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Report No: PAD862

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR32.40 MILLION
(US\$50 MILLION EQUIVALENT)

TO

GEORGIA

FOR AN

IRRIGATION AND LAND MARKET DEVELOPMENT PROJECT

APRIL 30TH 2014

Sustainable Development Department
South Caucasus Country Unit
Europe and Central Asia Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective February 14, 2014)

Currency Unit = GEL
 GEL 1.733 = US\$1
 US\$1.547 = SDR 1

RECIPIENT FISCAL YEAR
 January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AA	Ameliorative Association	IDCDP	Irrigation and Drainage
ADPCC	Agricultural Development Project Coordination Centre		Community Development Project
BP	Bank Procedures	IFAD	International Fund for
CQS	Consultant Qualifications		Agricultural Development
CSPA	Competition and State Procurement Agency	IFR	Interim Un-audited Financial Reports
DA	Designated Account	IMC	Inter-Ministerial Commission
DC	Direct Contracting	IO	Intermediate Outcome
EA	Environmental Assessment	IRR	Internal Rate of Return
EMP	Environmental Management Plans	ISF	Irrigation Service Fee
ENPV	Economic Net Present Value	IT	Information Technology
ESMF	Environmental and Social Management Framework	Km	kilometer
EU	European Union	LCS	Least-Cost Selection
FAO	Food and Agriculture Organization	LGAF	Land Governance Assessment Framework
FBS	Fixed-Budget Selection	LTD	Limited Liability Company
FHH	Female Headed Households	M&E	Monitoring and Evaluation
FIRR	Financial Internal Rate of Return	MOA	Ministry of Agriculture
FM	Financial Management	MOE	Ministry of Economy
FNPV	Financial Net Present Value	MOJ	Ministry of Justice
GDP	Gross Domestic Product	NAPR	National Agency for Public Registry
GEL	Georgian Lari	NBG	National Bank of Georgia
ha	hectare	NCB	National Competitive Bidding
IBRD	International Bank for Reconstruction and Development	NGO	Non-Governmental Organization
IC	Individual Consultants	NPV	Net Present Value
ICB	International Competitive Bidding	OECD-DAC	Organization for Economic Cooperation and Development - Development Assistance Committee
IDA	International Development Association	OP	Operational Policy
		PDO	Project Development Objective
		POM	Project Operational Manual

PP	Procurement Plan	SOEs	Statement of Expenditures
PPMD	Project Planning and Monitoring Division	SSS	Single-Source Selection
QCBS	Quality and Cost-Based Selections	UASCG	United Amelioration Service Company for Georgia
RFP	Resettlement Policy Framework	US\$	United States Dollar
SCADA	Supervisory Control and Data Acquisition	USAID	United States Agency for International Development
SDR	Special Drawing Rights	WB	World Bank
		WUO	Water User Organization

Regional Vice President:	Laura Tuck
Country Director:	Henry G. R. Kerali
Sector Director:	Laszlo Lovei
Sector Manager:	Dina Umali-Deininger
Task Team Leader:	Peter Goodman

GEORGIA
Irrigation and Land Market Development Project

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PAD DATA SHEET*Georgia**Irrigation and Land Market Development Project (P133828)***PROJECT APPRAISAL DOCUMENT***EUROPE AND CENTRAL ASIA**ECSAR*

Report No.: PAD862

Basic Information			
Project ID P133828	EA Category B - Partial Assessment	Team Leader Peter Goodman	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects []		
Project Implementation Start Date 24-May-2014	Project Implementation End Date 31-Jul-2019		
Expected Effectiveness Date 31-Oct-2014	Expected Closing Date 31-Jul-2019		
Joint IFC No			
Sector Manager Dina Umali-Deiningner	Sector Director Laszlo Lovei	Country Director Henry G. R. Kerali	Regional Vice President Laura Tuck
Borrower: GEORGIA			
Responsible Agency: Ministry of Agriculture			
Contact: Telephone No.:	Ilia Kvitiashvili 995322376657	Title: Email:	Mr. i.kvitaishvili@moa.gov.ge
Responsible Agency: Ministry of Justice			
Contact: Telephone No.:	Mikheil Sarjveladze 995322405919	Title: Email:	Mr. msarjveladze@justice.gov.ge
Project Financing Data(in USD Million)			
<input type="checkbox"/> Loan	<input type="checkbox"/> Grant	<input type="checkbox"/> Guarantee	
<input checked="" type="checkbox"/> Credit	<input type="checkbox"/> IDA Grant	<input type="checkbox"/> Other	

Total Project Cost:	50.00	Total Bank Financing:	50.00				
Financing Gap:	0.00						
Financing Source		Amount					
BORROWER/RECIPIENT		0.00					
International Development Association (IDA)		50.00					
Total		50.00					
Expected Disbursements (in USD Million)							
Fiscal Year	2014	2015	2016	2017	2018	2019	2020
Annual	0.14	14.18	13.60	11.82	6.78	2.72	0.76
Cumulative	0.14	14.32	27.92	39.74	46.52	49.90	50.00
Proposed Development Objective(s)							
The Project Development Objective is to (i) improve delivery of irrigation and drainage services in selected areas and (ii) develop improved policies and procedures as a basis for a national program of land registration.							
Components							
Component Name				Cost (USD Millions)			
Component 1 Irrigation and Drainage Improvement				45.65			
Component 2 Land Market Development				2.25			
Component 3 Project Management				2.10			
Institutional Data							
Sector Board							
Agriculture and Rural Development							
Sectors / Climate Change							
Sector (Maximum 5 and total % must equal 100)							
Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %			
Agriculture, fishing, and forestry	Irrigation and drainage	90	93				
Public Administration, Law, and Justice	Public administration-Agriculture, fishing and forestry	10	38				
Total		100					
<input type="checkbox"/> 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	%	
Rural development	Rural services and infrastructure	90	
Environment and natural resources management	Land administration and management	10	
Total		100	
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]	
Have these been approved by Bank management?	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
Financial Management, Financial Reports and Audits	X		CONTINUOUS
Description of Covenant			
The Recipient shall, through the Ministry of Agriculture, appoint an independent auditor for the Project with terms of reference and qualifications acceptable to the Association, in accordance with the provisions of Section III of this Schedule.			

Name	Recurrent	Due Date	Frequency
Safeguards 1	X		CONTINUOUS
Description of Covenant			
The Recipient shall ensure that the Project is carried out in accordance with the provisions of the ESMF, EMP(s), RPF and RAP(s). The Recipient shall not assign, amend, abrogate or waive the ESMF, EMP(s), RPF and/or RAP(s) or any provision thereof, without the prior approval of the Association.			
Name	Recurrent	Due Date	Frequency
Safeguards 2 (a) (i)	X		CONTINUOUS
Description of Covenant			
For purposes of Part A of the Project, the Recipient shall: (a) prior to the issuance of the bidding documents for the works contract for each irrigation and drainage scheme, prepare and submit to the Association for its approval: (i) the proposed design and site for said works and, the related site-specific EMP in form and substance satisfactory to the Association;			
Name	Recurrent	Due Date	Frequency
Safeguards 2 (a) (ii) and (b)	X		CONTINUOUS
Description of Covenant			
and (ii) the draft contract for said works to ensure that the provisions of said site-specific EMP are adequately included in said contract; (b) prior to the signing of the contract for said works, prepare and submit to the Association for its approval the site-specific land acquisition and/or resettlement action plan(s) in form and substance satisfactory to the Association;			
Name	Recurrent	Due Date	Frequency
Safeguards 2 (c)	X		CONTINUOUS
Description of Covenant			
and (c) prior to the commencement of the works, ensure that the owners and users of the land where said works are to be implemented are fully compensated in accordance with the provisions of the resettlement action plan(s) that have been approved by the Association (RAP(s)).			
Name	Recurrent	Due Date	Frequency
Safeguards 3 (a) and (b)	X		CONTINUOUS
Description of Covenant			
The Recipient shall: (a) ensure that all activities undertaken for the purpose of carrying out of the Project comply with environmental standards and guidelines satisfactory to the Association; (b) ensure that the selection of any irrigation and drainage scheme under Part A of the Project is done in accordance with the provisions of the ESMF;			
Name	Recurrent	Due Date	Frequency
Safeguards 3 (c)	X		CONTINUOUS
Description of Covenant			
(c) ensure the complete implementation of the EMPs in a manner acceptable to the Association, including all necessary measures to minimize and to mitigate any adverse environmental impacts caused by the implementation of the Project;			

Name	Recurrent	Due Date	Frequency
Safeguards 3 (d)	X		CONTINUOUS
Description of Covenant			
and (d) maintain the Project Planning and Monitoring Division's environmental unit with competent staff in adequate numbers and with such responsibilities and functions acceptable to the Association as shall enable the Project Planning and Monitoring Division to manage, coordinate and monitor the implementation of the EMPs.			
Name	Recurrent	Due Date	Frequency
Safeguards 4 (a)	X		CONTINUOUS
Description of Covenant			
The Recipient shall: (a) ensure that the Project Planning and Monitoring Division prepares RAPs according to the RPF;			
Name	Recurrent	Due Date	Frequency
Safeguards 4 (b) (part 1)	X		CONTINUOUS
Description of Covenant			
(b) maintain or cause to be maintained by Project Planning and Monitoring Division, and publicize or cause to be publicized by Project Planning and Monitoring Division, the availability of, grievance procedures to hear and determine fairly and in good faith, in accordance with the RPF,			
Name	Recurrent	Due Date	Frequency
Safeguards 4 (b) (part 2)	X		CONTINUOUS
Description of Covenant			
all complaints raised in relation to the implementation of the RAPs by those being resettled (as that term is defined in the RAP) or by those in host communities who are adversely affected by the implementation of the RPF, and take all measures necessary to implement the determinations made under such grievance procedures;			
Name	Recurrent	Due Date	Frequency
Safeguards 4 (c)	X		CONTINUOUS
Description of Covenant			
(c) through Project Planning and Monitoring Division, employ a resettlement expert, satisfactory to the Association, to conduct an ex post review of the implementation of the RAPs;			
Name	Recurrent	Due Date	Frequency
Safeguards 4 (d)	X		CONTINUOUS
Description of Covenant			
(d) through Project Planning and Monitoring Division, furnish promptly to the Association the findings and recommendations for follow up action resulting from each such review; and (e) through Project Planning and Monitoring Division, implement all such recommendations for follow up action as are agreed with the Association.			
Name	Recurrent	Due Date	Frequency
Safeguards 5	X		CONTINUOUS

