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Report No: 71827-AL

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF
€ 31 MILLION
(US$ 40 MILLION EQUIVALENT)

TO ALBANIA

FOR A

WATER RESOURCES AND IRRIGATION PROJECT

OCTOBER 18, 2012

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2012)

Currency Unit	=	Albania Lek (ALL)
1 ALL	=	0.009229 US$1
1 US$	=	108.3500 ALL

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ACOLD	Albania Commission on Large Dams
AMOFTS	Albania Ministry of Finance Treasury System
CPS	Country Partnership Strategy
CQ	Selection based on Consultants Qualifications
DSDC	Department of Strategy and Donors Coordination
DB	Drainage Board
DSS	Dam Safety Secretariat
DC	Direct Contracting
EA	Environmental Assessment
E(S)IA	Environmental (and Social) Impact Assessment
ESFD	Environmental and Social Framework Document
E(S)MP	Environment (and Social) Management Plan
ESP	Environmental Services Project
EU	European Union
FBS	Fixed Budget Selection
FM	Financial Management
FS	Feasibility Study
GDP	Gross Domestic Product
GDLWS	General Directorate for Land, Water, and Services
GDWA	General Directorate of Water Administration
GIS	Geographical Information Systems
GOA	Government of Albania
HVC	High Value Crops
I&D	Irrigation and drainage
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultant Selection
ICB	International Competitive Bidding
IMT	Irrigation Management Transfer
IPA	Instrument for Pre-Accession Assistance
IWRM	Integrated Water Resources Management
LCS	Least-Cost Selection
LG	Local Government
LWR	Law on Water Resources
M&E	Monitoring and Evaluation
MAFCP	Ministry of Agriculture, Food and Consumer Protection
MCA	Multi-Criteria Analysis
MEFWA	Ministry of Environment, Forestry and Water Administration
MIS	Management Information Systems
MTB/EF	Medium Term Budget/Expenditure Framework
NCB	National Competitive Bidding
NSDI	National Strategy for Development and Integration
NSRD	National Strategy for Rural Development
NWC	National Water Council
O&M	Operation and Maintenance
OP	World Bank Operational Policy
PDO	Project Development Objective
PEIR	Public Expenditure an Institutional Review
POM	Project Operations Manual
PP	Position Paper
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-Private Partnership
PSC	Project Steering Committee
RFP	Request for Proposals
QBS	Quality-Based Selection
QCBS	Quality and Cost-Based Selection
RAP	Resettlement Action Plan
RBA	River Basin Agency
RBC	River Basin Council
RDF	Regional Development Fund
RPF	Resettlement Policy Framework
SSS	Single Source Selection
SBD	Standard Bidding Documents
Sida	Swedish International Development Agency
TOR	Terms of Reference
TS	Technical Secretariat
UNECE	United Nations Economic Commission for Europe
WB	World Bank
WFD	Water Framework Directive
WRIP	Water Resources and Irrigation Project
WRM	Water Resources Management
WUA/O	Water Users' Association/Organization

Vice President:	Philippe H. Le Houerou
Country Director:	Jane Armitage
Country Manager	Kseniya Lvovsky
Sector Manager:	Dina Umali-Deininger
Task Team Leader:	IJsbrand H. de Jong

ALBANIA
Water Resources and Irrigation Project

CONTENTS

PAD DATA SHEET

Albania Water Resources and Irrigation Project (P121186)

PROJECT APPRAISAL DOCUMENT

EUROPE AND CENTRAL ASIA (ECSAR)

Basic Information			
Project ID	Lending Instrument	EA Category	Team Leader
P121186	Specific Investment Loan	B - Partial Assessment	IJsbrand H. de Jong
Project Implementation Start Date		Project Implementation End Date	
01-Mar-2013		30-Nov-2017	
Expected Effectiveness Date		Expected Closing Date	
28-Feb-2013		31-May-2018	
Joint IFC: No			
Sector Manager	Sector Director	Country Director	Regional Vice President
Dina Umali-Deininger	Laszlo Lovei	Jane Armitage	Philippe H. Le Houerou

Borrower: Albania				
Responsible Agency: Ministry of Agriculture, Food and Consumer Protection				
Contact:	Irfan Tarelli	Title:	Director General, Department of Land, Water and Services	
Telephone No.:	+355 4 2223917	Email:	irtarelli@yahoo.com	
Responsible Agency: Ministry of Environment, Forestry and Water Administration				
Contact:	Arjan Madhi	Title:	Director General, Department of Water Administration	
Telephone No.:	+355 4 2250223	Email:	arjan.madhi@moe.gov.al	

Project Financing Data(€ M)				
[X]	Loan	[X]	Grant	Fixed spread loan with a final maturity of 23 years including a grace period of 7 years
[ ]	Credit	[ ]	Guarantee	

For Loans/Credits/Others	
Total Project Cost (€ M):	34.88
Total Bank Financing (€ M):	31.00

Financing Source	**Amount (€ M)**
Borrower	0.00
International Bank for Reconstruction and Development	31.00
SWEDEN Swedish Intl. Dev. Cooperation Agency (Sida)	3.88
Total	34.88

Expected Disbursements (in € Million)

Fiscal Year	2013	2014	2015	2016	2017	2018
Annual	5.18	7.26	8.58	9.15	4.70	0.00
Cumulative	5.18	12.44	21.02	30.17	34.88	34.88

Project Development Objective(s)

The Project Development Objective (PDO) is to (i) establish the strategic framework to manage water resources at the national level and in the Drin-Buna and Semani river basins and (ii) improve, in a sustainable manner, the performance of irrigation systems in the project area.

Components

Component Name	**Cost (€ Millions)**
Dam and Irrigation and Drainage Systems Rehabilitation	29.38
Institutional Support for Irrigation and Drainage	0.87
Institutional Support for Integrated Water Resources Management	3.88
Implementation Support	0.68

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09	**X**	
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12	**X**	
Safety of Dams OP/BP 4.37	**X**	
Projects on International Waterways OP/BP 7.50	**X**	
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
N/A			

Conditions	
Name	**Type**
Procurement and financial management	Effectiveness
Description of Condition	
Recruitment by MEFWA and MAFCP of one procurement and one financial management specialist each, with TORs and CVs satisfactory to the Bank.	
Name	**Type**
Project Governance	Effectiveness
Description of Condition	
Establishment and maintenance by MEFWA and MAFCP of a Project Management Team (already established), Project Steering Committee and Technical Committee	
Name	**Type**
Project Operations Manual	Effectiveness
Description of Condition	
Adoption of a Project Operations Manual prepared to the satisfaction of the Bank	
Name	**Type**
Signed Grant Agreement for Sida co-financing	Disbursement
Description of Condition	
Signed Grant Agreement between Sida and GOA. This disbursement condition applies to investments made under component 3.	
Name	**Type**
Legal Opinion	Effectiveness
Description of Condition	
a Legal Opinion stating that the project is authorized	

Team Composition

Bank Staff

Name	Title	Specialization	Unit
Valencia M. Copeland	Program Assistant	Program Assistant	ECSSD
Benedicta T. Oliveros-Miranda	Procurement Analyst	Procurement Analyst	ECSO2
Rimma Dankova	Consultant	Consultant	IEGPS
Alessandro Palmieri	Lead Dam Specialist	Lead Dam Specialist	TWIWA
Silvia Mauri	Consultant	Consultant	ECSAR
Drite Dade	Sr Projects Officer	Senior Projects Officer	ECSEN
Margaret Png	Lead Counsel	Lawyer	LEGLE
Arusyak Alaverdyan	Operations Officer	Operations Officer	ECSAR
IJsbrand Harko de Jong	Sr Water Resources Spec.	Team Lead	ECSAR
Xavier Cledan Mandri-Perrott	Lead Financial Officer	Lead Financial Officer	FEUFS

Bekim Imeri	Social Scientist	Social Scientist	ECSSO
Nikola Ille	Sr Environmental Specialist	Sr Environmental Specialist	ECSEN
Kozeta Diamanti	Program Assistant	Program Assistant	ECCAL
Hiromi Yamaguchi	E T Consultant	E T Consultant	ECSAR
Jonida Myftiu	Financial Management Specialist	Financial Management Specialist	ECSO3

Non Bank Staff

Name	Title	Office Phone	City
Robert Rout	Irrigation and Rural Infrastructure Engineer		Rome, Italy (FAO)
Juan Morelli	Agricultural Economist		

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Albania	Qarku i Beratit	Qarku i Beratit	X		
Albania	Qarku i Korces	Qarku i Korces	X		
Albania	Qarku i Kukesit	Qarku i Kukesit	X		
Albania	Qarku i Fierit	Qarku i Fierit	X		
Albania	Qarku i Shkodres	Qarku i Shkodres	X		
Albania	Qarku i Vlores	Qarku i Vlores	X		

Institutional Data

Sector Board

Water

Sectors / Climate Change

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Flood protection	50		
Agriculture, fishing, and forestry	Irrigation and drainage	50		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Environment and natural resources management	Water resource management	50
Rural development	Rural services and infrastructure	50

I. STRATEGIC CONTEXT

A. Country Context

1. Albania has undergone rapid economic development and joined the ranks of middle income countries in 2008. During 1998-2010 Albania's economy grew at an average rate of 6 percent, higher than any other European country. At the same time, inflation remained subdued, and the exchange and interest rates were stable. Unemployment went down considerably (from 17 percent to 12.8 percent) and the poverty headcount rate halved from 25.4 percent in 2002 to 12.4 percent in 2008. Since mid-year 2011, however, Albania's external economic environment has deteriorated significantly, as a result of which growth rate and revenue projections have been cut sharply. Fiscal adjustments are required to bring public debt to a sustainable level and to maintain macroeconomic stability to avoid facing the prospect of having to make painful adjustments later.

2. Much of the growth over the past decade was attributable to a shift of workers from agriculture to services and manufacturing. This inter-sectoral redeployment of labor from low to higher productivity sectors was welcome, but it can only be a temporary means of converging to the income levels of the European Union (EU). This inter-sectoral shift will eventually come to an end and increasingly growth will have to come from intra-sectoral productivity increases. Moreover, the post-crisis global economic environment will make the objective of sustaining rapid growth even more challenging. Consequently, much stronger efforts than in the past will be needed to eliminate the obstacles that are stifling productivity and investment, and to enhance the competitiveness of Albanian agriculture.

3. The Government of Albania (GOA) recognizes that weak governance and institutions are formidable obstacles to intra- and inter-sectoral productivity growth. Addressing these weaknesses is a requirement for continued long-term sustainable growth and poverty reduction, as spelled out in the 2007 National Strategy for Development and Integration (NSDI). The strategic goals of the NSDI are: (i) integration in the EU; (ii) strengthening the rule of law and democratization; and (iii) achieving rapid and sustainable economic and social development. Albania has recently been recommended by the EC for EU candidate status, but recognizes that fulfillment of conditions and requirements to achieve candidate status present the biggest challenge in the medium term. This is particularly true for the EU Water Framework Directive (WFD), as Albania's water sector is facing a number of serious challenges.

B. Sectoral and Institutional Context

4. Agriculture in Albania is economically important, contributing 21 percent to Gross Domestic Product (GDP) and accounting for 58 percent of employment in the country. Although Albania is favored by water resources and an annual average rainfall of 1,485 mm, the fact that about 20 percent of the total of rainfall falls during the summer period makes irrigation indispensable for agriculture. An estimated 360,000 ha have been equipped for irrigation, 280,000 ha for drainage and 130,000 ha for marine flood protection, but in 2009 only 80,000 ha was irrigated (22 percent of the equipped area). About 626 agricultural dams provide 0.56 billion cubic meters (m^3) of water for irrigation purposes mainly during the hot and dry summer season. Irrigation is the country's largest consumptive water user – and by far its least efficient.

5. Albania has recently been recommended by the EC for EU candidate status. However, Albania will need to continue to fulfill EU requirements as it progresses towards EU accession. With regard to aligning itself with the EU's Water Framework Directive, Albania will need to significantly strengthen its current policy, institutional and strategic framework for water resources management, including pollution monitoring, preparation of river basin management plans and strengthening of institutions responsible for WRM.

6. In preparation for project implementation, the Ministry of Environment, Forestry and Water Administration (MEFWA) and the Ministry of Agriculture, Food Security and Consumer Protection (MAFCP) recently prepared Position Papers (PPs) that summarize the Ministries' views on the water resources and irrigation sectors, and that will, during project implementation, be converted into a national policy for Integrated Water Resources Management (IWRM) and a national policy for Irrigation and Drainage (I&D), respectively. The PPs include a comprehensive and updated overview of the sector, describe the role and functions of its main stakeholders, identify key sectoral obstacles affecting productivity and growth, and define the main directions for the development and modernization of the sector.

7. Flooding and droughts are recurrent events in Albania, especially in the last two decades. During the large floods of December 2010, 14,000 ha in Shkodra were inundated due to heavy rains and high levels of the Drin river. Flooding has worsened in recent decades as a result of deforestation, overgrazing, and erosion, combined with a lack of maintenance of drainage canals and pumping stations. In addition, river management programs were discontinued and water levels in reservoirs were lowered in response to dam safety concerns, worsening the risk of flooding. Drought in summer and flooding in winter is expected to be exacerbated as a result of climate change (see box 1). Albania is among the countries that are most exposed to climate change and water resources will be particularly impacted, including the magnitude and frequency of catastrophic flooding events.

8. As a result of Albania's recent rapid economic growth, increase in population and urbanization, seasonal water shortages and water abundance have magnified serious weaknesses in the management of Albania's water resources. The main weaknesses in IWRM, as identified by the PP and confirmed by an institutional review of the water sector, include the high level of fragmentation of water resources management in Albania. A cross-sectoral institutional framework with broad stakeholder involvement in IWRM is missing, and responsibilities for IWRM are not clearly divided, duplicative and sometimes contradicting. Investment decisions related to water are often made on the basis of single sector considerations, leading at best to suboptimal investments and lost opportunities for capturing multi-purpose benefits, and at worst to a waste of limited public resources. In an environment of economic development and against the backdrop of climate change, these institutional weaknesses have become one of the key obstacles to growth. They also constitute Albania's most important challenge in meeting the EU's accession requirements as they relate to water, as embodied in the WFD.

9. To avoid increased demand for water from turning into a water crisis, in view of satisfying WFD requirements for EU accession, and in order to remove some of the obstacles to sectoral growth, poverty reduction and food security, Albania will need to significantly strengthen its current policy, institutional and strategic framework for IWRM, including a clear

allocation of responsibilities, an effective institutional framework for decision making and enforcement, and strengthened capacities for IWRM of key stakeholders. Doing so will help Albania allocate water between sectors in a more rational and accountable manner, on the basis of which sectoral investments decisions can be made in a more rational way, capturing multi-sectoral benefits of investments in water.

10. Because of Albania's vulnerability to climate change and its impact on water resources, the country will need to take action. Since water levels in many reservoirs have been kept low in response to safety concerns, addressing dam safety will allow the reservoirs to play a better role in reducing floods and providing water for irrigation.

Box 1: Climate Change in Albania

Looking Beyond the Horizon: Adapting Agriculture to Climate Change

Climate change is expected to significantly affect water sector performance and - with almost three-quarters of the rural population earning less than US$5 a day – economic performance in terms of poverty reduction and economic growth. Analysis of recent climate data confirms that temperatures are increasing in Albania, with average warming over the next 40 years of about 1.5 ºC. Changes in precipitation are more uncertain. The medium impact forecast indicates a decline in precipitation nationally of about 50 mm per year, with most of this decline occurring in the lowlands. Most models show that the mountainous areas of Albania, particularly around Korce, should experience only modest declines in annual precipitation.

National and annual averages, however, are less important for agricultural production than the seasonal distribution of temperature and precipitation. Temperature increases are higher, and precipitation declines are greater in July and August relative to current conditions – the summer temperature increase can be as much as 4-5 ^{o}C in the northern mountains of Albania, for example. In addition, forecast precipitation declines are greatest in the key May-to-September period, when precipitation is already lowest, particularly in the southern and northern mountains. Floods are especially problematic in the spring period, when flooding can delay or prevent planting of summer crops, with climate change potentially increasing the frequency and magnitude of flooding.

Key recommendations of the climate change analysis include (i) improving water management by adopting a more effective and integrated framework for WRM; and (ii) improving I&D by optimizing the use of irrigation water, and modernizing I&D systems, including introduction of drip irrigation and improving efficiency.

[1] Looking Beyond the Horizon: Adapting Agriculture to Climate Change in Four Europe and Central Asia Countries. World Bank, May 2012

11. Based on a Public Expenditure and Institutional Review (PEIR) of the I&D sector conducted during preparation, the sector also consumes a considerable share of public resources which is required to maintain, upgrade and operate the I&D infrastructure and secure the safety

of dams and flood protection systems. Since 2000, aggregate expenditure in I&D exceeds US$240 million. The Bank has been the main partner of the GOA in modernizing the I&D systems and institutions, with three consecutive projects between 1994-2009, amounting to US$112.4 million.

12. Public expenditures annually are around US$20 million (between 18 and 38 percent of which is allocated to O&M), and are projected to increase to over US$24 million annually. Improvements in the performance of I&D have the potential of significantly improving GDP, reducing rural poverty and decreasing public expenditures. However, many of the I&D schemes in Albania are degraded due to years of neglect.

13. Despite the importance of I&D and significant public investments in the sector (including the Bank funded operations), I&D performance continues to disappoint. Only few of the WUOs are financially viable, and all are facing low cost recovery. On average, I&D fees paid by farmers were US$1.32 per hectare, representing only 0.04 percent of gross farm income, although in-kind labor contributions may be much higher. In order to improve the performance of I&D and move out of the low level equilibrium, cost recovery needs to improve by strengthening sectoral governance and capacities.

14. The I&D PP identifies the main weaknesses in I&D sector governance, including (i) poor quality of I&D service delivery; (ii) poor condition of I&D schemes, with many canals and pumping stations no longer operational; (iii) safety concerns of many of the dams; and (iv) weak capacities of Water Users Organizations (WUOs) with poor Operation and Maintenance (O&M) cost recovery. Much of the I&D sector operates in a vicious cycle of poor cost recovery, low quality of I&D service delivery and deferred maintenance.

15. In response to these challenges, and in accordance with the NSDI, MAFCP's PP proposes to allocate a more important role to Local Governments (LGs) in I&D management to take advantage of their close proximity to farmers. In addition, the PP proposes to pilot outsourcing of the delivery of I&D services to private operators.

C. Higher level objectives to which the project contributes

16. The proposed project is designed to lay the foundations for more rational and accountable water resources management, and to improve the performance and financial viability of I&D. Addressing weak governance and institutions in the water resources and irrigation sectors will help the country satisfy requirements associated with EU accession and remove some of the obstacles to growth. Doing so is urgent, as climate change will require strong sectoral governance to ensure rational allocation of limited water resources and reduce flooding, and as dam safety is threatening to undermine the sustainability of the irrigation sector.

17. The project is fully aligned with the Albania Country Partnership Strategy (CPS) for the Period FY11–FY14. Specifically, under Strategic Objective 1: Accelerating the recovery in Albania's economic growth through improved competitiveness, the CPS identifies the need to improve infrastructure services in irrigation, and to make these more sustainable. The CPS refers to the Water Resources and Irrigation Project (WRIP) to support rehabilitation of the national

irrigation network, to address upstream safety and efficiency of irrigation reservoirs, to introduce more efficient water distribution mechanisms and consolidate recent reforms in irrigation system management and cost recovery.

18. The World Bank's "Europe and Central Asia (ECA) I&D Strategy" note (draft) recommends prioritizing future Bank engagement to improve the financial viability of I&D. Investments should be selected according to economic criteria and prospects for cost recovery. The Strategy recommends that the GOA sets out clear policies for I&D, consolidates institutional arrangements, and provides long term capacity building for organizations at each level. Phased moves towards self-sustaining O&M are required. I&D investments need to be linked to the broader water resource management agenda, including pollution control, watershed management, dam safety, effects of climate change, and water resources allocation and regulation.

II. PROJECT DEVELOPMENT OBJECTIVE

A. PDO

19. The Project Development Objective (PDO) is to (i) establish the strategic framework to manage water resources at the national level and in the Drin-Buna and Semani river basins and (ii) improve, in a sustainable manner, the performance of irrigation systems in the project area.

1. Project Beneficiaries

20. Beneficiaries include commercial farmers, including smallholders operating slightly above subsistence, but having expressed interest in adopting more commercial practices if more water could be made available in a more reliable way. In total, there are over 80,000 farmers in the project area, including over 5,000 women. Average project-wide land ownership is 0.5 ha per farmer, but this can be as low as 1,000 m^2 per farmer. Other direct beneficiaries include the Drainage Boards (DBs) and LGs that will benefit from strengthened capacities, in particular in providing support services to WUOs and in contract management, procurement and M&E of performance based contracts with private operators. WUOs will benefit from the improved quality of I&D service delivery. Finally, MAFCP irrigation staff will benefit as their capacity to identify, design and implement I&D investment operations will be enhanced.

21. Project beneficiaries also include IWRM institutions, including MEFWA staff, the National Water Council (NWC) and its Technical Secretariat (TS), and River Basin Councils (RBCs) and River Basin Agencies (RBAs) in the Drin-Buna and Semani river basins. Their operations will be supported and their capacities in the provision of IWRM services will be strengthened.

2. PDO-level Results Indicators

22. PDO indicators include, for (i) establishing the strategic framework to manage water resources at the national level and in the Drin-Buna and Semani River basins: (a) preparation of a National IWRM strategy; (b) preparation of two agreed River Basin Management (RBM) plans for the Drin-Buna and Semani basins; and (c) establishment of a Water Resources Database; and, for (ii) improving in a sustainable manner the performance of irrigation systems: (a) percentage

compliance with agreed seasonal water distribution schedules; and (b) increase in recovery of O&M costs as percentage of O&M charges invoiced.

23. Strengthening of capacities for IWRM will be done, at the national level, by preparing a national policy and strategy for IWRM, drafting a Decree for establishment of RBAs along hydrological boundaries and establishing a Water Resources Database, and, at basin level, by preparing two RBM plans. Training of staff will be undertaken both at national and river basin level. Improving performance of irrigation systems will be done by rehabilitating I&D infrastructure in project sites, improving dam safety, more closely involving LGs in I&D management, outsourcing of I&D management to a private operator in three pilot sites, preparing a National I&D strategy, and contractualizing relationships between stakeholders. Training of stakeholders will be done at national and scheme level.

III. PROJECT DESCRIPTION

A. Project components

Component 1: *Dam and I&D Systems Rehabilitation* (total €29.4 million, of which €29.4 million IBRD). This component will be implemented by MAFCP. The objective is to rehabilitate (and, where possible, modernize) I&D systems and dam infrastructure[1]. The intermediate results indicators include the number of dams rehabilitated in compliance with international dam safety standards, number of dams where emergency response plans have been prepared and disseminated to the population, water users (including female farmers) provided with improved I&D services, and area with rehabilitated/modernized I&D infrastructure (ha). Safeguards indicators are number of site specific Environmental and Social Management Plans (ESMPs) and number of Resettlement Action Plans (RAPs) prepared.

