I. Project Context

Country Context

Bosnia and Herzegovina (BH) has a land area of 51,000 square kilometers and an estimated population of 3.9 million. About 50 percent of the country is covered by forests and 25 percent by pastures. It is mostly hilly and mountainous, with only 5 percent of its territory classified as plains, 24 percent as hills, 29 percent as Karst, and 42 percent as mountains. The plain areas have rich, light soils that are suitable for cultivation of a variety of crops. However, they have a tendency to flood during the rainy periods in fall and spring, while the dry summers make the planting of high value crops very risky. The slopes and the pre-alpine areas, in turn, have large areas of pasture land suited for a variety of livestock production and modest cultivation of primarily grains and potatoes. The climate varies from a mild Mediterranean in the Southwest to a more continental in the North and Northeast. These agro-climatic conditions allow for a variety of agricultural activities ranging from intensive irrigated horticulture in the plains and lower plateaus, to extensive livestock husbandry in the pre-alpine and mountainous regions of the country. The comparative advantages of the country's agriculture sector lie in its closeness to the European Union (EU), a moderate continental climate, clean and abundant natural water resources, and relatively low factor prices. The weak institutional capacity (e.g. for extension services), the low investment rates, and the lack or inoperability of agricultural and rural infrastructure such as reliable irrigation, however, remain serious constraints to increase the sector's productivity.

The agriculture sector is and will remain economically important for BH and is an integral part of the rural economy, providing important sources of employment for rural inhabitants and having significant backward and forward linkages to the rest of the economy. According to official statistics, the primary agriculture sectors still accounted for approximately 9 percent of Gross Domestic Product and employs more than one fifth of the total labor force.

Crop yields, and potential options for growing high-value crops and double-cropping, are restricted without irrigation primarily due to prolonged dry spells during the summer season. Typical yield losses are estimated to be in order of 30-40 percent in the Southwest, in the northern areas along the Sava River plain typical yield losses amount to 20-30 percent, with less in the central and mountain areas. In addition, in many of the plains and valleys, productivity also regularly suffers from water logging and inundation. Thus, drainage is as important as irrigation.

The Draft Strategy for Development for Bosnia and Herzegovina prepared in 2010 (by the Council of Ministers, not yet adopted) outlines the development priorities of the government. The Strategy has six goals: (i) macroeconomic stability; (ii) competitiveness; (iii) sustainable development; (iv) employment; (v) EU integration and (vi) social inclusion. In agriculture, the Strategy calls for investments in technology to improve the efficiency of primary production, and to move toward secondary production, or processing, to boost employment. It also looks beyond farming to improve living conditions and diversify the rural economy and job opportunities. It also highlights the priority to be given to environmental protection, particularly with respect to the management of natural resources such as water, land and forests.

The Dayton Peace Agreement, signed in 1995, established a complex governance structure governing the two constituent territories as Entities, namely the Republika Srpska (RS) and the Federation of Bosnia-Herzegovina (FBH) with a third independent area, namely the District Brcko (DB) (henceforth, the generic term “entities” will be used to designate the three territories). The Entities are in the process of developing, or have completed Rural Development Strategies. These strategies focus on a set of six broad objectives including: (i) increasing the scope and adjusting the structure of agricultural and industrial production; (ii) optimal utilization of agrarian resources; (iii) balanced integrated rural and agrarian development; (iv) supporting a stable market for agricultural and food related products, with the aim of reducing the share of food related costs in the structure of family budgets; (v) increasing the level of exports; and (vi) improving of institutional, material, staff related, technical and technological capacities of agriculture.

BH is working towards candidate status to the EU. The State government and the Entities as well as DB are in the process of aligning their policies and development programs with the EU agricultural and environmental acquis including in the water sector, in part with technical and financial support from the EU, the World Bank and other donors. Climate change is also likely to lead to higher temperatures in BH, along with more variable precipitation. Thus improving water resource management and the performance of the irrigation and drainage systems would be
crucial to enable farmers to successfully adapt to the new challenges that the changing weather and its increased variability would bring. With dryer summers and wetter springs and falls, in order for BH to increase or maintain its high value agricultural production levels, it will need to rely increasingly on supplemental irrigation and better functioning irrigation systems, while adequately functioning drainage and storage facilities will be needed to prevent flooding in spring.

II. Sectoral and Institutional Context

Harmonized water laws for the FBH and the RS, developed with the assistance of the EU, passed into law in September 2006. This legislation provides a broad framework for the abstraction, use and disposal of water resources. The laws adopted basic aspects of the EU Water Framework Directive and direct water resource development and management towards more integrated approaches. In line with the EU acquis, both the RS and the FBH have two operational river-basin based Water Agencies for the Sava basin and for the Adriatic basin, respectively. For the largest river basins, integrated river basin management plans are being prepared in accordance with the EU guidelines (those for the Neretva Trebisnjica and the Vrbas with the Bank support). With EU assistance, the preparation of the supporting regulations and establishing a framework of responsibilities for the various state institutions, agencies, and private user groups for the water sector is on-going. These laws also regulate in broad terms the key aspects of irrigation.