Description of Covenant			
For the purpose of carrying out Part A.1 of the Project, the Recipient shall establish a dam safety panel, in accordance with the ESMF prior to commencing any works.			
Name	Recurrent	Due Date	Frequency
Safeguards 6 (a)	X		CONTINUOUS
Description of Covenant			
The Recipient shall include in the Project Reports referred to in Section II.A of this Schedule adequate information on the implementation of the ESMF, the RPF, EMPs, and RAPs, giving details of: (a) measures taken in furtherance of the ESMF, the RPF, any environmental assessment or similar safeguard instrument, RAPs and EMPs;			
Name	Recurrent	Due Date	Frequency
Safeguards 6 (b) and (c)	X		CONTINUOUS
Description of Covenant			
(b) conditions, if any, which interfere or threaten to interfere with the smooth implementation of the ESMF, the RPF, any EMP or similar safeguard instrument, and any RAP; and (c) remedial measures taken or required to be taken to address such conditions and to ensure the continued efficient and effective implementation of the ESMF, the RPF, any EMP or similar safeguard instrument, and any RAP.			
Name	Recurrent	Due Date	Frequency
Safeguards 7 (a)	X		CONTINUOUS
Description of Covenant			
For the purposes of carrying out Part B.2 of the Project, the Recipient shall: (a) furnish to the Association for approval, the draft guidelines for land registration prepared in accordance with terms of reference acceptable to the Bank, including that the guidelines be fully consistent with the Safeguards Documents and the Association's Safeguard Policies;			
Name	Recurrent	Due Date	Frequency
Safeguards 7 (b)	X		CONTINUOUS
Description of Covenant			
and (b) upon approval by the Association, implement Part B.2 of the Project according to the provision of the Guidelines for Land Registration.			
Conditions			
Source Of Fund	Name	Type	
IDA	Additional Condition of Effectiveness	Effectiveness	
Description of Condition			
The Recipient has submitted to the Association: (a) the Operational Manual for Parts A and C.1 of the Project; and (b) the Operational Manual for Parts B and C.2 of the Project, both including the financial management chapter in form and substance satisfactory to the Association.			
Source Of Fund	Name	Type	
IDA	Retroactive Financing	Disbursement	

Description of Condition			
Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made: for payments made prior to the date of this Agreement, except that withdrawals up to an aggregate amount not to exceed SDR 3,900,000 equivalent may be made for payments made prior to this date but on or after March 18, 2014, for Eligible Expenditures under Categories (1)(a) and (1)(c).			
Source Of Fund	Name	Type	
IDA	Disbursement Conditions under Category (1) (a)	Disbursement	
Description of Condition			
No withdrawal shall be made under Category (1)(a) for works under Part A.1 of the Project unless and until the Recipient has established the dam safety panel in accordance with the provisions of paragraph 5 of section I.C of this Schedule.			
Source Of Fund	Name	Type	
IDA	Disbursement Conditions under Categories (2)(a) and (2)(b) (i)	Disbursement	
Description of Condition			
No withdrawal shall be made under Categories (2)(a) and (2)(b) unless and until the Recipient's Ministry of Justice has: (i) established an automated accounting system satisfactory to the Association to be utilized by NAPR for Project accounting, budgeting and reporting.			
Source Of Fund	Name	Type	
IDA	Disbursement Conditions under Categories (2)(a) and (2)(b) (ii)	Disbursement	
Description of Condition			
No withdrawal shall be made under Categories (2)(a) and (2)(b) unless and until the Recipient's Ministry of Justice has (ii) appointed a financial manager whose terms of reference, qualifications and experience shall be acceptable to the Association, to assume the responsibilities of the Project financial manager within the NAPR.			
Source Of Fund	Name	Type	
IDA	Disbursement Conditions under Category (2)(b)	Disbursement	
Description of Condition			
No withdrawal shall be made under Category (2)(b) unless and until the Recipient has adopted the Guidelines for Land Registration prepared and approved in accordance with the provisions of paragraph 7 of Section I.C of this Schedule.			
Team Composition			
Bank Staff			
Name	Title	Specialization	Unit
Joseph Paul Formoso	Senior Finance Officer	Senior Finance Officer	CTRLA
Usaid I. El-Hanbali	Consultant	Consultant	ECSAR
Joop Stoutjesdijk	Lead Irrigation Engineer	Lead Irrigation Engineer	SASDA
Malcolm D. Childress	Sr Land Administration Specialist	Sr Land Administration Specialist	ECSEN

Darejan Kapanadze	Senior Environmental Specialist	Senior Environmental Specialist	ECSEN		
Rufiz Vakhid Chirag-Zade	Senior Operations Officer	Senior Operations Officer	ECSAR		
Galina Alagardova	Financial Management Specialist	Financial Management Specialist	ECSO3		
Arman Vatyan	Sr Financial Management Specialist	Sr Financial Management Specialist	ECSO3		
Joanna Peace De Berry	Senior Social Development Specialist	Senior Social Development Specialist	ECSSO		
Kunduz Masykhanova	Program Coordinator	Financial and Economic Analysis	ECSAR		
Peter Goodman	Sr Agricultural Spec.	Team Leader	ECSAR		
Hiroki Yamaguchi	Consultant	E T Consultant	ECSAR		
Sandro Nozadze	Procurement Specialist	Procurement Specialist	ECSO2		
Non Bank Staff					
Name	Title	Office Phone	City		
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments

I. STRATEGIC CONTEXT

A. COUNTRY CONTEXT

1. Starting in 2004, Georgia implemented noteworthy structural reforms and liberalization resulting in average annual growth of nearly 6 percent between 2004-2013. While it achieved global recognition for its Doing Business rankings, productivity gains were concentrated mainly in non-tradables. As a result, while growth was impressive, there was no strong revival of labor-intensive manufacturing or productive transformation of agriculture or agri-business. Growth stemmed mainly from capital inflows before the 2008 global economic crisis and the conflict with Russia and from a fiscal stimulus package to support recovery after, including a large public investment package and increased social transfers. Despite growth, unemployment stayed high. The majority of the work force – more than 50 percent – is employed in agriculture (mostly self-employed), which contributes only 8.2 percent of GDP and is characterized by family-based subsistence farming with a relatively small agri-business sector. Low productivity levels in agriculture have contributed significantly to high rural poverty. Recognizing that the rural population has benefited least from economic reforms, the new Government has placed a high priority on agricultural development, including irrigation and drainage improvement.

B. SECTORAL AND INSTITUTIONAL CONTEXT

2. Agriculture and the Rural Economy: Agriculture remains an important sector in Georgia given that over 50 percent of the population works in agriculture, which contributes about 25 percent of exports. Subsistence agriculture accounts for 75 percent of rural employment and 45 percent of rural income. However, the share of agriculture to GDP has significantly declined (from 25 percent in 1999 to about 8 percent in 2012), but has started to increase again due to the new Government's focus on Agriculture, recording 8.2 percent in the first six months in 2013. Georgia has a diverse range of agro-climatic zones which allow its predominantly small farm sector to produce wine grapes, citrus, non citrus and stone fruits, nuts, vegetables, livestock and cereals. Georgia is strategically well located with access to the Black Sea ports and within close proximity of growing Russian, European and Middle Eastern markets. Historically, Georgia has a reputation of good quality food and unique wines. While Georgia has lost its position in many markets (notably Russia) there is untapped potential for Georgia to regain its position in domestic and export markets by raising productivity and quality.

3. Policies and Impact: Agriculture was not a public policy priority until 2012, in spite of absorbing a significant proportion of the labor force. Between 2006 and 2010, critical public services and infrastructure for agriculture, including irrigation, advisory and veterinary services, collapsed. This, in combination with a ban on sales of Georgian wine and mineral waters in Russia and exchange rate appreciation, resulted in a collapse of production in 2006. Between 2010 and 2012, there was an apparent reversal of government policy on the role of the state in agricultural services but the new approach included significant state involvement in private enterprise. Overall, these developments resulted in weak sector performance. Agriculture contracted between 2005 and 2010 (averaging -2.1 percent real growth) but recovered strongly in 2011(+5.5 percent real growth), partly in response to state distribution of seeds, before contracting again by 3.7 percent in 2012. Poor sector performance was also reflected in a

widening agricultural trade deficit. Provisional estimates for 2013 indicate nine percent real growth in the agricultural sector, based on the first three quarters, partly driven by a program of subsidies to small-holder farmers to procure inputs and the easing of trade relations with Russia.

4. **New Government Approach:** The draft Socioeconomic Development Strategy 2020 recognizes the poor condition of agriculture and focusses strongly on rebuilding services for small farmers, cooperative development and restoring infrastructure. The Government is increasing public funding to agriculture, either through specific funds (to promote private sector participation) or subsidies to small-holder farmers. Such a level of public support through subsidies generates fiscal risks, which can be mitigated by strengthening targeting at small-holder farmers and the establishment of a transparent sunset clause. The government is also committed to a long-term program of improvement of irrigation and drainage institutions and infrastructure and to completion of registration of agricultural land nationwide. These are seen as two inter-related foundations for stimulating private investment in agriculture. Land registration is expected improve the security of land tenure, encouraging private investment in irrigated agriculture, including in maintenance of rehabilitated systems. Coordination between donors and the Ministry of Agriculture (MOA) is strong. It is expected that the World Bank will take a lead in developing institutional arrangements for irrigation and drainage management and rehabilitating related infrastructure. United States Agency for International Development (USAID) is supporting the development of public agricultural extension services, agribusiness development and improvement of agricultural statistics, while the EU is strongly focusing on supporting cooperative development, food safety improvement and agricultural policy formulation capacity in the MOA.

