for management, including improved solid waste management activities and sustainable management and implementation of the Environmental Performance Based Investments (EPBIs) financed under the project; (iii) carrying out a study on financial sustainability and providing related capacity building (i.e., cost recovery, tariff setting and collection contract management) at the municipal level; (iv) support to MoTE and municipalities for (a) the implementation of the extended-producer responsibility (i.e. permitting support, reporting, monitoring), and (b) the update and/or development of the regulatory framework on construction waste management, including materials and construction/inert waste management standards.

5.2.2 Environmental-Performance Based Investments for local pollution prevention (EUR 9.44 million (USD 12.5 million) for data management and verification)

This is a pilot program financed by the FRB to municipalities in the Moravia South-Gipkster Waste Zone for improvements in managing environmental systems at municipal level. Moravia South-Gipkster Waste Zone for improved municipal waste management. Municipalities will receive local investment upon measurable and sustained improvements on solid waste collection, increased recyclability and/or cost recovery.

Through EPBI, the project will support a set of upfront investments and equipment during the first two years of project implementation. These investments would consist of equipment to support the monitoring system of municipalities; provision of equipment and vehicles for waste collection and source separation; and provision of equipment for recycling centers.

Subcomponent 1.3: Behavioral change support and dissemination for scaling up (EUR 2.55 million (USD 2.70 million equivalent)). This subcomponent will carry out knowledge management activities (such as the preparation and dissemination of lessons learned from the EPBI for possible scale-up at national level), public awareness-raising campaigns including communication campaigns in schools on enhanced waste management, waste separation, water sanitation services, and construction waste management, at a national level. These campaigns will communicate on enhanced services for municipal waste management, and water and sanitation services to support the acceptance of related service delivery fee level. To support behavior change for source separation and plastics recycling in areas of high population and tourism, the project will also install solar compaction bins in Vlora South-Gjirokaster Waste Zone.

This component will support activities to reduce the adverse impacts of point source pollution from untreated municipal wastewater and stormwater runoffs and from NPS pollution that pose significant threats to aquatic ecosystems and the environment. All investments will consider climate change-related risks to ensure climate resilience of infrastructure. This component will finance construction works, consulting services, non-consulting services, goods, and planning to separate and maintain sewer systems, trucks, and treatment plants.

Subcomponent 2.1: Expansion of sanitation infrastructure (EUR 54.55 million (USD 57.81 million equivalent))

This subcomponent will finance investments in infrastructure improvements in selected municipalities to improve sanitation services and reduce/control point source pollution of waterbodies within the Vjosa River Basin.

Site-specific designs will be carried out for each municipality during project implementation.

An assessment of pollutants and sludge quality will be carried out to ensure safe reuse and promote circularity.

Subcomponent 2.2: Improved sanitation facilities and management (EUR 0.96 million (USD 1.02 million equivalent))

Subcomponent 2.3: Non-point source pollution prevention (EUR 3.05 million (USD 3.23 million equivalent))

40. The project will support small-scale investments to prevent nutrient runoffs from agriculture and siltation from erosion in select locations of the Vjosa River Basin. The subcomponent will finance the implementation of Nature-Based Solution (NBS) approaches, Sustainable Land Management (SLM) and other integrated solutions in selected locations in the river basin and will include (i) improving the vegetation cover on slopes and riverbanks; (ii) conducting wetland management and restoration to improve waterflow and mitigate storm water and flood risks; and (iii) supporting sustainable agriculture practices. The small-scale investments promoting sustainable agriculture practices, livestock manure management, pasture regeneration, organic fertilization, composting, and improved farming practices, will engage farmers and local user groups from the villages in the watershed of the Vjosa River.

41. This component will provide support for project management, implementation, and monitoring, evaluation, and reporting, including in the areas of financial management, procurement, environmental and social risk management, Project audits, and financing of Operating Costs, and Training for (i) MoTE Project Management Team (PMP) and (ii) AKUM Project Coordination Unit (PCU).⁶

The project activities are expected to directly benefit an estimated 138,800 people (5 percent of the Albanian population) through improved SWM and sanitation services. An estimated 87,000 beneficiaries in selected municipalities will benefit from better SWM with increased collection, separation, and recycling of municipal waste.

Institutional beneficiaries include service providers (WSS and waste management utilities) at the municipal level directly, and their customers indirectly will benefit from operational and efficiency performance improvements realized under the project. Institutional stakeholders, namely MoTE and AKUM, are expected to benefit, along with municipal governments, from better solid waste and sanitation management, monitoring and improved planning environment, an improved regulatory framework for operational and financial sustainability, and capacity building and training workshops.

The central problem statement the project tries to address is aquatic pollution from land-based sources (municipal waste, wastewater, sediment, and nutrients) damaging the economic development potential based on the natural assets of the South-West Coastal Belt of Albania. The proposed operation will address these issues through three groups of interventions: (a) provision of municipal waste equipment and capacity building; (b) provision of wastewater treatment, sanitation, and NPS pollution tangible assets and related capacity building; and (c) behavior change on SWM and sanitation.

The World Bank has a comparative advantage in financing the proposed project. It has developed a close working relationship with the Government over the past 30 years with a series of related projects in the environmental, solid waste, and water services sectors, for example, Integrated Coastal Zone Management & Clean-up Project (P086807, completed in 2015), Albania Water Sector Investment Project (P102733, completed in 2020), Albania Environmental Services project (P130492, completed in 2021) and the Water Resources and Irrigation Project (P121186, completed in 2021).

In the case of the latter, an important issue was the need to address marine and coastal plastics pollution, which is included for support in this project. In addition to being at the forefront of blue economy approaches, the World Bank has a growing body of expertise and experience with NBS, particularly in the water sector.

Given the integrated and multi-sectoral nature of the project, the World Bank can play a key role, through its convening power, in helping create and sustain the institutional arrangements for integrated development.

The World Bank will steer up-market development for recycling and reuse of waste by providing support to essential regulatory instruments and infrastructure. As part of project preparation, the World Bank has assisted the GoA in convening meetings of donors to help ensure coordination in the relevant areas of work.

The project aims at coordinating and maximizing potential sources of finances, prioritizing grants for TA, building capacity, and piloting innovative pollution reduction approaches through the EPBI. The remaining activities are of a public sector nature and focus on creating the right environment for the implementation of pollution reduction strategies that are more efficient and environmentally sustainable and supporting priority investments that cannot be supported by the private sector.

