Project Information Document/ Identification/Concept Stage (PID)

Concept Stage | Date Prepared/Updated: 18-Nov-2024 | Report No: PIDDC00415

BASIC INFORMATION

A. Basic Project Data

Operation Name	Operation Short Name
Optimization of Dam Safety and Resilience of Irrigation Systems in the Context of Climate Change	AL-Dam Safety
Operation ID	**Financing Instrument**
P181046	Investment Project Financing (IPF)
Beneficiary country/countries	**Region**
Albania	Albania
Environmental and Social Risk Classification	
Moderate	
Date PID Prepared	**Estimated Date of Approval**
08-Feb-2024	31-Jan-2025
Borrower(s)	**Implementing Agency**
Ministry Agriculture and Rural Development	Ministry of Agriculture and Rural development

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Operation Cost	**1.61**
Total Financing	**1.61**
Financing Gap	**0.00**

DETAILS

Non-World Bank Group Financing

Trust Funds	1.61
European Commission Development Fund - TF	1.61

B. Introduction & Context

Country Context

Albania's economy has experienced a rapid but turbulent growth. Albania achieved middle-income status in 2008. Between 2000 and 2008, the economy expanded by 6.2 percent and the poverty rate halved from 25.2 percent

to 12.5 percent. However, emerging vulnerabilities threatened the sustainability of growth despite these high growth rates. Between 2008 and 2014, the impact of the global financial crisis and a sharp deterioration in the external environment weighed on Albania's exports, remittance inflows, and external credit conditions. Supported by a fiscal adjustment and macroeconomic stabilization, the GDP growth rate gradually recovered to 4.1 percent in 2018, before a devastating earthquake (2019), the COVID-19 pandemic, and most recently the war in Ukraine, hit the economy through supply side shocks.

In 2021, real GDP increased by 8.5 percent, fully recovering from the recession caused by the COVID-19 pandemic. Growth in 2021 was broad-based, however, post-earthquake reconstruction, a strong recovery of tourism and extractives, and favorable hydrological conditions for energy production were key factors determining the sectoral composition of growth. Employment has yet to recover to the pre-pandemic level. There were 16,800 fewer employed people in 2021 than in 2019. At the same time, average labor force participation fell for the second consecutive year among all age groups. Wage pressures intensified: the formal real wage increased by 3.7 percent in 2021, close to the 2019 increase, while the minimum wage increased by 13.1 percent in real terms. The average unemployment rate remained stable at 11.5 percent in 2021. Inflationary pressures have risen since late 2021. Consumer price inflation reached 3.7 percent in January 2022, led by wage pressure from the domestic demand expansion and the hike in food, energy, transport, and commodity prices in world markets. Food prices increased by 6.8 percent year-on-year in December 2021, close to double the increase of the overall basket. With food comprising over half of total consumption for the median household, most households are affected.

Growing inflation and the war in Ukraine threaten economic prospects in 2022. Inflation is expected to increase to 5.5 percent in 2022 from a pre-war scenario of 3 percent. A prolonged war in Ukraine could further increase inflation, disrupt supply chains, disturb financial markets and undermine confidence. Although Albania's direct trade, remittance, and migration linkages with Russia and Ukraine are limited, Russia and Ukraine are key producers and exporters of several commodities which are of vital importance for Albanians including grains and fertilizers. Supply shortages and higher prices of energy are expected to affect the agri-food production and value addition activities due to potential increases in costs of agricultural inputs, irrigation and drainage, processing, transportation, storage, thereby affecting what is and can be produced, reducing the profit margins of farmers and agribusiness. All of these could dim Albania's growth prospects. In turn, a sluggish job market combined with diminished purchasing power could dampen poverty reduction.

[1] World Bank. 2021. Albania Country Economic Memorandum: Strengthening the Sustainability of Albania's Growth Model.