Substantial investment in irrigation was made during the days of the former Yugoslavia as part of the development of vertically integrated Agro Kombinats. However, destruction from the 1992 war, reforms which led to privatization, including the fracturing of the trade links, have left many irrigation systems under used and dilapidated. Moreover, the country’s complex institutional structure, and administrative legacy has left it at the onset with unclear responsibilities between central, regional, and local government and users in terms of roles and responsibilities towards the irrigation sector. In the mean time, each Entity has gradually developed its own institutional and organizational structures that are sufficiently compatible and complementary. Also, the new EU funded project “Support for Water Policies in Bosnia Herzegovina” is assisting to improve the coordination of water policies in order to be able to prepare State level documents. Notably, many of the components of the Entities’ strategies and frameworks are already compatible with EU Directives and guidelines.

The RS has formulated a vision and strategy for irrigation development and of government support in the form of subsidies (40 percent of costs) for irrigation equipment. The Ministry of Agriculture, Forestry and Water Management (MAFWM) has produced a comprehensive plan outlining the irrigation potential in the entity together with a further publication outlining development potential. The Law on Waters of the RS was recently amended to accommodate the strategy and the participation of water users in the management of irrigation systems. Some 115,000 ha of land in RS have good potential for irrigated agriculture development. By far the largest proportion (at least 95 percent) of this area is in the plains along tributaries to the Sava, and along the Sava itself. Previously, irrigation schemes irrigated a total of about 7,260 ha, of which about 3,440 ha was in the northern inland plain (Sava river basin) and about 3,820 ha in the southern coastal area (primarily the Neretva and Trebisnjica river basin). Many irrigation systems have deteriorated, such that currently, functioning schemes service only about 1,700 ha (23 percent of the previously existing irrigation areas): 1,470 ha in the Sava basin area (43 percent of the previously developed area) and 230 ha in the Mediterranean basin (6 percent of the previously developed area).

The FBH formulated a concept note in 2009 on the Programme for Irrigation and Drainage in the Federation of BH and a strategy for water management for the period 2010-2022. Prior to the war, irrigation covered about 20,000 ha. Of this area, about 13,000 ha were in the northern inland plain (Sava river basin) and about 7,000 ha were in the southern area (primarily the Neretva and Trebisnjica river basins). The present post-war situation in FBH is still being assessed; but it is estimated that only around 3,000 ha (15 percent of the previously developed area) are currently serviced by irrigation. By contrast, a total of approximately 280,000 ha are reported to have potential for development of irrigated agriculture, of which about 170,000 ha could be considered as having more favorable conditions and higher priority.

Both Entities have an enabling environment for irrigation development and established Focal Teams on Irrigation in their respective Ministries to prepare the Irrigation Development Project (IDP). Procedures are in place for establishing water availability in each catchment area, and for licensing abstraction and disposal of drainage and wastewater. This would provide improved security for farmers who wish to develop irrigation systems as well as for other exiting water users.

The DB has a simpler institutional and regulatory structure, but also derives many of the relevant regulations from the Entities. Irrigation and water management is conducted through its Department for Agriculture, Forestry and Water Management. Strengthening flood control embankments is an important priority of the DB.

Because of the varied terrain comprising mountainous areas as well as wide river plains, the irrigation systems in BH are relatively small in area, are rarely interconnected, and have relatively small carrying capacities. The conveyance systems are in form of concrete canals and pipes with sprinkler systems and drip irrigation. Where drainage is important as well, earthen canals with the dual function of drainage in fall and winter and water supply in the summer are also typically found. Consequently, each irrigation scheme would need to be carefully tailored to the local water resources and hydrological conditions as well as the demands of the local community of users and institutional stakeholders in the water sector of that area. In some locations, the water would need to be drawn from shallow groundwater and in others from surface waters, or applied through conjunctive water use. The surface water can be drawn in some locations from small local creeks that may have a highly variable water discharge, whilst in others it needs to be pumped or abstracted from larger rivers, or reservoirs or tanks.

III. Project Development Objectives

The Project Development Objective is to improve the performance of the irrigation systems and the irrigation institutions to support agricultural producers in the project areas.

IV. Project Description

Component Name
Infrastructure Investment
Institutional Strengthening and On-farm Irrigation Modernization
Project Implementation Support
V. Financing (in USD Million)

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VI. Implementation

The project will be implemented by RS MOAFWM and the FBiH MOAWMF, through its well-functioning and experienced Agricultural Projects Coordination Unit (APCU) in RS, and PIU (Project Implementation Unit) in FBiH, respectively. Both bodies that have served as the focal units for preparing and implementing most Donor Agriculture related projects (e.g. on-going World Bank Agriculture and Rural Development Project). In addition both entities have experience in working with each other on the same project and in working together to reduce administrative burdens and facilitate implementation and problem resolution. The APCU and PIU have professional staff for agriculture and water management, and for procurement, FM and general project oversight.

The project activities will be mainly implemented by the entities, as the type of I&D interventions is localized in nature, where the entity line ministries and local governments have the needed mandate and adequate capacity. However, the state-level Ministry of Foreign Trade and Economic Relation (MOFTER) will participate in the overall country level Monitoring and Evaluation (M&E) (as the state MOF will carry the IDA credit debt then recoup it from the entities). A cross-entity Technical Work Group will be established (by Component 2), whereby the two Entities would exchange knowledge on Project procedures and lessons learned.

VII. Safeguard Policies (including public consultation)

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VIII. Contact point

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