To ensure the sustainability of public investments in the coastal areas of Albania, a consensus among various development partners and country stakeholders is essential. Considering that many donor organizations are engaged in SWM, working in partnership with multilateral and bilateral organizations is not only desirable but indeed necessary to ensure that the activities of development partners are compatible and not mutually exclusive or duplicative.

The World Bank assisted the GoA/MoTE to convene donor meetings, helping ensure that there would be synergies across the range of relevant donor project/programs.

At the project level, demonstrating the value of NBS can be challenging, particularly quantifying the benefits and costs of NBS.

For NBS to indeed be effective in addressing the pressing challenges at specific locations, an integrated approach will be needed including rigorous consideration of ecosystem services, societal costs and benefits, and engagement with local stakeholders, as well as ensuring long-term O&M arrangements so that NBS are targeted to the right places.

Sustainable and scalable outcomes in municipal waste management that support circularity require that clear priority be given to the adoption and implementation of integrated sustainable waste management practices, in line with client needs and capabilities for municipal SWM.

More specifically, project activities will support concrete actions that will help Albania implement 3Rs measures (waste reduction, reuse, and recycling), improve data management, implement EPR requirements (that is, permitting support, reporting, and monitoring), and encourage behavior change. Support will build on proven good practice by addressing the entire waste value chain in an integrated, phased, and incremental manner tailored to client needs and capabilities and by supporting the adoption of circular economy principles.

MoTE will establish a dedicated Project Management Team (PMT) responsible for day-to-day supervision of Project implementation for the MoTE Parts of the Project (Component 1, and Subcomponents 2.3 and 3.1) and other responsibilities as set forth in the POM.

AKUM will establish a Project Coordination Unit (PCU) which will also manage the World Bank-funded Program-for-Results on National Water Supply and Sanitation Sector Modernization Program. The PCU will be responsible for day-to-day supervision of Project implementation for the AKUM Parts of the Project (Subcomponents 2.1, 2.2, and 3.2) and other responsibilities as set forth in the POM.

MoTE and AKUM, through their project teams, will also closely collaborate with four key local partners: (a) National Environment Agency (NEA) for Component 1, (b) Regional Directorate of Water Utilities for Component 2, (c) National Agency for Protected Areas for Component 2, and (d) municipalities for all three components.

The POM will provide detailed implementation and institutional arrangements for the Project; including, inter alia: (a) procurement; (b) financial management and accounting; (c) monitoring and evaluation; (d) implementation arrangements; (e) selection criteria for potential sites for Project interventions; (f) coordination arrangements between MoTE and AKUM, and municipalities and utilities; (g) Personal Data protocols to be used under

Municipalities will be actively engaged in key project decisions, yet fiduciary and ESF functions will remain with the PMT and PCU.

Project progress will be monitored based on completed procurements, disbursements by the project, physical progress of works, and project indicators

It will develop a data quality assurance mechanism and provide technical support to the PM

Subject to a satisfactory implementation of project activities, the MTR will also assess any potential for additional financing or follow-up engagement in the relevant sectors

As a condition of the loan, the Borrower will submit to the World Bank with periodic reports for later than one month after the end of each calendar semester. The Borrower will also submit to the World Bank with periodic reports for later than one month after the end of each calendar semester. Project progress will be monitored based on completed procurements, disbursements by the project, physical progress of works, and project indicators

Moreover, project investments are complementary to the ongoing Albania Sustainable Growth (P178202) Development Policy Financing (DPF) which includes Target activities have been planned specifically to strengthen the financial sustainability of waste management utilities through activities that support cost recovery, tariff setting, and collection studies (Subcomponent 1.1). Subject to a satisfactory implementation of project activities, the MTR will also assess any potential for additional financing or follow-up engagement in the relevant sectors

The financial viability of SWM and WSS are presently very low, in part due to politically driven low tariff levels, which limit the overall availability of funding sources to improve and expand service delivery. Target activities have been planned specifically to strengthen the financial sustainability of waste management utilities through activities that support cost recovery, tariff setting, and collection studies (Subcomponent 1.1).

The economic cost-benefit analysis has been carried out to assess the economic viability of the proposed investments. The project is expected to bring sizable economic and social benefits to the local communities, business, and industries by reducing pollution from land-based sources into the aquatic environment in selected areas of the South-West coastal belt of Albania. Reduction of point and NPS sources through investments in wastewater treatment and other sanitation facilities would improve the public and ecosystems health by reducing the risk of diseases and protecting quality of surface and groundwater resources in the Vjosa river basin. Improved solid waste management in terms of improved waste collection and recycling would allow for reduced landfill areas and increased market value of the land. The other industries by reducing improve the aesthetics of the coastal area and provide additional opportunities for the proposed of tourism. The project employment and incomes of the local population.

The package of proposed investments in improving municipal solid waste management and wastewater treatment and sanitation facilities in the project area was found to be economically viable with the project Economic Rate of Return (EIRR) estimated at 9.3 percent and the Net Present Value (NPV) of USD 22.1 million at a discount rate of 6 percent (see annex 6). The economic cost-benefit analysis has been carried out to assess the economic viability of the proposed investments. The project is expected to bring sizable economic and social benefits to the local communities by reducing pollution from land-based sources into the aquatic environment in selected areas or reducing the risk of diseases and protecting quality of surface and groundwater resources in the Vjosa river basin. Improved solid waste management in terms of improved waste collection and recycling would allow for reduced landfill areas and increased market value of the land. The other industries by reducing improve the aesthetics of the coastal area and provide additional opportunities for the proposed of tourism. The project employment and incomes of the local population.

Using the shadow prices of carbon as recommended by the World Bank Guidance for a low- and high-level scenarios, it was estimated that the value of the GHG emissions reduction over the project lifetime constitutes between 3.8 percent (the low case) and 7.4 percent (the high case) of the project total net benefit, increasing the project NPV to USD 26.6 million and USD 31.2 million, and EIRR to 10.1 percent and 10.7 percent, respectively to the low and high case scenarios.

The project will improve the quality and reliability of important public services notably sewage water treatment, and collection and processing of solid waste, thus improving the environmental and socio-economic situation in the project area. To ensure sustainability of the project results into the future, the current structure of tariffs for the sewerage and solid waste management services will need to be assessed towards the possibility of higher recovery of O&M cost.