24. The component will finance the following sub-components:

(a) *Rehabilitation and modernization of selected dams and I&D systems.* This sub-component will finance preparation of all feasibility and detailed design studies, and all rehabilitation and modernization works of 14 dams and 15 I&D systems, as well as the supervision of the works. Investments will be mostly located in the Drin-Buna and Semani river basins, and will be undertaken in a comprehensive way (i.e., investments will be done as much as possible in dams and in associated I&D systems) to maximize the returns on investments.

During project preparation, Feasibility Studies (FSs) have been conducted for 14 dams (13 reservoirs). Pre-feasibility studies have been conducted for the 13 irrigation systems associated with these dams (including one Public-Private Partnership (PPP) pilot site), and for two additional PPP pilots. Detailed design studies for the dams are being conducted and are expected to be completed before project approval. Investments during the first year of the project will focus on dam rehabilitation. Detailed design studies for the associated I&D systems will be

[1] Project investments under this component will include rehabilitation of 14 dams in 13 reservoirs, as well as rehabilitation of 15 irrigation schemes, including three PPP pilot schemes (Allkaj, Bushat and Xarrë, component 2).

conducted upon completion of a process for stakeholder involvement. This process will be spelled out in the Project Operations Manual (POM) and will identify the preferred rehabilitation (gravity irrigation) and modernization (pressurized irrigation) option (see Annex 2 for details). Investments in irrigation system rehabilitation and modernization will be done in subsequent years. Farmers will be assisted in accessing GOA subsidies for installation of on-farm pressurized irrigation technologies. Each irrigation scheme rehabilitated or modernized under the project will apply for a permit for water abstraction.

(b) (i) *Preparation and implementation of safeguard instruments* and measures associated with the rehabilitation and modernization activities under Component 1(a), including ESMPs and RAPs, and (ii) *strengthening the framework governing safety of agricultural dams*, including capacity strengthening and awareness raising, and preparation of emergency preparedness plans, supervision and quality assurance plans, and dam safety O&M plans, including an instrumentation plan.

25. **Component 2:** *Institutional Support for Irrigation and Drainage* (total €0.9 million, of which €0.9 million IBRD). This component will be implemented by MAFCP. The objective is to improve the performance of organizations that provide irrigation services. This includes institutional reforms and capacity strengthening of LGs, DBs and WUOs, and piloting PPP in I&D service delivery through recruitment of third party operators to deliver irrigation services in three I&D pilot schemes. The component will also finance preparation of a National I&D strategy. Intermediate results indicators include irrigation transfer contract between MAFCP and LG prepared, number of (female) farmers trained, number of I&D transfer agreements signed, number of Bulk Water Delivery contracts signed between DBs and WUOs, I&D strategy prepared, operational WUOs created and/or strengthened, and number of PPP contracts signed.

26. The project will finance the following sub-components:

(a) *Institutional reforms of I&D sector.* Definition of responsibilities for O&M of I&D systems among stakeholders (including Ministry, DBs, LGs, WUOs and private operators) through, inter alia, (i) preparation of a National I&D strategy; (ii) development of cooperation arrangements (including contractual arrangements) among agencies including through provision of consultants services; (iii) development and formalization of I&D service delivery standards; and (iv) development and carrying out of small scale pilots in public-private partnership, including outsourcing O&M of I&D schemes to private operators.

(b) *Strengthening the capacity of organizations* that provide I&D services and the capacity of stakeholders (including Ministry, DBs, LGs, WUOs and private operators) inter alia, through provision of goods and training in areas, including contract management and outsourcing, administration, financial management and procurement, and water management and O&M. The project will train an estimated 10 civil servants from MAFCP, 15 civil servants from five DBs, staff from 15 LGs, and office bearers from 15 WUOs. Decentralized WUO support staff from DBs and LGs will be trained in strengthening capacities of WUOs. Some goods will be procured for DBs and LGs.

27. **Component 3:** *Institutional Support for Integrated Water Resources Management* (total €3.9 million, of which €3.6 million Sida and €0.3 million IBRD). This component will be implemented by MEFWA. Its objective is to establish the strategic framework to manage water resources at the national level and at the level of the Drin-Buna and Semani River basins. Capacity strengthening activities, critical for satisfactory water sector performance, will be fully integrated into each of the subcomponents to ensure their relevance and applicability. During project preparation, a number of activities have been undertaken, including preparation of TORs for developing a National IWRM Strategy and establishing a Water Resources Database. The recommendations of these preparation activities will be implemented once the project is effective. The intermediate results indicators are number of (female) staff trained in IWRM, percentage increase of budget allocation by MEFWA to the General Directorate for Water Administration (GDWA), and percentage increase of budget allocation by GDWA to RBAs. Throughout project implementation, MEFWA is expected to increasingly demonstrate leadership in the management of the country's water resources, and to progressively show responsibility as convener of stakeholders in water resources management.

28. The project will finance the following sub-components:

(a) *Preparation of a National IWRM Strategy* including establishment of a stakeholder forum for cross-sectoral dialogue and decision making under the aegis of the NWC, and strengthening capacities of institutions responsible for IWRM, such as the NWC, TS, and the RBCs and RBAs of Drin-Buna and Semani basins. In view of EU candidate status, the strategy will incorporate the EU's WFD, as reflected in the Law on Water Resources (LWR, currently under revision). The project will ensure inclusiveness of the preparation process by involving all stakeholders involved in the management of water resources. A communications strategy will be prepared and implemented to accompany the investments and the preparation of the strategy.

(b) *Preparation of River Basin Management Plans* for the Drin-Buna and Semani river basins including identification of structural and non-structural measures to improve the quality of IWRM and strengthening capacity to implement said plans through provision of training and goods to River Basin Agencies and minor rehabilitation of their offices. The project will work closely with the United Nations Economic Commission for Europe (UNECE) supported Drin dialogue and will take advantage of the river characterization that is undertaken in that context.

(c) *Establishment of a consolidated Water Resources Database* to be used as basis for national water resources planning and programming. The database will be established within GDWA. The proposed water resources database will be populated through the coordinated acquisition of monitoring data from all relevant organizations involved with water resources monitoring.

29. **Component 4:** *Implementation Support* (total €0.7 million, of which €0.4 million IBRD and €0.3 million Sida). This component will be jointly implemented by MAFCP and MEFWA. Its objective is to manage project resources in accordance with the project's objectives and procedures as outlined in the POM. The intermediate results indicator is the number of project

monitoring reports based on the established Management Information System (MIS) submitted on time.

30. The project will provide support for the implementation of the project, including provision of technical assistance, training and goods, and establishment and implementation of a performance based management information system:

(a) *Project Management*. Project implementation will be mainstreamed into the regular functions of the implementing Ministries. Support for project implementation will include: (i) provision of technical assistance, training and office equipment, and incremental operating costs in support of project management; (ii) overall project planning, quality oversight and evaluation of project activities; and (iii) strengthening procurement and financial management capacity at all levels.

(b) *Establishment of a Monitoring and Evaluation system*. The project will support the establishment of a performance based MIS and arrange for data collection and reporting on key performance output and impact indicators through a baseline survey that was completed during project preparation, and follow up surveys at the Mid-Term Review and at project completion.

B. Project Financing

1. Lending Instrument

31. The total project cost is €34.88 million, of which €31.00 million would be from an IBRD Specific Investment Loan (SIL). The Swedish International Development Agency (Sida) will co-finance €3.88 million equivalent towards strengthening IWRM and project management. Sida-financed activities are clearly separated from the activities that the Loan will finance.

32. The private on-farm irrigation facilities will be financed 100 percent by their end users/WUOs (hence external to WRIP balance sheet and fiduciary management, although Component 2 will help farmers to use these facilities more efficiently). Regarding the off-farm assets, farmers will be provided with a number of investment options. The base-case option (rehabilitation of the original gravity system) will be provided upon satisfying a number of requirements, as spelled out in the description of component 1 (see Annex 2). Any investment in modernization above the base-case scenario (including pressurized irrigation) will be provided conditional upon co-financing by farmers of the associated investment costs.

2. Project Cost and Financing

ALBANIA
Water Resources and Irrigation Project
Project Components by Year -- Totals Including Contingencies
(EUR '000)

	Totals Including Contingencies					
	2013	2014	2015	2016	2017	Total
A. Systems Rehabilitation						
1. Dam and I&D Systems Rehabilitation	3,682	5,367	7,058	8,549	4,203	28,859
2. Environmental Management Plans & Resettlement Action Plans	144	113	139	48	74	517
Subtotal	3,826	5,480	7,198	8,596	4,276	29,376
B. Institutional Support for I&D						
1. Institutional Reforms of I&D	82	255	-	-	-	337
2. Capacity Strengthening for Irrigation Service Providers	-	139	142	145	107	534
Subtotal	82	394	142	145	107	871
C. Institutional Support for IWRM						
1. Preparation of an IWRM Strategy	118	202	288	71	43	723
2. Support to Establishment of the Water Cadastre Center	290	464	240	98	93	1,185
3. Preparation of River Basin Management Plans	638	598	554	139	36	1,966
Subtotal	1,046	1,264	1,083	309	172	3,875
D. Implementation Support						
1. Project Management	110	123	110	103	106	551
2. Establishment of a Monitoring and Evaluation System	39	-	43	-	43	126
Subtotal	149	123	153	103	148	677
E. Front end Fee						
1. Front end fee	77					77
Subtotal	77					77
Total PROJECT COSTS	5,180	7,261	8,576	9,152	4,704	34,875

C. Lessons learned and reflected in the project design

33. *The Bank has a long history of engagement in IWRM*. The Bank's Water Resources Strategy condenses the lessons learned from past experience, including the critical value of transparent public sector management for good IWRM, the importance of appropriate institutional arrangements for cross-sectoral cooperation (consistent with the WFD), the need to address continued deterioration of hydraulic infrastructure through structural and non-structural measures, and the need to take climate change and hydrological variability into account in designing sectoral support.

34. In southeastern Europe, Bank-funded IWRM projects have been undertaken in FYR Macedonia, Romania, Turkey, Bulgaria and Serbia. In these countries, the Bank has provided policy advice, institutional support and investments for water resources management and development. In 2007 the Bank co-sponsored a South Eastern Europe IWRM workshop, involving all countries in the region to initiate a regional approach to address transboundary water resources management. A number of projects in areas associated with IWRM and irrigation are providing important lessons that have been reflected in the design of the proposed operation.

35. The Bank has funded three irrigation investment operations in Albania: the Irrigation Rehabilitation Project (P008270; Board Date: September 1994; Closing Date: June 2001; US$38.1 million), the Second Irrigation and Drainage Rehabilitation Project (P043178; Board Date: June 1999; Closing Date: March, 2005; US$40.3 million), and the Water Resources

Management Project (P082128; Board Date: June 2004; Closing Date: December 2009; US$34.0 million). All projects aimed to provide an appropriate mix of investments in the rehabilitation of hydraulic assets, institutional reforms and capacity strengthening to sustainably improve the quality of I&D service delivery and ensure more accountable and transparent I&D management, increase cost recovery of O&M costs and facilitate increased agricultural production.

36. At completion, all three projects were rated moderately satisfactory or better. Overall, the lessons learned suggest that involvement of stakeholders in project design, implementation and financing is critical for success. However, experience from an increasing number of projects also suggests that involvement and strengthening of WUOs alone is an insufficient condition for success and sustainability. Further support needs to be provided for additional stakeholders, including in particular LGs. In accordance with MAFCP's policy objectives, ownership of small I&D schemes has been handed over the LGs, and more I&D schemes will follow in future. The project recognizes that capacities of LGs to provide services of adequate quality is limited, and will therefore strengthen these capacities to better support WUOs in the implementation of agreed O&M and cost recovery rules. Responsibilities for O&M between MAFCP, DBs, LGs and WUOs will be more clearly defined and aligned, relationships will be contractualized and performance incentives will be provided to ensure coherent service delivery.

37. In addition, experience suggests that improving the quality, reliability and accountability of I&D service delivery requires clear financial incentives that private sector operators usually react to in a more effective and responsive manner. There is a growing body of international experience in the provision of utility (water) services by private operators. In view of this, the project will pilot performance based I&D service delivery by third party private operators under a PPP arrangement with either MAFCP or LGs, depending on who owns the I&D system. Involvement of LGs and private operators will complement the important responsibilities of WUOs that the project will continue to strengthen.

IV. IMPLEMENTATION

A. Partnership arrangements

38. The project will be co-financed by the Swedish Government. The Swedish Government has agreed to co-finance €3.88 million which will be used to support the activities outlined in Component 3 on IWRM and Component 4 on project management. Sida-financed activities are clearly separated from the activities that the Loan will finance. This financing is in line with Sida's Strategy for Development Cooperation for Albania (January 2009-December 2012). The focus of the Swedish support is on two sectors: (i) democratic governance and human rights; and (ii) natural resources and environment. The specific objectives for the sector of natural resources and environment include increased Albanian administrative capacity at national and local levels for dealing with natural resources sustainably in the long run and increased capacity for the sustainable use of the country's water resources. The Swedish Government will either extend the span of the current strategy until 2013 or start the preparation process for a new cooperation strategy, where integrated management of water resources remains a priority area.

39. Sida also intends to co-finance an IBRD/GEF financed Environmental Services Project (ESP - scheduled to start in 2014) that aims strengthen community based natural resource

management planning and implementation. That project is expected to pilot payments for environmental services that sustainable forest and pasture management provides to downstream users, such as reduced sedimentation of reservoirs[2]. The project will facilitate negotiations between down-stream beneficiaries (irrigation, hydropower, water supply companies) and up-land managers.

40. WRIP and ESP have a number of common aims, with opportunities for developing combined activities and building synergy for enhanced impact. Areas for potential collaboration include: reducing maintenance costs of dam and other water infrastructure by encouraging infrastructure owners to work together with upland resource managers for sustainable upland resource management; developing outreach activities to both downstream beneficiaries and upstream communities; and contributing to the development of sound institutions and policy framework for both water and land management.

B. Institutional and implementation arrangements

41. MEFWA and MAFCP will be the lead Implementing Agencies for the project, responsible for project management of activities relevant for each of the ministries. A Project Steering Committee (PSC), co-chaired by the Minister of MAFCP and the Minister of MEFWA will be established and maintained to ensure inter-institutional coordination and provide overall project oversight. Members of the PSC will include representatives of the DBs, RBCs, WUOs, LGs relevant for the project area, MOF and other stakeholders. Each implementing agency has established a Project Management Team (PMT) that is responsible for project implementation and that consists of a Project Coordinator, a Project Manager, a Monitoring and Evaluation (M&E) Specialist, and Technical Specialists. The Project Coordinator will be the General Director of the General Directorate for Land, Water, and Services (GDLWS) in MAFCP, and the General Director of GDWA in MEFWA. The Project Managers will be appointed staff of each general directorate. Each Ministry has also appointed an M&E Specialist from among its staff within the relevant General Directorates. Each of the PMTs will be supported by local consultants for Procurement and Financial Management. These have already been recruited by MAFCP. Recruitment of a Procurement and Financial Management Specialist by MEFWA is a condition for project effectiveness. To ensure coordination at the operational level, a Technical Committee including Project Coordinators and Project Managers of each Ministry, as well any additional staff of the PMTs as necessary, will be established.

C. Results Monitoring and Evaluation

42. The project implementing agencies, MAFCP and MEFWA, will be responsible for the preparation and implementation of the M&E program. In particular, one staff of each ministry PMT will be appointed to carry-out M&E activities. The PMTs will be supported by a consultancy planned under Component 4 that will be engaged to set up the project's MIS, based on the agreed Project Outcome Indicators and targeted annual performance objectives (presented in Annex 1), that will be used to track progress in implementation activities. Inputs will be also

[2] It is estimated that soil erosion in Albania varies from 21.4 ton-ha to 34.7 ton-ha per year (Albania's Second National Communication, 2009).

provided through baseline surveys, completed during project preparation, and additional surveys scheduled for mid term and end of the project.

43. Progress will also be monitored through regular reporting by the PMTs and through joint Bank and Sida implementation support missions. Findings of M&E activities will provide feed-back during project implementation. The data collected will be presented in semi-annual progress reports, to be shared with the Bank and Sida, prior to missions. These progress reports should also include a chapter reporting on safeguards (progress on the ESMPs and RAPs). Technical and environmental audits of the works carried out during the project will also provide inputs to the progress reports.

Sustainability

44. Concerns about sustainability include four distinct levels:

(a) *Financial viability of IWRM*: adequate financial resources need to be made available to RBCs and RBAs to satisfactorily perform their responsibilities. Public resources have been allocated so far, but these have been inadequate to ensure high quality management of water resources. Over time, IWRM will need to be funded through water resource fees that will be paid by water users. However, in the short- and medium-term, adequate allocations from the public budget need to be made. This will provide RBAs and RBCs with an opportunity to demonstrate the added value of their services to customers in view of longer-term cost recovery objectives. The project will address the sustainability of IWRM by strengthening capacities, assisting RBAs and RBCs in the identification and implementation of their workplan (focusing on service delivery to customers), pursuing institutional reforms and helping MEFWA and GDWA to ensure that adequate public resources are being allocated to MEFWA and GDWA, respectively.

(b) *Financial viability of I&D*: a key concern associated with I&D is the insufficient allocation of resources to public I&D services and the inadequate recovery from farmers of private O&M costs. As a result, many irrigation schemes, not only in Albania, are faced with a vicious cycle of inadequate resources, poor I&D service delivery and limited willingness among farmers to pay. The project will address these concerns by (i) closer involvement of LGs in I&D management and in particular in O&M fee collection; (ii) contractualizing relationships between MAFCP, DBs and WUOs, to clearly define mutual rights and responsibilities; (iii) strengthening capacities of LGs in revenue and expenditure management, asset management and capital investment planning; and (iv) piloting involvement of private operators in providing high quality, accountable and transparent I&D services.

(c) *Environmental and social sustainability*: an Environmental and Social Framework Document (ESFD), drafted during project preparation, has identified key measures to mitigate any adverse environmental and social impacts of the project. Draft site specific ESMPs for a number of dams have been prepared. Site specific ESMPs will be prepared for each investment in dam and I&D rehabilitation and require Bank approval before

tendering of the associated works begins. An RPF has been prepared and where determined under the RPF that such is needed, RAPs will be prepared for investments and approved before works begin. ESMPs and RAPs will identify specific measures that will need to be taken. Most of these will be reflected in the construction contracts, and adequate resources have been allocated for implementation of additional measures. The project will follow up diligently on the implementation of these ESMPs and RAPs.

(d) *Climate Change*: during project preparation, the Bank team has taken advantage of a detailed climate change study that was undertaken in Albania[3]. Many of the recommendations have been incorporated into the project, including (i) improved institutional framework and enhanced capacities for managing water resources; (ii) investments in dam safety; (iii) investments in irrigation and drainage systems; and (iv) improved reliability of I&D service delivery.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Rating Summary Table

Risk	**Rating**
Stakeholder Risk	Substantial
Implementing Agency Risk	
- Capacity	Substantial
- Governance	Substantial
Project Risk	
- Design	Substantial
- Social and Environmental	Moderate
- Program and Donor	Low
- Delivery Monitoring and Sustainability	Moderate
Overall Implementation Risk	Substantial

B. Overall Risk Rating Explanation

45. The overall risk rating is Substantial. The economic fundamentals for the project are sound, and MAFCP, as confirmed in the PP, is strongly in support of the proposed measures to enhance sustainability of the investments, including support for LGs and piloting of PPP in I&D service delivery. The adoption by the project of a more comprehensive approach to sustainability reflects one of the important lessons learned from previous experience. MEFWA sees

[3] Looking Beyond the Horizon: Adapting Agriculture to Climate Change in Four Europe and Central Asia Countries. World Bank, May 2012

preparation of the IWRM strategy and RBM plans for Drin-Buna and Semani, and capacity strengthening of the water sector as important steps towards satisfying the requirements of the WFD and EU accession.

46. Key risks include the current financial crisis and its impact on the pace of draw-down of loan proceeds. Capacities in the water sector are weak, including DBs, WUOs, RBAs and RBCs. MEFWA may not be able to demonstrate leadership in the management of the water sector and in bringing all stakeholders to the table - in particular those with significant political and financial clout (such as hydropower). Capacities of LGs to provide I&D services are also weak. In addition, there are concerns about collaboration between the two implementing agencies, required for satisfactory project implementation. Improving sustainability and increasing cost recovery is facing significant challenges in view of persistent and historic weak performance of the I&D sector. While mainstreaming of implementation within the two Ministries will help generate higher levels of ownership, it will put additional demands on already weak capacities to implement the project satisfactorily and may lead to delays.

47. In view of the above, the project will prioritize capacity strengthening of key stakeholders. Preferably, capacity strengthening will be built into project activities, such as the preparation of the IWRM strategy and RBM plans. To mitigate capacity constraints for project implementation, adequate support will be provided through support services, including procurement, financial management and M&E. While achievement of full recovery of costs (both in I&D and IWRM) will require significant time to materialize, the more comprehensive approach towards sustainability and the emphasis on the quality of service delivery is expected to strengthen the framework for cost recovery. In addition, involvement of stakeholders at all levels in project implementation will be key to sustainability. E.g., I&D rehabilitation and modernization options will be presented to stakeholders, who will ultimately decide on the preferred option. In IWRM, the project will emphasize quality of service delivery to demonstrate the added value of RBAs and RBCs at the basin level prior to increasing cost recovery. This will be accompanied by an awareness raising campaign to clarify to stakeholders the importance of WRM and the added value of RBAs. Nevertheless, while clear measures have been identified, full mitigation of all risks may be elusive and the project may not have alternatives but to adapt its pace of implementation.

VI. APPRAISAL SUMMARY

A. Economic and financial analyses

48. The project will include rehabilitation works on 13 prioritized reservoirs and rehabilitation and modernization works on the 13 associated I&D systems (mainly gravity-operated). Two additional PPP pilot schemes will also be included in the project. The rehabilitation and modernization works are expected to be cost effective, as they will restore the operation of reservoirs and related irrigation canals that are currently either nonoperational and/or substantially damaged. Together with modernization (i.e., introduction of pressurized irrigation in parts of the command area), it will enable farmers to produce a wider range of crops with better quality and higher value, leading to substantial increases in agricultural production through better yields, more higher value crops (HVCs) and cropping intensities. Economic

impacts could be obtained slowly or within few years of completion of works, depending on effectiveness of incentives and support provided by MAFCP.

49. The expected financial impact of the project on farmer's revenue and its economic impact on the Albanian economy were assessed with the help of crop and farm models, showing average farming situations, as seen on results being obtained from previous projects. Models and budgets were developed using FARMOD software. Beneficiaries would - on average - increase their net family income by 35 to more than 100 percent depending on the farm size and the degree of diversification into HVC adopted. Given that limited diversification to HVCs is expected, labor requirement would increase from about 69 - 133 days to about 94 - 152 days per farm per year due to the increased agricultural activity, still well below the working capacity of an average family (500 person days). The return to family labor is expected to increase with the project from about $35 to $48 per day-worked which is well above the normal wages in rural areas (about $10 per day). These improvements are highly positive given the few job opportunities in rural Albania. However, only about 20 percent of the available family labor would be utilized, unless diversification could be accelerated significantly. Either way, farm size is too small to provide full time employment for all family members, or to provide adequate income to support a four or five person household.