5. **Irrigation and Drainage:** In the west, rainfall is significant and drainage is required to prevent water-logging, while in the south and east rainfall is low and irrigation is required. During the last 25 years the irrigated area has declined from 386,000 hectares (ha) in 1988 (291,000 ha gravity fed and 95,000 ha pumped irrigation) to 105,600 ha in 2004. The MOA reports that only 25,000 ha are now irrigated. The drained area has declined from 114,300 ha in 1988 (84,300 ha gravity, 30,000 ha pumped) to 5,584 ha in 2012. The Rural Investment Climate Assessment (World Bank, 2012), a survey of 3,000 rural households, found that 49 percent of households, considered the lack of irrigation or drainage as a severe or major constraint to rural investment.

6. The World Bank funded Irrigation and Drainage Community Development Project (IDCDP) (US\$ 43.70 million) invested in rehabilitation of both off-farm and on-farm infrastructure and in building capacity for management of on-farm irrigation and drainage systems between 2001 and 2009. While, infrastructure serving about 20,000 ha was improved under the project, institutional arrangements for irrigation and drainage services did not develop successfully within a policy environment which envisaged a very limited role for government in irrigation service provision.

7. Georgia has a complex history of institutional change in the irrigation and drainage sector. Primary irrigation and drainage canals and most secondary canals (off-farm systems) were owned and managed by the MOA Department for Amelioration Scheme Management until 2006, when the government abolished it and replaced it with four state-owned limited liability companies (LTDs) covering different regions of Georgia. Attempts to privatize the LTDs starting in 2010 did not attract sufficient interest and in March 2012 they were merged into a single state

owned LTD, called the United Amelioration Service Company for Georgia (UASCG) which remains in place today.

8. Tertiary canals and some secondary canals (on-farm systems) were owned and managed by Amelioration Service Cooperatives after their establishment in 2001 but these were poorly governed and shortly afterwards the government transformed them into Ameliorative Associations (AAs), community based organizations, representing water users. 259 AAs were established to own and manage on-farm systems serving 237,000 ha (of which 43 AAs were supported under IDCDP). In 2006, the government withdrew funding for AA operations and capacity building (including under IDCDP), which in combination with deteriorating service provision from LTDs and other shocks to the sector from 2006 onwards (para.3), lead to the collapse of the majority of AAs, which were formally dissolved in 2010. Ownership of on-farm systems was automatically transferred to the Ministry of Economy (MOE). UASCG is allocated an annual budget including a limited budget for operation and maintenance of on-farm systems and provides services to individual farmers who pay a flat rate irrigation service fee of GEL75 per ha. This is challenging given the large number of small farmers, poor condition of tertiary infrastructure and limited funding. Consequently much of the tertiary system is not operational.

9. The model involving four LTDs serving AAs failed for a number of reasons: (i) there was insufficient public investment in infrastructure improvement to restore services; (ii) water charges were raised before service delivery was improved - with the aim of making the LTD's financially self-sufficient, irrigation charges to AAs were raised by 12 times to GEL75 per ha at a time when the condition of irrigation infrastructure and water supply were very poor; and (iii) a well-organized client base did not exist following the withdrawal of government support for AA and their subsequent collapse, contributing to the poor quality of service delivery. Under such circumstances, farmers were reluctant to pay for irrigation services and in 2008 AAs were on average collecting only 16 percent of fees due from farmers.

10. The current government recognizes the lack of water users' trust in irrigation and drainage institutions and the need to reestablish a basic level of service delivery before water users can be encouraged to participate in on-farm irrigation management. The government has substantially increased the UASCG budget to help achieve this and expects that the off-farm and on-farm infrastructure will be managed by UASCG during a period of transition towards greater water users' involvement in the management of on-farm systems. The government is committed to preparing a national irrigation and drainage strategy in 2014 with support from the Project.

11. Land Registration Improvement for Land Market Development: The 1992 land privatization program, which was mainly complete by 1998, transferred 60 percent of the arable land and perennials to about one million Georgian households. The second phase of land privatization, which involves direct sale to lessees or public auction, started in 2005 and is ongoing. In 2007, the "Agro 100" program started, privatizing target land plots over 50 ha. The National Agency of Public Registry (NAPR) is responsible for land registration and is highly efficient by international standards. The land privatization process and evolving standards for registration, however, have resulted in a situation whereby the majority of land ownership rights are not registered in NAPR. The MOA estimates that between 15-20 percent of agricultural land plots are registered. The main cause of the low level of registration is a set of rules for registration of

properties adopted in 2006. The majority of land ownership rights did not meet the 2006 standards. The low level of adherence to the 2006 standards is partly due to the diverse range of methods and support projects through which land ownership rights were issued during privatization.

12. The situation is complicated by events that have taken place on many plots since privatization – both ownership and boundaries have evolved, meaning that original land privatization documents and cadastral descriptions, no longer reflect the situation on the ground today. These events include inheritance, intra-family transfers, informally recorded sales, and encroachment into adjacent state land, not supported by documentary records. In addition, beginning in 2011, holders of land ownership rights have been required to purchase their leased land from government and register their land in NAPR or forego ownership. As a result, some municipalities may have sold private land plots that were not registered in NAPR.

13. The main challenge is now to redefine the policies and procedures for land registration that would allow the majority of existing land ownership rights to be registered (regularization). This process is expected to take place over a period of 3-5 years. A secondary challenge is that the quality of some land title documents is poor and re-mapping may need to be considered although this is a far less acute problem.

C. HIGHER LEVEL OBJECTIVES TO WHICH THE PROJECT CONTRIBUTES

14. *Consistency with Country Partnership Strategy:* The Project contributes to the Draft Country Partnership Strategy 2014-17, Area of Focus 2 - *Enabling job creation by the private sector through improving competitiveness* and Objective 8 - *Provision of infrastructure and services to facilitate growth*. The Project also addresses two priorities of the Government's Socioeconomic Development Strategy 2020: (i) *increasing competitiveness of farmers and agricultural enterprises*, which specifically refers to the importance of land market development; and (ii) *improving agricultural infrastructure*, which focusses on the importance of irrigation improvement. The Project will contribute to these by rehabilitating the irrigation and drainage systems in the project areas and strengthening the capacity of water institutions to manage these systems more sustainably. These activities will contribute to increased agricultural productivity and allow diversification into higher value crops, and so help foster increased employment in rural areas, including in upstream and downstream agribusinesses. It will contribute to strengthening security of land tenure in the project areas, which would give households' greater access to capital and stimulate investment in agriculture.

15. *Poverty Reduction and Shared Prosperity:* In Georgia, the incomes of the poorest 40 percent households have grown considerably slower than average incomes and this disparity is significantly higher than in other countries in the region. The Project will help to address disparity in income growth and contribute to the Bank's twin goals of poverty reduction and shared prosperity by: (i) raising the productivity of farm households, a high proportion of which are amongst Georgia's poorest forty percent of households, through improved delivery of irrigation and drainage services, and (ii) improving security of land tenure for farmers through land registration. This will: (i) encourage the most efficient farmers to invest and expand in agriculture, stimulating high value, labor intensive crop production and (ii) facilitate migration out of agriculture of less efficient farmers who may wish to move into the non-farm sector, retire

or lease out their land. This creates multiple pathways for farm households to escape poverty through higher farm and non-farm sales, wage earnings or rental incomes.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

16. The Project Development Objective (PDO) is to: (i) improve delivery of irrigation and drainage services in selected areas; and (ii) develop improved policies and procedures as a basis for a national program of land registration.

B. PROJECT BENEFICIARIES

17. About 31,000 thousand farming households cultivating approximately 26,000 ha of agricultural land on which irrigation and drainage services will be improved under the Project, will benefit directly from increased agricultural productivity under the Project. Up to 10 percent of these households are headed by a female and about 78 percent of all households were employed in agriculture in 2012. Additionally about 19,000 households, holding unregistered agricultural land plots in pilot areas for land registration, will benefit from improved policies and procedures generated under the Project and the opportunity to register their land. In the longer term, all rural households¹ in Georgia holding unregistered agricultural land plots (approximately 640,000 households) will similarly benefit. The MOA Department of Amelioration, UASCG and NAPR will benefit from capacity building activities.

C. PDO LEVEL RESULTS INDICATORS

18. The PDO level results indicators for the Project are: (i) Absolute volume of irrigation water supplied to Project rehabilitated schemes; (ii) Area provided with improved irrigation and drainage services; and (iii) Recommended policies and procedures for a national program of land registration submitted to government.

III. PROJECT DESCRIPTION

A. PROJECT COMPONENTS

19. The Project amount is US\$50 million. The Project includes three components:

- Component 1 Irrigation and Drainage Improvement
- Component 2 Land Market Development
- Component 3 Project Management

Component 1 Irrigation and Drainage Improvement (US\$45.65 million)

20. This component includes two Sub-Components: (i) *Sub-Component 1.1 Irrigation and Drainage Rehabilitation and Modernization* and (ii) *Sub-Component 1.2 Strengthening of*

¹ The Government estimates that only approximately 15-20 percent of the 744,000 ha of Agricultural Reform Land (agricultural land allocated to households from 1992) allocated to approximately 800,00 households is registered.

Irrigation and Drainage Institutions. The implementing agency for the component will be the MOA through the MOA Project Planning and Monitoring Division (PPMD).

Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization (US\$42.13 million)

21. *Scope of Rehabilitation and Modernization:* This sub-component will finance rehabilitation and modernization of existing irrigation and drainage schemes selected under the Project which consist of primary, secondary (off-farm) canals, and tertiary canals (on-farm) canals, other major structures such as head-works and dams and other minor structures in the Project areas, including design, construction and construction supervision. The Project will restore previously irrigated and drained areas only, and not build new schemes. Irrigation and drainage systems serving approximately 26,000 ha will be rehabilitated under the Project. While a large part of the rehabilitation will involve reconstruction of original systems, there will be opportunities to modernize water control and delivery structures, including automation of headworks or introduction of Supervisory Control and Data Acquisition (SCADA) to monitor and control water distribution in some of the larger canal systems.

22. *Scheme Selection and Scope of Works on First Three Schemes:* Schemes will be selected based on criteria to help ensure the financial, economic, social and environmental feasibility of Project investments and their compliance with Bank safeguards policies, three irrigation schemes have already been selected: Kvemo Samgori Scheme in Kakheti Region, Tbisi-Kumisi Scheme in Kvemo Kartli Region and Zeda Ru Scheme in Shida Kartli Region. The designs for off-farm rehabilitation on these three schemes to be started in year one of the Project are complete (hereafter referred to as batch 1 works). The estimated value of these works is US\$20.03 million or 48 percent of the total Project budget for this sub-component. Overall, batch 1 works will include rehabilitation of headworks and primary (main) canals for the three schemes. Subsequent investments in these schemes will include dam safety investments and may also include² rehabilitation of secondary and tertiary systems. Design and works for rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure³) will not begin until the institutional arrangements for ownership and management of on-farm irrigation systems are established as described in detail in Annex 3.

Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions (US\$3.52 million)

23. The Project will finance the following seven activities under this sub-component: (i) Preparation of a National Irrigation and Drainage Strategy; (ii) Preparation of a National Rehabilitation and Modernization Plan; (iii) Institutional Strengthening of UASCG in Management, Operations and Maintenance; (iv) Upgrading of UASCG Machinery and Equipment for Maintenance; (v) Preparation of Operation, Maintenance and Financing Plans for Project Selected Schemes; (vi) Preparation of Annual UASCG Operational Plans for 2015/16; and (vii) Development of Institutional Arrangements for On-Farm Irrigation Service Delivery.

² Subject to further financial, economic, social and environmental feasibility.

³ Such as entirely non-functional section of canals and siphons, missing control and distribution gates.

24. The *National Irrigation and Drainage Strategy*, will define the government's long term vision for (i) national regulation and monitoring of irrigation water delivery; (ii) institutional arrangements for on-farm and off-farm irrigation and drainage services; (iii) water pricing and cost recovery; and (iv) rehabilitation and modernization. The strategy would define the government's approach to increasing resilience to climate change. The *National Rehabilitation and Modernization Plan*, will prioritize rehabilitation and modernization over the next 5-10 years as a basis for nationwide government and donor funded investments. *Institutional Strengthening of UASCG in Management, Operations and Maintenance* will involve improvement of maintenance guidelines and plans, improvement of water delivery management and technology, improvement of irrigation service plans and agreements between UASCG and their clients, and improvement of billing technology. *UASCG Machinery and Equipment for Maintenance* of each irrigation scheme selected under the Project will be upgraded. *Operation, Maintenance and Financing Plans for Off-Farm Systems on Schemes selected under the Project* will be prepared. The Project will also support preparation of *Annual Operational Plans for UASCG for 2015/16*.

25. The Project will also support the *Development of Institutional Arrangements for On-Farm Irrigation Service Delivery*. The Project will support a phased transition to improved arrangements for on-farm irrigation service delivery involving greater water user participation and will help to establish these arrangements on irrigation schemes selected under the Project. The Project will explore institutional options for on-farm irrigation system ownership and management, drawing on international experience, including water user organization (WUO) development. Alternative or complementary options that consider the potential role of existing or new private or public service providers and operators (including UASCG), will also be examined. The Project will explore options both in terms of: (i) ownership of on-farm infrastructure, (ii) functions to be undertaken by these organizations (including water delivery and distribution, maintenance, and irrigation service fee collection) and (iii) financing of operations and maintenance, and will identify any necessary legislative changes that are required to implement institutional options. In defining the institutional options for on-farm water management, the Project will ensure that the interests of all water users, including women and vulnerable groups, are properly represented, including through the development of WUOs, to help ensure fair access to irrigation. Inclusion of women and vulnerable groups will be ensured through social mobilization practices that ensure high levels of their participation in field level consultation on institutional options and encouraging their participation in the governance structures of institutions responsible for on-farm water management. The institutional options for ownership and management of on-farm irrigation systems on each scheme will be established before rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure) on that scheme begins.

Component 2 Land Market Development (US\$2.25 million)

26. The Component will finance the pilot phase of a land registration program in order to redefine and test the policies and procedures for registration of agricultural land⁴ that would allow the majority of existing land ownership rights to be registered (regularization). The pilot would inform the design of a national land registration program (which is not funded under the

⁴ This refers specifically to *agricultural reform land* which is the agricultural land that was allocated to private individuals during land reform starting in 1992.

Project). The implementing agency for the component will be the Ministry of Justice (MOJ) through the NAPR.

27. This component involves three key elements: (i) *Policy and Procedural Development*, including the development of the Government's Guidelines for Land Registration by the Project, would further develop the methodology for land registration, define policies, procedures and dispute resolution mechanisms for different land possession scenarios (see paras.11-13) to be dealt with under the pilot and, based on lessons from the pilot, these would be improved as a basis for a national program. (ii) *Pilot Registration* will be undertaken in about eight areas containing a total of about 48,000 parcels which have been preliminarily selected based on a classification of land tenure situations in the country; piloting would involve training of staff and surveyors, social mobilization of land owners, land title document collection, surveying land plots, updating maps and registration documents, dispute resolution and registration and issue of electronic certificates. (iii) *Land Registration Monitoring System Development* will involve design and implementation of a system for monitoring land registration, and evaluating its economic impact. It will assess the effectiveness of policies and procedures for pilot land registration, assess the quantitative impact of land registration (including impact on land transactions, land disputes, investment in land, farm productivity and profitability) and assess progress in implementation of nationwide land registration in future. The Project will ensure the inclusion of female land owners in pilot registration. It will seek to ensure that recommended policies and procedures, in particular those relating to joint ownership and inheritance of land, protect the rights of female land owners.

Component 3 Project Management (US\$2.10 million)

Sub-Component 3.1 MOA Project Management (US\$1.95 million)

28. This Sub-Component would finance project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring, evaluation and progress reporting, relating to Component 1 under MOA PPMD.

Sub-Component 3.2 NAPR Project Management (US\$0.15 million)

29. This Sub-Component would finance similar project management activities relating to Component 2 under NAPR.

B. PROJECT FINANCING

Lending Instrument

30. The lending instrument will be Investment Project Financing.

Project Costs and Financing

31. The total project cost is US\$50.0 million, including total base cost of US\$46.82 million, and price contingencies of US\$3.18 million. The project cost summary by component is shown in Table 1. A credit for an amount of US\$50 million will be made available on standard International Development Association (IDA) terms, repayable in 25 years including a 5-year grace period.

Retroactive Financing

32. Retroactive financing will not exceed US\$6 million and will be used for (i) Component 1 - initial payments on works contracts on Kvemo Samgori (Kakheti Region), Tbisi-Kumisi (Kvemo Kartli Region), Zeda Ru (Shida Kartli Region) irrigation schemes; and (ii) Sub-Component 3.1 – MOA Project Management.

33. Pursuant to the Bank’s policies (Bank Procedures (BP) 10.00) retroactive financing is permitted under the following conditions: (a) activities financed are related to the PDO and are included in the Project description; (b) the payments are for items procured in accordance with the applicable Bank procurement procedures; (c) the total amount of retroactive financing is 20 percent or less of the financing amount; and (d) the payments are made by the borrower not more than 12 months before the expected date of legal agreement signing. All retroactively financed activities will be fully compliant with all safeguard requirements.

Table 1 Project Costs and Financing (US\$)

Project Components	Project Cost	% IDA Financing
1. Irrigation and Drainage Improvement	45,650,000	100%
2. Land Market Development	2,250,000	100%
3. Project Management	2,100,000	100%
Total Costs	50,000,000	100%

C. LESSONS LEARNED AND REFLECTED IN THE PROJECT DESIGN

34. *WUOs responsible for management of on-farm irrigation systems, function poorly and are unwilling to pay for services, when delivery of irrigation water from off-farm systems is insufficient and unreliable.* This is evidenced by low irrigation service fee collection rates and the decline of AAs during the time of the four irrigation companies when the quality of irrigation services was low. The Project will support a phased transition to more effective on-farm water management, involving greater water user participation, once delivery of water from off-farm irrigation systems has been restored and farmers’ confidence in irrigation services improved.

35. *Development of institutional arrangements for on-farm water management requires strong government commitment to provide the required legal, organizational development and technical support.* The collapse of AAs under the former IDCDP was contributed to by the withdrawal of government support for their development after 2006. The MOA recognizes past failures and is committed to exploring institutional options for on-farm water management. The Project includes dedicated activities and resources for development of such arrangements which will be established on each scheme before rehabilitation of on-farm irrigation and drainage systems.

36. *Registration of land is important to ensure that the benefits of irrigation rehabilitation accrue to current landholders and to provide a secure environment for them to invest.* Georgia’s recent past shows that the absence of registered land titles creates opportunities for individuals to unfairly amass land including for speculative purposes. Such behavior will be more concentrated where irrigation is rehabilitated, driving up land prices. Furthermore, irrigation rehabilitation

will increase productivity and land values, creating incentives for farmers to contribute to irrigation maintenance and invest in land improvement but such investments will be risky without secure land titles.

