



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 13-Oct-2022 | Report No: PIDC34951

**BASIC INFORMATION****A. Basic Project Data**

Country Kosovo	Project ID P179737	Parent Project ID (if any)	Project Name Kosovo Improvement and Rehabilitation of Irrigation Systems (P179737)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date Nov 30, 2022	Estimated Board Date Feb 15, 2023	Practice Area (Lead) Agriculture and Food
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance, Labor and Transfers	Implementing Agency Ministry of Agriculture, Forestry and Rural Development	

Proposed Development Objective(s)

The proposed development objective is to increase the efficiency of water utilization and boost agricultural productivity in the project area.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	9.04
Total Financing	9.04
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS**Non-World Bank Group Financing**

Trust Funds	9.04
European Commission Development Fund - TF	9.04

Environmental and Social Risk Classification

Concept Review Decision



Moderate

Track I-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- Kosovo has shown steady socio-economic progress since independence, transitioning to upper-middle-income status in 2018.** In the decade before the pandemic (2010-2019), Kosovo's economy grew by an average 4.6 percent per year. This translated into an almost 50 percent increase in per capita income, and a 35 percent poverty rate reduction. Kosovo successfully transitioned out from a high dependence on foreign aid inflows outperforming peer countries of similar income per capita thanks to a steady expansion in consumption and investment with a strong impetus from diaspora inflows, public investment in infrastructure, and financial deepening, amid a stable fiscal stance and a low inflation environment.
- However, in 2020 Kosovo's steady progress was interrupted by the COVID-19 pandemic.** Real GDP contracted by 5.3 percent in 2020, driven by a plunge in investment and service exports. Thanks to improved pandemic and external conditions, as well as strong fiscal support, economic activity expanded by an exceptional 10.5 percent in 2021. However, the recession exposed the vulnerability of Kosovo's limited-competitiveness growth model with persistent infrastructure and human development gaps.
- The country's recovery path is at risk due to global inflationary pressures exacerbated by the war in Ukraine.** Real growth moderated to 4.9 percent in Q1 2022, driven by domestic demand and exports. Growth expected to further decelerate to 3.1 percent in 2022 following a slowdown in investment and private consumption. Consumer inflation soared reaching 13 percent in August 2022, triggered by an increase in import prices. Food and transport price increases surpassed 20 percent by August 2022, disproportionately impacting the most vulnerable. Remittance growth is expected to stall, after reaching a record peak in 2021, and the current account balance in nominal terms is expected to temporarily deteriorate. The medium-term outlook remains positive, with growth accelerating to above 4 percent by 2024; but the outlook is mired with downside risks from the ongoing war in Ukraine and tightening global financing conditions.

Sectoral and Institutional Context

- Agriculture is an important and strong contributor to Kosovo's economy and rural development.** The sector contributes around 10 percent to GDP and provides employment to approximately 25-35 percent of the population. It is estimated that about 60 percent of the population lives in rural areas and agriculture is an important source of income. Kosovo's agriculture sector is characterized by a high proportion of small-scale farming oriented towards subsistence farming, with 91 percent of farms having an area of less than 5 hectares (ha) and covering only 46 percent of the total area of arable land. Most farms operate at subsistence or semi-subsistence levels, while commercial farmers face obstacles to expansion. Agri-business, especially food processing, has grown steadily in terms of number of firms, annual turnover, and employment, whilst agricultural exports increased in absolute and relative terms as a share of total exports.



5. **Climate change poses significant threats to Kosovo’s agricultural production, which is highly dependent on water and increasingly subject to water risks.** Kosovo has about 1,900 m³ per capita of renewable fresh water available per year. This identifies the Kosovo as a “water-stressed” nation, and it also ranks among the countries with the lowest level of water resources development and storage. Kosovo is therefore very vulnerable to climate change, with major concerns posed by the predicted increase in temperature in summers (+2.5°C) and the decrease of precipitation in spring and summer (10 percent). These changes would strongly impact agriculture because Kosovo is yet to develop a more climate-smart, resilient and environmentally sustainable agricultural sector, while its natural resource base is being depleted and climate-related vulnerability grows. This calls for a strategy to cope with the decrease in the available resources during the irrigation periods and the predicted increased hydrologic variability.