Sectoral and Institutional Context

Water resources are integral to Albania's economic development, particularly within the agricultural sector, which is a cornerstone of the national economy, accounting for 19% of GDP and over 50% of employment. Agriculture dominates water usage, consuming 61% of total withdrawals, and is a focal point for investment, especially in irrigation, to ensure sustainable growth and meet both domestic and export demands. However, the sector faces challenges from climate variability and change. Economic water productivity in Albania is low, particularly in the agricultural sector, despite ongoing efforts to improve efficiency. The country's overall water productivity lags behind others in the Eastern Europe and Central Asia region.

Hydropower, contributing 97% of domestic electricity production, is hampered by outdated and poorly maintained infrastructure, with production fluctuating significantly based on hydrological conditions. The country's energy

security is partially bolstered through grid connections with neighboring countries, though this is not a complete solution to the deficits experienced during dry periods.
Albania's dam infrastructure, comprising over 600 dams with a substantial storage capacity, is critical for multiple uses including energy, irrigation, and flood mitigation. Yet, the actual utility is compromised by sedimentation and maintenance issues, posing risks to downstream populations. The majority of these dams are over 50 years old and suffer from technical problems, with many not meeting current international safety standards.
The institutional framework for dam management involves multiple entities, with recent legal changes transferring some responsibilities to local municipalities. Despite these changes, the irrigation infrastructure, largely consisting of open canals, is outdated and inefficient, necessitating significant modernization to meet the needs of small-scale farms and enhance environmental and economic performance.
In summary, Albania's water resource management, particularly regarding its dam infrastructure, is at a critical juncture. Investment and action are urgently needed to address aging facilities, improve dam safety, and adapt to the challenges posed by climate change, while also seizing opportunities for enhanced water storage and multipurpose reservoir use.

Relationship to CPF

The proposed project is fully aligned with the current CPF FY23-27 which attaches great importance to enhancing resilience and supporting more sustainable growth. The project would contribute to advance on dam safety and dam modernization, as well as improve the climate resilience of irrigation systems, and contribute to the strategies indicated in the document in several ways:
Enhancing Resilience: Modernizing and ensuring the safety of dams contributes to enhancing the resilience of infrastructure to climate-related hazards such as floods and extreme weather events. This aligns with the development agenda of enhancing resilience to shocks.
Sustainable Use of Resources: Dams and irrigation systems play a crucial role in the sustainable use of water resources for agriculture and other purposes. Improving the climate resilience of irrigation systems can contribute to more efficient and sustainable water management, aligning with the focus on green, resilient, and inclusive development.
Strengthening Infrastructure: Modernizing dams and irrigation systems can contribute to strengthening the quality of physical infrastructure, which is a priority area identified in the CPF. This includes upgrading infrastructure to enhance resilience, which is a key objective of the World Bank Group's partnership framework.
Economic Resilience: Dam modernization and improving climate resilience of irrigation systems can help strengthen the economic resilience of the country. By ensuring the safety and efficiency of dams and irrigation systems, the country can better withstand the impact of natural disasters such as earthquakes and pandemics, as mentioned in the CPF.
Gender Equality: Improved irrigation systems can benefit women who are often involved in agriculture, which is mentioned as a sector characterized by lower salaries. By modernizing irrigation systems, women's access to water for agricultural activities can be improved, leading to better economic opportunities and empowerment.
Overall, investments in dam safety and modernization, as well as improving the climate resilience of irrigation systems, align with the strategic priorities outlined in the CFO FY23-27 and contribute to the development agenda for Albania.

C. Development Objective

Development Objective

The objective of the project is to assist the Albanian Government in developing an investment program in dam safety and modernization to increase water storage capacity and climate resilience of irrigation systems.