50. The overall ERR of the project is estimated at 23.7% (see details in Annex 7). Using a discount rate of 10 percent, the NPV was estimated at ALL 6.9 billion (US$63.2 million). Three out of the four project components (excluding the institutional support for IWRM, Component 3) were included in the costs of each of the assessed schemes, weighted by their relative importance in the direct rehabilitation costs. Few adjustments were made to the market prices to express the opportunity costs of goods and services involved as market prices are considered to be in line with their economic value (shadow or border prices). O&M of the irrigation systems after rehabilitation or modernization was assumed to be 2 per cent of the rehabilitation or modernization costs.

51. The project results are based on conservative estimates: (i) improvements in production to be achieved in 2017 are expected to be unchanged from 2017 when it is highly probable that they will continue to improve; (ii) only 70 per cent of the command area in the project schemes are assumed to take advantage of the improved irrigation system; and (iii) diversification towards HVCs like vegetables, vineries and fruit trees were assumed to increase from 22 to 31 percent of the area in summer, while wheat and alfalfa areas would be reduced from about 88 to 78 percent in winter as orchards expand.

52. The sensitivity analysis conducted to assess the exposure of the project to most probable risks included: (a) a 20 percent increase in construction costs; (b) a 20 and 30 percent decrease in food prices given the current high prices of food in comparison to long term averages; (c) a 20 percent reduction in the number of farms adjusting their farming practices in response to the improved availability of irrigation; and (d) a several combinations of the above mentioned risks. In all cases the ERR remained above 12% which suggests that the project is generally robust against most probable risks factors.

B. Technical

53. An FS of the rehabilitation works on the dams and a pre-feasibility study of the associated I&D systems have been conducted during project preparation by an international consultant. Detailed design studies are being conducted for dam rehabilitation works, and these works will be implemented during the first year of the project. Works on I&D systems will be implemented starting the second year, after consultations with farmers on the substance of the works, and after having conducted detailed design studies.

54. Supervision of the works will be done by a consultancy firm that will be recruited competitively. There will be one firm for supervision of works for rehabilitation of dams and another firm for supervision of works for the rehabilitation or modernization of the associated I&D systems. The project will recruit two local engineers who will support MAFCP in supervising the DBs, and who will conduct training of DB staff in construction supervision. Contractors for dam rehabilitation works and I&D rehabilitation and modernization works will be recruited either through ICB or NCB, depending on the cost estimate. Works contracts will be packaged so that schemes in close proximity and works of comparable magnitude will be combined into one package. Numerous capable national, regional and international contractors are available to implement the works. There is also adequate capacity in construction of pressurized piped systems.

55. Availability of capable private I&D service providers is not known at this stage. However, based on preliminary consultations with a number of potential candidates during the implementation of the PPP assessment study, the team believes that appropriate operators can be found for the three PPP pilot projects. This is based on the fact that implementation of the contracts is not technically complicated, and that the terms of the contracts will be subject to extensive exchange with potential operators.

56. LGs have inadequate capacities to provide high quality I&D services to WUOs and farmers, and the project will therefore strengthen capacities. The project will also contractualize relationships between MAFCP, DBs, LGs and WUOs and will introduce performance measures that would determine the magnitude of fund transfers between MAFCP and DBs. Capacities of LGs will be strengthened, and I&D transfer agreements between MAFCP and LGs will be designed.

C. Financial Management and Disbursement Arrangements

57. A financial management assessment for the implementation of the proposed Water Resources and Irrigation Project was carried out during the preparation of the project and updated at appraisal. The mission reviewed existing financial management arrangements at MAFCP and MEFWA for preparation and implementation of the proposed project. Such systems reviewed included: staffing, internal controls, accounting and financial reporting for project purposes, planning and budgeting, disbursements and auditing arrangements. The financial management arrangements of the project are acceptable to the Bank. The overall FM risk for the project is substantial.

58. The proposed project aims to utilize the improvements in the functionalities of the treasury system for funds flow, accounting and reporting functions. The assessment concluded that the project will be mainstreamed through the Albanian Ministry of Finance Treasury System (AMOFTS) only when the following conditions are met: (i) provision of the direct access of implementing ministries in the AMOFTS; (ii) enabling of appropriate project coding in Treasury Chart of Accounts and generation of acceptable IFRs; (iii) recovery of the Albanian economic situation, so that cash crunch situation will not affect the project implementation (iv) proper commitment control functionalities enforced and (v) proper cash management (government wide); the lack thereof weaken the system's performance and lessen the predictability of funding availability for capital expenditures to honor commitments and contracts.

59. The bank team will undertake a review of the system functionalities during the project implementation if there are indications that the above conditions are met, to ensure that such are acceptable for project purposes.

60. The project will pursue an alternative plan for accounting, financial reporting and funds flow of the project until the decision to rely on the country public accounting, reporting and treasury system. An acceptable project financial management solution has to be purchased for project purposes in both implementing agencies. With respect to funds flow arrangements, the funds will flow from the designated account to project bank accounts opened in a secondary level bank and thereafter transferred to contractors for the payment of invoices.

61. During appraisal, it was found that MEFWA did not submit the audit report on the final project financial statements of the Natural Resources Development Project (P082375) by the due date of August 24, 2012. The project closed on November 1, 2011 and was implemented by a PIU within MEFWA. An exception to submit the audit report prior to negotiations was authorized by the relevant Vice Presidents in accordance with the provisions in BP 10.02, Annex A. An unqualified audit report of NRDP was received by the Bank on October 19, 2012.

62. Detailed cost tables of the project were prepared that include IBRD and Sida contributions. Government contributions, including VAT and other expenses, have not been reflected in these costs. During each financial management review of the project, The Bank will review the accuracy of invoices and ascertain that VAT charges (i) have been estimated correctly, and (ii) have not been submitted for funding to the Bank.

D. Procurement

63. Procurement will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers", dated January 2011; and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers," dated January 2011, and the provisions stipulated in the Legal Agreement. The attached procurement plan (Annex 3) outlines the proposed procurement and selection methods. Procurement activities for components 1 and 2 will be carried out by MAFCP, component 3 by MEFWA, and component 4 by both MAFCP and MEFWA.

64. *Procurement of Works:* Works procured under the project will include rehabilitation of 14 dams and rehabilitation or modernization of 15 I&D systems. A good portion of these works packages are to be procured through NCB, because the dams are relatively small. Based on geographic location, works for the small dams will be combined under NCB packages and works for bigger dams will be procured under ICB. NCB will be done using the harmonized NCB document for Works.

65. *Procurement of Goods:* Goods procured under Components 2, 3 and 4 will include: equipment for DBs, WUOs, LGs, motorcycles for DBs, office equipment and cars for RBMs, and office equipment for MAFCP and MEFWA. Since these are small value contracts, procurement will be done using harmonized NCB documents for Goods or shopping using ITQ (June 2011), depending on the cost estimate for the package.

66. *Selection of Consultants*: The following methods may be used for the selection of consultants: Quality and Cost-Based Selection (QCBS), Quality-Based Selection (QBS), Least-Cost Selection (LCS), Fixed Budget Selection (FBS), Selection based on Consultants Qualifications (CQ), Individual Consultant Selection (IC), and Single Source Selection (SSS).

67. An assessment of the capacity of the Implementing Agencies to implement procurement actions for the project was carried out in June 2010 during the identification mission for the project. A re-assessment was conducted during the pre-appraisal mission of June 2012. Procurement risks include:

(i) *Inadequate capacities* in MAFCP to accurately develop bid documents in accordance with agreed procedures. MEFWA neither has the procurement capacity nor the experience to carry out selection of consulting services under QCBS for large-value assignments. Remedies include recruitment of a procurement consultant (one each for each of the implementing agencies) with experience in Bank-financed projects.

(ii) *Monitoring and Reporting.* Due to inadequate capacity of the two implementing agencies, there is a risk of weak mechanism for overall supervision, or monitoring of project procurement, and delays in receiving consolidated status reports. Remedies include conducting regular meetings of the PMT to carry out a review of the current project procurement status as compared to the procurement plan, and to decide on corrective course of action.

(iii) *Quality of Works.* There is not sufficient manpower nor expertise to ensure quality of works for the rehabilitation of dams and I&D systems. Remedies include recruitment of consultancy firms to supervise rehabilitation works. In addition, representatives of the relevant DBs and members of the Dam Safety Panel of Experts (POE) will monitor works to ensure compliance with international dam safety standards. Two engineers will be recruited to support the DBs.

68. Based on the corrective actions/remedies agreed upon, the overall project risk for procurement is Moderate.

E. Social Sustainability, Gender and Social Safeguards

69. Successful implementation of WRIP depends among others on the meaningful participation of all stakeholders. Beneficiary communities have been consulted during project preparation by the consultant engaged to prepare the ESFD for the identification of technical solutions. Consultations have been organized at district level to discuss the ESFD and draft site-specific ESMPs. The ESFD has defines a Public Consultation Plan which will be an important part of project implementation. For each of the investments, final site specific ESMPs will be prepared, discussed with the local population and approved before tendering of the works.

70. The expected impacts of the project are a reduction of migration due to employment opportunities, and increased incomes by improving crop and plant production. Additional positive impacts to be expected are increased land value and establishment and strengthening of WUOs that will help build social capital. Most of the social risk is likely to occur during the implementation of the works and these are mostly related to temporary loss of land and to lesser extend permanent loss of land. Out of 13 reservoir sites, dam spillway levels are expected to increase by 0.3 to 0.5 meters in four cases, all located in the Semani river basin. The Semani basin flows entirely within Albania and exits to the Adriatic Sea. It is highly unlikely that there is a need to resettle people as a result of investments made under WRIP. The site-specific ESMPs will include site-specific mitigation measures, implementation procedures and arrangements for ensuring full consideration of social and environmental safeguards and relevant Albanian procedures.

71. Because of possible cases of mostly temporary and limited loss of land and the possibility of physical relocation, OP/BP 4.12 was triggered. Technical designs for 13 agricultural reservoir rehabilitations are expected to be completed by the end of 2012, and designs for the rehabilitation or modernization of the associated I&D schemes will be developed during the first year of project implementation. The exact impact can therefore not be determined at present. Thus, the project prepared a detailed RPF and a template RAP which is included in the RPF. Site specific RAPs, if required, will be prepared in compliance with OP 4.12.

72. Over 5,000 women farmers (out of a total farming population of over 80,000) are making a living in the project area. In view of this, and because of the generally conservative environment in rural Albania, the project will encourage participation of women through social mobilization activities under Component 2 and 3. It will dedicate separate sessions for women, aiming at increasing their roles throughout the subproject cycle (including WUO administration and decision-making). The project will organize all public events in an environment that will encourage women participation. Factors such as place and time of the meeting will be carefully considered in order to maximize women's participation. The project will approach female opinion leaders in the villages (teachers, doctors, others) to facilitate dialogue with women and to encourage them to become involved in public consultations and other project activities such as training and technical assistance. The project will avoid organizing consultations in the village cafeterias if these are not frequented by women. The village school or any other public space that is frequented by women would be the most acceptable environment for organizing meetings. Women's involvement in the project will be monitored as a supplementary indicator of the PDO Indicator on direct beneficiaries, and also in terms of female membership in the WUOs.

73. All relevant indicators will be disaggregated by gender whereby special attention will be given to participation of women in public consultation processes. Depending on the community, the project will, if necessary, organize a special consultation process with women only if any other techniques and approaches would prove inapplicable (see above). In consultation with stakeholders, the project will attempt to introduce minimum levels of women participation in WUO membership and WUO decision making bodies. For families headed by women, because of the absence of the spouse (e.g., as a result of migration), the project approach will be that women as head of family should not be substituted by male relatives of the husband.

F. Environment (including Safeguards)

74. The project encompasses, among others, rehabilitation and modernization of 13 agricultural reservoirs and associated 15 I&D schemes (including three PPP pilots), some of them over 50 years old. The sites are located in the northern part of Central Mountain Region, belonging to districts of Kukës, Tropoja, Korçë, Berat and Fier, where agriculture remains the most important source of income and economic output. One PPP site (Xarrë) is located in Saranda in the South of Albania, and another one in Shkodra. The associated I&D schemes are in very poor shape, with only 53 percent of the original command area still operational.

75. The project is classified as Category B under World Bank Operational Policy 4.01 due to the nature of project activities and the fact that there will be no new dams or expansion of the irrigation schemes, compared to the originally designed schemes. Under the Albanian Law on Environmental Protection the project needs authorization from MEFWA before implementation on specific sites can commence. Albanian and WB EIA procedures are similar in this respect and require three steps: (i) screening; (ii) environmental assessment; and (iii) approval.

76. At the time of project appraisal, feasibility and detailed design studies were being conducted for dam rehabilitation, including detailed geotechnical investigations and analysis of dam stability and potential slip zones. Only preliminary information on the nature, scope and precise location of the dam rehabilitation works was available. Information about the nature of the I&D rehabilitation works (scheduled to start during the second year of the project) was only available at pre-feasibility level. In light of this, the Borrower has prepared an ESFD and a number of draft site specific ESMPs for the first year of project implementation, which will involve rehabilitation of dams and the immediate ancillary works around the reservoirs. The main purpose of the ESFD is to be a tool for ensuring that the infrastructure sub-projects (i.e. the dams and I&D systems that are to be rehabilitated) under WRIP comply with the existing laws, regulations and customs in Albania as well as with the WB's Operation Policies, and that these activities will not produce a lasting adverse impact on the country's population, the natural environment, or assets of particular cultural value.

77. Specifically, the ESFD: (i) identified the most critical, overall environmental issues for the irrigation sector in Albania; (ii) reviewed the in-country capacity for environmental impact assessment of irrigation/agricultural sector projects by developing the policy/regulatory and institutional framework for EIA, and suggested measures for strengthening the EIA capacity in all institutions involved in the project implementation; (iii) defined environmental principles for

dam and I&D rehabilitation under WRIP; (iv) developed generic environmental guidelines for water/irrigation projects in Albania, covering environmental considerations in all stages of sub-project implementation from identification and selection of rehabilitation works, through design and implementation to monitoring and evaluation of results; and (v) outlines the requirements for the preparation of site specific pest management plans for each of the investments in I&D rehabilitation. The ESFD presents baseline data in respect to selected sites, discusses the social and environmental impacts, reviews the project alternatives and includes a generic ESMP containing a sample Mitigation Plan and a sample Monitoring Plan. The ESFD and a number of draft site specific ESMPs were approved by the Bank on October 1, 2012 and have been publicly disclosed in country on September 14, 2012.

78. All studies and bidding documents related to dam rehabilitation will include measures to minimize and/or mitigate potential adverse environmental impacts and damage. To this effect, 13 site-specific final ESMPs – one for the each reservoir – will be prepared by MAFCP to meet both Albanian and the World Bank requirements. They will be disclosed locally and public consultation will be held separately for each dam sub-project. All site specific ESMPs will be reviewed and endorsed by the responsible environmental institution in Albania and submitted to the Bank for approval. The POM will detail the procedures to prepare, disclose and approve site specific ESMPs. Monitoring and compliance in accordance to ESFD and site specific ESMPs, including monitoring of implementation of site-specific measures on each sub-project sites during project implementation will be undertaken by MAFCP and its PMT, and reported in writing to the Bank on semi-annual basis. An environmental specialist will be appointed to the project by MAFCP to ensure quality in the implementation of the ESMPs.

79. At this stage, the ESMPs for the irrigation system rehabilitation and modernization works (canals, pipes etc) have not yet been prepared as implementation of the works is scheduled for the second year of the project. Fifteen of these (one for each I&D scheme) will be prepared during the first year of project implementation, once there is clarity about the feasibility studies of the I&D schemes. The same monitoring and compliance arrangements as for the dam rehabilitation will apply for the rehabilitation or modernization works on irrigation schemes.

G. Other Safeguards Policies

80. In addition to OP 4.01 on Environmental Assessment and OP4.12 on Involuntary Resettlement, the project triggered the following policies:

81. OP 4.09 on Pest Management is triggered, as rehabilitation and modernization of the irrigation schemes will likely lead to growth of intensified agriculture, which could lead to increased use of agrochemicals including pesticides. The project approach towards awareness raising activities and promotion of IPM approaches in pesticide handling is part of the ESFD, and pest management plans will be prepared as part of the site-specific ESMPs for irrigation system rehabilitation and modernization. Additionally, the project will work with MAFCP in strengthening its internal capacity for pest management.

82. OP 4.37 on Safety of Dams is triggered and will require due diligence activities to ensure that dam safety measures are in place and comply with international dam safety standards. All

dams are pre-existing and hence fall under paragraphs 7-11 of OP 4.37 (existing dams and dams under construction). With the exception of Tregtani 2 Dam (which is 10 meters high) all other dams fall under classification of "large dams" as they are higher of 15 meters. In case of Koshnica 1 Dam, which may need complete reconstruction, it also falls under paragraph 2-6 of OP 4.37. A POE, consisting of five panel members, has been recruited and is responsible for advising the Borrower on matters related to safety of the dams, including review of designs for rehabilitation of the dams, and monitoring and reporting on the rehabilitation works and on the completion of the works to ensure compliance with OP4.37. An Operation and Maintenance Plan, an Emergency Preparedness Plan and a Plan for Supervision and Quality Assurance were prepared by appraisal (Koshnica) and will be prepared by tendering of the works (all other dams). These plans will need to be updated once rehabilitation has been completed.

83. OP 7.50 on International Waterways is triggered, since the rivers where some of the dams are located are international. Out of the 14 dam rehabilitation sub-projects, four sites lie within the Drin catchment, namely Tregtani 2, Tregtani 3, Vranishti 2 and T'Plani. The Drin River has two tributaries - the Black Drin and the White Drin. The Black Drin originates in FYR Macedonia and flows into Albania, while the White Drin originates in Montenegro and flows into Albania, before joining the Buna River, which flows from Shkodra Lake (an international lake shared between Albania and Montenegro) to the Adriatic Sea. Nine sites lie within the Semani Basin which flows entirely within Albania and exits to the Adriatic. One scheme is located in an area that falls under the mandate of the Vjose RBA, but that draws its water from the Janjari reservoir that is not hydrologically part of the Vjose basin. Part of the upper catchment area of Janjari reservoir is located in Greece. Other than the investments in the sites located on international waterways under component 1, no other project activities will use water from international waterways. The said investments under component 1 of the project (i) involve rehabilitation of already existing dams, and (ii) do not involve works and activities that would increase the original command area, or change the original scheme's nature. Consequently, the project falls under the exception set forth in paragraph 7 (a) of OP 7.50 as (i) it will not adversely affect the quality or quantity of water flows to the other riparians; and (ii) it will not be adversely affected by other riparians' water use. The application of the exception was endorsed by management in a memorandum dated August 10, 2012.

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[ ]
Natural Habitats (OP/BP 4.04)	[ ]	[X]
Pest Management (OP 4.09)	[X]	[ ]
Indigenous Peoples (OP/BP 4.10)	[ ]	[X]
Physical Cultural Resources (OP/BP 4.11)	[ ]	[X]
Involuntary Resettlement (OP/BP 4.12)	[X]	[ ]
Forests (OP/BP 4.36)	[ ]	[X]
Safety of Dams (OP/BP 4.37)	[X]	[ ]
Projects on International Waterways (OP/BP 7.50)	[X]	[ ]
Projects in Disputed Areas (OP/BP 7.60)*	[ ]	[X]

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*

Conditionality

84. The effectiveness condition is (i) recruitment by MEFWA and MAFCP of one procurement and one financial management specialist each; (ii) establishment and maintenance by MEFWA and MAFCP of a Project Steering Committee and Technical Committee; and (iii) adoption of a POM that is satisfactory to the Bank. Signing of a Grant Agreement is a condition for disbursement under component 3.

Annex 1: Results Framework and Monitoring

ALBANIA: Water Resources and Irrigation Project

Project Development Objectives

The Project Development Objective (PDO) is to (i) establish the strategic framework to manage water resources at the national level and in the Drini-Buna and Semani river basins and (ii) improve, in a sustainable manner, the performance of irrigation systems in the project area.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Percentage compliance with agreed seasonal water distribution schedules	☐	Percentage	0.00	0.00	0.00	10.00	30.00	75.00	Semi-annual	Semi-annual surveys	MAFCP
Increase in recovery of O&M costs as percentage of O&M charges invoiced	☐	Percentage	0.00	0.00	0.00	20.00	50.00	70.00	semi-annual	LGs/WUO billing records	MAFCP
Preparation of an agreed IWRM policy and strategy	☐	Yes/No	No	No	No	Yes	Yes	Yes	Annual	Consultant's report	MEFWA
Preparation of two agreed RBM plans for the Drin-Buna and Semani basins	☐	Yes/No	No	No	No	No	Yes	Yes	annual	Consultant's report	MEFWA
Establishment of Water Resources Database	☐	Yes/No	No	No	No	No	Yes	Yes	annual	Consultant's report	MEFWA

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				YR1	YR2	YR3	YR4	End Target			
Number of dams rehabilitated in compliance with international dam safety standards	☐	Number	0.00	6.00	14.00	14.00	14.00	14.00	semi-annual	final Dam Safety Panel report	MAFCP
Number of dams where emergency response plans have been prepared and disseminated to the population.	☐	Number	0.00	12.00	14.00	14.00	14.00	14.00	semi-annual	LG records	MAFCP
Water users provided with new/improved irrigation and drainage services (number)	☒	Number	0.00	0.00	10,000	20,000	30,000	35,000	semi-annual	WUOs billing records	MAFCP
Water users provided with irrigation and drainage services - female (number)	☒	Number	0.00	0.00	30	70	90	4000	semi-annual	WUOs billing records	MAFCP
Area provided with irrigation and drainage services (ha)	☒	Hectare(Ha)	0.00	0.00	10,000	20,000	30,000	35,000.00	annual	Contractor's certification report	MAFCP
Area provided with irrigation and drainage services - Improved (ha)	☒	Hectare(Ha)	0.00	0.00	10,000	20,000	30,000	35,000.00	annual	Contractor's certification report	MAFCP
Irrigation transfer contract between MAFCP and LGs prepared	☐	Yes/No	No	No	No	Yes	Yes	Yes	annual	Consultant's report	MAFCP
Number of farmers trained	☐	Number	0.00	500	1,000	1,500	1,500	2,000	semi-annual	Consultant's report	MAFCP
Number of farmers trained	☐	Number	0.00	25	50	75	100	500	semi-annual	Consultant's	MAFCP

– female										report	
Number of I&D transfer agreements signed	☐	Number	0.00	0.00	4.00	8.00	12.00	15.00	semi-annual	WUO and DB records	MAFCP
Number of Bulk Water Delivery contracts signed between DBs and WUOs	☐	Number	0.00	0.00	4.00	8.00	12.00	15.00	semi-annual	registry of signed contracts in DBs	MAFCP
I&D strategy prepared	☐	Yes/No	No	No	No	Yes	Yes	Yes	annual	Consultant's report	MAFCP
Operational water user associations created and/or strengthened	☒	Number	0.00	0.00	15.00	15.00	15.00	15.00	semi-annual	Registry in MAFCP	MAFCP
Number of PPP contracts signed	☐	Number	0.00	0.00	0.00	2.00	2.00	2.00	annual	DB/LG records	MAFCP
Number of staff trained in IWRM	☐	Number	0.00	0.00	9.00	18.00	18.00	30.00	semi-annual	Consultant's report	MEFWA
Number of staff trained in IWRM - female	☐	Number	0.00	0.00	5.00	5.00	5.00	10.00	semi-annual	Consultant's report	MEFWA
Percentage increase of budget allocation by MEFWA to GDWA	☐	Percentage	0.00	0.00	20	50	80	100	annual	MEFWA annual budget	MEFWA
Percentage increase of budget allocation by GDWA to RBAs	☐	Percentage	0.00	0.00	20.00	50.00	80.00	100	annual	MEFWA annual budget	MEFWA
Number of project monitoring reports based on the established MIS submitted on time	☐	Number	0.00	2.00	4.00	6.00	8.00	10.00	Semi-annual	Project records	MAFCP, MEFWA
Number of site specific ESMPs prepared	☐	Number	3.00	13.00	28.00	28.00	28.00	28.00	Semi-annual	Safeguards reports	MAFCP
Number of RAPs prepared	☐	Number	0.00	13.00	28.00	28.00	28.00	28.00	Semi-annual	Safeguards reports	MAFCP

Annex 2: Detailed Project Description

ALBANIA: Water Resources and Irrigation Project

Irrigation, Drainage and Agricultural Situation in the 15 I&D Schemes

1. During project preparation, a Multi-Criteria Analysis (MCA) was conducted among 195 small agricultural dams to (i) prepare a methodology for the identification and rational prioritization of investments in the rehabilitation of irrigation reservoirs in Albania; (ii) produce a short-list of irrigation reservoirs included in the project; and (iii) enhance understanding and capacities of Albanian stakeholders of MCA. In view of the overall project design, only dams in Semani and Drin-Buna basins were selected. Selection criteria that were adopted included social criteria (including loss of life in case of breach and population at risk), probability of failure (including current annual probability of dam failure and decrease in annual probability of failure after remedial works), economic criteria (including potential physical damages, costs of remedial works and expected rate of return) and irrigation potential (including current irrigated area and expected increase in irrigated area). Criteria were selected and weighted during consultation workshops with stakeholders.