Fiduciary

(i.)

Financial Management

68.

Both agencies will maintain adequate project FM systems capable of tracking all project operations, resources, and expenditures and generating regular financial reports. The agencies will be supported by the FIM and PCU, respectively. In carrying out the fiduciary function, the agencies will be supported by the FIM and PCU, respectively. In carrying out the fiduciary function, the agencies will be supported by the FIM and PCU, respectively.

Both agencies will maintain adequate project FM systems capable of tracking all project operations, resources, and expenditures and generating regular financial reports. There would be two separate Designated Accounts (DAs) for each agency, and expenditures and generating regular financial reports. The Bank of Albania

With regard to the FM requirements included in the DFIL, quarterly IFRs, in the form and substance agreed with the World Bank, will be submitted to the World Bank, by each IA for their respective parts, and annual PFS, separately for each agency, will be audited by independent auditors under terms of reference (TOR) acceptable to the World Bank.

Procurement will be carried out in accordance with the requirements in the World Bank Procurement Regulations for IPF Borrowers dated November 2020.

The PPSP outlines the selection methods to be followed by the borrower during project implementation in the procurement of goods, works, and non-consulting and consulting services financed by the World Bank.

C. Legal Operational Policies

73. International Waterways (OP 7.50) is applicable to the proposed project as some of the planned interventions may affect water resources of the Vjosa River shared by Albania and Greece, which is an international waterway.

Waste management activities. Potential environmental risks related to waste management activities of a temporary nature could occur if no mitigation measures are taken. Risks mainly related to the small and medium WWTPs are possible but not likely, and these will be addressed through feasibility and engineering studies during project implementation. The municipalities are identified, as agglomerations with low density of population, with approximately 100,000 inhabitants and key environmental risks and impacts that are expected to occur during the construction and operational phases of the proposed investments are to be site-specific, short-term, and effectively avoided, minimized, or mitigated subject to the establishment of proper E&S measures. Some of the key negative potential impacts during the construction and operational phases of the project may include: (i) vegetation and soil loss; (ii) generation of solid waste from residual construction materials; (iii) generation of solid waste and sludge from the operation of the proposed WWTPs; (iv) discharging pollutants to water bodies from the operation of WWTPs activities; (v) nuisance related to dust generation, vibration, noise and odors; (vi) temporary disruptions to local traffic during the construction phase; and (vii) Occupational Health and Safety (OHS) hazards to the workforce. The location and scale of the proposed works will be determined during implementation, and the risk rating may be increased or decreased proportionately if deemed necessary. The positive impact of improved sanitation infrastructure and services will be the reduction of untreated discharge of wastewater directly into the environment resulting mainly in the protection of rivers and groundwater.

The project is expected to have numerous positive social impacts, including on the health and safety of the population of this area, through the removal of wastes, and pollution from wastewater, effective and efficient public services, and greater resilience of river ecosystems.

The project could impact also private land through its linear projects (such as pipes) and the WWTP or solid waste transfer/treatment stations.

The RPF will also define the approach on how to deal with potential land acquisition and/or livelihood impacts for the investment activities. The socioeconomic profiles of the areas will be developed to better inform the development of the Environmental and Social (E&S) instruments.

The project will have direct benefits on ecosystem quality and conservation through the implementation of activities that help reduce the inflows of waste and wastewater, thus strengthening ecosystem resilience to climate change impacts. Moreover, targeted NBS to work in combination with grey infrastructure and the implementation of SLM practices will also contribute to increase resilience by enhancing the provision of ecosystem services and mitigating flood risks and erosion impacts.

Component 1 activities, through the provision of investments and technical support for behavior change incentives, will facilitate the transition from a climate-vulnerable, linear system to a more climate-resilient and circular system of waste management.

GHG emission reductions are expected due to the improvements in municipal SWM and subsequent reduction of waste burning and untapped methane generation from uncontrolled waste processing and landfilling. The project will also contribute to GHG sequestration by investing in wastewater treatment facilities and thus reduction of pollutant concentration in surface water and groundwater resources and by supporting restoration of the wetlands. The annual GHG emissions reduction due to the project is estimated at 6,968 tCC_{2e}/year with the total project emissions reduction of about 209,000 tCC_{2e}/year over the project lifetime (see annex 6).

The overall residual risk of the project is assessed as Moderate, considering the mitigation measures adopted in the project design.

These risks could impact the capacity of the government to cover expenses associated with the delivery of quality public services related to waste management and water sanitation. These will be mitigated by the fact that project will strengthen the financial sustainability of waste management utilities through activities that support cost recovery, tariff setting, and collection studies and through technical inputs support to update the regulatory framework on sanitation cost structure, including a framework for setting tariffs/fees for sanitation. Moreover, specific activities to support the overall sector reform are planned under the complementary National Water Supply and Sanitation Sector Modernization Program (P170891) program-for-results operation.

The inherent risk was assessed as Substantial considering existing weak governance mechanisms illustrated by development pressure, vested interests, and a lack of transparency in decisions affecting the natural environment along the Vjosa River.

The project implementation will benefit from relevant sector strategies and policies recently endorsed by the government for both waste and water and sanitation in relation to the activities and planned project outcomes.

The inherent risk was assessed as Substantial considering the fact that project aims to address defined pollution challenges managed by different ministries at different levels, which could slow down implementation.

In addition, to facilitate rapid implementation of activities, the TOR for consulting services to develop preliminary designs will be finalized by March 2024 for Component 2 activities. These services will be included in the advanced procurement package to be procured shortly after effectiveness to ensure delivery of detailed designs by the first year of project implementation. Further, as part of project preparation, a pilot implementation of the decision tree framework for sanitation infrastructure has started for the municipality of Permet, which will allow for early implementation of activities.

The inherent financial management risk is substantial as it reflects on : (a) weak capacities and low efficacy of the processes and systems around budget formulation monitoring and management of public investments and grants; (b) complex institutional arrangements, lack of clarity on responsibilities, and weak coordination between parties throughout budget cycle, control framework, monitoring, and reporting; (c) shortcomings of the treasury workflow for multiple currency transactions and their recording and reporting; (d) introduction of new financing mechanism such as EPBI and IDSI, for which no structure and legal and regulatory framework exists; and (e) additional workload and lack of technical skills on the World Bank disbursement, reporting, and FM requirements. These risks will be mitigated through procurement and FM implementation support which include the adoption of alternative FM arrangements instead of the treasury system, adoption of clear general procurement and FM procedures, adoption of guidelines and procedures for the EPBI and IDSI administration, and periodic monitoring and implementation support by the World Bank team as well as continuous fiduciary training. To mitigate the risk pertaining to budget adequacy, the project will implement an effective and documented project planning and contract monitoring process.