6. **Hence, irrigation is considered essential on three accounts.** First, to minimize climatic risks affecting water resources; second to ensure quality of products essential to commercial agriculture; and third to provide adequate incomes and living standards in the rural areas. Irrigation in Kosovo is realized in several ways such as formal irrigation organized through irrigation companies, informal irrigation, unorganized irrigation and individual irrigation, which is done from water sources including rivers, wells, etc. These forms of irrigation are mainly used to irrigate cereals, fruits, and vegetables.

7. **Kosovo’s irrigated area was estimated to be less than 5 percent of all agricultural land¹ in 2020.** Irrigation infrastructure, enabling agriculture production, suffered a steep post-war decline from 29,000 ha to about 12,000 ha and is now slowly bouncing back. During 2020, a total of 20,984 ha was irrigated (13,982 ha in formal irrigation and 7,002 ha in informal irrigation), out of the total utilized area of agricultural land 420,210 ha.

8. **The limited availability and quality of irrigation presents a major challenge to Kosovo’s agriculture sector.** Aging irrigation infrastructure and lack of maintenance are reducing the level of water use efficiency and affecting development of agriculture, in particular the horticulture subsector. Although some investments in the irrigation sector were carried out previously, the limited area of land covered by irrigation, the poor use and unequal distribution of water resources and the lack of knowledge and facilities for irrigation at the farmers level are only some of the issues that prevents the sector in meeting its production potential. The main water companies that are operating in Kosovo face difficulties in their operations due to old infrastructure, which was not properly maintained, lack of reservoirs to meet the increasing demand from farmers, and a lack of resources to invest in new irrigation canals.

9. **Kosovo needs to improve the sustainable development and management of the irrigation system to allow economic growth of the agriculture sector in a context of climate change.** Along with increasing water use efficiency, expanding sustainable irrigation is needed for commercial farming. With limited agricultural area irrigated and a worsening situation for rainfed agriculture, agricultural productivity will continue to decline. The revitalization of agriculture and the rural economy requires expanding the area under irrigation and improvement of water use efficiency. This includes the revitalization and improvement of the current area and the expansion of equipped areas for irrigation. Existing irrigation providers will benefit from improving reliability, adequacy of service, and cost recovery, e.g., through performance contracts with users, technical oversight, improved budgeting, tariff setting, and cost recovery targets. It is expected that with adequate, modern irrigation, small farmers would move to more high-value crops and more specialized markets and away from near subsistence agriculture.

¹ The calculation is based on data from the Kosovo Green Report 2021, Ministry of Agriculture, Forestry and Rural Development.



10. **Kosovo Irrigation Master Plan and Investment Framework has been developed under the support of the World Bank funded Agriculture and Rural Development Project (ARDP), to guide future investments and managements measures for the irrigation sector.** The Master Plan and Investment Framework for the irrigation sector has recently been endorsed by the Inter-Ministerial Water Council, and is a broad-based strategy with recommendation for infrastructure and technical assistance measures for short, medium and long-term for increasing water/agricultural productivity. Per the Irrigation Master Plan and Investment Framework, a diversified support model where investments in irrigation build on successful cases to avoid perpetuating non-viable farm models and are planned in complement with infrastructure and capacity building to improve productivity is needed. Water-stressed Kosovo would benefit greatly from prompt application of the irrigation master plan, which would make agriculture more productive from better use of scarce water resources.

11. **The rehabilitation and modernization of the Radoniqi-Dukagjini Irrigation Scheme (RDIS) has been ranked among the key priority irrigation investments in Kosovo.** The RDIS covers two separate irrigation infrastructures, which together represents the Regional Irrigation Scheme “Radoniqi-Dukagjini” as one integral irrigation system. The Radoniqi irrigation scheme is located in the territory of Gjakova and Rahoveci municipalities and the intake structure is Dam Radoniqi in the municipalities of Gjakova and Rahoveci with irrigated area of 8,600 ha. The Dukagjini irrigation scheme is located in the Municipality of Prizren with area of 5,000 ha and the water is captured directly from River Lumbardhi i Prizrenit. Currently, the RDIS is the best performing scheme in the country which has secure water resource for future expansion. The RDIS represents the largest share of actual irrigated area and most of the high value crop production (e.g., peppers, tomatoes, cucumber, etc.). Based on an assessment carried out under ARDP, the total investment for the rehabilitation and modernization of RDIS would need an estimation of EUR 13.2 million. While about EUR 4 million have been provided under the ARDP, additional funds are needed for the rehabilitation of the remaining part of the scheme.