2. In addition, three PPP pilot sites were selected from among potential sites in Albania. In view of the need to select suitable sites, potential sites throughout Albania were considered. The PPP pilot sites are Allkaj, Bushat and Xarrë, one of which (Allkaj) is part of an already selected irrigation site (Murriz Thana).

3. The 15 schemes that form part of the project are located in six prefectures: Kukës, Berat, Fier, Shkodra, Vlorë and Korcë and three river basins: Drin-Buna, Semani and Vjosa. Those in Berat, Fier and Korcë prefectures are located in the Semani river basin and are generally located in areas of level land and the schemes are generally larger, whereas those in Kukës and Shkodra prefecture are generally located in more hilly areas and have smaller schemes. Xarrë scheme is located in the near coastal zone within the Vjosë River Basin in the south west of the country. All schemes, except Bushat, are supplied from reservoirs, with Bushat being supplied from a river diversion.

4. In all 15 schemes, important crops grown are wheat, maize, alfalfa and citrus. For Kurjani, Strumi and Murriz Thana, vegetables, grapes and olive trees are the dominant crops. Vegetables (potatoes, tomatoes, cucumber, cabbage, carrots, and onions), and fruit trees (apples, cherry, plum, pear, fig, olive trees, oranges and vineyards) are generally grown in Fier, Berat and Korçë with irrigation. These areas are also the main areas for greenhouse production, which helps farmers supply markets all year round. In the low lying areas which include Fier and Berat Districts, the total planted surface is dominated by forages (42-45 percent), with lucerne accounting for more than 90 percent of this. Vegetables, maize, olive trees, vineyards and fruit trees are also cultivated in these areas. Cropping intensities are in a number of cases well above 100 percent, confirming the high value agriculture that is being practiced. Agricultural production is generally of distinctly lower value in Kukës and Shkodra. In fact, farmers grow agricultural products for family consumption, with only a few of them taking the products to markets. This is the result of, among others, a lack of investment in I&D infrastructure.

5. In terms of I&D, the design area of the 15 schemes is between 30 and 30,000 hectares. However, the currently irrigated area is far below that – 46,210 ha designed in total against only 24,720 ha currently irrigated (53 percent). With the exception of Xarrë scheme none of the area that was designed to be served by pumps is currently irrigated. The irrigation schemes consist of main canals that are generally lined and have gated cross regulators and gated turn-outs to the secondary canals. The secondary canals are generally lined and of trapezoidal section, the tertiary canals are generally unlined. Drainage canals are generally unlined and trapezoidal in section. In some of the schemes, farmers have connected pressurized pipes to the dam outlet to provide water to their fields for sprinkler or drip irrigation, sometimes located hundreds of meters downstream.

6. The FS confirms there is an under-use of agricultural chemicals and pesticides. The overall use of fertilizers is well under half of what was used previously in 1990, with soil fertility being "mined" in most areas. According to the data collected in the intensive agricultural areas of the Fier and Berat schemes chemical fertilizers are used on vegetables and fruit trees. The average amount of chemical fertilizers applied in these schemes is 6 kg/ha, nearly double that used in the schemes in Kukës, where about 3-4kg/ha is used.

7. Based on discussions with farmers and regional authorities, land use patterns are changing, in particular in the lower areas. This is due to the fact that farmers are responding to market demands. Farmers in Fier and Berat have increased the areas planted with olive groves and vineyards. In Korçë, farmers have increased the production of apples, potatoes and vegetables. In Berat, Fier and Korçë districts, farmers are expected to increase production of grain, forages, vegetables and also olives and grapes after rehabilitation. Fier and Berat districts have recently witnessed a massive spread of greenhouses for the cultivation of 'early vegetables'. These earn a considerable amount of money to the farmers.

IWRM Situation in the two Basins

8. Albania is divided into six river basins (Drin-Buna, Mati, Ishem-Erzen, Shkumbini, Semani, and Vjose). One third of the surface area of these basins is located outside the borders of Albania (Montenegro, FYR Macedonia, Kosovo, and Greece). The project will strengthen water resources management at the national level and in the Drin-Buna and Semani river basins.

9. The *Drin-Buna basin* has a surface area of 19,582 km^2, of which 14,395 km^2 belongs to Drin river and 5,187 km^2 to Buna river. Drin river is made up of two main branches: Drin i Zi (Black Drin), with an area of 5,885 km^2, running from FYR Macedonia, and Drin i Bardhe (White Drin) running from Kosovo. Buna River has its source from Shkodra Lake.

10. Drin-Buna has an annual average flow of 670 m^3/s, of which 350 m^3/s comes from Drin itself and 320 m^3/s from Buna. Buna river is used for navigation. Chemical analysis of samples taken from Drin-Buna river shows that the water is of good quality and has a stable mineral composition along its entire course. Metallic ions are rarely found except some presence of iron. Sedimentation is an issue in the basin with the bed of the Buna River filled with sediments which makes navigation impossible, because the depth of the river has been diminished. It also widens the river bed causing more floods in the area.

11. *The Semani basin* has a surface of about 5,649 km^2. It is made up of two main branches: Devoll (3,130 km^2) and Osumi (2,073 km^2), which are joined near Kucova city. Its annual discharge volume is 2,700 million m^3. A number of hydropower development plans are under preparation in Devoll basin, including Banja dam that will hold 700 million m^3, or approximately 50 percent of Devoll annual inflow. Chemical analysis shows that Semani basin has high values in ammonium, solid matters, magnesium, and iron. Irrigation water is abstracted upstream of the sites where waste is discharged and quality is appropriate. Recent analyses indicate an improved water quality in the lower parts of Semani basin as a result of reduced oil extraction and reduction of industrial chemical activities in Fier.

Water Sector Institutions

12. WRM in Albania *at the national level* involves a number of ministries and institutions. The NWC is the central executive body for water resources management. The NWC provides a high-level forum for water resources planning and management in an integrated manner. The NWC is chaired by the Prime Minister.

13. The NWC is supported by a Technical Secretariat (TS), housed in MEFWA. The TS is responsible for the implementation of international agreements on water, that Albania is party to, undertakes studies and supports research in water resources, and monitors and supports the RBAs. The TS recommends to the NWC approval of permits for water abstraction when the abstraction affects more than one river basin.

14. For each of the six river basins, an RBC and an RBA have been established. The RBCs are headed by the Prefect and have 9 – 19 members from ministries and some businesses, and limited consumer representatives. The RBCs are supported by RBAs that function as a technical secretariat to the RBC. The RBAs report to GDWA and are responsible for implementation of the LWR and for implementation of decisions by the RBC, and in general for managing the water resources within its basin areas. They conduct a technical evaluation of applications for water abstraction and recommend these to the RBC for approval. They support LGs in solving problems related to water resources.

15. WRM institutions are weak, understaffed and under resourced. The six RBAs are all staffed with three professional staff, one engineer, two economists, but have very little equipment and resources. E.g., the Drin-Buna RBA has office space and furniture, but no computers. Personal cars are used for transportation. The operational budget of the Drin-Buna RBA is US$2,400 per year.

Project Development Objective

16. The Project Development Objective (PDO) is to (i) establish the strategic framework to manage water resources at the national level and in the Drin-Buna and Semani river basins and (ii) improve, in a sustainable manner, the performance of irrigation systems in the project area.

Project Components

17. The proposed project consists of the following components:

18. **Component 1:** *Dam and I&D Systems Rehabilitation* (total €29.4 million, of which €29.4 million IBRD). This component will be implemented by MAFCP. The objective is to rehabilitate I&D systems and dam infrastructure[4]. The intermediate results indicators include the number of dams rehabilitated in compliance with international dam safety standards, number of dams where emergency response plans have been prepared and disseminated to the population, water users (including female farmers) provided with improved I&D services, and area with rehabilitated/modernized I&D infrastructure (ha). Safeguards indicators are number of site specific ESMPs and number of RAPs prepared.

19. Priority investments under this component will be mostly concentrated in the Drin-Buna and Semani river basins[5] that will also benefit from institutional and capacity strengthening support under component 2 and 3. Investments will be undertaken in a comprehensive way, including rehabilitation of dams and associated downstream I&D infrastructure so as to capture full economic benefits.

20. During project preparation, feasibility studies have been conducted for 14 dams and associated irrigation systems, and detailed designs are being prepared for the 14 dams and are expected to be completed before project approval. Investments during the first year of the project will focus on dam rehabilitation, and detailed design studies for the associated I&D systems will be conducted during the first year.

21. The component will finance the following sub-components:

22. *(a) Dam, Irrigation and Drainage Rehabilitation.* This sub-component will finance the preparation of all feasibility and detailed design studies, and all rehabilitation and modernization works of I&D and dam infrastructure in the 15 irrigation schemes, as well as the supervision of the works. The irrigation and drainage works include the rehabilitation of approximately 270 km and 300 km of main and secondary canals respectively as well as tertiary canals. The works may also include the construction of pipelines on some schemes for modernization and gravity pressurized supply to the part of the irrigated command area under sufficient pressure. Investments will be mostly located in the Drin-Buna and Semani river basins, and will be undertaken in a comprehensive way (i.e., investments will be done as much as possible in dams and in associated irrigation and drainage infrastructure) to maximize the returns on investments. Investments in dams aim to ensure compliance of the dams with internationally accepted dam safety standards. This includes preparation of dam safety and emergency preparedness plans. Details are provided in table 2 and 3.

[4] Project investments under this component will include rehabilitation of 14 dams in 13 reservoirs, as well as rehabilitation of 15 irrigation schemes, including three PPP pilot sites (Bushat, Allkaj and Xarrë, see component 2). In total, therefore, there are 15 project sites, 15 I&D rehabilitation works, 14 dams and 13 reservoirs.
[5] With the exception of Xarrë, one of the PPP pilot sites, that is located in Vjose basin

23. (b) *Preparation and implementation of ESMPs and RAPs*. This subcomponent will prepare all safeguards instruments for the investments in dam and I&D infrastructure, and will also strengthen the framework for safety of agricultural dams, including capacity strengthening and awareness raising and preparation of emergency preparedness plans. During project preparation, the Borrower engaged a consultant to prepare an ESFD. A few draft ESMPs have been prepared that focus on dam rehabilitation. Thirteen site-specific ESMPs – one for the each dam – will be prepared by MAFCP and approved prior to investment to meet both Albanian and the World Bank requirements. For each of the remaining investments in I&D infrastructure (15 schemes), ESMPs will be prepared, approved before tendering of the works and implemented. In addition, an RPF has been prepared, and RAPs will be prepared for each of the investments in dam and I&D rehabilitation.

24. Investments in dams aim to ensure compliance with internationally accepted dam safety standards. This includes preparation, for each of the 13 reservoirs, of dam safety and emergency preparedness plans. In addition, the project will provide support to MAFCP to strengthen its capacity and to establish an adequate institutional framework for addressing dam safety of agricultural dams. This includes (i) establishment of an adequately staffed and equipped Dam Safety Secretariat (DSS) within MAFCP; (ii) design of a relational data base, on a GIS platform, containing basic information on dams; (iii) provision of external support and networking by the Albania Commission on Large Dams (ACOLD), roster of national dam engineers, Universities, Academy of Science, soil laboratories, and translators/ interpreters; and (iv) development of a well defined safety plan for agricultural dams, including adequate allocation of financial resources for addressing safety concerns.

25. While the selection of the 14 dam sites was justified by dam safety concerns and was the result of an MCA conducted during project preparation, investments in irrigation infrastructure rehabilitation and modernization will be selected in a participatory way. To that end, stakeholders will be given the choice between a number of I&D rehabilitation options that will differ in their level of complexity and cost. The FS identifies these options at pre-feasibility level that often – where technically and economically feasible – include supply of irrigation water in a pressurized manner. The base-case option (rehabilitation of gravity irrigation in accordance with the original design) will be selected upon (i) agreement with the farmers and WUO on a plan for O&M and recovery of the associated costs, as well as a Management Improvement Plan (MIP); (ii) signature by the DB, LG and WUO of an Irrigation Management Transfer (IMT) and bulk water delivery agreements outlining mutual obligations and responsibilities, including agreed performance standards; and (iii) a commitment from farmers to improve O&M fee collection to 100 percent over an agreed number of years. Additional options for modernization of the scheme beyond the base-case scenario (including, where technically and economically feasible, installation of pressurized irrigation in parts of the command area) will be presented to the farmers but will require, in addition to the requirements for the base-case option, a financial

Scheme Name	Region	River Basin	Irrigated Area (ha)				Costs (€ m) Excluding VAT			Canal Rehab (km)		Observations
			Design	Current	Project	Pressure	I&D	Dam	Total	Main	Second	
T'Plani	Kukës	Drin-Buna	470	30	205	-	0.269	0.196	0.547	6.8	1.0	Irrigation infrastructure fallen into disrepair. Pumping station disappeared. Entire irrigation infrastructure need to be rehabilitated.
Vranishti 2	Kukës	Drin-Buna	217	50	217	-	0.178	0.491	0.797	11.5	-	Several pipes cross the main canal which are in disrepair. Only 25 – 35 % of main canal can currently convey water, substantial leakage problems. All parts of irrigation infrastructure in need of rehabilitation.
Tregtani 2	Kukës	Drin-Buna	28	15	28	28	0.012	0.077	0.107	1.2	-	Irrigation infrastructure rehabilitated in 2008. Only 40-50 % of the main canal can currently convey design discharge. Significant parts of irrigation infrastructure in need of rehabilitation.
Tregtani 3	Kukës	Drin-Buna	315	155	215	-	0.204	0.163	0.394	7.8	-	Irrigation infrastructure rehabilitated in 2006. Only 60-80 % of main canal can currently convey water, problems with leakage. All parts of irrigation infrastructure need rehabilitation.
Bushat	Kukës	Drin-Buna	4,500	1,100	1,100	-	0.090	-	0.106	4.0		Primary canal and intake gate in good condition. Most of irrigation system belonging to Bushat has been rehabilitated: 10.8 km of primary canals and 19 km out of 23 km of secondary canals. Problem with urban waste disposal in canals.
Murriz Thana	Fier	Semani	30,900	15,000	29,200	-	10.261	1.690	11.99	140.7	200.5	Cukas branch unlined and some structures rehabilitated. It is proposed that 50% of the canal is lined. Krutja branch originally designed only for 6,900ha, but after successive extensions there is not sufficient water. Only 20% of Krutja branch and secondaries was undertaken. Branch will be lined. Lushnje branch has problems with silt and stability. Grabiani is dysfunctional, requires rehabilitation.
Kurjani /Strumi	Fier	Semani	5,430	3,200	5,430	-	4.172	0.335	5.182	27.8	85.0	60% of the irrigation and drainage infrastructure has been rehabilitated and

												only 40% of the mains and secondaries are in need of rehabilitation.
Zharreza	Fier	Semani	600	300	600	600	0.653	0.447	1.290	14.6	9.0	300 ha irrigated because of recent rehabilitation. Tail end of both the right and left branches need rehabilitation.
Slanica	Berat	Semani	300	150	260	260	0.282	0.152	0.514	7.8	-	Main canal in very poor condition, substantial leakage. Up to 50% of the reservoir can be conveyed through the canal system. Pumping station destroyed. All parts of irrigation infrastructure in need of rehabilitation.
Belesova	Berat	Semani	1,280	50	400	400	0.534	0.282	0.954	11.8	-	Main canal no longer in operation. All parts of irrigation infrastructure in need of rehabilitation.
Duhanasi	Berat	Semani	550	50	250	250	0.229	0.112	0.403	11.5	-	Failure in downstream siphon, main canal does not function, only 15 – 20% of the water can be used. All parts of irrigation infrastructure in need of rehabilitation.
Staravecka	Berat	Semani	80	20	80	60	0.108	0.074	0.216	2.5	-	Irrigation pipe immediately downstream of the outlet in good condition. All parts of irrigation infrastructure in need of rehabilitation. Only up to 30% of the reservoir yield can be taken for irrigation through canal system.
Leminoti	Korçë	Semani	400	250	400	-	0.384	0.530	1.088	8.5	-	Appr. 5km of right branch main canal and 0.5 km of left branch main canal rehabilitated in 2010. For the rest of right branch and left branch canals, significant rehabilitation required.
Koshnica	Korçë	Semani	850	0	350	-	0.628	1.222	1.906	22.0		Very poor condition. All parts of irrigation infrastructure in need of rehabilitation.
Xarrë	Vlorë	Vjose	2,000	2,000	2,000	380	2.146	-	2.448			19km Bufi branch in poor conditions, with siphon, aqueduct and earth dig canal. The irrigation system from Murresi reservoir needs maintenance work on all main, secondary and tertiary canals.
		Total	**46,210**	**24,720**	**35,875**	**1,978**	**20.15**	**5.77**	**31.28**	**268.9**	**294.5**	

Table 2: Key data on I&D schemes included in the project

Dam Name	Region	River Basin	Characteristics					Current Annual Probability of Failure	Design Annual Probability of Failure	Observations (including main works)
			Crest (m)	Length (m)	Capacity (actual, '000 m^3)	Reservoir area (ha)	People at risk			
T'Plani	Kukës	Drin-Buna	18	360	1,800	17	0	3.57E-02	2.27E-03	Replacing bottom outlet and rebuild this area of the dam and significant reprofiling
Vranishti 2	Kukës	Drin-Buna	27	158	650	6.8	60	4.14E-02	1.44E-03	Reprofile dam. Installation of gravel berm for stability and spillway works.
Tregtani 2	Kukës	Drin-Buna	10	250	56	3.5	30	1.10E-02	1.47E-03	Reconstruction of spillway and install small parapet wall. Reprofile dam slopes and crest.
Tregtani 3	Kukës	Drin-Buna	32	137	945	11.8	30	4.72E-03	3.89E-03	Reprofile downstream face, including berm for stability and stone and gravel erosion protection. Reconstruct spillway and rehabilitate bottom outlet.
Murriz Thana	Fier	Semani	10	3,570	54,000	850	210	1.45E-02	7.40E-04	Line outlet, construction of spillway, make-good slips, and stability berm
Kurjani	Fier	Semani	17	540	31,500	355	350	2.76E-03	8.59E-04	Spillway reconstruction
Strumi	Fier	Semani	17	700	31,500	355	80	2.71E-03	7.79E-04	Spillway reconstruction
Zharreza	Fier	Semani	20	520	700	35	390	5.70E-03	7.02E-04	Spillway reconstruction and parapet wall this will lead to an increase in top water level and storage volume
Slanica	Berat	Semani	32	250	700	8	75	1.14E-03	5.66E-04	Modification to spillway entrance, and raising of top water level and storage volume. Berm for stability.
Belesova	Berat	Semani	42	304	1,500	25	200	2.74E-02	3.28E-04	Raising of top water level and storage volume. Reconstruct spillway and repair parapet wall.
Duhanasi	Berat	Semani	39	235	1,300	16	420	7.73E-03	6.46E-04	Raising of top water level and storage volume. Reconstruct spillway and repair parapet wall.
Staravecka	Berat	Semani	10	170	150	18.9	50	5.98E-03	3.46E-03	Lowering water level for stability of hillside. Crest levelling and localised berm for stability.
Leminoti	Korçë	Semani	33	180	1,200	12	1,300	5.32E-03	9.92E-04	Installation of gravel berm for stability, modification to existing spillway, rehabilitation of bottom outlet
Koshnica	Korçë	Semani	23	300	2,350*	18.9	10	4.34E-03	6.68E-04	Rebuild dam at lower dam crest level and reduced storage volume

Table 3: Key data on I&D schemes included in the project

contribution to the development costs (including an up-front connection fee) from those interested in pressurized irrigation.

26. **Component 2:** *Institutional Support for Irrigation and Drainage* (total €0.9 million, of which €0.9 million IBRD). This component will be implemented by MAFCP. The objective is to improve the performance of organizations that provide irrigation services. This includes institutional reforms and capacity strengthening of municipalities, five DBs and WUOs, and piloting PPP in I&D service delivery through recruitment of third party operators to deliver irrigation services in three I&D schemes. The component will also finance preparation of a National I&D strategy. Intermediate results indicators include Irrigation Transfer Contract between MAFCP and LG prepared, number of (female) farmers trained, number of I&D transfer agreements signed, number of Bulk Water Delivery contracts signed between DBs and WUOs, I&D strategy prepared, operational WUOs created and/or strengthened, and number of PPP contracts signed.

27. The project will finance the following sub-components:

28. *(a) Institutional Reforms of Irrigation and Drainage Sector.* The sub-component will clarify responsibilities for O&M between stakeholders (including Ministry/DBs, LGs, WUOs and private operators) and will, to that end, prepare a National I&D policy and strategy. Relationships between stakeholders including MAFCP, DBs and WUOs will be contractualized and service delivery standards will be agreed. Performance indicators for agreed service quality levels will be introduced into these contracts.