The inherent institutional risk was assessed as Substantial, as the waste management and sanitation services sectors are faced with weak institutional capacities, including insufficient financial and human resources.

The risk will be further mitigated by the project through institutional development, and improved data management to ensure investments are sustainably planned, implemented, and operated. At the local level, the provision of EPBI to municipalities will provide them with an incentive to improve their performance and adopt sustainability principles. Moreover, the central government has demonstrated a high level of political leadership and committed additional state budget allocations for investments and TA resources through the proposed project, the Albania Water Supply and Sanitation Sector Modernization Project (P170891), and the Albania Sustainable Growth (P178202) Development Policy Financing (DPF). These will serve as an incentive for waste and water utilities to engage in reform and improve performance.

The environmental impact of the project interventions is expected to be largely positive; however, some potential risks of temporary nature associated with activities related to construction of wastewater infrastructure are expected.

To mitigate social and environmental risks, appropriate World Bank standards will apply, and site-specific instruments will be prepared.

It measures the volumes of wastewater which are generated through different activities, and the volumes of wastewater which are safely treated before discharge into the environment.

Avoided pollution is generated by expanded and restored wetlands and specific agricultural practices pertaining to the use of fertilizer and manure management.

AKUM will establish a Project Coordination Unit (PCU) which will also manage the World Bank-funded Program-for-Results on National Water Supply and Sanitation Sector Modernization Program. The PCU will be responsible for day-to-day supervision of Project implementation for the AKUM Parts of the Project (project subcomponents 2.1, 2.2, and 3.2) and other responsibilities as set forth in the POM.

MoTE and AKUM, through their project teams, will closely collaborate with four key local partners: (a) National Environment Agency (NEA) for Component 1, (b) Regional Directorate of Water Utilities for Component 2, (c) National Agency for Protected Areas for Component 2, and (d) municipalities for all three components.

MoTE will ensure an accounting software is in place at both MoTE and AKUM, capable to support the Project reporting and accounting requirements; all of the above in accordance with terms of reference acceptable to the World Bank. MoTE will prepare an EPBI manual setting forth investment implementation arrangements, eligibility criteria and selection procedures.

Both agencies will maintain adequate project FM systems capable of tracking all project operations, resources, and expenditures and generating regular financial reports. The IAs will be supported by the PMT and PCU in carrying out the fiduciary function, a similar arrangement adopted with previous World Bank-financed projects. The project will rely on selected aspects of the country budget formulation and execution processes; however, the treasury system will not be used. Instead of full treasury workflow, alternative funds flow arrangements will be adopted, similar to the previous projects implemented. A project FM system will be acquired that will automatically produce project financial information to meet the reporting requirements and inform decision-making. The FM processes, workflow, internal controls, funds flow, and financial reporting requirements will be defined in the POM.

AKUM, through its legal and technical authority, coordinates, programs, and monitors all activities of water supply and sewage and wastewater treatment infrastructure, in cooperation with other institutions at the central and local levels. Together, the two IAs will implement wastewater and pollution prevention and reduction investments, as well as technical and institutional support activities.

A similar arrangement will be proposed for project implementation given the multi-sectoral nature and multiple levels of governance that the project will support.

The NEA will support water quality monitoring and data management of the waste management system. The NEA is the competent authority for water quality monitoring in Albania based on the Decision of Council of Ministers No.

The agency reports, on an annual basis, to the European Environmental Agency all the environmental monitoring data for the rivers, lakes, underground water, bathing water, and coastal water. The NEA will work closely with municipalities on data management and monitoring of municipal waste.

Municipalities will be actively engaged in key project decisions, yet fiduciary and ESF functions will remain with the PMT and PCU. Municipal utilities will work with AKUM to develop higher technical capacities and to achieve economies of scale for service provision through the utility aggregation planned in the strategy. Municipalities will also be beneficiaries of the EPBI for municipal waste management and will be responsible for managing, monitoring, and reporting data related to the KPIs under the EPBIs. They will need to work with the independent verifier under the EPBIs and adhere to data audits and verification of data.

They will also need to adjust their waste-related tariffs and/or payment collection systems to improve cost recovery (Component 1). Municipalities and municipal utilities in the Vjosa River Basin will assess current needs, participate in project planning, and monitor progress toward the achievement of specific sanitation targets in their territories (Component 2).

Households will be eligible for IDSIs in accordance with eligibility criteria and procedures acceptable to the Bank and set forth in the loan agreement and the POM.

Project progress will be monitored based on completed procurements, disbursements by the project, physical progress of works, and project indicators.

It will develop a data quality assurance mechanism and provide technical support to the PMT.

Subject to a satisfactory implementation of project activities, the MTR will also assess any potential for additional financing or follow-up engagement in the relevant sectors.

The Borrower should furnish the Bank with Project Reports not later than one month after the end of each calendar semester, covering each calendar semester.

The assessment demonstrates that the FM arrangements in MoTE and AKUM, as adopted by the closed World Bank-financed projects by each IA, are adequate for the implementation of the proposed project and comply with the World Bank policies. The conclusion is based on the following: (a) FM arrangements proposed are similar to the previous World Bank-financed projects and found to be adequate; (b) no significant issues were identified in the audits of the previous projects implemented by MoTE and AKUM; and (c) the units responsible for FM and project coordination, under both IAs, are familiar with the implementation of World Bank-funded projects.

Despite significant progress, lagging areas include (a) monitoring of extra-budgetary units, (b) public investment management, (c) better links between the sector strategies and budget, (d) systematic arrears monitoring, (e) implementation of internal audit and financial management and control, and (f) scope and nature of the external audit function.

The Department of Budget and Finance is responsible for the overall FM of MoTE operations, including the closed World Bank-financed project. This unit was supported by an external FM expert, who was part of the PMT, and covered for the additional workload, and lack of knowledge and expertise of World Bank disbursement and FM requirements.

The funding for the experts will be provided through the project management cost in Component 3. During the project implementation, the finance staff engaged in the project will attend periodic and on-the-job training on World Bank disbursement and FM as part of the external or World Bank training program.