12. **Capacity building of key stakeholders needs to be an integral and essential part to improve the sustainability and efficiency of infrastructure investments.** In Kosovo, the administration of irrigation service is complex and fragmented, and the current legal framework and division of the institutional roles and responsibilities are inefficient. The institutional links between MAFRD, the municipalities and the service delivery agencies are very weak. The responsibility of MAFRD for policy implementation is clearly not associated with the adequate authority vis-a-vis service delivery agencies. Thus, technical assistance and capacity building activities would be needed together with the rehabilitation investment to strengthen irrigation legislation such as define the responsible institution for supervision and inspection of the implementation of the laws related to irrigation and propose legal solutions to facilitate the operation of the irrigation providers: collection of irrigation fees, illegal pumping, and to promote good practices such as promoting volumetric tariff for water service fee, scale up a water management system, etc.. The technical assistance and capacity building proposed under the project to support the MAFRD, water providers and farmers groups, will ensure sustainability and proper maintenance of irrigation schemes implemented under the project.

13. **To support candidate countries in preparing for European Union (EU) accession, the EU provides significant funds under the Instrument of Pre-accession Assistance (IPA).** The IPA 2020 program for Kosovo aims at fostering rural economic development through improved management of the natural resources and increased income generation opportunities related to cultural tourism and improved capacities and alignment to standards in the agriculture sector. Under this program, EUR 10 million have been allocated to support the further development of irrigation systems based on the Kosovo Irrigation Master Plan and Investment Framework developed under the Bank funded Agriculture and Rural



Development Project. These funds will be channeled through the European Commission - World Bank Partnership Program for Europe and Central Asia Part III program.

Relationship to CPF

14. **The proposed project is fully aligned with the FY17-21 CPF with a stronger focus on sustainable management of water resources and modernizing and expanding irrigation for more productivity in agriculture.** The proposed project would respond to Government demand and help Kosovo rehabilitate and expand irrigation systems, and directly contribute to CPF Objective 2: "Improve productivity of the agriculture sector" by increasing the hectares of area provided with improved irrigation services and promoting the adoption of improved agricultural technologies. The proposed project is highly consistent with the World Bank's overall development frameworks – Resilience, Inclusion, Sustainability, and Efficiency (RISE) and Green, Resilient and Inclusive Development (GRID), in terms of addressing long-term development challenges and contributing to post pandemic build back better. The proposed project is also fully aligned with the vision and objectives of Kosovo Strategy for Agriculture and Rural Development 2022 – 2028, to develop a competitive and innovative agri-rural sector based on modern knowledge, technology, and standards, offering high-quality products in the domestic market, the region, and the EU, as well as sustainable development of natural resources and the environment, providing economic activities and employment opportunities, social inclusion and quality of life for residents in rural areas.

15. **The proposed project would be funded under the European Commission - World Bank Partnership Programme Part III for Europe and Central Asia Programmatic Single Donor Trust Fund.** The European Commission (EC) and the World Bank share a common vision of building competitive and sustainable economies and in reducing poverty and social exclusion. These goals are outlined in the EU's Multiannual Financial Framework (MFF) (2014-2020) - "The EU as a global player" and in the proposed MFF for 2021-2027 – "Neighbourhood and the World". The MFFs are designed to allow the EU to fulfil its responsibility both at global level and in its immediate Neighbourhood, and to help safeguard global public goods, i.e., fighting poverty and promoting democracy, peace, stability, and prosperity. The MFF 2014-2020 supports the EC's approach under the "Agenda for Change", to focus EU aid in fewer sectors supporting, inter alia, good governance and creating inclusive and sustainable growth. For the current MFF 2021-2027 the instruments offered by the EC, and that the WB can help implement include the IPA which would finance the proposed project.

C. Proposed Development Objective(s)

16. The Proposed Development Objective is to increase the efficiency of water utilization and boost agricultural productivity in the project area.