37. *A consistent national approach for land registration is essential for success.* Previous land registration efforts in Georgia consisted of ad hoc initiatives supported by various donors, resulting in a variety of types and quality of land title documents, many of which ultimately failed to meet NAPR registration standards, resulting in the low level of registration. The Project will therefore assist NAPR to define and test a common policies and procedures for registration that will provide the basis for a nation-wide program including all agricultural reform land.

IV. IMPLEMENTATION

A. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

38. The implementing agency for Component 1 Irrigation and Drainage Improvement will be the MOA through the MOA PPMD which will report to the Minister of Agriculture. Should MOA establish a new entity in future for management of donor funded projects, it would be subject to an assessment of its financial management and procurement capacity before being involved in the Project. MOA and PPMD staff has substantial previous experience of managing Bank Projects between 2001 and 2011.

39. The implementing agency for Component 2 will be the MOJ through NAPR, which will report to the responsible Deputy Minister of Justice. The Deputy Minister of Justice will report to the Inter-Ministerial Commission (IMC), which is responsible for overseeing land governance policy in Georgia, and which is chaired by the Minister of Justice. The implementing agencies will undertake project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring, evaluation and progress reporting relating to their respective Project components.

40. With regard to Component 1 - Sub-Component 1.2 Irrigation and Drainage Rehabilitation and Modernization, UASCG, a fully state owned joint stock company, is the legal owner of off-farm irrigation and drainage systems (dams, headworks, primary canals and most secondary canals). The MOE is the legal owner of on-farm irrigation and drainage systems (remaining secondary and all tertiary canals). UASCG is responsible for service delivery, maintenance and rehabilitation relating to all irrigation and drainage infrastructure owned by UASCG and the MOE. UASCG reports to MOA on all matters except those relating the ownership of irrigation and drainage systems for which it reports to the MOE.

41. The PPMD will contract consultants to prepare designs for rehabilitation and will contract qualified irrigation engineers for supervision of irrigation rehabilitation works contracts. PPMD consultants will coordinate closely with UASCG which will review and approve designs and completed works.

42. The MOA will sign an operation and maintenance agreement with UASCG describing the obligations of MOA regarding rehabilitation of off-farm irrigation and drainage systems and the

obligations of UASCG in terms of their operation and maintenance. The MOA will sign similar operation and maintenance agreements with organizations responsible for on-farm irrigation and drainage systems before their rehabilitation.

43. With regard to Component 1 – Sub-Component 1.2 Strengthening of Irrigation and Drainage Institutions, the MOA Amelioration Department (which is primarily responsible for policy development) will be key technical partners for institutional strengthening activities under this component. In particular the Department will be a recipient of international and local consulting services in relation to activity *I National Irrigation and Drainage Strategy* and activity *II National Rehabilitation and Modernization Plan*. UASCG will also be a key partner in this Sub-Component, being a recipient of consulting services under activities *III Institutional Strengthening of UASCG in Management, Operations and Maintenance*, *V Preparation of Operation, Maintenance and Financing Plans for Selected Schemes*, *VI Preparation of Annual UASCG Operational Plans for 2015/16* as well as a recipient of machinery and equipment under activity *IV Upgrading of UASCG Machinery and Equipment for Maintenance*. The MOA will sign a memorandum of understanding with UASCG setting out UASCG obligations in terms of maintenance of any equipment provided under the Project and managed by UASCG.

44. For Component 2 Land Market Development NAPR will be the key technical partner. NAPR will be responsible for *Policy and Procedural Development, Pilot Registration, Land Registration Monitoring Systems Development* activities, and related project management activities under Sub-component 3.1 *NAPR Project Management*. The IMC will review and approve policy and procedural recommendations from the Project.

45. Adoption by Government of Guidelines for Land Registration describing the detailed institutional and implementation arrangements, acceptable to the Bank is a condition for carrying out a pilot for land registration in selected areas.

B. RESULTS MONITORING AND EVALUATION

46. Project PDO and intermediate results level will be monitored through two baseline surveys. One will be implemented by MOA PPMD to measure the impact of Component 1 on irrigation and drainage services and farm productivity. The other will be implemented by NAPR to measure the impact of Component 2 on land market activity, investment in agricultural land and participation in credit markets. The surveys will be repeated at mid-term and Project completion.

47. At the intermediate results level PPMD and NAPR reports and a series of surveys will measure: (i) water users provided with new/ improved irrigation and drainage services; (ii) water users provided with new/ improved irrigation and drainage services (female water users); (iii) national irrigation and drainage strategy prepared and endorsed; (iv) number of land titles registered in project pilot areas; (v) direct project beneficiaries; (vi) female beneficiaries.

48. Project implementation progress and monitoring and evaluation (M&E) results will be presented in the MOA PPMD and NAPR quarterly and annual progress reports. The fourth quarterly reports of each year will be annual reports, providing information of the project's performance during the past year as well as the future annual work plans and budgets for the coming year. A completion report will also be prepared at the end of the project. A mid-term

review will be undertaken in the third year of the Project to evaluate whether the Project design remains valid, to assess progress in meeting the PDO and to propose any remedial measures or necessary changes to the Project design. A Project information system and web site will also be established in MOA and NAPR to document technical reports, impact studies and public information prepared under the project for each component. Project M&E costs will be fully funded through under the Project.

C. SUSTAINABILITY

49. Under Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions, two activities will contribute to sustainability: Firstly, the Project will prepare *operation, maintenance and financing plans* for off-farm and on-farm irrigation and drainage systems on each Project scheme selected. This will require: (i) preparation of costed operation and maintenance schedules; (ii) estimation of full operation and maintenance costs for schemes; and (iii) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies. Secondly, the Project will provide *recommendations on water charging*: In order to increase cost recovery from water users and reduce the burden of subsidized operation and maintenance on the budget, the Project will recommend improvements to the formula for water charging (towards a system that reflects the type of cropping and related water usage) and a plan for improving cost recovery from water users. Other Project activities that will contribute to sustainability will be: (a) development of the *National Irrigation Strategy*, which will provide the basis for more sustainable irrigation and drainage institutions; (b) the *National Rehabilitation and Modernization Plan* which will help to ensure that rehabilitation is only undertaken on schemes which are economically viable; and (c) development of *institutional arrangements for on-farm irrigation service delivery*, which will raise the quality of the service and improve collection of irrigation services fees. Under the Land Market Development Component, the Project will test approaches to land registration which will minimize costs to NAPR and land owners during the national land registration program.

V. KEY RISKS AND MITIGATION MEASURES

A. RISK RATINGS SUMMARY TABLE

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

B. OVERALL RISK RATING EXPLANATION

50. Overall Implementation Risk is Substantial. The risks of poor maintenance of irrigation and drainage systems as a result of (i) insufficient progress on establishing irrigation and drainage institutions for management of on-farm irrigation and drainage systems; (ii) low willingness to pay for irrigation; and (iii) inadequate government funding, are substantial. These are considered substantial risks and are partly influenced by factors that are external to the Project such as output prices and availability of government funding.

VI. APPRAISAL SUMMARY

A. ECONOMIC AND FINANCIAL ANALYSIS

51. The Project is expected to generate substantial benefits for farmers through *intensification* (increasing yield and cropping intensity), *diversification* into higher value crops and *expansion* (the return of unused arable land to production) as a result of improved irrigation service delivery. Other non-quantified benefits will be generated from greater investment in agriculture as a result of more secure land titles resulting from land registration.

52. An assessment of the financial and economic viability of the Project was undertaken including affordability of water charges for farmers. Key assumptions include: (i) increases in yields in the range of 30 percent (all crops except grains) to 50 percent (rainfed/irrigated wheat) from very low without-project yields; (ii) an increase in cropping intensity from 100 percent⁵ to 115 percent due to greater double cropping; and (iii) a return of about 13,000 ha⁶ of unutilized arable land to production. Farmers are conservatively assumed to start to reap benefits in the third year after completion of rehabilitation.

53. *Financial and Economic Analysis Results:* The Project is estimated to generate an incremental annual gross margin per farm household of US\$690. The financial internal rate of return (FIRR) for the Project is 19.6 percent with a financial net present value (FNPV) of US\$27.2 million. The economic internal rate of return (EIRR) to the project investments is 17.0 percent, with an economic net present value (ENPV) of US\$16.3 million. Sensitivity analysis shows that a 20 percent decrease in net incremental benefits, a 20 percent increase in project costs, a lack of intensification and the absence of crop diversification will reduce the EIRR to 13.0 percent, 13.7 percent, 15.7 percent and 8.9 percent, respectively, while a two-year delay in benefits reduces it to 16.2 percent.

54. *Sustainability:* The Project results in an increase in water charges per farm but these are affordable for farmers. In the without-project scenario, on average, the annual cost of irrigation, based on irrigation charge of 75 GEL per ha, is GEL 17 per farm household which corresponds to 3.0 percent of farm gross margin. In the with-project scenario, on average, the annual irrigation charge per farm household, based on irrigation charge of 75 GEL per ha, would

⁵ Around 63 percent of command areas are currently out of production due to lack of water supply. Without Project cropping pattern refers to irrigated and rainfed command areas that are farmed.

⁶ Currently above 60 percent of command areas are not farmed due to the lack of agriculture water supply but the analysis assumes the percentage of unfarmed land to be 50 percent.

increase to GEL 250, representing 14.0 percent of farm gross margin, because unused lands will return to irrigated production, the area of rainfed land in the command areas will reduce, and the number of irrigation applications will increase.

55. Rationale for public sector provision/ financing: Previous attempts to privatize the irrigation and drainage system failed because of the absence of an organized client base and the necessary investments in infrastructure needed to make the system functional. Substantial public investments in infrastructure and irrigation and drainage institutions are therefore needed before private sector financing, either in terms of user contributions to costs or public/ private partnerships for management of irrigations scheme are viable.