29. MAFCP aims to more closely involve LGs in I&D management to take advantage of their close proximity to farmers. Recently, MAFCP has transferred ownership of some 315 small dams to LGs, and is planning to transfer more I&D infrastructure in future. To support this process, the project will prepare a Transfer Agreement with a clear outline of responsibilities of parties. In addition, the project will provide assistance to strengthen LGs capacity in I&D fee collection.

30. The current allocation of responsibilities for I&D infrastructure among the various stakeholders, including MAFCP/DBs, LGs, WUOs and private operators for I&D infrastructure is not clear. Different parties have different expectations about service delivery standards and this undermines the quality of I&D management. The sub-component will help formalize and contractualize relationships between DBs and WUOs with clear definition of responsibilities, service delivery standards, including timing, volumes, duration, as well as obligations and rights of each.

31. In order to improve the long-term sustainability of the investments in rehabilitation and modernization of irrigation infrastructure, the project will support the design and implementation of three small-scale pilot PPPs. The objectives of the pilot PPPs is:

- To ensure that I&D infrastructure is efficiently operated and maintained over time.
- To develop PPP models that can be replicated in other irrigation schemes in the country.

32. During project preparation, with grant support from the Public-Private Infrastructure Advisory Facility (PPIAF), three PPP pilots have been identified in consultation with MAFCP, providing representative samples of very different realities in terms of area of irrigated farmland, technical complexity and value of the supported agricultural operations:

- Xarrë, in the South of the country (2,000 ha)
- Bushat, in the North of the country (1,100 ha)
- Allkaj, one of the secondary canals of Murriz Thana irrigation scheme (900 ha).

33. The PPP identification phase included for each of the three sites preparation of a financial model, willingness-to-pay analysis, legal analysis and PPP options identification and assessment, including extensive consultations with farmers. The outputs include a proposed PPP contract type, key contractual clauses, proposed performance indicators and an invitation for pre-qualification of private operators.

34. During project implementation, the project will finance the following activities in support of further design and implementation of the pilots:

- completion of existing pre-feasibility studies
- capital investment required to rehabilitate the existing irrigation infrastructure, and
- activities of a PPP transaction advisor, who will structure, develop the draft contract documents and support the conceding authorities in the implementation of the tender for the selection of private partners.

35. More detailed information is provided in Annex 9.

36. *(b) Capacity strengthening for organizations that provide irrigation services.* This sub-component will strengthen capacities of stakeholders (including Ministry/DBs, LGs, and WUOs) in the delivery of key irrigation and drainage services. The project will train an estimated 10 civil servants from MAFCP, 15 civil servants from five DBs, 15 staff from LGs, and office bearers from 15 WUOs. The training will include the following topics: (i) financial revenue and expenditure management and accounting; (ii) asset management and capital investment planning; (iii) O&M needs identification, planning and implementation; (iv) procurement, contract management and outsourcing; (v) dam operation and maintenance; (vi) pumping stations operation and maintenance; (vii) I&D related legislation; (viii) management and administration; (ix) water distribution management and recording; and (x) participatory training techniques.

37. The training activities will be conducted by consultants and will start during the second year of project implementation. The training will continue for three years during project implementation. One regional and one international study tour (locations to be identified by training consultants) will be organized for the selected group of stakeholders to exchange views and experiences and learn how good practices of I&D service delivery and more advanced irrigation techniques are applied in reality. Decentralized water users' support staff from DBs will be trained in strengthening capacities of WUOs.

38. The project will also provide some goods to DBs, LGs and WUOs. Five DBs in the project area will be provided with hydrological equipment, such as portable flow measurement devices, current meters, data loggers, GPS units, as well as desk top computers (two per DB) and

notebook computers (3 per DB) with specific software needed for data processing, and some office furniture. WUO support teams in DBs will be provided with motorcycles (three per DB), which are needed for frequent travelling around the region while visiting WUOs. LGs will also be provided with desk top computers plus accounting software. The project will also provide 17 WUOs with portable water meters (three per each) and notebook computers (one for each).

39. **Component 3:** *Institutional Support for Integrated Water Resources Management* (total €3.9 million, of which €3.6 million from Sida and €0.3 million from IBRD). This component will be implemented by MEFWA. Its objective is to establish the strategic framework to manage water resources at the national level and at the level of the Drin-Buna and Semani River basins. Capacity strengthening activities, critical for satisfactory water sector performance, will be fully integrated into each of the subcomponents to ensure relevance and applicability of the training. The intermediate results indicators are number of (female) staff trained in IWRM, percentage increase of budget allocation by MEFWA to the GDWA, and percentage increase of budget allocation by GDWA to RBAs. Throughout project implementation, MEFWA is expected to increasingly demonstrate leadership in the management of the country's water resources, and to progressively show responsibility as convener of stakeholders in water resources management.

40. The project will finance the following sub-components:

41. *(a) Support for the preparation of an IWRM Strategy.* This sub-component will support MEFWA in the preparation of a National IWRM strategy. In view of Albania's request for EU candidate status, the strategy will incorporate the EU's WFD requirements, as reflected in the Water Law (currently under revision). The project will ensure the inclusiveness of the preparation process by establishing a stakeholder forum for cross-sectoral dialogue and decision making under the aegis of the NWC.

42. Based on the PP that was prepared during project preparation, the National IWRM strategy will identify strategic priorities for improving water resources management in Albania, including analyses of related policy and institutional framework; formulation of the government's long-term vision on water resources management; establishment of a clear long-term framework to achieve sustainable management and development of water resources; and identification of a medium-term plan of priority actions with associated financing requirements. It is expected that preparation of the IWRM strategy will heighten the importance of water resources management in the national development agenda, strengthen the capacity of GDWA in the sector coordination and leadership. Support will be provided to MEFWA in improving its communication with the public and stakeholders and building their support to IWRM implementation through increased awareness and knowledge on water resources issues.

43. The project will strengthen capacity of institutions responsible for IWRM, including the NWC, TS, RBCs and RBAs to accompany the strategy preparation. The thematic areas of training sessions will include introduction to the EU WFD; transboundary water resources management; economic aspects of IWRM; decentralized decision making; and participation and partnership in water resources planning. Detailed contents of the training program and modes of its implementation will be developed based on recommendations of the functional analysis and capacity building needs assessment of the water sector in Albania. An important focus of the

national capacity building will be on learning of experiences from countries with similar to Albania types of water management pressures and where elements of IWRM frameworks such as national water laws, water management institutions, water use regulation instruments have been successfully implemented in part or in full. The project will assist Albania in establishing "twinning" relationships with a relevant country to promote exchange of knowledge and expertise and contribute to capacity building of the Albanian water management institutions. It is likely that the "twinning" country will be selected from members of the EU –supported Mediterranean Regional Network on integrated water resources management established with the objective to facilitate exchange of IWRM experiences and expertise in the region.

44. During project preparation, a number of Sida funded activities have been undertaken, including preparation of a draft decree defining the geographical coverage of river basins, and a functional analysis of the water sector. The recommendations of the preparation activities will be implemented once the project has become effective.

45. *(b) Preparation of River Basin Management Plans.* In the Drin-Buna and Semani river basins, the project will support preparation of RBM plans. The objective of the RBM plans will be to identify a set of cost-effective priority measures to improve the efficiency of water resource management and use in the basins, with an emphasis on service delivery, involving such main tasks as (i) analysis of the physical status of water resources in the basin; (ii) review all types of economic water use (including requirements of the environment) in the basin and their impacts on the water resources situation; (iii) inventory of water resources in the basin; (iv) assessment of existing and future water resources balances in the basin; (v) identification of main water resources management challenges in the basin, including quantity and quality; (vi) assessment of the constraining role of water for meeting economic development objectives in the basin; and (vii) identification of a set of actions and required investments to improve the water resources situation in the basin. The river basin planning will involve the development of appropriate river basin models as a tool for assessing different water resources development scenarios. Water quality aspects will receive close attention in the plans as water quality deterioration is a growing concern, in particular in the Semani basin. The existing water quality control system, including the issuing of discharge permits, will be reviewed as part of the RBM Plans preparation.

46. Preparation of RBM plans will be led by GDWA of MEFWA with active participation of the respective RBAs. Stakeholder participation in the basin planning will be ensured through involvement of RBCs in the preparation of RBM Plans. The RBCs will meet regularly to assess the progress and discuss interim and final results of the river basin planning work. The project will work closely with the UNECE supported Drin dialogue and will take advantage of the river characterization that is undertaken in that context.

47. The preparation of RBM plans is expected to provide an impetus to further functional development of the RBAs in the Drin-Buna and Semani basins, and strengthening their institutional capacity. Currently, both organizations have very limited diversity of services, focusing mainly on fee collection for the issuing of water abstraction permits. The river basin planning will clarify and expand mandates and authority of the RBAs as required by the basin-wide management needs. That, in turn, will provide a basis for increasing the budget allocation

for the RBAs as public utility organizations responsible for sustainable management of the basins' water resources.

48. As part of the preparation of RBM plans, the project will support training activities to strengthen the capacity of GDWA and RBAs staff in river basin management, with a focus on the latest concepts, international trends and practices of Integrated River Basin management, operational management of river basins, and the role of RBAs as service providers to the basin water users. The project will also strengthen the capacity of the RBAs by procuring cars and office equipment and minor rehabilitation of their offices as the necessary basis for carrying out their basin management responsibilities.

49. *(c) Support to the establishment of a Water Resources Database.* The project will provide support to MEFWA in establishing a consolidated water resources database within GDWA as basis for national water resources planning and programming. Over 20 different institutions are currently involved in Albania with water resources monitoring, which is often conducted for a limited number of parameters and with limited geographical coverage. No consolidated system is in place for data collection, management and data sharing.

50. The proposed water resources database will be populated through the coordinated acquisition of monitoring data from all relevant organizations. GDWA will maintain close coordination with other information centers pertaining to the water sector and institutions dealing with monitoring of water quantity and quality. Although there is already some data sharing and acquisition taking place between different agencies through contractual arrangements, current administrative barriers will need to be overcome to allow for effective data acquisition by MEFWA in order to develop the consolidated water resources database.

51. The database will be developed based on a tailor-made GIS and structured as a Spatial Data facility allowing the consolidation, exchange, and use of geospatial data and related information resources across an information sharing community. The development of the water resources database will follow the framework of the Infrastructure for Spatial Information in Europe (INSPIRE) to ensure consistency of the database building with the EU data organization requirements. The database is expected to enable registered users as well as the public to access the data in a hierarchical manner.

52. Initially, the database development will focus on collecting data for the Semani and Drin-Buna river basins. The database will include information on the hydrographic network, available hydrometric data, the existing quantity and quality monitoring network, delineation and characterization of protected areas, water resources management infrastructure (dams, irrigation, hydropower plants); water abstraction information by location and time; and location of known point pollution sources including and type and extent of pollution. An inventory of legal and illegal abstractions of surface and groundwater resources in the basins will be conducted as part of the database development. It is expected that the proposed water resources database will be a repository of important water data with free access to it and data processed products by river basin agencies, water users, government and private institutions and the public.

53. The project will provide assistance for a conceptual design of the water resources database, procurement of computers and other required technical equipment, software, and staff training on database management technologies and software use.

54. **Component 4:** *Implementation Support* (total €0.7 million, of which €0.4 million IBRD and €0.3 million Sida). This component will be jointly implemented by MAFCP and MEFWA. Its objective is to manage project resources in accordance with the project's objectives and procedures as outlined in the POM. The intermediate results indicator is the number of project monitoring reports based on the established Management Information System (MIS) submitted on time

55. The project will finance the following sub-components:

(a) Project Management. Project implementation will be mainstreamed into the regular functions of the implementing Ministries. Support for project implementation will include: (i) provision of technical assistance, training and office equipment and incremental operating costs in support of project management; (ii) overall project planning, quality oversight and evaluation of project activities; and (iii) strengthening procurement and financial management capacity at all levels.

(b) Establishment of a Monitoring and Evaluation system. The project will establish a performance based MIS and arrange for data collection and reporting on key performance output and impact indicators, through a baseline survey that was completed during project preparation, and participatory assessments and follow up surveys prior to the mid-term review and at project closing.

Annex 3: Implementation Arrangements

Albania: Water Resources and Irrigation Project

A. PROJECT INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

1. A Project Steering Committee (PSC) co-chaired by the Minister of Agriculture, Food and Consumer Protection and the Minister of Environment, Forestry and Water Administration will be established and will ensure inter-institutional coordination and provide overall project oversight. The PSC will meet at least twice a year during the first and second years of the project, and at least once a year in the remaining years. The PSC responsibilities will be to provide overall policy and strategic guidance, as well as inter-institutional coordination; approve the annual implementation plan and budget; review progress towards annual implementation plans and assist in resolving obstacles that may arise during project implementation; and recommend changes to the project POM as required.

2. Members of the PSC will include representatives of technical departments of both Ministries, the DBs, RBCs, WUOs, LGs involved in project implementation, MOF and other stakeholders.

Project implementation and administrative support

3. Implementation of the project will be the responsibility of MAFCP for Components 1 and 2, and of MEFWA for component 3. Joint responsibility is envisaged for implementation of component 4. Each implementing agency has established a PMT consisting of Project Coordinator, Project Manager, Monitoring and Evaluation (M&E) Specialist and Technical Specialists. The main responsibilities of the PMTs include: (i) day-to-day project management; (ii) coordination with project stakeholders, the Bank, and co-financiers; (iii) monitoring and evaluation of project activities, including monitoring and reporting of safeguards compliance; (iv) preparation of annual implementation plan and budget; (v) preparation and update as necessary of procurement plan; (vi) preparation of procurement documents for all goods, works and consultants' services packages; (vii) preparation of quarterly unaudited financial reports and annual audited financial statements; (viii) preparation of semi-annual and annual progress reports; (ix) briefing of the PSC on the status of project implementation; and (ix) systematic filing of all project-related documents (including procurement and financial management).

4. The Project Coordinator will be the General Director of GDLWS in MAFCP, and the General Director of GDWA in MEFWA. The Project Managers will be appointed staff of each general directorate. Each Ministry will also appoint among its staff within the relevant General Directorates an M&E Specialist. Each of the PMT will be supported by a Procurement and Financial Management specialist. They will coordinate closely with the relevant departments (Legal Directorate and Internal Services Directorate, respectively) of their ministries, while reporting, for the purposes of the project, to the Project Coordinator. A Procurement and Financial Management Specialist have already been recruited by MAFCP. Their recruitment by MEFWA is a condition for effectiveness.

5. A Technical Committee, including Project Coordinators and Project Managers of each Ministry, as well any additional staff of the PMTs as necessary, will be established to ensure coordination at the operational level. The committee will meet regularly and not less than once every other month.

Technical Implementation

6. Relevant units within MAFCP and MEFWA, as well as those reporting to the Ministries such as DBs, RBCs and RBAs, and other entities including LGs, will be responsible for the technical implementation of project activities (i.e. preparing terms of references and technical specifications, preparing training programs, supervising consultants, participating in procurement evaluation committees, etc.).

7. In regards to Component 1 and 2, the MAFCP PMT will be supported by full-time local technical assistance in order to ensure timely and quality implementation of investments activities planned under the component. The two engineer consultants will increase the capacity of the supervision department of the Ministry, ensuring compliance with approved design and safeguards requirements of each investment. MAFCP will also appoint an environmental specialist to follow-up on the implementation of ESMPs.

8. In regards to Component 3, the MEFWA PMT will be coordinating all activities planned under the component aiming at strengthening the capacities of institutions responsible for IWRM.

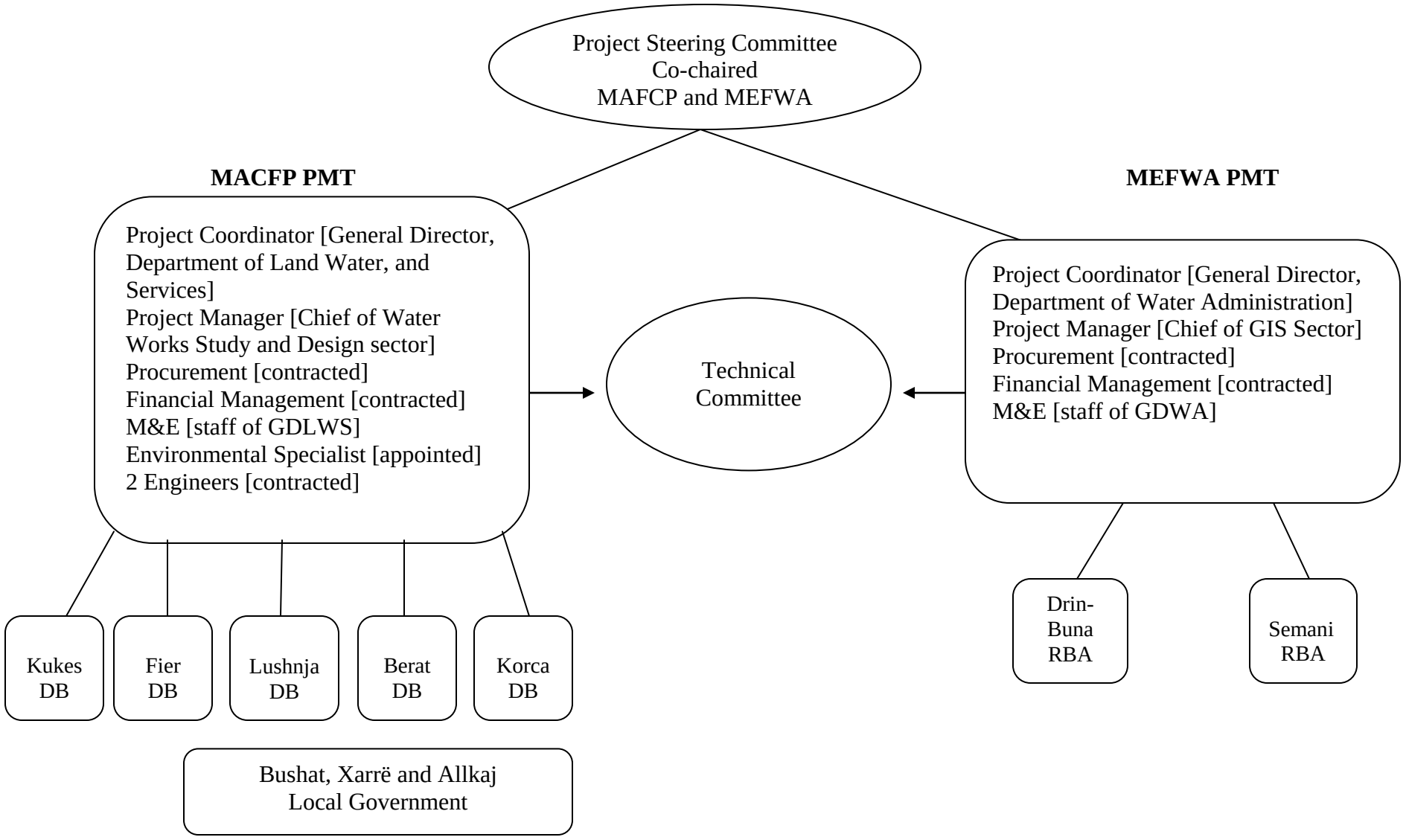
9. In regards to Component 4, both PMTs will be jointly responsible for implementation of the activities as outlined in the POM. Each PMT staff responsible for M&E will be in charge of updating relevant part of the result framework and contribute to pertaining sections of the semi-annual and annual reports.

10. Additional details in terms of documents flow, and roles and responsibilities will be provided in the POM.

B. PROCUREMENT

General

11. Procurement will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers", dated January 2011; and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers," dated January 2011, and the provisions stipulated in the Legal Agreement.


Project Steering Committee
Co-chaired
MAFCP and MEFWA
MACFP PMT
MEFWA PMT
Project Coordinator [General Director, Department of Land Water, and Services]
Project Manager [Chief of Water Works Study and Design sector]
Procurement [contracted]
Financial Management [contracted]
M&E [staff of GDLWS]
Environmental Specialist [appointed]
2 Engineers [contracted]
Technical Committee
Project Coordinator [General Director, Department of Water Administration]
Project Manager [Chief of GIS Sector]
Procurement [contracted]
Financial Management [contracted]
M&E [staff of GDWA]
Kukes DB
Fier DB
Lushnja DB
Berat DB
Korca DB
Drin-Buna RBA
Semani RBA
Bushat, Xarrë and Allkaj Local Government

Procurement of Goods, Works and Non-Consulting Services

12. The following methods may be used for procurement of goods, works and non-consulting services: International Competitive Bidding (ICB), National Competitive Bidding (NCB), Shopping (SH), and Direct Contracting (DC).

Procurement of Works

13. Works procured under this project will include rehabilitation of 14 dams and rehabilitation or modernization of I&D systems (including three PPP pilot sites). Procurement will be done using the Bank's Standard Bidding Documents (SBD) for all ICB and NCB approved by the Bank. Whenever possible, works for the dams will be combined into one ICB package. Similarly, if possible, works for I&D rehabilitation will be combined into one ICB package.

14. The NCB documents acceptable to the Bank shall be prepared so as to ensure economy, efficiency, transparency, and broad consistency with the provisions of Section I of the Procurement Guidelines. NCB shall be based on the Open Tendering procedures as defined in the Public Procurement Law of Albania (Law no. 9643 dated November 20, 2006, as amended), provided, however, that such procedure shall be subject to the provisions of Section I and Paragraphs 3.3 and 3.4 of the "Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" (January 2011) (the "Procurement Guidelines").

15. Minor works for the rehabilitation of RBA offices will be procured through shopping using ITQ for Works (May 2011).

Procurement of Goods

16. Goods procured under Components 2, 3 and 4 will include: equipment for DBs, WUOs, LGs, motorcycles for DBs, office equipment and cars for RBAs, and office equipment for MAFCP and MEFWA. Since these are small value contracts, procurement will be done using harmonized NCB documents for Goods or shopping using ITQ (June 2011), depending on the cost estimate for the package.

Selection of Consultants

17. The following methods may be used for the selection of consultants: Quality and Cost-Based Selection (QCBS), Quality-Based Selection (QBS), Least-Cost Selection (LCS), Fixed Budget Selection (FBS), Selection based on Consultants Qualifications (CQ), Individual Consultant Selection (IC), and Single Source Selection (SSS).

18. The World Bank's Standard Request for Proposals will be used under the Project. All Terms of Reference, irrespective of prior/post review status, are subject to Bank's review and no objection.

Operational Costs

19. The activities to be financed by the project will be procured using the implementing agency's administrative procedures which were reviewed and found acceptable to the Bank.

Assessment of the agency's capacity to implement procurement

20. Procurement activities will be carried out by MAFCP and MEFWA, facilitated by the respective PMTs. Each of the PMT will be supported by local consultants in terms of Procurement and Financial Management specialists. They will support the relevant departments (Legal Directorate and Internal Services Directorate respectively) of their ministries, while reporting, for the purposes of the project, to the Project Coordinator.

21. In addition, two local consultants (engineers) will be hired to increase capacity in MAFCP for supervision and monitoring of activities.