Key Results (From PCN)

17. Key indicators to measure the achievement of the PDO would include:
- a. Area provided with new/improved irrigation or drainage services (CRI, Hectares)
 - b. Number of water users provided with new/improved irrigation and drainage services (gender disaggregated)
 - c. Number of farmers adopting climate smart agriculture technologies and practices

D. Concept Description



18. The proposed project would include the following three components:
19. **Component 1: Rehabilitation and Modernization of the RDIS (indicative amount EUR 8.23 million).** This component will finance the rehabilitation and modernization of the RDIS, aiming to increase irrigated area, reduce water losses and production costs, and improve and modernize irrigation services.
20. **Subcomponent 1.1: Rehabilitation of the RDIS.** This subcomponent would support (i) rehabilitation works to modernize and upgrade the RDIS, and (ii) supervision of the progress and quality of works. Works for scheme rehabilitation include inter alia: (i) construction of regulating structure including flow meter valves, manholes, etc. aiming at regulating water flow and water use with approach to ensure efficient water management for a total surface of improved irrigated area of 7,750 ha and additional irrigated area of 4,000 ha (Qerim, Janosh and sector “D”), and (ii) rehabilitation of three irrigation sub-systems, Qerim with 1,800 ha, Janosh with 1,400 ha and sector “D” in Dukagjini with 800 ha, providing irrigation to a total of 4,000 ha of agriculture land. The detailed design of the rehabilitation works has been prepared, e.g., specific activities and the estimated costs, indicating a high implementation readiness.
21. **Subcomponent 1.2: Modernization of the RDIS.** This sub-component would support the development and establishment of the Supervisory Control and Data Acquisition (SCADA) for the whole RDIS. The aim of supporting SCADA is to take a broader modernization approach to ensure both institutional and financial sustainability of the irrigation system. SCADA will remotely enable the operation of the irrigation structures and reducing the operational costs and water losses. The RDIS will be able to manage the reservoirs (primarily the Radoniqi dam, reservoirs B9, B10, B11), operate pump stations and maintain water pressure, as required in a remote manner. SCADA will allow centralized monitoring and control and detect irregularities in the network in real-time. In the cases of emergency, including any potential flooding of the dam, SCADA will allow safer and faster operation of the valves in outlet structures and will avoid the manual operation which is very risky in emergency circumstances.
22. **Component 2: Capacity Building to Increase Water Use Efficiency and Agricultural Productivity (indicative amount EUR 0.4 million).** This component aims to improve the sustainability and efficiency of infrastructure investments supported under component 1 and increase the capacities of the MAFRD, municipalities, irrigation providers and farmers. It would provide (i) technical assistance to the municipalities to strengthen the capacities of the municipal governments for the provision of irrigation and drainage advice to the farmers in an effective and sustainable way; (ii) technical assistance to the irrigation providers on improving the overall corporate governance and best practices in management and produce of high standard business plans; (iii) assistance to the farmers on modernization of on-farm irrigation technologies and display good practices for an efficient on-farm water management; (iv) technical assistance to the MAFRD for policy, regulatory and institutional aspects supporting implementation of Irrigation Master Plan; and (v) support to knowledge exchange in the irrigation sector, such as organizing study tours and site visits to countries with advanced and automatized irrigation systems to enable farmers, irrigation providers and municipality staff to learn and benefit from the knowledge and experiences of other irrigation providers and on-farm water users.
23. **Component 3: Project Management, Coordination, Monitoring and Evaluation (EUR 0.4 million).** This component would provide overall project management support, coordination, including procurement, financial management, monitoring and evaluation (M&E), and public awareness of project activities. Project staff will benefit from capacity building on climate resilient irrigation, sustainable irrigation and climate adaptation solutions.



Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	TBD
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

24. Project-related risks and impacts will mainly come from the rehabilitation and modernization of irrigation canals, and the installment of flow meter valves and poles for carrying electricity for the SCADA. As such, the anticipated key issues are related to (i) consumption of water and raw materials for civil works; (ii) potential generation of asbestos waste (iii) generation of construction-related wastes; (iv) nuisance related to traffic, dust generation, vibration, and noise; (v) occupational health and safety hazards for the workforce. Additional project-related risks are those of social nature and could be land acquisition impacts-though minor ones, labor and working conditions, and much less those related to the communities.

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APPROVAL

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