Key Results

The key results of the pre-feasibility study will include the following:

- Identification of priority measures to enhance dam safety based on an assessment of more than 400 dams
- Analysis of potential improvements in water storage capacity and their implications for future rehabilitation efforts
- Preliminary evaluation of opportunities to increase water availability for irrigation and other uses through infrastructure modernization
- Assessment of risks to populations living downstream and recommendations for actions to enhance safety

D. Preliminary Description

Activities/Components

The project aims to support the Government of Albania (GoA) in conducting pre-feasibility studies of 431 existing irrigation dams. The overall goal is to reveal and address risks carried by the dilapidated water infrastructure with a focus on increasing the water storage capacity of reservoirs for adaptation to changing climate. Specifically, the project intends to prepare grounds for increasing the safety and carrying capacity of dams to irrigated 180,000 ha of agricultural land mostly located in the western–coastal part of Albania from Shkodra to Vlora, that would enable 200,000 farms to increase yields and farm income. Subsequently, the rehabilitation and modernization of dams, and the improvement dam safety will include hydrological assessment, structural strengthening of dams and improvement of the water storage in the reservoirs, sediment management, modernization of control and monitoring, and other measures that would improve the safety and operation of the dams. Increasing dam safety would provide socio-economic and environmental benefits in Albania.

Description of activities: In the frame of the pre-feasibility studies conducted under the project, the current condition of the existing dams and the irrigation systems downstream of the dams will be assessed considering other potential uses including biodiversity, fishery, and tourism. Pre-feasibility studies will be conducted for 431 existing agricultural reservoirs and will include an assessment of dam safety and operation issues, reservoir sedimentation rates, agriculture needs, flood holding capacities, opportunities to use these reservoirs for other purposes such as recreational, fisheries, producing energy from floating photovoltaic modules, etc. The pre-feasibility studies intend to inform a potential dam investment program, by identifying the functional dams in Albania, that would be covered by feasibility studies in a potential follow-up phase. The study will undertake among other things: (i) An irrigation network assessment and pre-feasibility of quality of downstream irrigation network; (ii) An assessment of biodiversity and environmental risk concerns related to soil health, reduction of pesticides and fertilizers, freshwater ecosystem health, soil fertility, good ecological status of freshwater bodies in the surrounding irrigation command areas where irrigation water availability will be improved, and, (iii) An assessment of institutional sustainability.

Environmental and Social Standards Relevance

E. Relevant Standards

ESS Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Not Currently Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

Legal Operational Policies

Safeguard Policies	Triggered?	Explanation (Optional)
Projects on International Waterways OP 7.50	No	The project is Technical Assistance and aims to conduct pre-feasibility studies of more than 431 existing dams in Albania, while based on the nature of future works this is not going to have any impact on water quality and quantity upstream or downstream.
Projects in Disputed Area OP 7.60	No	

Summary of Screening of Environmental and Social Risks and Impacts

The government is considering to undertake pre-feasibility studies of 431 irrigation reservoirs to examine dam safety issues while aiming to increase water storage, prevent siltation, enhance structural integrity, and increase safety of communities in the inundation area. The proposed project will finance such studies without supporting any physical works. Pre-feasibility studies will include the assessment of environmental and social risks associated with future investments into dam rehabilitation and suggest general approach to risk mitigation. More specifically, recommendations will pertain dam safety, efficiency on water use, climate resilience, application of mitigation hierarchy to the expected impacts on surface water bodies, aquatic and terrestrial biodiversity, soils and the use of pesticides, all to protect people and natural environment. ToRs and outputs of pre-feasibility studies and other TA will be consistent with Albanian Regulatory Framework and the World Bank Environmental and Social Framework. Risks

associated with undertaking feasibility studies may come from public concerns that may lead to the opposition to the studies. Communities residing within the study area may get concerned about their safety and possible impacts of future rehabilitation works on their livelihoods. ToRs of pre-feasibility studies to be developed during project implementation will include measures to mitigate risks related to the conduct of these studies and will also ensure that study reports pertaining dam rehabilitation and modernization of downstream irrigation infrastructure to be performed at a later stage, are fully aligned with relevant ESSs of the World Bank. The Recipient will prepare an Environmental and Social Commitment Plan (ESCP) which will outline the measures and actions required to avoid, minimize, reduce or otherwise mitigate the potential environmental and social risks and impacts of the Project.

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