22. An assessment of the capacity of the Implementing Agencies to implement procurement actions for the project was carried out by the Bank's procurement specialist in June 2010 during the identification mission for the project. A re-assessment was conducted during the pre-appraisal mission of June 2012 since some progress has been achieved on the side of MAFCP. Most of the issues/risks concerning the procurement component for implementation of the project have been identified and included. It is recognized that both Ministries need technical assistance in procurement and financial management to ensure timely and effective project implementation. Project design envisages the two Ministries responsible for implementing their corresponding components of the project. Under this arrangement, procurement activities for components 1 and 2 will be carried out by MAFCP, component 3 by MEFWA, and component 4 by both MAFCP and MEFWA. The overall risk assessment is based on a consolidated perception for the two Ministries based on the volume of procurement to be carried out by each and their present capacity. The findings are summarized below.

(i) MAFCP - The estimated value of procurement to be carried out by this Ministry under components 1 and 2 is approximately €29 million. This constitutes the bulk of the total project cost. The Ministry has experience in implementing Bank-funded projects such as Irrigation Rehabilitation Project, Irrigation and Drainage II Project, and most recently, the Water Resources Management Project (WRMP). The risk is substantial.

(ii) MEFWA- The estimated value of procurement to be carried out by this Ministry under component 3 is approximately €3.9 million, of which €0.3 million is from IBRD and €3.6 million is from Sida. The Ministry has limited experience in Bank-financed project. However, considering that only a few consulting services and small value goods will be procured under the component, the risk is moderate. Procurement and financial management consultants will be hired to augment the weak capacity and

to enable the Ministry to proceed with the selection of consultants and procurement of goods.

23. **Risks and Remedies:** Most of the issues/risks concerning the procurement component for implementation of the project and corresponding remedies have been identified and include:

(i) **Staff Capacity.** MAFCP. The Ministry has some technical and procurement expertise. However, capacity is not adequate compared to the large amount of procurement of works and consulting services under Components 1 and 2, which the Ministry is responsible for implementation. They also do not have adequate capacity to accurately develop the bid documents needed for such works and the RFPs for consulting services in accordance with the agreed procedures. MEFWA neither has the procurement capacity nor the experience of carrying out selection of consulting services under QCBS for large-value assignments. This lack of capacity extends from procurement planning to bid document preparation and contract administration. Thus at MEFWA, there is high risk of delayed, improper procurement.

Remedy. Under the Project Preparation Advance (PPA), MAFCP hired procurement and financial consultants to form part of the PMT and successfully conducted the selection of two consultants using QCBS for project preparation, i.e. Feasibility and Detailed Design for the Rehabilitation of Dams and the Environmental and Social Impact Assessment, Resettlement Policy and Baseline Surveys, the latter financed by Sida. MEFWA's procurement and FM capacity will be beefed up by a procurement and FM consultant, who have experienced on Bank-financed projects. These consultants will be hired under the project at project effectiveness.

(iv) **Monitoring and Reporting.** Due to inadequate capacity of the two implementing agencies, there is risk of weak mechanism for overall supervision, or monitoring of project procurement, and delays in receiving consolidated status reports.

Remedy. Each PMT should conduct regular meetings to carry out a review of the current project procurement status as compared to the procurement plan and to decide on corrective course of action. The project will finance employment of two local engineers for MAFCP to assist them in supervision and monitoring of works contracts.

(v) **Quality of Works.** There is neither sufficient manpower nor expertise to ensure quality of works for the rehabilitation of dams and I&D systems.

Remedy. Two firms will be hired to supervise rehabilitation works: one for the rehabilitation of dams and another firm for the rehabilitation and

modernization of I&D systems. In addition, authorized representatives of the relevant DBs and members of the Dam Safety POE will monitor works. Two engineers will be assigned to the DBs.

24. Based on the corrective actions/remedies agreed upon, the overall project risk for procurement is Moderate.

25. A POM will be prepared to provide both Ministries and other project stakeholders with a clear overview of objectives and the division of responsibilities to ensure coordination and the effective, efficient, and timely execution of the proposed project. The POM will provide detailed information on project components, as well as practical guidance for project implementation, including the procurement and financial management arrangements.

26. Component 4 of the proposed project will involve financing of consulting services and project management team (PMT) staffing and operational costs, as well as equipment.

Procurement Plan

27. The Borrower, at appraisal, developed a Procurement Plan for project implementation which provides the basis for the procurement methods. This plan has been agreed with the Borrower, and is available at the offices of the respective PMTs of MAFCP and MEFWA. It will also be available in the project's database and in the Bank's external website. The Procurement Plan will be updated in agreement with the Bank annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The Procurement Plan and all its updates shall be subject to the Bank's prior review and no objection before implementation. The Procurement Plan and all subsequent updates will be published in the Bank's external website.

Frequency of Procurement Supervision

28. The capacity assessment of the Implementing Agencies has recommended two supervision missions per year to carry out post review of procurement actions.

ALBANIA WATER RESOURCES AND IRRIGATION PROJECT
PROCUREMENT PLAN – GOODS AND WORKS

Reference no	Contract Description	Procurement Method	Prequalification (yes/no)	Domestic Preference (yes/no)	Review by Bank (prior/post)	Expected Bid Opening Date	Comments
Component 1							
MAFCP/W/NCB/001	Rehabilitation of dams in Kukes (Drini-Buna, 4 dams)	NCB	No	No	Prior	April 15, 2013	
MAFCP/W/NCB/002	Rehabilitation of dams in Berat (Semani, 4 dams)	NCB	No	No	Prior	May 15, 2013	
MAFCP/W/NCB/003	Rehabilitation of dams in Fier (Semani, 3 dams)	NCB	No	No	Post	June 15, 2013	
MAFCP/W/ICB/001	Rehabilitation of dams in Korca (Semani, 2 dams)	ICB	No	No	Prior	July 15, 2013	
MAFCP/W/ICB/002	Rehabilitation of Murriz-Thana dam (Semani)	ICB	No	No	Prior	Aug 15, 2013	
MAFCP/W/NCB/004	Rehabilitation of I&D in Kukes (Drini-Buna)	NCB	No	No	Post	April 1, 2014	
MAFCP/W/NCB/005	Rehabilitation of I&D in Berat (Semani)	NCB	No	No	Post	May 15, 2014	
MAFCP/W/ICB/003	Rehabilitation of I&D in Fier (Semani)	ICB	No	No	Prior	June 15, 2014	
MAFCP/W/NCB/006	Rehabilitation of I&D in Korca (Semani)	NCB	No	No	Post	July 15, 2014	
MAFCP/W/ICB/004	Rehabilitation of I&D in Murriz Thana (Semani)	ICB	No	No	Prior	Aug 15, 2014	
Component 2							
MAFCP/G/001	Computer Equipment & Software (DBs, LGs, WUOs)	NCB	No	No	Prior	June 1, 2014	
MAFCP/G/002	Hydrological Equipment (DBs, WUOs)	SH	No	No	Prior	June 1, 2014	
MAFCP/G/003	Office Furniture (DBs, LGs)	SH	No	No	Post	June 1, 2014	
MAFCP/G/004	Motorcycles for DBs	SH	No	No	Post	June 1, 2014	
Component 3							
MEFWA/G/001	Office Equipment for RBMs	NCB	No	No	Prior	June 1, 2015	
MEFWA/G/002	Cars for RBMs Offices	SH	No	No	Prior	June 1, 2015	
MEFWA/MW/001	Office Rehabilitation (RBMs)	SH	No	No	Post	June 1, 2014	
Component 4							
WRIP/G/S/001	Office Equipment (MAFCP & MEFWA)	SH	No	No	Post	March 1, 2015	

ALBANIA WATER RESOURCES AND IRRIGATION PROJECT
PROCUREMENT PLAN – CONSULTANTS' SERVICES

Reference no	Contract Description	Procurement Method	Review by Bank (prior/post)	Expected Bid Opening Date	Comments
Component 1					
MAFCP/CS/001	Feasibility Study & Preliminary Design for the Rehabilitation of Dams	QCBS	Prior	Selection completed under PPF	
MAFCP/CS/002	Supervisory Services for Dam Rehabilitation	QCBS	Prior	March 1, 2013	
MAFCP/CS/003	Feasibility Study & Detailed Design for I&D, Consultative Scheme, Training & Mobilization	QCBS	Prior	March 1, 2013	
MAFCP/CS/005	Supervisory Services for Irrigation and Drainage Works	QCBS	Prior	Feb 1, 2014	
MAFCP/CS/006	Local Consultants (Engineers)	IC	Post	March 1, 2013	
MAFCP/CS/007	Implementation of ESMPs	QCBS	Prior	March 1, 2013	
MAFCP/CS/008	Panel of Experts (4/5 individual consultants)	IC	Prior	Selection completed under PPF	
MAFCP/CS/009	Technical and Environmental Audit Services	QCBS	Prior	Oct 1, 2015	
Component 2					
MAFCP/CS/010	Training Services for Drainage Boards (DBs)	LCS	Prior	Feb 1, 2014	
MAFCP/CS/011	Preparation of a National I&D Policy and Strategy	IC	Post	Feb 1, 2014	
MAFCP/CS/012	Transaction Adviser for Public Private Partnership (PPP)	IC	Post	Aug 1, 2014	
Component 3					
MEFWA/CS/001	Preparation of IWRM strategy	QCBS	Prior	Mar 1, 2013	
MEFWA/CS/002	Preparation of RBM Plan for Drini-Buna & Semani	QCBS	Prior	Mar 1, 2013	
MEFWA/CS/003	Preparation of Water Resources Database	QCBS	Prior	Mar 1, 2013	
MEFWA/CS/004	Preparation and Implementation of IWRM Communication Strategy	QCBS	Prior	Mar 1, 2013	
Component 4					
WRIP/CS/IC/001	Procurement Consultant for MAFCP	IC	Prior	Selection completed under PPF	
WRIP/CS/IC/002	Finance Consultant for MAFCP	IC	Prior	Selection completed under PPF	

WRIP/CS/IC/003	Procurement Consultant for MEFWA	IC	Prior	Feb 1, 2013	
WRIP/CS/IC/004	Finance Consultant for MEFWA	IC	Prior	Feb 1, 2013	
WRIP/CS/QCBS/005	Monitoring and Evaluation consultant	QCBS	Prior	Jul 1, 2013	

Goods and Works

ICB	International Competitive Bidding (in accordance with section 2 of the Guidelines) For works contracts valued at more than **€1,500,000** For goods contracts valued at more than **€375,000**
NCB	National Competitive Bidding (in accordance with section 3.3 of the Guidelines) For works contracts valued at equal to or less than **€1,500,000** For goods contracts valued at equal to or less than **€375,000**
DC	Direct Contracting (in accordance with section 3.6 of the Guidelines)
SH	Shopping (in accordance with section 3.5 of the Guidelines) For works contracts valued at less than **€75,000** For goods contracts valued at less than **€75,000**
Prior Review	For Works contracts: All ICB contracts. First two of NCB works contracts regardless of value of contract, for each implementing agency (IA), MAFCP and MEFWA. First shopping contract for each IA. For Goods contracts: All ICB contracts. First two of NCB contracts regardless of value of contract, for each implementing agency (IA), MAFCP and MEFWA. First shopping contract for each IA. All Direct Contracting contracts.
Pre Qualification	not anticipated
Domestic Preference	will not apply

Consultants' Services

QCBS	Quality and Cost-based Selection (in accordance with Sections 2.1 - 2.35 of the Consultant's Guidelines)
QBS	Quality Based Selection (in accordance with Sections 3.2-3.4 of the Consultant's Guidelines)
FBS	Selection under a Fixed Budget (in accordance with Section 3.5 of the Consultant's Guidelines)
LCS	Least-Cost Selection (in accordance with Section 3.6 of the Consultant's Guidelines)
CQS	Selection Based on Consultants' Qualifications (in accordance with Section 3.7 of the Consultant's Guidelines)
SSS	Single Source Selection (in accordance with Sections 3.8-3.11 of the Consultant Guidelines)
IC	Individual Consultant (in accordance with section V of the Consultant's Guidelines)
Threshold for shortlist of entirely national consultants	< €75,000
Prior Review	For firms: QCBS, QBS, FBS, and LCS, equal to or more than €75,000 – all subject to prior review regardless of contract value. CQS, < €75,000 - First contract only and all SSS contracts. For individual consultants: < €75,000. First two for each implementing agency (IA), MAFCP and MEFWA and all SSS contracts.

FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS

Financial Management

Country Issues

29. Public Financial Management system in Albania has improved significantly during 2008-2010 as confirmed by the latest Country Policy and Institutional Assessment (CPIA -2011); and Public Expenditure and Financial Accountability (PEFA – November 2011). Both the CPIA and PEFA identified a number of areas for further development to increase the efficiency and accountability in public spending. These areas include planning, budgeting, and execution of public investment projects; strengthening lines of accountability, enabling better access to information by all stakeholders; building stronger monitoring and evaluation system, etc. Additional functionality is being implemented in the treasury system to, inter alia, provide selected ministries with direct access to the Treasury system, as so far they have been unable to get on-demand budget updates or special-purpose reports. The information made available to the Parliament and to the public, while not being particularly poor compared to other countries, has not improved much since the Albanian Ministry of Finance Treasury System (AMOFTS) was activated in 2010. The AMOFTS consists of an ERP platform supported by Oracle Business Suite and operated in a centralized manner by the Treasury Department. Internal control and internal audit are at a nascent stage in their development. The High State Control (a.k.a. the Supreme Audit Institution (SAI)) has a role established in the Constitution and its operations set out in a separate law. The SAI audits the government's revenues, expenditures, financial assets and liabilities, including donor financed project expenditures, but does not at present provide an audit opinion on them.

30. The PEFA Assessment concluded that the public financial management has improved significantly during the last few years in areas such as budgeting, internal control, internal and external audit, though from a relatively weak base. The fiduciary area will benefit from the ongoing improvements of the treasury system (especially an improved financial reporting enabling follow-up of programmatic budgeting as well as giving more analytical information down to the level of individual service units).

31. **Albania's growth outlook for 2012 has weakened even further due mainly to the deterioration in the external environment.** The resulting budget constraints affected the capital investments ceiling for both foreign financing and counterparty funding under Bank financed Projects. In addition, due to the resulting cash crunch situations, cases have been reported that payment for project expenditures have been delayed (for those projects whose funds flow are mainstreamed through treasury system), as more pressing needs have been satisfied (priorities 1 to 4), even though the funds earmarked for project expenditures have been available. Assuming a recovery in the eurozone, growth in Albania is projected to improve to 2.5 percent in 2013 and 3 percent in 2014. Inflation is not expected to exceed 3 percent as growth remains below potential.

Financial management arrangements

32. Financial management arrangements for the project will be the responsibility of MEFWA and MAFCP. MEFWA and MAFCP will be the lead Implementing Agencies for the project, responsible for project management of activities relevant for each of the ministries. Each implementing agency will have one financial management staff solely assigned to the project. These staffs will be under the General Directorate for Supporting Services of the implementing entities and will report to his/her supervisor and the project director. MAFCP has a qualified FM specialist currently working for the Project Preparation Advance. A qualified financial management specialist will be recruited in MEFWA under the terms of reference agreed with the Bank team.

33. The operation will rely on country public budget and planning systems. General Directorate of Supporting Services within MEFWA and MAFCP with the assistance of the Financial Management Specialists in the Project Management Teams will be responsible for the budgeting arrangements. The project budgets will be fully integrated with the implementation ministries budget. *The investment spending forecast* prepared *in accordance with Project Implementation Plan should be included in the Medium Term Plan (2012 – 2014, and the Budget for 2013. During the assessment it was noted that MAFCP has already started and accounted for the project needs, whilst no action was taken in MEFWA.*

34. The proposed project aims to utilize the improvements in the functionalities of the treasury system for funds flow, accounting and reporting functions. The assessment concluded that the project will be mainstreamed through AMOFTS only when the following conditions are met: (i) provision of the direct access of implementing ministries in the AMOFTS; (ii) enabling of appropriate project coding in Treasury Chart of Accounts and generation of acceptable IFRs; (iii) recovery of the Albanian economic situation, so that cash crunch situation will not affect the project implementation (iv) proper commitment control functionalities enforced and (v) proper cash management (government wide); the lack thereof weaken the system's performance and lessen the predictability of funding availability for capital expenditures to honor commitments and contracts. The Bank team will undertake a review of system functionalities during project implementation if there are indications that the above conditions are met, to ensure that such are acceptable for project purposes.

35. The project will pursue an alternative plan for accounting, financial reporting and funds flow of the project until the decision to rely on the country public accounting, reporting and treasury system. An acceptable project financial management solution has to be purchased for project purposes in both implementing agencies. With respect to funds flow arrangements, the funds will flow from the designated account to project bank accounts opened in a secondary level bank and thereafter transferred to contractors for the payment of invoices. Policies and procedures for project financial management will be documented in a Project Implementation Manual. The Bank team will ensure that all invoices that are submitted to the Bank are exclusive of any taxes. This will be done by verifying that the invoiced amount corresponds to the amount stated in the bids.

36. The operation will utilize the regular investment loan disbursement mechanism. Disbursements under the loan and grant will flow through the designated accounts (four Designated Accounts will be maintained at the Bank of Albania (the Central Bank), two for each implementing ministry, respectively for the IBRD loan and Swedish Government Grant) and will be based on Statements of Expenditures. As discussed above the Project flow of funds, accounting and reporting aims to be mainstreamed into AMOFTS, given certain conditions are met and approval of the Bank. Such arrangements require that the advances in DA are transferred in Treasury Single Account and thereon payments are made, by entering requests into AMOFTS. Until then, alternative arrangements will be followed: The advances will be transferred local project bank account will be opened in a commercial bank acceptable to the World Bank to make project expenditure payments to third parties i.e. consultants, contractors and suppliers.

37. Quarterly Interim Financial Reports (IFRs) will be used for overall monitoring and supervising this operation. The Interim Financial Reports (IFRs) will be submitted on a quarterly basis. The financial records will be maintained on the cash receipts and disbursements basis of accounting. The annual project financial statements will be prepared in Albanian Lek and in accordance with International Public Sector Accounting Standards (IPSAS) cash basis.

38. The project financial statements would be audited annually by independent auditors acceptable to the Bank. As of the date of this report, MAFCP does not have any overdue audits. The audit report of the Natural Resources Development project implemented by MEFWA due on August 24, 2012 was issued on October 19, 2012. A waiver has been approved to proceed with negotiations.

39. The auditor for the project will be appointed annually by the Ministry of Finance as part of an overall agreement for the audit of the non-revenue earning Bank-financed portfolio in Albania. Specific terms of reference are used for the projects covered by this agreement and are cleared annually by the Bank. Despite the MOF's arrangements, the implementing ministries are responsible for delivering to the Bank, within six months of the closing of each fiscal year and also at the closing of the project, the audited financial statements. The annual cost of the audit will be covered by the GOA as part of the portfolio audit.

Action Plan

40. The following time-bound action plan was discussed and agreed upon with the counterparts.

Action/Activity	***Responsible Entity***	***Deadline (Due Date)***
Recruitment of a qualified financial management specialist assigned to the project at MEFWA	MEFWA	Loan effectiveness condition

Conditionality

41. The effectiveness condition is (i) recruitment by MEFWA and MAFCP of one procurement and one financial management specialist each; (ii) establishment and maintenance by MEFWA and MAFCP of a Project Steering Committee and Technical Committee; and (iii) adoption of a POM that is satisfactory to the Bank. Signing of a Grant Agreement is a condition for disbursement under component 3.

Annex 4: Operational Risk Assessment Framework (ORAF)

Albania: Water Resources and Irrigation Project (P121186)

<table>
<tr><th colspan="7">Project Stakeholder Risks</th></tr>
<tr><td>Stakeholder Risk</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td>Description:

The main stakeholders are MAFCP and MEFWA, WUOs, DBs, RBAs, RBCs, LGs and farmers.

(i) Key risks in the I&D sector include: weak capacities of WUOs with poor O&M cost recovery; farmers' inability to provide a sufficient level of financial contribution for O&M; lack of capacities of DBs to have an effective O&M system; and limited capacity of LGs to provide I&D services to those schemes they own.

(ii) Key risks in the IWRM sector include: high level of fragmentation of water resources management; absence of inter-sectoral framework with broad stakeholder ownership for IWRM; weak leadership of MEFWA for IWRM; and weak capacities of RBAs to prepare RBM plans. Data sharing among agencies is problematic, despite legislation that makes this mandatory.</td><td colspan="6">Risk Management:

(i) During project preparation a Position Paper on I&D was prepared and endorsed by MAFCP. A new strategy of I&D will be prepared during the project, with the participation of all stakeholders. The strategy will define responsibilities for O&M, among others on the basis of capacity assessments. Only O&M of infrastructure that can be undertaken by WUOs will be transferred to WUOs. LGs will be more closely involved in O&M. Capacities of WUOs, DBs and LGs will be strengthened to improve sustainability, and outsourcing of I&D service delivery to private operators will be piloted. A PSC will be established with the participation of all stakeholders.

(ii) During project preparation, a Position Paper on IWRM and a functional analysis of the water sector were prepared and endorsed by MEFWA. A National Policy and Strategy on IWRM and two RBM plans will be prepared in a participatory manner. A PSC will be established with the participation of all stakeholders, including institutes responsible for data collection to ensure smooth data sharing. Capacity building and training activities on project management and technical issues will be provided to all project stakeholders and beneficiaries.</td></tr>
<tr><td></td><td>Resp: Client</td><td>Stage: Both</td><td>Recurrent: ☑</td><td>Due Date:</td><td>Frequency: Yearly</td><td>Status: In Progress</td></tr>
</table>

<table>
<tr><th colspan="7">Implementing Agency (IA) Risks (including Fiduciary Risks)</th></tr>
<tr><td>Capacity</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td>Description:

Both implementing agencies have capacity constraints which may affect the overall project implementation and disbursement.

(i) The project will be mainstreamed in both MAFCP and MEFWA and an impact on disbursement might be expected during the first years of project implementation.

(ii) MAFCP and DBs have experience in implementation of WB operations on I&D.

(iii) MEFWA neither has the procurement capacity nor the experience to carry out selection of consulting services under QCBS for large-value assignments. The newly established GDWA does not have project implementation experience.

(iv) Mechanisms for overall supervision and monitoring of project procurement are weak, and delays in receiving consolidated status reports are likely.

(v) There is neither sufficient manpower nor expertise to ensure quality of works for the rehabilitation of dams and irrigation and drainage systems.

(vi) Capacities in MEFWA are weak to play its role as convener of cross-sectoral stakeholders.</td><td colspan="6">Risk Management:

(i) During project preparation, two project coordinators and ministry staff were assigned in each of the IAs to lead project preparation. During project implementation, separate PMTs will be established in each Ministry. These units will be composed of civil servants from respective departments and seconded with procurement and FM consultants that have experience in the implementation of Bank financed projects. Although FM and procurement staff hired in both ministries will have the relevant experience, training in fiduciary requirements, technical issues and contract management will be provided to them and to the PMTs in each ministry to ensure smooth and timely project implementation.

(ii) MAFCP hired procurement and financial management consultants during project preparation. In addition, technical staff will be hired to assist MAFCP and DBs in the implementation of project activities. MAFCP will also appoint an environmental specialist from the Ministry to help implement ESMPs.