The annual project budgets will be reviewed and approved by the project management, including the structures responsible for strategic planning and budgeting within the ministry.

The previously used FM software appears to be outdated, and the vendor discontinued support and maintenance services. To facilitate the accounting and financial reporting, a more modern and sophisticated accounting software will be necessary, to be installed and maintained in both IAs.

Quarterly IFRs containing at least (a) the statement of sources and uses of funds (with expenditure classified by category and component), (b) contract monitoring, and (c) a DA statement will be submitted to the World Bank, by each IA, within 45 days of the end of each quarter. The format and content of the IFRs will be agreed with the World Bank and included in the POM.

The financial reports will be prepared in the loan currency.

This section will elaborate on the fiduciary controls, work and documentation flow, and roles and responsibilities of staff involved.

For the proposed local investment programs that are not regulated by current legislation, additional measures will be put in place. MoTE will prepare and adopt guidelines and procedures for the administration of small investments, satisfactory to the World Bank, that will describe design, administration, and internal controls over the proposed programs.

The PFS, as prepared by each of the IAs, will be audited annually by independent auditors acceptable to the World Bank. The audit TOR based on International Standards on Auditing will be cleared by the World Bank. The audit scope will be extended to include the audit of the subproject financed by the investment programs.

The project would be completely financed by an IBRD loan. The loan proceeds will be disbursed based on standard World Bank disbursement methods for investment projects. Two DAs, denominated in the loan currency, one for each IA, will be opened and maintained at the Bank of Albania, specifically for this project, where the World Bank will advance loan proceeds.

Project funds will flow from the World Bank, either through the DAs, which will be replenished based on the documentation specified in the DFIL or by using the direct payment method or the special commitment. Once the funds have been deposited in the DA, the treasury department at MoFE, on the request of the IAs, will transfer the loan proceeds from the DA to the project bank accounts that will be maintained in a commercial bank, acceptable to MoFE, to make project expenditure payments to third parties, that is, consultants, contractors, and suppliers. These bank accounts (one denominated in the loan currency and one in Albanian lek) will be managed by MoTE and AKUM separately.

applications would be sent to the World Bank at least every three months.

Withdrawal

Under the Procurement Regulations, a PPSP has been prepared and approved by the Bank, and defines the optimum procurement approach to deliver the optimal procurement results.

investment schemes in the amount of US\$9.42 million.

The project will also include two

Works required under the project include the construction of six new WWTPs for urban agglomerations in the priority municipalities. Under goods category, provision of equipment and vehicles is foreseen for waste collection, source separation, recycling centers vacuum trucks, and specialized tooling for sewer network.

Consulting services includes support to establish circular waste management scheme and technical support to AKUM, ERRU, and the regional utilities in planning for the necessary institutional, policy, and regulatory changes that will be required to carry out their mandates for improved wastewater management and sanitation service provision. Moreover, behavior change activities, awareness-raising campaigns to the public and to the beneficiaries of enhanced waste management and water and sanitation services, and capacity building for potential stakeholders and beneficiaries are foreseen.

Investments scheme will be provided (i) under Component 1 through EPBIs to municipalities in the project area which commit to improved environmental services and (ii) under Component 2, through IDSIs to qualifying households.

The borrower will respect debarment decisions by the World Bank and will exclude debarred firms and individuals from participation in the competition for World Bank-financed contracts.

The prior review thresholds will be periodically reviewed and revised as needed during the project implementation period based on implementation of risk mitigation measures, reports from procurement post reviews, and improved capacity of the IAs.

The procurement assessment concluded that MoTE has experience with implementing a World Bank project (Environmental Services, P128412, completed in May 2021); however, MoTE is affected by staff reshuffle after the 2021 government was established. New staff capacity to manage the World Bank project should be enhanced.

AKUM also has experience in implementing World Bank projects (Water Sector Investment Project which was completed in March 2020 and the Program-for-Results on National Water Supply and Sanitation Sector Modernization Program (P170891) which became effective in May 2023).

In addition, the procurement supervision missions are planned to be conducted every six months during the first year of implementation, and once every subsequent year.

As with technical oversight and support, the World Bank fiduciary team will provide intense support at two points during project implementation: during the first 12 months (from approval to effectiveness and through early implementation) and at midterm.

Environmental and Social Implementation Support. The Bank's Environmental and Social Specialist each will monitor the environmental and social performance of the project and the implementation of material measures and actions required under the Environmental and Social Commitment Plan (ESCP) including the timeframe for implementation of activities specified therein.

Planned activities will help build longer-term climate resilience through the removal of waste and pollution from wastewater, enhanced water quality and by improving public and ecosystems health.

Carbon storage capacity is being increased through the project activities of landscape and ecosystem management such as afforestation, restoration of waterflow and maintenance of wetland ecosystems, promotion of climate smart agriculture, protection of freshwater systems, grasslands, and coastal and marine ecosystems.

estimated reduction of GHG emissions with the restoration of 200 ha of coastal wetlands is 210 tCO₂e per year and 6,307 tCO₂e over the 30 years of the project lifetime.

network (sewer system) and a WWTP

and higher should have a collection

three alternatives for collecting sewage:
network (sewer system) and a WWTP.

The decision tree presents
er should have a collection

- (a) Conventional sewer (C1)
- (b) Condominial sewer (C2)
- (c) Vacuum truck for sludge removal and transport (C3).

These collection systems can be combined with the following six options for wastewater treatment technologies:

- (a) Centralized, tertiary-level WWTP (T1)
- (b) Centralized, secondary-level WWTP (T2)
- (c) Semi-centralized, secondary-level WWTP (T3)
- (d) Semi-centralized, tertiary-level compact WWTP (T4)
- (e) Qualified centralized WWTP to treat fecal sludge (T5)
- (f) Fecal sludge treatment plant (T6).

The dual focus on solid waste and sewage encompasses the foremost defense against pressures on water bodies and coastal landscape on which the local economy depends. In the context of the integrated approach to pollution prevention, the outcomes of investments are mutually reinforcing. Potential co-benefits of SWM and wastewater treatment include preventing clogging of sewers, co-digestion or composting of organic matter, and reuse of sludge as soil amendment for landfill covers and closure.