56. Value added of Bank's support: Bank support will also help to ensure the quality of design and construction for irrigation rehabilitation, allowing Georgia to benefit from the Bank's global experience in irrigation management including on-farm water management and brings access to new technologies for irrigation modernization as well as best practice in land surveying, certification and registration.

B. TECHNICAL

57. Component 1 – Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization: The Project will restore existing irrigation and drainage schemes and not construct new schemes. Schemes will be modernized where possible and specialist design expertise will be contracted to introduce such technologies. The majority of the works will be rehabilitation of existing infrastructure using improved materials and construction methods where possible. Design and construction supervision procedures acceptable to the Bank will be included in a Project Operational Manual (POM) and the PPMD will employ sufficient resources to ensure high quality supervision. The selection of schemes will be based on criteria that help to prioritize investment in terms of their technical, socio-economic and environmental viability and will be in accordance with the provisions of the ESMF. *Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions:* This Sub-Component will help to ensure that the necessary institutional arrangements, physical resources and management systems are in place to operate and maintain rehabilitated systems and to recover associated costs in the medium-term and the long-term through: *preparation of a national irrigation and drainage strategy; preparation of a national rehabilitation and modernization plan; institutional strengthening of UASCG in management, operations and maintenance; upgrading of UASCG machinery and equipment for maintenance; preparation of operation, maintenance and financing plans for selected schemes; preparation of annual UASCG operational plans for 2015/16; and development of institutional arrangements for on-farm irrigation service delivery.* The design includes preparation of an institutional development plan for each scheme which will build water user participation in on-farm water management.

58. Component 2 - Land Market Development Component: This Component will support the government in development of a methodology for land registration, which will be reviewed by the Bank and adopted by the IMC. Adopting a common national approach to registration of agricultural land will be important to avoid the inconsistencies in approach experienced in the past. The approach recognizes that both ownership and boundaries have evolved since the original land reform process, due to events such as inheritance and encroachment into adjacent

state land, meaning that there are differences between original land title documents issued but not yet registered and the situation on the ground. The approach also recognizes that there is a need for policies and procedures to deal with these differences in a way which will minimize disputes while minimizing the costs of surveying, dispute resolution and registration. To achieve this, the pilot will consider an approach of “Historical Legal Precedent”. This approach will recognize established rights of ownership, including a range of alternative types of title documents issued in the past, but adds amendments to deal effectively with inheritance issues and lands in excess of the allowable maximum defined during the original land reform process. Where necessary low cost methods such as peaceful possession through testimony of neighbors will be used where differences are small. All land plots will be resurveyed as a foundation for issuing electronic land titles.

C. FINANCIAL MANAGEMENT

59. An assessment of the financial management (FM) arrangements for the Project has confirmed that the MOA PPMD which will implement Component 1 and Sub-component 3.1 has sufficient FM capacity. Should MOA establish a new entity for management of the Project in future, it would be subject to an assessment of FM and procurement capacity before being involved in the Project. NAPR will be responsible for the FM arrangements, including the flow of funds, budgeting, accounting, reporting, and auditing for the Component 2 and Sub-component 3.2. As assessment of the FM arrangements for the Project found that NAPR does not have relevant experience in FM of Bank projects, NAPR will appoint a financial manager whose terms of reference, qualifications and experience shall be acceptable to the Association before Project effectiveness. In addition, the MOA PPMD will be responsible for merging data from MOA PPMD and NAPR and submission of the project’s annual budgets, interim un-audited financial reports (IFRs), and annual financial statements to the Bank. The adequacy of FM arrangements will be continuously monitored during Project supervision and adjustments made when necessary to ensure fiduciary compliance. In addition, an FM specialist will review the annual audit report and the semi-annual IFRs, including a monthly reconciliation of accounts, and perform at least one complete supervision mission per nine-month period, which could be complemented by other supervisions as necessary. More details are provided in Annex 3.

D. PROCUREMENT

60. Procurement under the Project will be carried out according to 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 “Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers” (January 2011), and the provisions stipulated in the Financing Agreement. The applicable procurement procedures, along with the thresholds for Bank review, are described in Annex 3 and same reflected in Procurement Plan (PP). The PP will be updated and approved by the Bank at least annually. The Recipient shall implement the Project, including procurement for activities funded through retroactive financing, through the MOA PPMD for Component 1 and Sub-Component 3.1 related activities. The MOA PPMD has experience of procurement for Bank financed projects and will appoint a procurement specialist dedicated to the Project. NAPR does not have such experience and will appoint a procurement specialist with relevant experience.

E. SOCIAL (INCLUDING SAFEGUARDS)

61. Social dimensions of the project were identified through a rapid social assessment⁷ and demographic profiling of the project impact areas. The findings revealed that households in the target area follow general characteristics of the rural population in Georgia. They are poor, with an average income of GEL720 /month in 2012 (slightly below the average income of the overall rural population in Georgia) and average monthly expenditure of GEL673. Agricultural self-employment is a significant source of household income across the Project target areas. However the potential of agriculture for employment and income appears to be under-utilized and over time has become a less important contributor to household income as compared to state transfers. Therefore by strengthening access to agricultural assets (land and irrigation), the project is expected to contribute to more productive agriculture in the impact areas and is anticipated to have positive social and economic benefits at the household level through increased income.

62. The social assessment findings also showed that community involvement in the local management of water resources is still nascent and in need of further development and support. Social institutions do exist amongst the target population, with an average of 1.3 community based organization in each target village. 20 percent of these local institutions are focused on irrigation. However, qualitative discussions with local community members generally revealed a distrust and lack of local ownership of previous arrangements for local management of water resources. Consequently the Project will need to carefully foster new arrangements for on-farm water management based on fuller understanding of local dynamics and local willingness to adopt these responsibilities. The Project will investigate these issues and explore suitable options for on-farm water management through participatory focus group discussions (formats for which will be developed in the POM) in the target communities. These focus groups will consider the strengths and weaknesses of existing community based institutions including inclusion and exclusion, power and transparency dynamics; role of women in community based decision making and potential areas for their improved empowerment; local perceptions of appropriate management of irrigation and drainage systems, and the willingness to take on these tasks.

63. Finally the social assessment confirmed that special attention will need to be paid to gender issues under the project. There are a relatively high number of female headed households (FHH) in the project impact areas (up to 10 percent of all households), who are at risk being excluded from Project benefits. The project will ensure that women, including the heads of FHH, are fully consulted in discussions on arrangements for on-farm water management. Inclusion of women will be ensured through: (i) social mobilization practices that ensure high levels of their participation in field level consultation on institutional options and (ii) encouraging their participation in the governance structures of institutions responsible for on-farm water management. Under the Land Market Development Component the Project will ensure the inclusion of female land owners in pilot registration. Recommended policies and procedures for registration will be fully gender sensitive, ensuring that women are equally able to register land and are not discriminated against, particularly in relation to transfers relating to joint ownership and inheritance of land.

64. *Operational Policy (OP)/BP 4.12 Involuntary Resettlement* is triggered in relation to the Component 1 Irrigation and Drainage Improvement Component and accordingly the MOA has

⁷ Undertaken by IFAD in April 2013

prepared and disclosed a Resettlement Policy Framework (RPF). The RPF will guide the development of site specific Resettlement Action Plans (RAPs). Under Component 2, the piloting of the land registration process may require resolving cases where landowners have extended their residences or land use onto state-owned land. Formalization of ownership could result in people losing access to State-owned land with adverse economic impacts. Rather than applying OP 4.12 to this component however, it is agreed that a 'Country Systems' approach should be followed. In this case the country system to be evaluated for equivalence and acceptability (per OP 4.00) is the Government's Guidelines for Land Registration describing the policies and procedures for land registration, which will set out the policy and standards to address such cases of loss of access to land, and the institutional mechanism being established to implement them.

F. ENVIRONMENT (INCLUDING SAFEGUARDS)

65. The Project is expected to have a positive long-term environmental impact as the rehabilitation of irrigation schemes will lead to decreasing water losses and improving efficiency of water supply. To mitigate possible negative impacts of the construction and operation phases, several safeguard policies are triggered. *OP/BP 4.01 Environmental Assessment* is triggered, as the Project will invest in physical works. According to this policy and based on the screening outcome, the Project is classified as environmental Category B. The Project will finance multiple investments, not all of which are identified upfront, however general types of environmental and social impacts expected from these investments are already known and are similar in many ways. Therefore an Environmental and Social Management Framework (ESMF) has been prepared for the Project, disclosed and finalized after discussion with the Project stakeholders. Environmental Management Plans (EMP) will be developed for each irrigation or drainage scheme selected under the Project.

66. *OP 4.09 Pest Management* is triggered, because agriculture will intensify in the coverage areas, which could entail more intensive usage of pesticides. A Pest Management Plan is not required, because the Project will not finance purchase and application of pesticides, however good pest and pesticide management practices will be promoted through MOA agricultural extension and demonstrations supported in particular by USAID.

67. *OP/BP 7.50 Projects on International Waterways* is triggered, because irrigation schemes in east Georgia abstract water from rivers that drain into the Caspian basin across the border with Azerbaijan. However, the project design is limited to the rehabilitation of existing irrigation schemes. The government has confirmed that the Project will not include investments that may increase water intake by any schemes compared to their originally designed intake capacity. Consequently, communication with the riparians was not deemed necessary. The Bank's Regional Vice President approved an exception to notification of riparians under OP/BP 7.50 on February 20th, 2014.

68. *OP/BP4.37 Safety of Dams* is triggered, because two schemes selected for the Project are served by dams (Sioni Dam serves Kvemo Samgori Scheme and Algeti dam serves Tbilisi Kumisi Scheme). Works to ensure compliance with international dam safety standards are to be included in designs for irrigation rehabilitation. A dam safety panel will be established by government to oversee compliance with Bank dam safety requirements and to report its findings annually to the bank.