(iii) MEFWA will hire procurement and financial management consultants upon project effectiveness.

(iv) Regular meetings of the PMT will be held to carry out a review of the current project procurement status as compared to the procurement plan, and to decide on corrective course of action.

(v) Consultancy firms will be recruited to supervise rehabilitation works. In addition, DBs and members of the Dam Safety POE will monitor works.

(vi) MEFWA/GDWA and RBA staff will be trained in management and communication skills.

Resp: Client | Stage: Implementation | Recurrent: ☐ | Due Date: 31-Mar-2013 | Frequency: | Status: In Progress</td></tr>
</table>

Governance	Rating	Substantial				
Description:	**Risk Management:**					
(i) General elections planned for June 2013 may result in substantive changes in the PMTs in both MAFCP and MEFWA. (ii) A new government may request rehabilitation of irrigation schemes or dams in other areas than those already identified during project preparation. (iii) Political changes may shift the attention of implementing agencies from implementation to political posturing therefore holding up key reforms.	(i) During project preparation, under the leadership of the technical staff of both ministries, several participative workshops on MCA on priority dam selection, a functional review of the Water Sector, and discussions on Position Papers on I&D and IWRM were organized. The workshops have been widely attended. The project design is therefore based on broad stakeholder consent. A Public Expenditure and Institutional Review (PEIR) was also conducted. During project implementation, technical assistance will be provided to all stakeholders both at local and central level. Public outreach activities are planned to ensure awareness on the activities to be financed under the project (in particular related to IWRM and PPP) and have buy-in on major sector reforms. (ii) During project preparation, the following was undertaken by both Ministries: (a) MCA to identify 14 priority dams, the rehabilitation of which will be supported under the project; (b) Feasibility studies for 14 dams; (c) pre-feasibility studies for 15 irrigation systems; and (d) TORs for the preparation of two RBM plans, Water Resources Database, functional review of water sector agreed with the Government. Dam rehabilitation works will be contracted as soon as the project becomes effective. Changing priorities therefore (i) not affect dam rehabilitation works as they will be well underway by then; and (ii) would come at a significant financial and economic cost to the GOA as they relate to irrigation systems. (iii) The Bank has demonstrated willingness to help the Government build political consensus with all political parties and other stakeholders. Close cooperation established with the EU Delegation as policy support could help maintain momentum on key sector reforms.				
	Resp: Client	Stage: Both	Recurrent: ☐	Due Date: 30-Jun-2013	Frequency:	Status: Not Yet Due

Project Risks

Design	Rating	Substantial
Description:	**Risk Management:**	
(i) The project is designed to be implemented through two different agencies and this may increase the complexity of implementation and may carry risks in collaboration, in particular in view of the recent shift in the responsibility	(i) Project design was based on lessons learned from the implementation of previous WRM operations in Albania. The design of project components and activities includes a clear division of implementation responsibilities in both Ministries and two separate PMTs will be established. During project preparation, collaboration between the two implementing agencies has been satisfactory, and collaboration is expected to further improve over time. Joint project preparation meetings were held. The collaboration risk will be mitigated by (a) establishment of a project steering committee with shared	

for WRM from MAFCP to MEFWA. (ii) Preparation of the IWRM strategy may get stalled because of institutional and capacity weaknesses in MEFWA, its incapacity todemonstrate leadership in bringing stakeholders around the table (in particular the politically and financially more influential ones), and the large number of sectors and agencies that need to be consulted. (iii) MAFCP lacks capacity to demonstrate leadership in the management of the agricultural water sector and its institutions, including Drainage Boards and WUOs. (iv) MAFCP may be unwilling to implement the PPP pilots, in particular those that require coverage of a finance gap (management contract).	presidency; (b) joint mission launch and wrap-up meetings during project implementation; (c) joint field visits during supervision missions; and (d) regular meetings between the two project coordinators and project managers in the Technical Committee. (ii) The preparation of an IWRM strategy was requested by the DSDC at the PM office and therefore there is a high level commitment to its proper preparation and finalization. Through the NWC and the DSDC, the PM's office is directly involved in the reforms of the water sector. In addition, the Bank is involved in all major water use sub-sectors and has good communication channels with all stakeholders. The Position Paper on IWRM and the functional analyses of Water Sector prepared during preparation have already identified sector weaknesses and major areas for institutional change and support. (iii) Preparation work done for the drafting of TORs for consultancies and feasibility studies for investments will help a smooth start-up of project implementation. The Position Paper on I&D as well as the PEIR have laid the foundations of the majors reforms needed in the sector especially as regards O&M cost recovery and improved service delivery through PPP. There is therefore strong ownership in MAFCP of the proposed reforms. (iii) implementation arrangements are designed in such a way that progress in implementation does not depend on the quality of the relationship between the two implementing agencies.					
	Resp: Client	Stage: Both	Recurrent: ☐	Due Date: 26-Nov-2017	Frequency:	Status: In Progress
Social and Environmental	Rating	Moderate				
Description: Government may not be committed to implement environmental and social safeguards. (i) Low capacities of Albanian institutions and private contractors to meet environmental and social requirements. (ii) Land rights in Albania are sometimes uncertain and citizen engagement has been weak and unevenly applied in the past.	**Risk Management:** (i) Provision of training for project management staff and contractors on environmental and social safeguards, inclusion of contractors' safeguards obligations in contracts, and monitoring of its compliance by technical staff will address the low capacities of public and private agencies. Works contracts will contain EMP clauses to ensure compliance of the contractor, and works supervision will monitor this. An environmental specialist will be appointed by MAFCP to help implementation of ESMPs. (ii) A RAP and RPF, including specifics of institutional arrangement, monitoring and disclosure have been prepared. Potential negative economic impacts to affected people due to temporary or permanent land acquisition for construction needs are not expected to be major.					

<table>
<tr><td rowspan="2">(iii) Poor monitoring of safeguards compliance during project implementation.</td><td colspan="6">(iii) Systematic implementation monitoring and reporting on compliance with the ESMPs by PMT staff and Bank team.</td></tr>
<tr><td>Resp: Client</td><td>Stage: Implementation</td><td>Recurrent: ☐</td><td>Due Date: 26-Nov-2017</td><td>Frequency:</td><td>Status: Not Yet Due</td></tr>
<tr><td>Program and Donor</td><td>Rating</td><td colspan="5">Low</td></tr>
<tr><td>Description:

The project will be co-financed by Swedish Government who has already committed their funding for IWRM activities under component 3.

(i) Delays in preparation of the IWRM strategy will result in postponement of institutional and sector reform support. This may affect the achievement of project development objective.

(ii) The IWRM strategy is not implemented during project duration and investment decisions continue to be made on the basis of a single sector considerations and priorities, leading at best to suboptimal investments and lost opportunities for capturing multi-purpose benefits, and at worst to a waste of limited resources.</td><td colspan="6">Risk Management:

(i) Position Paper on IWRM, water sector functional review, TORs for the preparation of the IWRM strategy have already been prepared during project preparation. An implementation plan will be agreed between the Bank and Swedish Government and the respective Ministries to finalize the strategy preparation and related institutional support activities.

(ii) The process of the preparation of the IWRM will be participatory and involve all sectors and stakeholders. The preparation and consultative process for the IWRM strategy will be closely monitored and technical expertise and feedback will be provided by the Bank and Swedish team. This will ensure timely preparation and good quality product.</td></tr>
<tr><td></td><td>Resp: Bank</td><td>Stage: Both</td><td>Recurrent: ☐</td><td>Due Date: 26-Nov-2017</td><td>Frequency:</td><td>Status: Not Yet Due</td></tr>
<tr><td>Delivery Monitoring and Sustainability</td><td>Rating</td><td colspan="5">Moderate</td></tr>
<tr><td>Description:

Weak capacities within the PMTs to timely implement project activities. Delayed project effectiveness may jeopardize the agreed activities during the first years of</td><td colspan="6">Risk Management:

(i) Both project units will have one assigned staff in charge of M&E. Also the project will support the establishment of a performance based MIS and arrange for data collection, data entry and data reporting. Surveys will be conducted during MTR and at project completion. A consultant will be recruited to establish an MIS at project start, and a baseline has been collected during project preparation.</td></tr>
</table>

implementation. With respect to sustainability: (i) No adequate financial resources are provided to RBAs to perform their responsibilities in a satisfactory way. (ii) Financial viability of I&D remains a concern because of insufficient allocation of public resources and inadequate recovery of O&M costs from the farmers. (iii) Proper consideration of climate change impacts in the project design.	With respect to sustainability: (i) The new and widely agreed IWRM strategy and high level commitment of the Government to address inter-sectorial deficiencies in line with EU water framework directive will provide a good basis for more government and other donor (especially EU) financing support; also the strengthening of the capacities of RBAs will improve their performance, increase their efficiency and absorption capacity of the current state budget funds and future funds. (ii) Involvement of LGs in I&D, contractualizing of relationships between LGs, DBs and WUOs, strengthening capacities of LGs, signing transfer agreements between MAFCP and LGs, and piloting of involvement of private operators in the proving high quality, transparent I&D services will be the main activities to address financial viability in the sector. (iii) Most of the findings of the study on climate change impacts in the Albanian agriculture like e.g. investments in dam safety, enhanced capacities for managing water resources, improved quality of the I&D service delivery etc., have been incorporated in the project design.

Resp:	Client	Stage:	Implementation	Recurrent: ☐	Due Date:	26-Nov-2017	Frequency:	Status:	In Progress

Overall Risk

Implementation Risk Rating: **Substantial**

Comments:
The implementation risk will be substantial and mainly related to the political/economic situation and the likely impact of the debt crisis on project implementation, weak capacities for (mainstreamed) implementation and for improving the strategic framework for IWRM, and the fact that the project aims to increase recovery of O&M costs for I&D in an overall environment of persistent poor I&D performance. Mitigation measures for all risks have been defined, but as a result of the debt crisis the project may have little other choice than to adapt to the slower than expected draw-down of loan proceeds.

Annex 5: Implementation Support Plan

ALBANIA: Water Resources and Irrigation Project

Client implementation capacity

Implementation Support Plan

I. **What would be the main focus in terms of support during project implementation**

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Construction Stakeholder Mobilization WRM	Engineer, procurement Social Development WRM	40,000 30,000 40,000	
12-48 months	Capacity Strengthening	WRM I&D	40,000 40,000	
Other				

Skills Mix Required:

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
TTL and Irrigation Institutions Specialist	8/year	2	HQ staff
Irrigation Engineer	8/year	2	FAO-CP
PPP Specialist	8/year	2	HQ staff
WRM specialist	8/year	2	HQ staff
Operational Specialist	8/year	Local trips	Local staff
Procurement specialist	3/year	Local trips	Local staff
FM Specialist	3/year	Local trips	Local staff
Environmental Specialist	3/year	Local trips	Local staff
Social Development specialist	3/year	1	HQ staff

Annex 6: Team Composition

Albania: Water Resources and Irrigation Project

1. Bank staff and consultants who worked on the project included:

Name	Title	Unit
IJsbrand H. de Jong	Sr. Water Resources Specialist, Task Team Leader	ECSAR
Alessandro Palmieri	Lead Dam Specialist	OPCQC
Margaret Png	Lead Counsel	LEGLE
Rimma Dankova	Sr. WRM specialist	ECSAR
Arusyak Alaverdyan	Operations Officer	ECSAR
Nikola Ille	Sr. Environmental Specialist	ECSEN
Bekim Imeri	Social Scientist	ECSSO
Cledan Mandri-Perrott	Lead Financial Officer	FEUFS
Drita Dade	Sr. Project Officer	ECSEN
Silvia Mauri	Operations Specialist	MNSAR
Hiromi Yamaguchi	Consultant	ECSAR
Ditas Oliveros-Miranda	Procurement Analyst	ECSO2
Kozeta Diamanti	Program Assistant	ECCAL
Ama Esson	Program Assistant	ECSSD
Jose C. Janeiro	Senior Operations Officer	CTRLA
Valencia Copeland	Program Assistant	ECSSD
Jonida Myftiu	Financial Management Specialist	ECSO3
Robert Rout	Irrigation and Rural Infrastructure Engineer	FAO-CP
Juan Morelli	Agricultural Economist	FAO-CP
Nicola Saporiti	Senior Investment Officer, IFC	C3PDR

Annex 7: Economic and Financial Analysis

ALBANIA: Water Resources and Irrigation Project

Background

1. The most limiting production factor for agricultural development in Albania is water for irrigation. Irrigation provides crops with the water needs on a supplementary basis, reducing risks of severe droughts or frequent minor rainfall shortages in the main growing seasons. Irrigation supply water to land in order to improve its production capacity. Consequently, the sector development in Albania depends mostly on improving and/or increasing irrigation.

2. Improving irrigation performance requires not only reducing irrigation costs and water losses of the existing irrigation systems and releasing water for tail end users, but also increasing the value of products per drop of water used for irrigation. Hence, the strategy for improving the performance of I&D infrastructure should aim to attain two main sets of outputs: (i) rehabilitated and improved physical structures; and (ii) facilitated environment for increased production, productivity, recovered area for irrigation, and changed cropping patterns from low value grains (wheat and maize) and forages, to higher value crops (HVC), mostly fruits and vegetables. The first set of outputs would reduce irrigation water losses; while the second would further increase the productivity of land (value produced per hectare) and of water (net value produced per cubic meter of irrigation water).

3. Approximately 21 percent of the country's GDP and more than 58 percent of Albanians rely on agriculture as their primary source of revenue. Although these percentages are likely to decline in future, agriculture will continue to be central for poverty reduction for many years. Farmers are well aware of the constraining factors affecting their low revenues, and they have usually responded to improvement of I&D structures which reduce the risk of water shortages, adopting technology improvements and diversifying production to HVC. However, most of the times this response happens at a very slow pace.

Main Assumptions and Methodology of the Assessment

4. The proposed project will include rehabilitation works on 14 prioritized reservoirs and rehabilitation and modernization works on the 15 associated I&D systems (mainly gravity-operated). The rehabilitation and modernization works are expected to be cost effective, as they will restore the operation of reservoirs and related irrigation canals that are currently either nonoperational and/or substantially damaged. Together with modernization (i.e., introduction of pressurized irrigation in parts of the command area), it will enable farmers to produce a wider range of crops with better quality and higher value, leading to substantial increases in agricultural production through better yields, more HVCs and cropping intensities. Economic impacts could be obtained slowly or within few years of completion of works, depending on the effectiveness of incentives and support.

5. Dams have been selected for repair, taking into account the current condition of the infrastructure and the potential risk for damage to property and loss of human life. In a number of these reservoirs, water levels have been reduced in view of dam safety concerns. Addressing dam safety would allow water levels to be maintained at their original (higher) level, and the

reservoirs would thus be able to play a more important role in terms of both flood management and irrigation. This assessment quantifies both the benefits to be attained from the expected increased agricultural production as a result of irrigation and the reduced risk of dam failures.

6. The project expected financial impact on farmer's revenue and its economic impact on the Albanian economy were assessed with the help of crop and farm models, showing average farming situations. Models and budgets were developed using FARMOD software. A detailed financial and economic analysis has been carried out for all the proposed dam safety/irrigation subprojects identified, using rather conservative assumptions on yield increases, crop intensities and diversification to HVC. They included all schemes: (i) Murriz Thana, which accounts for 43 percent of the project rehabilitation investments, (ii) Kurjani and Strumi, representing 18.2 percent of rehabilitation costs; (iii) Koshnica 1 scheme, costing 7.5 percent of the rehabilitation costs, and presenting the highest investment cost per hectare; and (iv) the other ten smaller schemes each costing an average of 3.14 percent of the overall rehabilitation costs. The costs of the three first mentioned schemes represent 68.6 percent of the project rehabilitation investments.

Financial Analysis

7. The project will benefit about 40,000 small farmers' households. Typically they have about 0.5 to 1.5 hectares (ha) of land in several parcels. Detailed crop, activity and farm models were prepared representing the schemes being assessed, following the average situation of actual crops in the project area. The information required on yields and cropping patterns *with* and *without the project* was obtained on data available from: (i) visits to farms and WUAs during the WRMP mission at project closing in 2009, (ii) data collected by the consultants preparing the feasibility studies; and (iii) new data obtained during the WRIP preparation mission field visits, and also from the MOAFCP's statistics and regional offices estimations. Both pre-project situation and the expected situation after rehabilitation, and the resulting financial costs and revenues are shown in Tables 1 to 15 in the Appendix, and are summarized in Table 1 below.

Table 1. Main Indicators and Expected Results for Main Crops (000' ALL/ha)

Crop	Average Yields (kg/ha)		Gross Revenue ('000 ALL)		Input & Labor Costs ('000 ALL)		Net Income ('000 ALL)	
	Without	With	Without	With	Without	With	Without	With
Winter Grains (Wheat)	4,000	4,600	124,0	142,6	114,2	121,5	9.8	21.1
Summer Grains (Maize)	5,000	8,000	150.0	240.0	138,8	165,3	11.2	74.7
White Beans	1,400	1,700	196.0	238.0	124.0	138.7	72.0	99.3
Potatoes	20,000	24,000	500.0	600.0	232.5	377.5	167.5	222.5
Vegetables	22,000	28,000	660.0	840.0	303.8	360.9	356.1	479.1
Vegetables with Press. Irrig.	22,000	34,000	660.0	1,020.0	303.8	427.9	356.1	612.1
Fodder Crops (Alfalfa)	15,000	21,000	375.0	525.0	124,8	196,8	250.2	328.2
Vegetables (Tomato)	25,000	40,000	750.0	1,200.0	460,0	680,0	290,0	520,0
Existing Grapes	12,000	20,000	460.0	850.0	371,0	479,0	84,0	371,0
New Grapes	0	30,000	0	1,300.0	0	776,0	0	524,0
New Grapes with Press. Irr.	0	35,000	0	1,525.0	0	801,0	0	724,0
Existing Olives	5,000	7,000	500.0	700.0	242,5	336,0	257,5	364,0
Existing Apples	12,000	15,000	330.0	475.0	403,0	463,0	27,0	112,0
New Apples	0	25,000	0	825.0	0	452,0	0	373,0
New Apples with Press. Irr.	0	32,000	0	1,040.0	0	529,0	0	511,0
Livestock (lts milk/cow/yr)	3,000	4,500	152.4	213.1	86.8	95.8	65.6	117.3

8. Farm Models combined crops and livestock activities typical of the areas in the assessed schemes. The most important crops are wheat, maize, and alfalfa, with alfalfa and other pastures used for feeding livestock (1 or 2 cows) owned by the farm family. Prices for the analysis were based upon published information and discussion with farmers on farm-gate prices; and from consideration of the World Bank published past commodities' international prices and forecasts. The crop and livestock models described above were used for estimating the expected impact of project works on farms' income (financial results); as well as for estimating the schemes' results from the national perspective (economic results). Conversion factors (CF) were used for correcting some market prices to better reflect opportunity costs. Farms income increases result from improved water availability as irrigation infrastructure is rehabilitated, which improves land and water productivity; and also from farmers' tendency to invest in HVCs as irrigation water and expected yields become more reliable. Models presented in Tables 16 to 28 in the Appendix summarize typical farm budgets in each of the project areas based on the existing cropping patterns. They characterize small farms slowly changing cropping patterns from about 22 percent of the area under HVCs, to 31 percent. Results for the representative farms for the Murriz-Thana, Kurjani and Koshnica schemes are summarized in Table 2 below.

Table 2. Project Financial Impact at the level of Typical Farms in the Three Project Zones

	Murriz Thana		Kurjani		Koshnica	
	Farm 1.8 ha (all irrigated)		Farm 1.2 ha (all irrigated)		Farm 0.8 ha (0.3 irrigated)	
	without	With	without	without	without	with
Gross Revenue	798,400	1,205,700	784,700	1,196,100	319,100	662,600
Net Revenue	523,500	720,000	520,100	786,200	202,000	421,000
Income increase (%)	-	37.5	-	51.1	-	108%
Labor required per year	124	145	133	152	69	94
Returns/ day of labor	4,200	5,400	3,900	5,200	2,900	4,500

9. Beneficiaries would - on average - increase their net family income by 37.5 to 108 percent depending on the farm size and the degree of diversification into HVC adopted. Given that limited diversification to HVCs is expected, labor requirement would increase only from about 69 - 133 days to about 94 - 152 days per farm per year, due to the enhanced agricultural activity, which is well below the working capacity of an average family (500 person days). The return to family labor is expected to increase with the project from about $29 - 42 to $45 - 54 per day-worked which is well above the normal wages in rural areas (about $10 per day). These improvements are highly positive given the few job opportunities in rural Albania. However, only about 20 percent of the available family labor would be utilized, unless diversification could be accelerated significantly. Either way, farm size is too small to provide full time employment for all family members, or to provide adequate income to support a four or five person household. Consequently, family members would still be required to seek off-farm employment to supplement farming income, even after rehabilitation. Even with HVCs production, for which there are currently marketing constraints, quality problems, and difficulty in accessing export markets, land constraints limit the potential contribution of agriculture to employment and the Albanian economy. However, irrigated agriculture is probably the most cost effective domestic generator of employment, income, and social welfare, at least in rural Albania.

The Economic Analysis

10. ***Agricultural Production Benefits*** were estimated for the thirteen project areas through the aggregation of representative farms of each case expected to be benefiting from the proposed project investments and the value of risk cost reductions mentioned above. It was assumed that no further changes in yields, planted areas and/or cropping patterns would occur after 2017. The analysis considered only 20 years for the stream of benefits, A first level of aggregation was the scheme level, and the second one, at the overall WRIP areas. The areas recovered for irrigation are expected to have timely and adequate irrigation water for previously rain fed areas, resulting in the following changes: (i) 20 to 60 percent of yield increases; (ii) some small cropped area increases as a result of rehabilitation (12.8 percent during summer); and (iii) some changes in cropping patterns towards HVCs. Table 3 shows the cropping pattern evolution assumed for the analysis. The change was derived from those observed during previous projects. HVCs like vegetables, vineries and fruit trees were assumed to increase from 22 to 31 percent of the area in summer, while wheat and alfalfa areas would be reduced from about 88 to 78 percent in winter as orchards are assumed to expand.

Table 3. Evolution of the Cropping Pattern in the 13 Assessed Schemes (in hectares)

Winter Crops	**Before**	**After**	**Before (%)**	**After (%)**
Wheat	4,356	3,415	0.30	0.23
Alfalfa	8,501	8,289	0.58	0.55
Other annual crops	550	555	0.04	0.04
Vineries & Orchards	1,327	2,803	0.09	0.19
Total	**14,734**	**15,062**	**1.00**	**1.00**
Summer Crops				
Alfalfa	8,501	8,289	0.65	0.56
Maize	1,701	1,904	0.13	0.13
Vineries & Orchards	1,327	2,803	0.10	0.19
Vegetables & Potato	1,624	1,838	0.12	0.12
Total	**13,153**	**14,834**	**1.00**	**1.00**

11. ***Dam Risk Reduction*** will also contribute with significant benefits. A Quantitative Risk Assessment (QRA) was undertaken[6] for the 14 dams under consideration during the WRMP in 2009. The methodology presented in the "Interim Guide to Quantitative Risk Assessment for UK reservoirs" by Brown and Gosden (2004) was used, with adjustments in annual probability of failure to condition scoring to make the method Albania specific. The annual probability of failure for each of the dams was assessed considering the following failure mechanisms (i) failure due to extreme rainfall; (ii) failure due to internal erosion and instability (embankment); (iii) failure due to internal erosion and instability (appurtenant works); and (iv) slope failure (due to seismic event). Further contributory factors to the risk profile for each dam included: (i) poor access; (ii) operation and maintenance; (iii) inspection Regime; and (iv) emergency action plan.