The behavior change activities of Component 1 are designed to enhance pollution prevention, by incentivizing municipalities to improve waste management services and further engaging the public and relevant stakeholders with awareness campaigns and school programs. The small-scale activities financed under Subcomponent 2.3 will augment the impact of outcomes through support to green solutions demonstrating circularity, filtration of nutrients using small green infrastructure, and pollution prevention activities that can be scaled up. Planned activities have been designed to meet the technical standards and requirements of the EU Waste Framework and the EU Urban Wastewater Treatment Framework Directives and their targets.

The project is structured into three components:

Component 1: Promote Integrated and Circular Approaches for Protection of Landscapes and Water Resources (EUR 13.03 million (USD 13.8 million equivalent))

2. This component will support the implementation of local solutions for protection of valuable landscapes and water resources within the broad boundaries of the Vlora South-Gjirokaster Waste Zone. The project applies an integrated approach to SWM investments, considering circular economy principles, and support for more sustainable system environmentally, financially, and operationally as the waste management system modernizes. This component will also provide local environmental investments and technical support for behavior change incentives in waste management and will support the implementation of awareness-raising campaigns, notably for young students in schools, and dissemination activities. The outcomes of these activities are synergetic with those of component 2 on water and sanitation and are designed to build capacity and support residents and municipalities to expand waste collection, increase recycling, and increase cost recovery. By improving municipal waste management, planned activities will generate climate mitigation co-benefits from improved management and improve resilience through reduced plastic leakage as well as reduced raw material extraction and manufacturing.

Waste Zones and Regional Waste Management Facilities in Albania

Subcomponent 1.1: Institutional support for sustainable performance, enhanced monitoring and transition to circular economy (EUR 1.04 million (USD 1.10 million equivalent))

3. This subcomponent aims to improve the enabling environment for operational sustainability and more circularity in waste management. This will be achieved through technical assistance and capacity support for filling specific technical gaps for effective implementation of solid waste management policies.

permitting support, reporting, monitoring), and (b) the update and/or development of the regulatory framework on construction waste management, including materials and construction/inert waste management standards.

The PMT at MoTE will support local governments for capacity building, and set up the administrative team for monitoring, verifying results, and evaluating local governments against performance criteria. More broadly, all data management and performance monitoring activities with municipalities will be coordinated with the National Environmental Agency (NEA), which has the overall responsibility for data collection, monitoring and reporting on waste generation, collection and treatment, including with respect to Extended Producer Responsibility (EPR) schemes

Subcomponent 1.2: Environmental-Performance Based Investments for local pollution prevention (EUR 9.44 million (USD 10.0 million equivalent))

5. This subcomponent will finance the provision, implementation and monitoring of EPBIs to municipalities in the Vlora South-Gjirokaster Waste Zone for improved municipal waste management.

Considering the cross-cutting nature of this component, planned activities are aligned with the EU Waste Framework Directive.

Municipalities will receive local investment upon measurable and sustained improvements on solid waste collection, increased solid waste service coverage levels, and/or cost recovery.

The minimum criterion for municipality eligibility is the establishment of a waste data management, monitoring, and reporting system which will be supported through TA from the project (sub-component 1.1).

The provision of the EPBI investments will be based on how well each municipality performs on the following performance indicators which will be used to monitor progress: (a) percentage of waste collected/increased service coverage of population, (b) percentage of households covered by solid waste services, and (c) cost recovery of services at the municipality (local government unit) level.

Implementation modalities of the EPBIs for improved municipal waste management will be detailed in the POM.

It should publish the monitoring report on the performance of municipalities under the performance-based investment framework.

Beyond the project, general budget, donor funding, and/or earmarked funds (that is, plastic bag taxes, EPR, and taxes on noncompliant landfills) will be considered.

Based on the investment plan prepared by the municipalities, the PMT will procure the goods or works up to the allocated amount under EPBI.

(Measuring Indicator 1 in the National Waste Management Strategy: In 2019, 25 out of 61 municipalities met this standard.)

(Measuring Indicator 6 in the National Waste Management Strategy: In 2019, 15% of the population was covered by waste management service.)

(Measuring Indicator 30 in the National Waste Management Strategy: In 2019, 40% of service cost was covered by fees nationally.)

(a) collection coverage, (b) service coverage, and (c) cost recovery.

(a) responsible regional/national institutions (that is, the Albanian Institute of Statistics (INSTAT), (b) municipal councils, and (c) ad hoc monitoring by a third party with noncompliance penalties to ensure external verification by MoTE.

To ensure the appropriate enabling environment for municipalities to achieve performance improvements through EPBI, the project will support a set of upfront investments during the first two years of project implementation to underpin solid waste service delivery by participating municipalities. These investments would consist of equipment to support the monitoring system of municipalities; provision of equipment and vehicles for waste collection and source separation; and provision of equipment for recycling centers.

The delivery of these capacity building activities for municipalities will be aligned with the timeline of EPBI implementation beginning with minimum criteria in the initial year through to targets for improved performance in subsequent years.

Subcomponent 1.3: Behavioral change support and dissemination for scaling up (EUR 2.55 million (USD 2.70 million equivalent))

9.

These campaigns will communicate on the enhanced waste management and water and sanitation services to support the acceptance of related service delivery fee level and foster behavior change in relation to, for example, the separation of waste, the waste hierarchy, the adequate use of the sanitation facilities, importance of sanitation services and wastewater management, and user responsibility with gender and social inclusion and to optimize fee payment.

There will be focused communication activities on recoverability of various waste streams to support the development of the recycling markets and reducing the waste management costs of municipalities. Given the importance of behavior change for source separation and plastics recycling in areas of high population and tourism, solar compaction bins will be made available for selected EPBI-participating municipalities in need of appropriate solutions for managing peak volumes of waste generation in an eco-friendly manner, and/or for other municipalities benefiting from investments in recycling supported by other development partners.

This diagnostic will specifically seek to understand structural factors, behavioral barriers, choice architecture concerning decision-making processes within the household, and existing strategies to promote compliance with SWM and recycling and sanitation, connecting to available wastewater systems, and correct disposal of wastewater.

This component will support activities to reduce the adverse impacts of point source pollution from untreated municipal wastewater and stormwater runoffs and from NPS pollution that pose significant threats to aquatic ecosystems and the environment.