Annex 1: Results Framework and Monitoring

Country: Georgia

Project Name: IRRIGATION AND LAND MARKET DEVELOPMENT PROJECT (P133828)

Results Framework

Project Development Objectives

PDO Statement

The Project Development Objective is to (i) improve delivery of irrigation and drainage services in selected areas and (ii) develop improved policies and procedures as a basis for a national program of land registration.

These results are at | Project Level

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			
Absolute volume of irrigation water supplied to Project rehabilitated schemes (million m3 to first Project schemes)	<input type="checkbox"/>	Cubic meters	67 million m3	67 million m3	75 million m3	75 million m3	95 million m3	95 million m3	Semi-annual collection of data on water delivered to farms	Project progress reports	PPMD, MOA, UASCG
Area provided with irrigation	<input checked="" type="checkbox"/>	Hectare(Ha) Sub-Type	0	0	5900	10000	22000	26000	Semi-Annually	UASCG, Project	PPMD, UASCG

and drainage services - Improved (ha)		Breakdown								progress	
Recommended policies and procedures for national program of land registration submitted to government	<input type="checkbox"/>	Text	The corpus of registration regulations and procedures in place	Recommended policies and procedures for pilot submitted	Implementation of pilot completed	Recommended policies and procedures for national program submitted	Recommended policies and procedures for national program submitted	Recommended policies and procedures for national program submitted	Semi-annually	LRU reports, project progress reports	LRU, PPMD

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			
Water users provided with new/improved irrigation and drainage services (number)	<input checked="" type="checkbox"/>	Number	0	0	7000	12000	26000	31000	Semi-annually	Beneficiary feedback surveys	PPMD, UASCG
Water users provided with irrigation and drainage services - female (number)	<input checked="" type="checkbox"/>	Number Sub-Type Breakdown	0	0	700	1200	2600	3100	Semi-annually	Beneficiary feedback surveys	PPMD, UASCG
National	<input type="checkbox"/>	Text	No		Draft	Strategy	Strategy	Strategy	Semi-	UASCG,	PPMD, UASCG

irrigation and drainage strategy prepared and endorsed			strategy		strategy prepared	finalized and endorsed by government	finalized and endorsed by government	finalized and endorsed by government	annually	Project progress reports	
Number of land titles registered in project pilot areas	<input type="checkbox"/>	Number	14000	14000	20000	30000	48000	48000	Quarterly during implementation of pilot registration	LRU reports, project progress reports	LRU, PPMD
Direct project beneficiaries	<input checked="" type="checkbox"/>	Number	0.00		7000	21000	45000	50000	Quarterly	Project progress reports	PPMD, LRU, UASCG
Female beneficiaries	<input checked="" type="checkbox"/>	Percentage Sub-Type Supplemental	0.00		700	2100	4500	5000	Quarterly	Project progress reports	PPMD, LRU, UASCG

Annex 1: Results Framework and Monitoring

Country: Georgia

Project Name: Irrigation and Land Market Development Project (P133828)

Results Framework

Project Development Objective Indicators	
Indicator Name	Description (indicator definition etc.)
Absolute volume of irrigation water supplied to Project rehabilitated schemes (million m3 to first Project schemes)	The indicator will measure the increase in the volume of water supplied to farms in the first three project schemes rehabilitated.
Area provided with irrigation and drainage services - Improved (ha)	This indicator measures the total area of land provided with irrigation and drainage services under the project, including in the area provided with improved irrigation and drainage services, expressed in ha.
Recommended policies and procedures for national program of land registration submitted to government	This indicator measures the preparation and submission to government of a set of improved policies and procedures as a basis for a national land registration program.
Intermediate Results Indicators	
Indicator Name	Description (indicator definition etc.)
Water users provided with new/improved irrigation and drainage services (number)	This indicator measures the number of water users who are provided with irrigation and drainage services under the project.
Water users provided with irrigation and drainage services - female (number)	This indicator measures the number of female water users who are provided with irrigation and drainage services under the project.
National irrigation and drainage strategy prepared and endorsed	The National strategy developed and approved. The strategy will define the Government's long term vision for national regulation and monitoring of irrigation water delivery, institutional arrangements, water pricing and cost recovery, and rehabilitation and modernization.
Number of land titles registered in project pilot areas	This indicator measures the number of land titles registered in the project pilot districts.
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an

	<p>intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.</p>
Female beneficiaries	<p>Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.</p>

Annex 2: Detailed Project Description

GEORGIA: IRRIGATION AND LAND MARKET DEVELOPMENT PROJECT

1. The Project amount is US\$50 million. The Project includes three components:
 - Component 1 Irrigation and Drainage Improvement
 - Component 2 Land Market Development
 - Component 3 Project Management

Component 1 Irrigation and Drainage Improvement (US\$45.65 million)

2. This component includes two Sub-Components:
 - Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization
 - Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions

Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization (US\$42.13 million)

3. The Project will finance the following activities under this sub-component:

Scope of Rehabilitation and Modernisation

4. This sub-component will finance the rehabilitation and modernization of selected irrigation and drainage schemes including design, construction and construction supervision. The Project will initially focus on irrigation which is primarily in eastern Georgia. It would support the rehabilitation of primary, secondary (off-farm) canals, and tertiary canals (on-farm) canals, other major structures such as head-works and dams and other minor structures in the Project areas. The Project will restore previously irrigated and drained areas only, and not build new schemes. Irrigation and drainage systems serving approximately 26,000 ha will be rehabilitated under the Project.

5. While a large part of the rehabilitation will involve reconstruction of original systems, there will be opportunities to modernize water control and delivery structures, including automation of headworks or introduction of SCADA to monitor and control water distribution in some of the larger canal systems.

Selection of Irrigation and Drainage Schemes

6. Schemes will be selected based on criteria including: (i) sufficient water available to the scheme; (ii) technical viability of rehabilitation; (iii) complementarity between selected schemes in order to minimize off-farm rehabilitation costs per ha; (iv) maximum cost of rehabilitation of US\$3000 per hectare (for off-farm and on-farm systems); (v) willingness to pay for water, financial and economic viability; and (vi) complementarity with other sector developments

ongoing in the area; as well as positive environmental, social and safeguards assessments. Selection will be preceded by a public information campaign to ensure widespread beneficiary understanding of project.

7. Once a scheme has been selected, the Project will proceed with the design and works for rehabilitation of off-farm systems. Design and works for rehabilitation of on-farm systems will not begin until the institutional arrangements for ownership and management of on-farm systems are in place as described in detail in para. 16-18.

Scope of Rehabilitation and Modernisation for the First Three Schemes

8. Three irrigation schemes have been selected (Kvemo Samgori Scheme in Kakheti Region, Tbsi-Kumisi Scheme in Kvemo Kartli Region and Zeda Ru Scheme in Shida Kartli Region. The designs for off-farm rehabilitation to be started in year one on these three schemes are complete (hereafter referred to as batch 1 works). The estimated value of these works is US\$20.03 million or 48 percent of the total Project budget for this sub-component. Details of batch 1 and further provisionally identified subsequent works⁸ on the three schemes are described below. Overall, batch 1 works will include rehabilitation of headworks and primary (main) canals for the three schemes. Subsequent investments in these schemes will include dam safety investments and may also include rehabilitation of secondary and tertiary systems⁹. Design and works for rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure¹⁰) will not begin until the institutional arrangements for ownership and management of on-farm irrigation systems are established.

- *Kvemo Samgori (Kakheti Region)*: Batch 1 works on this scheme will include rehabilitation of headworks, which is mainly to improve the hydro-mechanical works, and rehabilitation of the right main canal. These works will include: (i) repair of the headwork including main gates; (ii) replacement of all lifting mechanisms and some small gates; (iii) repair of a service office; (iv) provision of office equipment; (v) provision of a generator; (vi) installation of SCADA system at the headworks; and (vii) rehabilitation of the right main canal (20 km) including the rehabilitation of three siphons. Subsequent investments on this scheme will include implementation of dam safety measures for Sioni dam including: (i) review of the hydrology of the Iori river; (ii) implementation of the dam safety measures to be recommended in the above review; (iii) installation of an automated dam monitoring system; (iv) establishment of an early warning system; and (v) preparation of the associated preparedness plan. The area served by the right main canal will be about 9,642 ha, and the initial cost estimate is US\$7.00 million including VAT and contingencies. Subsequent works may also include the right bank secondary and tertiary canals and the left bank main canal. The left bank main canal has a length of about 47 km and serves about 13,414 ha.
- *Tbsi-Kumisi (Kvemo Kartli Region)*: This is a complicated system with a main canal of about 25 km that includes 12 km of siphons. Batch 1 works on this scheme will include: (i) selective rehabilitation of the main canal by lining some sections of the main canal,

⁸ Subsequent works are provisional subject to further technical, economic, social and environmental assessment during Project Implementation.

⁹ Subject to further financial, economic, social and environmental feasibility.

¹⁰ Such as entirely non-functional section of canals and siphons, missing control and distribution gates.

repair of some hydraulic structures and rehabilitation of 4 siphons; and (ii) conversion of some scheme areas from pumping to gravity by repair/replacement of link pipelines. Subsequent investments in this scheme will include dam safety measures for Algeti dam including: (i) a review of the hydrology of the Algeti river; (ii) implementation of dam safety measures to be recommended in the above review; (iii) installation of an automated monitoring system at the dam; (iii) establishment of an early warning system for the dam; and (iv) preparation of the associated preparedness plans. Subsequent works may also include rehabilitation of secondary and tertiary systems. This will ensure water delivery and distribution to about 8,000 ha out of the original 14,500 ha. The initial cost estimate is US\$8.12 million including VAT and contingencies.