12. As part of the QRA process a simplified dam break analysis with indicative flood inundation mapping was undertaken, and the land flooded, approximate number of buildings, and population at risk assessed. This was reassessed in 2012 to take account of any urbanization

[6] Feasibility Study and Preliminary Design for the Rehabilitation of Irrigation and Drainage Systems, Mott MacDonald, August, 2012.

in the areas of concern. The simplified dam break analysis also allowed for an assessment of velocity and depth of flood waters at the locations of population, and from this severity of property damage could be assessed and likely loss of life. The consequences of dam failure were assessed using the following rates which were checked and revised for 2012:

	Urban	**Rural**
Collected tangible costs per house	$60, 000 per house (rounded)	$38,000 per house (rounded)
Agricultural costs per m^2 of agricultural land.		$0.27 per m^2 of agricultural land
Cost per significant bridge	$100,000 per significant bridge	$100,000 per significant bridge
Special infrastructure items (oil refinery, factories).	Value estimated on case by case basis (often accounted for by adding a number of houses)	Value estimated on case by case basis (often accounted for by adding a number of houses)
Dam, downstream irrigation structures repair/rebuilding, loss of agriculture production during years of rebuild and re-establishment	Assessed case by case	Assessed case by case
Loss of Life in Albania[7]	$120,000 per life	$120,000 per life
Collected other costs (emergency services action, traffic disruption, intangible local community damage such as anxiety and ill health, habitat and environmental	28.5% of total of assessed costs above	28.5% of total of assessed costs above

13. Using the annual probability of failure and cost of dam failure, an annual risk cost was generated for each of the dams. The works proposed by this project will reduce the annual probability of failure of the dams through physical measures. The annual probability of failure for each of the dams has therefore been reassessed considering the proposed works improvements and this has led to an average annual risk cost reduction for each of the dams. This value has been added to the other benefits in the economic analysis of each of the schemes. The overall annual project value of dam failure risk reduction was estimated at Lek 40 million.

14. ***Overall Results*** were estimated based on the above mentioned assumptions. Few adjustments were made to the market prices to adequately express the opportunity costs of goods and services involved as market prices are considered to be in line with their economic value (shadow or border prices). The few exceptions included maize for which a conversion factor (CF) of 0.9 was used, beans (CF 0.8), livestock products (CF 0.9), and agricultural inputs (CF 0.9). Also, the costs of rehabilitation civil works were corrected with 0.833 as CF given that a 20 percent VAT is included. O&M of the irrigation systems after rehabilitation or modernization was assumed to be 2 per cent of the rehabilitation and modernization costs.

15. The following Table 4 shows that the proposed dam safety and irrigation rehabilitation works would have an overall Economic Rate of Return (ERR) of about 23.7 percent and a Net Present Value of US$63.2 million (with 10 percent as discount rate). As seen in the Table, individual ERR of the three most costly schemes would be 28.4 percent in Murriz Thana, 19.1

[7] Since it has not been possible to establish a source for cost of life in Albania, the following has been assumed: the average person killed during a hypothetical dam break would have 30 years of working life left with an average salary of US$4,000 / year. These averages have been considered against national statistics and found to be realistic.

percent in Kurjani, and 9.5 percent in Koshnica. All the other 10 schemes show ERRs between 11.2 percent (Tragtan 2) and 31.5 percent (Tragtan 3).

16. With these results, it can be safely concluded that most of the schemes are feasible from both the economic and financial points of view. Koshnica, Tagtan 2 and Leminot schemes that show marginal ERRs should go through a new economic analysis once the detailed designs and costs of proposed works are finalized, and after going through a new consultation process with beneficiaries in order to confirm the diversification of crops expected after the irrigation investments are completed. Results could be significantly improved if the rate of adoption of new irrigation practices and diversification towards HVCs could be accelerated through an effective MAFCP extension support services and enhanced access to adequate financing for the introduction of irrigation pressurized systems and the installation of new orchards.

Table 4 Economic Results of the Three Assessed Schemes to be Rehabilitated

Scheme	Investment (US$)	Net Economic Benefit per year (at maturity)		Economic Rate of Return	Net Present Value
		Without	With Project		
Murriz Thana	27.40 million	26.10 million	42.16 million	28.4	48.80 million
Kurjani	8.65 million	5.10 million	8.38 million	19.1	7.00 million
Koshnica	3.65 million	0.40 million	1.09 million	9.5	- 0.08 million
T'Plan	0.74 million	0.20 million	0.37 million	15.4	0.31 million
Vranisht 2	1.32 million	0.36 million	0.68 million	16.0	0.64 million
Tragtan 2	0.18 million	0.04 million	0.07 million	11.2	0.02 million
Tregtan 3	0.66 million	0.54 million	0.94 million	31.2	1.57 million
Zharrez	1.74 million	0.75 million	1.18 million	15.9	0.83 million
Slanica	0.68 million	0.27 million	0.43 million	15.1	0.28 million
Belasova	1.26 million	0.68 million	1.22 million	26.1	1.89 million
Duhanas	0.68 million	0.42 million	0.75 million	28.4	1.21 million
Staravecke	0.29 million	0.19 million	0.35 million	28.8	0.60 million
Leminot	1.55 million	0.39 million	0.68 million	11.5	0.18 million
Overall Project	**48.8 million**	**35.44 million**	**58.3 million**	**23.7**	**63.2 million**

17. **Sustainability** of project benefits will depend on the project's success in strengthening WUOs and LGs in adequately operating and maintaining the rehabilitated I&D infrastructure.

Sensitivity analysis

18. The sensitivity analysis was conducted in order to assess the exposure of the project to such risks as: (a) an increase in construction costs; (b) a decrease in food prices given the current high prices of food in comparison to long term averages; and (c) a reduction in the number of farms adjusting their farming practices in response to the improved availability of irrigation. Construction costs can often increase following initial estimates in spite of the fact that the Consultant has included a 15% contingency in the costs estimation to mitigate this risk. Nevertheless, the effect of a 20% increase in construction costs has been considered. Also, as international food prices are at very high levels in comparison to their long-term average, a sensitivity check to a drop in food prices by both 20% and 30% was considered. Finally, although only 70% of farms have been assumed as a conservative base case scenario for the

number of farms which would change their farming practices to take advantage of the increase in irrigation availability, the risk of a further 20% of this number of farms not taking part and revising their practices has also been considered. The following table presents the results of all these sensitivity checks with various combinations of risks.

Table 5 Overall ERR with Sensitivity Checks

Table Heading Left	Overall Project ERR
Base case	23.7%
Increase in dam and I&D construction costs by 20%	20.5%
Decrease food prices by 20%	17.5%
Decrease food prices by 30%	13.6%
Decrease food prices by 20% + construction cost increase by 20%	14.7%
20% Reduction in farms adopting new farming practices and HVCs in response to improved irrigation	19.9%
20% Reduction in farms adopting new farming practices in response to improved irrigation + construction cost increase 20%	16.9 %

19. As can be seen above, in all cases the ERR is above 12%. This suggests that the project is generally robust against most probable risks factors. However, it is vital to the project's success to provide timely training for farmers WUOs to operate irrigation facilities and to improve their current on-farm production practices, cropping patterns, and water management in order to obtain the full benefit from resumed irrigation services.

Annex 8: Specific risk issues /Social Development and Sustainability

ALBANIA: Water Resources and Irrigation Project

1. Successful implementation of WRIP depends among others on the meaningful participation of all stakeholders. Beneficiary communities have been consulted during project preparation by the consultant engaged to prepare the ESFD, for the identification of technical solutions and designs. Consultations have been organized at district level to discuss the ESFD and draft site specific ESMPs. The Framework has defined a Public Consultation Plan which will be important part of project implementation.

2. The expected impacts of the project are a reduction of migration due to employment opportunities, and increased incomes by improving crop and plant production. Additional positive impacts to be expected are increased land value and establishment and strengthening of WUOs that will help build social capital. Most of the social risk is likely to occur during the implementation of the works and these are mostly related to temporary loss of land and to lesser extend permanent loss of land. Out of 13 reservoir sites, water levels are expected to increase by 0.5 to 1 meters in four cases. It is highly unlikely but there is a potential need to resettle or compensate a small number of people. Site-specific ESMPs will be prepared and will include site-specific mitigation measures, implementation procedures and arrangements for ensuring full consideration of social safeguards in accordance with OP 4.12 and relevant Albanian procedures.

3. The quality of the works is another concern to the communities involved in the project. There is a high level of interest among beneficiaries to receive the highest quality of works, partly because they will be using the rehabilitated schemes, and partly because they contribute financially to modernization to enhance ownership. The beneficiaries have been intensively consulted in the preliminary design of the irrigation schemes, and the design company has incorporated their concerns. During detailed design, further rounds of consultations with the beneficiaries will be organized. It is expected that, as a result of their involvement and financial contribution to modernization, ownership will be high and beneficiaries will play an active role in the supervision of the works to help ensure that they are implemented in accordance with adequate quality standards.

4. Rural Albania is patriarchal, which poses a challenge to participation of women in project activities. The project will encourage the participation of women through social mobilization activities under Component 2 and 3. It will dedicate separate sessions for women, aiming at increasing their roles throughout the subproject cycle (including WUO administration and decision-making). Women's involvement in the project will be monitored as a supplementary indicator of the PDO Indicator on direct beneficiaries.

Annex 9: Public-Private Partnerships in Irrigation Service Delivery

Albania: Water Resources and Irrigation Project

Introduction

1. In order to improve the long-term sustainability of the investments in rehabilitation and modernization of irrigation infrastructure, the project will support the design and implementation of three small-scale pilot PPPs. The objectives of the pilot PPPs will be:

- To ensure that I&D infrastructure is efficiently operated and maintained over time.
- To develop PPP models that can be replicated in other irrigation schemes in the country.

2. During project preparation, with grant support from PPIAF, three PPP pilots have been identified in consultation with MAFCP, providing representative samples of very different realities in terms of area of irrigated farmland, technical complexity and value of the supported agricultural operations:

- Xarrë, in the South of the country (2,000 hectares)
- Bushat, in the North of the country (1,100 hectares)
- Allkaj, one of the secondary canals of Murriz Thana irrigation scheme (900 ha).

3. The PPP identification phase included for each of the three sites preparation of a financial model, willingness-to-pay analysis, legal analysis and PPP options identification and assessment, including extensive consultations with farmers. The outputs include a proposed PPP contract type, key contractual clauses, proposed performance indicators and an invitation for pre-qualification of private operators.

4. During project implementation, the project will finance the following activities in support of further design and implementation of the pilots:

- the completion of existing pre-feasibility studies
- the capital investment required to rehabilitate and / or to expand the existing irrigation infrastructure, and
- the activities of a PPP transaction advisor, who will structure, develop the draft contract documents and support the conceding authorities in the implementation of the tender for the selection of private partners.

Xarrë

5. In Xarrë, the Bank-funded capital investment in rehabilitation and modernization (estimated at €2.15 million) would enable the system to provide water to parts of the command area at a lower cost than the farmers are currently paying, and in greater quantity than currently available. Financial models show that the costs of the water amounts to 22 ALL per m^3 (180,000 ALL per hectare), which compares favorably to the 31 ALL per m^3 that farmers are paying at the moment. The willingness-to-pay analysis suggests that the high value agriculture in Xarrë could support the payment of such rates. One hectare of citrus provides a gross margin of 400,000 ALL. However, no reliable historical records of irrigation water demand are available, and the estimated demand at full cost recovery rates is subject to a high degree of uncertainty. In addition, the regulatory framework for PPPs in irrigation is largely deficient:

- No legal basis for irrigation water bill collection from a PPP.
- Farmland cannot be used as a security for outstanding bills.

6. The PPP model which is therefore being considered consists of a five-year Performance Based Management Contract between the Municipality of Xarrë, MAFCP and a PPP Company.

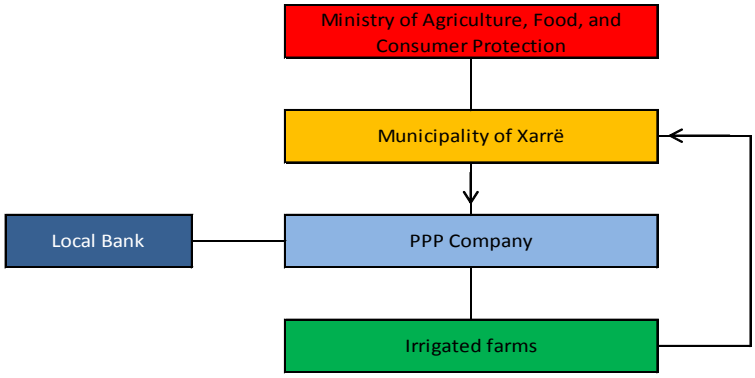


Fig. 1: Xarrë performance based management contract structure.

7. The performance of the PPP shall be monitored and rewarded on the basis of the following parameters:

- Reliability of irrigation services (a sort of availability payment for the irrigation infrastructure), measured as a percentage, and calculated as the number of hours in which the irrigation infrastructure was not out of service, divided by the total number of hours in the period.
- Energy efficiency, measured as the energy consumption per m^3 of water pumped to the hills, (kWh/m^3).
- Network efficiency, measured as the metered amount of water billed, divided by the amount of water abstracted from the water sources.
- Billing and collection efficiency, measured as the total amount collected divided by the total amount billed during the period.

8. The remuneration of the PPP Company will be based on two components:

- A fixed component, payable by the Municipality regardless of the operating performance of the PPP company, which should cover the estimated electricity costs of the irrigation scheme.
- A positive (negative) variable component, which could be determined on a competitive basis during the tender process, linked to the achievement of (or failure to meet) performance targets.

9. The irrigation water tariff should ideally be set before the selection of the private partner and the establishment of the PPP. It should be sufficient to cover the efficient operating and maintenance costs of the irrigation scheme, and to capture (i) part of the cost savings in O&M costs that the irrigation scheme will generate, and (ii) economic benefits generated by the rehabilitation of the I&D infrastructure.

10. If the experience is successful, and the collection ratios prove that the PPP is financially sustainable, the five-year Performance Based Management Contract may then transition into a Lease / Affermage type of contract. In such lease scheme, the guaranteed remuneration component would be removed, the PPP Company would need to finance its activities from the revenue collected from customers, and would need to fund selected investments in the rehabilitation or modernization of the I&D infrastructure.

Bushat

11. The proposed PPP pilot scheme in Bushat would provide irrigation services to an area of 1,100 ha, which is currently served by a network of canals downstream of the Ashta hydropower plant on the Drin River. The farmland is cultivated by low value crops.

12. A WUA exists for the maintenance and operation of the irrigation system. However, it does not collect sufficient fees to properly maintain the primary and secondary canals. Tertiary canals should be maintained by farmers, but many of them are absent and their land lies fallow.

13. The rehabilitation of the existing irrigation infrastructure will be procured and paid for by project. This public capital contribution to the PPP scheme is estimated to cost €90,000. This will involve the cleaning of primary canals. The capital investment would enable the Bushat irrigation PPP to provide more reliable irrigation services to farmers, potentially incentivizing them to cultivate the many plots that lie fallow, and to shift to higher value crops.

14. The results of a preliminary financial analysis show that the annual operation and maintenance costs under a PPP scheme would be relatively low, in the order of US$ 30,000. However, local farmers do not have a history of payment for irrigation services, as demonstrated by the failure of the existing WUA to collect fees. In addition, the regulatory framework for PPPs in irrigation is largely deficient.

15. The existing irrigation infrastructure is currently owned by the MoA. Ownership of the infrastructure will be transferred to the Municipality of Bushat, which would be the conceding authority of the PPP. In the absence of a solid legal framework, given the low value of the current agricultural activities and the lack of culture for the payment of irrigation bills, it would be unrealistic to hope to transfer any revenue collection risk to the private partner of the PPP. Therefore, the PPP model which is currently being considered for Bushat, consists in a five-year Service Contract between the Municipality, MAFCP and a PPP Company.

16. The performance of the service contract will be monitored and rewarded on the basis of the following two parameters:

- Reliability of irrigation services (a sort of availability payment for the irrigation infrastructure), measured as a percentage, and calculated as the number of hours in which the irrigation infrastructure was not out of service, divided by the total number of hours in the period.
- Billing efficiency, measured as the number of bills correctly issued by the PPP divided by the total number of bills that should have been issued by the PPP during the period.

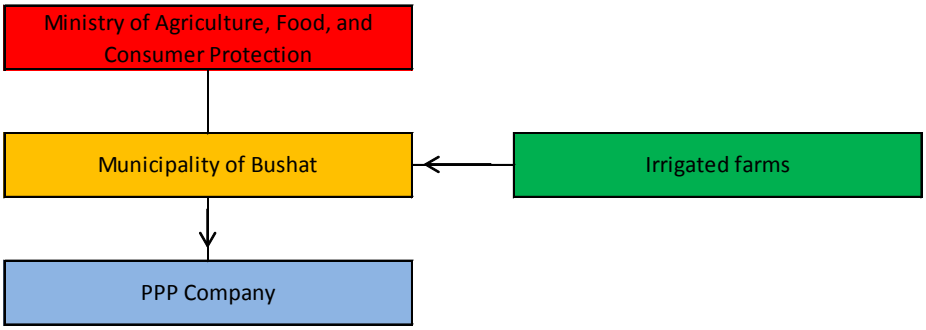


Figure 2: Bushat service contract structure.

17. The remuneration of the PPP Company should be based on two components:

- A fixed component, payable by the Municipality regardless of the operating performance of the PPP company, which should cover a the estimated operation and maintenance costs of the irrigation scheme, determined on a competitive basis during the tender process.
- A positive / negative performance bonus, linked to the achievement of the performance targets.

18. The irrigation water tariff should ideally be set before the selection of the private partner and the establishment of the PPP. It should be sufficient to cover the efficient O&M costs of the irrigation scheme.

19. If the experience is successful and, in particular, if the collection rates prove to the PPP to be financially sustainable, then the Service Contract may evolve into a Performance Based Management type of contract. In such management contract, the Municipality could delegate the task of collecting payments to the PPP Company.

Allkaj

20. The proposed PPP pilot scheme in Allkaj would provide irrigation services to an area of 900 ha, which is currently served by a network of canals downstream of the Murriz-Thana reservoir on the Devoli river. The farmland is cultivated by low value crops. The commune is located in the Lushnjë District, Fier County, western Albania. It is situated 12 km South of Lushnja city. There are 5 villages (Toshkes, Zhelizhan, Delisufaj, Bickajivogel, Allkaj, LifajiRi, CukasiRi, Mazhaj) with about 6,000 inhabitants in its territory. The main source of income is agriculture. Agricultural production in the scheme is characterized by comparatively high value products, with the rapid emergence of greenhouses throughout the command area. Farmers grow mostly field crops but also vineyard, apple trees, live-stock farming, remittances from emigrants, and some small scale family agro industry.

21. The management of the irrigation system in Allkaj is undertaken by the Lushnja Drainage Board, Cukas WUO and Krujte WUO. However, the WUOs only collect 40 percent of invoiced fees and proper maintenance of primary and secondary canals remains elusive.

22. The rehabilitation of the existing irrigation infrastructure will be procured and paid for by project as part of the rehabilitation of Murriz-Thana. This public capital contribution to the PPP scheme is estimated to cost €271,000 and will involve the rehabilitation and cleaning of canal infrastructure. The capital investment would enable the Allkaj irrigation PPP to provide more reliable irrigation services to farmers, potentially incentivizing them to cultivate the many plots that lie fallow, and to shift to higher value crops. The average estimated annual O&M costs are US$ 17,250 for the entire scheme, or about US$ 20 per hectare. This compares favorably to the estimated average gross income of about US$ 1,000 per hectare, suggesting that payment of O&M should not pose any constraints from a payment capacity perspective.

23. The proposed contractual arrangement is a management contract where payments are collected by the commune and system rehabilitation is done prior to the beginning of the contract. The conceding authority would be MAFCP, currently the owner of the infrastructure. The scope of services of this management contract includes operation and maintenance, and billing. The collection of irrigation fees will be done by the commune. The main reason for such a contractual arrangement is the uncertainty on the recovery rate of irrigation fees. This uncertainty excludes any user fees based contractual arrangement.

24. The performance of the service contract will be monitored and rewarded on the basis of the following two parameters:

- Reliability of irrigation services (a sort of availability payment for the irrigation infrastructure), measured as a percentage, and calculated as the number of hours in which the irrigation infrastructure was not out of service, divided by the total number of hours in the period.
- Billing efficiency, measured as the number of bills correctly issued by the PPP divided by the total number of bills that should have been issued by the PPP during the period.

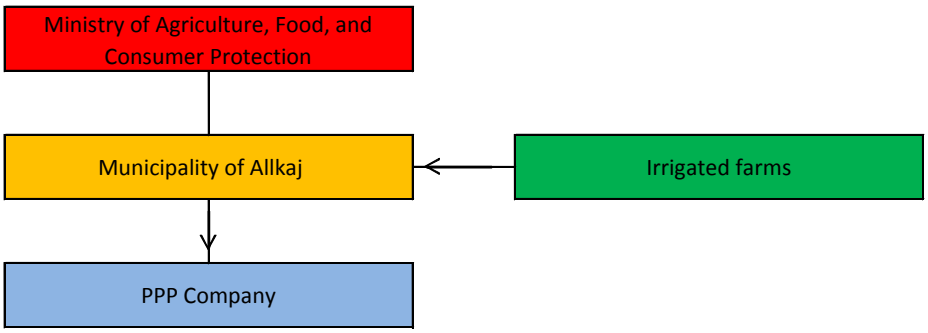


Figure 3: Allkaj service contract structure.

25. The remuneration of the PPP Company should be based on two components:

- A fixed component, payable by MAFCP regardless of the operating performance of the PPP company, which should cover a the estimated operation and maintenance costs of the irrigation scheme, determined on a competitive basis during the tender process.
- A positive / negative performance bonus, linked to the achievement of the performance targets.

26. The irrigation water tariff should ideally be set before the selection of the private partner and the establishment of the PPP. It should be sufficient to cover the efficient operating and maintenance costs of the irrigation scheme.

27. If the experience is successful and, in particular, if the collection rates prove to the PPP to be financially sustainable, then the Service Contract may evolve into a Performance Based Management type of contract. In such management contract, MAFCP could delegate the task of collecting payments to the PPP Company.

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- PROJECT INVESTMENT SITES
- RESERVOIRS
- BUNA/DRIN RIVER BASINS
- SEMANI RIVER BASIN
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- DISTRICT BOUNDARIES

JUNE 2012