All investments will consider climate-change-related risks to ensure climate resilience of infrastructure. This component will finance construction works, consulting services, non-consulting services, goods, and training. Municipalities and municipal utilities in the Vjosa River Basin will play an instrumental role in this project by assessing current needs, participating in project planning, and monitoring progress toward the achievement of specific sanitation targets in their territories. Municipal utilities will work with AKUM to achieve economies of scale for service provision and develop higher technical capacities.

Subcomponent 2.1: Expansion of sanitation infrastructure (EUR 54.55 million (USD 57.81 million equivalent))

14. Under this subcomponent, the project will finance investments in infrastructure improvements in selected municipalities to improve sanitation services and reduce/control point source pollution of waterbodies within the Vjosa River Basin (namely Vjosa and Drinos Rivers as well as groundwater).

The approach agreed is one of a framework project where appropriate technologies and type of sanitation solutions have been defined (see design decision tree in annex 3), and site-specific designs will be carried out for each municipality during project implementation.

An assessment of pollutants and sludge quality will be carried out to ensure safe reuse and promote circularity .

The GoA through AKUM will prepare the TOR to engage a consulting firm to have detailed designs for all benefitting municipalities following the framework agreed; these services will be included in the advanced procurement package, which will be procured by July 2023 to ensure delivery of detailed designs by the first year of project implementation. In a few of the selected municipalities, the engagement of local communities will be supported through piloting participatory planning and monitoring committees.

and higher should have a collection network (sewer system) and a WWTP

In the case of the urban agglomerations, there are two different options for the design of the wastewater collection systems: conventional sewers and condominial/simplified sewers, being the second option appropriate for areas with narrow streets and/or for mountainous areas where conventional sewers are not technically feasible.

and higher should be provided with a wastewater treatment system capable of reducing nutrient concentrations (more stringent treatment), whereas for agglomerations between 2,000 and 10,000 p.e., wastewater will be

⁴ 3 As per the eligibility criteria defined in the POM.

When local conditions of space are favorable, NBS such as wetlands or land overflow will be combined with the WWTPs to further treat the effluent, reducing the concentration of nutrients before discharge. Treatment facilities will incorporate the components needed to appropriately manage and dispose or reuse sludge generated during the treatment process and collected from on-site or decentralized systems in their proximities.

per hectare), the proposed framework considers on-site wastewater management. In this case, septic tank systems with appropriate infiltration for treated effluent are proposed for low-density areas where there is risk of polluting groundwater due to local conditions such as proximity to karst aquifers.

Regional water and sanitation utilities will implement a sludge collection and treatment service for on-site and decentralized solutions. Collection will be carried out using vacuum trucks, and specific WWTPs will be equipped to handle the collected sludge.

To incentivize households to move up in the sanitation ladder and control the amount of organic load and nutrients being discharged to the water bodies, the project will provide investments to the households that agree on transitioning to a safely managed system. Materials and labor for the construction will be provided by the project.

The seven municipalities prioritized under Component 2 will be eligible to participate, namely Gjirokaster, Kelcyre, Libohove, Memaliaj, Permet, Tepelene, and Selenice.

Subcomponent 2.2: Improved sanitation facilities and management (EUR 0.96 million (USD 1.02 million equivalent))

23. The project will provide support to AKUM, ERRU, and the regional utilities in the development of institutional, policy and regulatory frameworks on sewage management and sanitation services that will be required to carry out their mandates for improved sewage management and sanitation service provision; coordination between different agencies and alignment of relevant policies.

Subcomponent 2.3: Non-point source pollution prevention (EUR 3.05 million (USD 3.23 million equivalent))

24. The project will support small-scale investments for reducing NPS pollution in the watershed of Vjosa to prevent nutrient runoffs from agriculture and siltation by erosion in select locations of the Vjosa river Basin. The subcomponent will finance the implementation of Nature-Based Solution (NBS) approaches and integrated solutions in selected locations in the river basin.

These activities will be location specific and will include (i) improving the vegetation cover on slopes and riverbanks and implementing erosion control measures; (ii) conducting wetland management and restoration to improve waterflow and mitigate storm water and flood risks; and (iii) supporting sustainable agriculture practices. The small-scale investments promoting sustainable agriculture practices, livestock manure management, pasture regeneration, organic fertilization, composting, and improved farming practices, will engage farmers and local user groups from the villages in the watershed of the Vjosa River.

MoTE conducted a feasibility study aiming to support the definition of the future Vjosa River Basin National Park. The study will be followed by preparation of the park management plan identifying management objectives, zoning, and regimes and interventions to support the objectives.

It is envisaged that the Vjosa River National Park will be managed by a task force team of the Regional Administration of Protected Areas (in 2023) while transitioning park management in 2024 to a separate park authority under the supervision of MoTE. The PMT will closely collaborate with the Vjosa River National Park management team, Regional Administrations of Protected Areas and the National Agency of Protected Areas (NAPA) to guarantee synergies of project activities with the park management regimes and complementarity of NBS activities with the proposed park management interventions.

Component 3: Project Management, Monitoring and Evaluation (estimated costs EUR 3.91 million (USD 4.14 million equivalent))

26. This component will provide support for, inter alia, project management, implementation, and monitoring, evaluation, and reporting, including in the areas of financial management, procurement, environmental and social risk management, Project audits, and financing of Operating Costs, and Training for (i) MoTE PMT and (ii) AKUM PCU. In AKUM, the existing Project Coordination Unit (PCU) for the Water Modernization Program-for-Results will be strengthened with experts as detailed in annex 1.

An economic analysis (EA) was carried out to assess the economic viability of the project investments as the project will be implemented in the public sector with the use of public financing resources.

The data used to determine the potential impacts of the CARE project included technical data and assessments undertaken during the project preparation, complemented by data collected from literature review and World Bank databases, and from interviews with relevant government and technical experts.

The lifetime of the project investments was assumed at 30 years.

The total cost of the project is US\$80 million. The total costs included in the EA comprise the lifetime economic costs of project investments, including the capital costs and O&M costs after the project implementation period. Annual operation and maintenance (O&M) costs have been estimated and included in the EA in the post-implementation period until Year 30. These O&M costs will need to be incurred in order to sustain project results into the future after the project completion.

