DEVELOPMENT OF A PROJECT DOCUMENT FOR A WATER-ENERGY-AGRICULTURE NEXUS INTERVENTION AT THE GJANCI RESERVOIR IN KORCA, ALBANIA
This project is developed in the framework of the “SEE Nexus Project” (“Promoting the Sustainable Management of Natural Resources in South-eastern Europe, through the use of the Nexus approach”)

Funded by the Austrian Development Agency (ADA) and implemented by the Global Water Partnership-Mediterranean (GWP-Med) in partnership with the United Nations Economic Commission for Europe (UNECE).
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The focus of this project is "Gjanći Reservoir", which is the main water source for:

- **The Irrigation of agricultural plots**
- **Energy production**

The dual use of the same water source causes contradictions between two users with different interests.

The main purpose of this study is to meet current and future water needs for all local actors through the application of the NEXUS approach.
PROJECT DEVELOPMENT PHASES

1. Inception report phase (1 month)

2. Concept note phase (2 months)

3. Project Document phase (2 months)
The first phase served for the preliminary analysis of the existing situation. During this period, the project team conducted a series of initial consultations with representatives from:

- Regional Directorate of Irrigation and Drainage, Korça
- Municipality of Korça
- Irrigation and Drainage Unit, Korça
- Agricultural Technology Transfer Center, Korça
- Regional Agency for Agricultural Extension, Korça
- Representatives from Gjançi Hydropower Plant
- Farmers
- Ministry of Agriculture and Rural Development
Through the initial meetings it was concluded that the situation of ownership / administration is as follows:

- Gjançi Reservoir is owned by MoARD and administered by RDID Korçë
- The two primary canals of the irrigation scheme are owned and administered by RDID Korçë
- Secondary canals are owned and administered by the Municipality of Korçë
- Tertiary canals are managed / maintained by farmers themselves
Contractual agreements:
• The water use agreement is signed between the Gjanç Hydropower Plant and MoARD, represented by the Regional Directorate of Irrigation and Drainage.
• The concession agreement for the use of the hydropower plant is signed between the Concessionaire of the Hydropower Plant, MEI, MoARD and MFE.

Current state of the irrigation and drainage infrastructure:
• The primary left canal was rehabilitated during 2018-2019. During this repair, the cross section of the canal was reduced and currently its carrying capacity reaches up to 1200 l / sec (before rehabilitation it could transport 1500 l / sec).
• The primary right canal presents even more issues, currently most of it is out of order. MoARD has set a specific budget for its rehabilitation.
25 assets in primary canals
42 assets in secondary canals

Secondary canal - OUT OF FUNCTION (6.4 km)

30 illegal openings by farmers. Loss caused 350 liters

Interventions in assets:

Outlet in primary canal - MISSING

Gate in secondary canal - MISSING
The Concept note drafting phase, which was implemented during the period February - April 2022, served to better understand the issues and challenges identified during the initial phase of the project and to address them with a particular focus on providing solutions for better management of the water source of Gjançi reservoir, in line with the NEXUS approach.
Phase 2 – Concept Note

CONSULTATIONS WITH A NUMBER OF STAKEHOLDERS, TO CLEARLY UNDERSTAND THE ISSUES AND NEEDS OF EACH SECTOR
The most raised issues during these consultations by the participants were:

• The complex relationship of ownership and administration of the Gjanç Reservoir and the irrigation scheme supplied by it
• Lack of important details in the water use agreement
• Current state of irrigation and drainage infrastructure and lack of investment in it
• Illegal abuses / interventions in infrastructure by farmers
• Non-operation of Boboshtica pumping station due to high energy cost
• Non efficient irrigation methods used
• Lack of support for women farmers

After reviewing and identifying current challenges and issues, we defined the main objectives for addressing them.
Effectivity of water use in Food and Energy production preserving environment

Based on the findings in the Concept phase the Project Document is compiled and Submitted.

Water balance for actual and future irrigation needs served as a base for the interventions proposed.
01 INSTITUTIONAL COORDINATION
- Reconceptualization of the ownership / administration of the reservoir and primary canals
- Revision of the Water Use Agreement

02 IRRIGATION MANAGEMENT
- Re- Establishment of the Water Users’ Organizations (WUOs)
- Stimulation of irrigation methods that have higher effectiveness of water use
- Installation of electronic water level/water volume indicator
- Incorporation of the Water Masters’ Mobile Application
- Soil humidity and nutrients sensors
- Weather stations

03 ‘ACUPUNCTURE’ INTERVENTIONS IN THE I&D INFRASTRUCTURE
- Rehabilitation of the left primary canal
- Rehabilitation of secondary canals
- Rehabilitation of assets

04 RENEWABLE ENERGY USE
- Construction of several small mini-projects with photovoltaic panels, installed in the trailers
- Operation of Boboštica pumping station with energy produced through solar panels
- Installation of Agrovoltaic systems

BETTER MANAGEMENT OF THE RESERVOIR’S WATER

MEETING THE CURRENT AND FUTURE WATER NEEDS FOR THE LOCAL STAKEHOLDERS IN GJANČI RESERVOIR THROUGH APPLICATION OF THE NEXUS APPROACH
In the project document are discussed in details:

• Stakeholders’ engagement
• Feasibility
• Environmental, economic & social impacts
• Risk Management
• Knowledge management
• Monitoring and evaluation
• Governance and management arrangements
• Sustainability of results
• Gender mainstreaming
Thank You