Estimated project benefits. Investments under the CARE project are envisaged to yield substantial environmental and socio-economic benefits. Improved solid waste management in terms of improved waste collection and recycling would allow for reduced landfill areas and increased market value of the land. Reduction of and reduction of point and non-point pollution sources through investments in wastewater treatment and other sanitation facilities would improve the public and ecosystems health by reducing the risk of diseases and protecting quality of surface and groundwater resources in the Vjosa river basin. The cleaner environments will improve the aesthetics of the coastal area and provide additional opportunities for the development of tourism, increasing employment and incomes of the local population.

The behavior changes activities are designed to incentivize municipalities to improve waste management services and by further engaging the public and relevant stakeholders with awareness campaigns and school programs.

Component 1 interventions in the Vlora South Waste Zone project area will improve the management of municipal waste to prevent negative impacts on the coastal environment and landscapes. Benefits of Component 1 investments in municipal solid waste management are expected to result in the additional collection and recycling of 2,500 tons of municipal waste a year in the Vlora South Girokaster.

The estimated project benefits of Component 1 investments included the economic value of the increased quantities of the recycled and reused materials as well as the increased value of land and properties in the vicinity of the municipalities and rural agglomerations benefiting from project. Estimated benefits of the EBPIs implementation included the reduced burden from diarrheal morbidity and productivity losses due to poor sanitation for over 8,600 people, and increased value of housing with improved on-site sanitation, assumed equivalent to the amount of investment made.

Component 2 investments will support the construction of six wastewater/sludge treatment (WWT) plants that are expected improve the quality of recreational water, reduce the negative impacts on the environment due to water and ecosystem degradation, and contribute to the reduction of GHG emissions. The improved wastewater treatment in the area is also expected to reduce the negative effects of untreated wastewater on agricultural productivity, the market value of crops, the number of tourists visiting the area (or willingness to pay for tourist services) and the quality and market value of fish and shellfish catches.

The applied approach to the estimation of benefits of investments in wastewater treatment plants is based on determining the economic damage associated with certain water pollutants to the environment. The approach uses the available research results on the economic value of decreased pollutant emissions into water bodies as a proxy for the economic value of the WWTs environmental benefits.

As estimated in the EA, the annual reduction of these pollutants discharge in rivers after the wastewater treatment by the newly constructed plants, will be reduced in the range from 48 to 76 percent, depending on the pollutant type. This will result in the total pollutant load reduction of 2,060 ton/year with the estimated annual economic value of \$3.95 million.

In addition to the construction of new WWTPs to benefit 30,100 people living in urban agglomerations, Component 2 investments will also finance new sewers connections for 10,300 people.

For the households newly connected to a centralized sewerage system, the estimated benefits included costs avoided for periodic emptying of cesspits/septic tanks.

The reduced morbidity burden is estimated as economic value of avoided medical treatment cost as well as avoided productivity losses due to reduced days of sickness and caretaker time required. The on-site sanitation interventions will also increase the value of the housing provided with improved sanitation solutions.

Augmenting the impact of investments in new sanitation infrastructure, the project will also finance the implementation of NBS integrated solutions for further prevention of water pollution in selected locations in the Vjosa river basin. Specifically, it will improve the vegetation cover on the riverbanks and stabilization of slopes for erosion control and sedimentation prevention and promote sustainable farming practices.

The important environmental benefit of wetlands restoration is the reinstitution of their capacity to filter impurities entering the waters from point and non-point pollution sources. The restoration of 200 ha of wetlands will further reduce the TN and TP pollutants load in the river with the estimated economic benefit of \$2.05 million/year.

The project is also expected to generate significant tourism-related economic benefits.

Specifically, it showed that a 1% increase in environmental expenditure supports an increase of 2% in international tourism. However, in turn, increasing tourism also increases a pressure on the environmental resources and local water and sanitation infrastructure.

The potential tourism-related economic benefits of improved sanitation and wastewater treatment in the project area have been assessed within the project economic analysis

It was assumed that the necessary investments in touristic infrastructure to support the tourism increase are funded by the PIUTD and other government investment activities in the area, outside of the CARE project. The assessment accounted for the additional cleanup cost associated with the expected increase in the tourist numbers estimated at the conservative level of \$1.36 million/year. It is estimated that the improved environmental situation in the area due to the project investments will result in the economic benefit of tourism increase at \$4.3 million/year.

Accounting for climate change mitigation co-benefits. The potential GHG emissions reduction due to the project investments have been calculated in the analysis. Component 1 activities focusing on the improvement of municipal solid waste management will help reduce GHG emissions from waste burning and untapped methane generation by supporting

⁴ 8 According to the official statistics, diarrheal diseases account for around 36% of annual infectious disease morbidity in Albania:
Source:

Under Component 2, the implementation of the NBS approach will result in the restoration of 200 ha of the coastal wetlands. Using the EXACT tool, it was calculated that investments in wetland restoration will allow to sequester 210 tCO₂e/year and 6,307 tCO₂e over the 30 years of the project lifetime. The proposed investments in the improvement of wastewater treatment will provide for the reduction of GHG emissions of 5,838 tCO₂e/year. The annual GHG emissions reduction due to the project is therefore estimated at 6,968 tCO₂ / year, with the total project emissions reduction of about 209,000 tCO₂e over the project lifetime.

According to these calculations, the value of the GHG emissions reduction over the project lifetime constitutes between 3.8 percent (the low case) and 7.4 percent (the high case) of the project total benefit, slightly increasing the total net project benefits and the project economic efficiency indicators (see Table 4.2).

Economic cost benefit analysis has been conducted for the total package of investments as well as separately for each of the two main investment components on (i) improving solid waste management and (ii) wastewater treatment and sanitation improvement. In all cases the proposed investments were found to be economically feasible with the EIRR exceeding the threshold of 6% of opportunity cost of capital.

The benefits quantified in the economic analysis capture only part of the project benefits and their total economic value estimated in this EA is therefore considered to be conservative. Several other potential benefits of the project are acknowledged but are not included in the EA due to the difficulties in quantifying them. These include the prevention of groundwater contamination due to improved sanitation, the potential to mitigate water scarcity by wastewater reuse, and climate adaptation benefits as the proposed project activities will also result in reduction of flood risks and improved climate resilience.

The project will improve the quality and reliability of such important public services as sewerage water treatment, and collection and processing of solid waste this improving the environmental and socio-economic situation in the project area. To ensure a sustainability of the project results into the future, the current structure of tariffs for the sewerage and solid waste management services will need to be assessed towards the possibility of higher recovery of O&M cost and increasing the role of the private sector in the services provision.