- *Zeda Ru (Shida Kartli Region)*: A new headworks was constructed in 2009, which can adequately serve the scheme (as well as other schemes). Batch 1 works on this scheme will include comprehensive rehabilitation, including: (i) lining selective sections of the main canal with concrete (about 15.2 km) where soil conditions are poor; (ii) rehabilitation of the earth main canal (about 11.8 km). Subsequent works may also include rehabilitation of secondary and tertiary systems. This will ensure water delivery and distribution to about 2,304 ha. The cost estimates for the proposed works is about US\$4.92 million including VAT and contingencies.

Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions (US\$3.52 million)

9. The Project will finance the following seven activities under this sub-component:

- *I Preparation of National Irrigation and Drainage Strategy*
- *II Preparation of National Rehabilitation and Modernization Plan*
- *III Institutional Strengthening of UASCG in Management, Operations and Maintenance*
- *IV Upgrading of UASCG Machinery and Equipment for Maintenance*
- *V Preparation of Operation, Maintenance and Financing Plans for Selected Schemes*
- *VI Preparation of Annual UASCG Operational Plans for 2015/16*
- *VII Development of Institutional Arrangements for On-Farm Irrigation Service Delivery*

I. Preparation of National Irrigation and Drainage Strategy

10. The Project will finance consultants to support the MOA Department of Amelioration to prepare a National Irrigation and Drainage Strategy. The Strategy will define the government's long term vision for: (i) national regulation and monitoring of irrigation water delivery including environmental monitoring; (ii) institutional arrangements for on-farm and off-farm irrigation and drainage services; (iii) water pricing and cost recovery; and (iv) rehabilitation and modernization. The strategy would also define the government's approach to increasing resilience to climate change through improved irrigation and drainage management.

II. Preparation of National Rehabilitation and Modernization Plan

11. The Project will finance consultants and operating costs for the preparation of a national rehabilitation and modernization plan that will prioritize rehabilitation and modernization over the next 5-10 years as a basis for nationwide government and donor funded investments. The

plan will be based on: (i) technical assessments following completion of the on-going inventory to identify all canals and structures and their functional condition; (ii) financial and economic assessments of the viability of rehabilitating different types of irrigation and drainage systems in different agro-climatic regions; (iii) social assessments of the impact of rehabilitation; and (iv) environmental assessments including an assessment of the impact of rehabilitation on national and river basin water balances and the implications of climate change. Participatory rehabilitation is an important principle and the plan will include farmer consultations to assess their priorities. Opportunities to introduce modern technologies will be identified. Examples of modern technologies include more efficient water conveyance, distribution and application to reduce water losses, modern low cost technologies for water measurement and new pumping technology. The FAO MASSCOTE approach (Mapping System and Services for Canal Operation Techniques) may also be applied to identify the extent to which different types of modernization are appropriate to Georgian irrigation and drainage systems. The approach involves using rapid appraisal methods to map system capacity, stresses, operation and maintenance practices, performance and modernization needs.

III. Institutional Strengthening of UASCG in Management, Operations and Maintenance

12. The Project will finance: (i) *maintenance management improvement* - consultants to prepare guidelines on the preparation of maintenance plans for on-farm systems, off-farm systems and dams, and training of UASCG staff on this topic; (ii) *water delivery management and technology improvement* - consultants for the introduction of improved methods for estimating crop water requirements, scheduling and monitoring water delivery and training of UASCG staff on this topic; and computer programs for calculating crop water and irrigation requirements (such as CropWat from FAO), information technology (IT) upgrading and measuring devices for improved water delivery; (iii) *irrigation service plans and service agreements* - consultants to prepare guidelines on irrigation service plans and service agreements between UASCG and their clients for each irrigation scheme selected under the Project and delivery of training to UASCG staff on this topic - the service agreements would define water delivery and maintenance services to be provided by UASCG, terms of payment and arrangements for dispute resolution; and (iv) *billing system technology improvements* – IT software and equipment upgrading to improve billing and financial management systems as well as training of UASCG staff in how to use improved billing systems.

IV. Upgrading of UASCG Machinery and Equipment for Maintenance

13. The Project will finance the purchase of new UASCG maintenance, cleaning equipment (including, excavators, bulldozers, small pickup trucks, technical service vehicles, back loaders, compressors, weed cutters, global positioning system devices, and canal diggers), office facilities and equipment needed to maintain each irrigation scheme selected under the Project. A requirement for procurement of such equipment will be a UASCG plan and budget for the use and maintenance of this equipment.

V. Preparation of Operation, Maintenance and Financing Plans for Off-Farm Systems on Selected Schemes

14. The Project will finance consultants to support preparation of an operation, maintenance and financing plan for each irrigation scheme selected under the Project in order to mitigate the risk

of inadequate operation and maintenance following rehabilitation. The plans will cover operation and maintenance of off-farm systems. For off-farm systems, the plan will include: (i) an operation and maintenance schedule; (ii) an estimate of full operation and maintenance costs for the off-farm system, to be included in the UASCG annual cost projections; and (iii) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies to UASCG. This is to help ensure adequate maintenance of each scheme after rehabilitation.

VI. Preparation of annual UASCG Operational Plans for 2015/16.

15. The Project will finance consultants to support preparation of UASCG operational plans for 2015 and for 2016. The plan will define the UASCG scope of services, planned expansion of its client base, organizational structure, human resources, physical asset requirements, management systems and financing requirements for the business plan. The plan will draw on findings from the other six key activities under this sub-component.

VII. Development of Institutional Arrangements for On-Farm Irrigation Service Delivery

16. UASCG are currently responsible for on-farm irrigation service delivery but providing such services to a large number of small farmers is challenging. The Project will support a phased transition to improved arrangements for on-farm irrigation service delivery involving greater water user participation and will help to establish these arrangements on irrigation schemes selected under the Project.

17. The Project will explore institutional options for on-farm irrigation system ownership and management, drawing on international experience, including water user organization (WUO) development. Alternative or complementary options that consider the potential role of existing or new private or public service providers and operators (including UASCG), will also be examined. The Project will explore options both in terms of (i) ownership of on-farm infrastructure; (ii) functions to be undertaken by these organizations (including water delivery and distribution, maintenance, and irrigation service fee collection); and (iii) financing of operations and maintenance, and will identify any necessary legislative changes that are required to implement institutional options. In defining the institutional options for on-farm water management, the Project will ensure that the interests of all water users including women and vulnerable groups are properly represented, including through the development of WUOs, to help ensure fair access to irrigation. Inclusion of women and vulnerable groups will be ensured through social mobilization practices that ensure high levels of their participation in field level consultation on institutional options and encouraging their participation in the governance structures of institutions responsible for on-farm water management.

18. The institutional options for ownership and management of on-farm systems on each scheme should be established before rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure) on that scheme begins. This means:

- (i) Ownership of on-farm irrigation infrastructure must be defined and if required transferred;
- (ii) Organizations responsible for the management of on-farm systems must be legally registered;

- (iii) Organizations responsible for the management of on-farm systems must have a clearly defined organizational structure, governance arrangements in place and management staff appointed.
- (iv) An operation, maintenance and financing plan must be prepared for the scheme including: (a) an operation and maintenance schedule; (b) an estimate of full operation and maintenance costs for the on-farm system, to be included in the budget of the organization responsible for the management of on-farm systems; and (c) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies.
- (v) An agreement between MOA, the organization owning the on-farm system, and the organization responsible for on-farm water management, must be in place, setting out their respective obligations regarding rehabilitation, operation, maintenance and financing.
- (vi) An agreement between organizations responsible for the management of on-farm systems and water users must be in place that includes a definition of payment arrangements.
- (vii) Water users must have been consulted on rehabilitation designs, and there must be a consensus amongst water users to proceed with the proposed rehabilitation.

19. Recognizing the need to restore farmers' confidence in irrigation and drainage institutions, the development of institutional arrangements for ownership and management of on-farm systems will be done in a phased manner with major institutions mainly taking place once irrigation water delivery from off-farm systems has been restored. The Project will support a phased transition in the management of on-farm irrigation as follows:

- (i) During months 0-6 the Project will review international experience and examine the feasibility of alternative options in Georgia from a legal, financial, economic and social perspective. The Project will outline the legal foundations, organizational structure, and governance arrangements for the most feasible options, including mechanisms for ensuring representation of water users, as a basis for further consultation with stakeholders in specific schemes.
- (ii) During months 7-12 the Project will (i) examine the applicability of each institutional option in each of the schemes to be rehabilitated under the Project and (ii) conduct social mobilization of water users to ensure their widespread participation in the identification of the most suitable institutional option on each scheme. The Project will consult with farmers, local government, and potential public and private service providers and will support water users and MOA in selecting an appropriate institutional option on each scheme. This will be influenced by the geographical and hydrological structure of the scheme, farm structure, capacity of existing private or public service providers, potential to establish new service providers and willingness of water users to participate in on-farm water management.
- (iii) During months 12-24 the Project will provide consultancy and training to assist in the establishment of the selected institutional option on each scheme. The institutional arrangements for ownership and management of on-farm water systems should be established on each irrigation scheme before starting rehabilitation of on-farm systems (with the exception of some critical on-farm irrigation infrastructure) under the Project.

- (iv) Simultaneously, during months 0-24, the Project will assist water users in taking a more active role in irrigation management under the existing institutional arrangements. The Project will provide consultancy and training to assist informal water user representatives in communicating with UASCG on irrigation scheduling needs, cleaning and maintenance needs.

20. A detailed description of the above Project activities will be provided in the Project Operational Manual.

21. In relation to the above activities, the Project will finance: (i) *preparation of the legal and institutional framework for on-farm water management and ownership* - consultants for design of charters, organizational and governance structures of organizations responsible for on-farm water management including WUOs; (ii) *public awareness of organizations responsible for on-farm water management including WUO* - preparation and printing of materials for public awareness, operating costs for public awareness workshops with farmers in Project irrigation schemes; (iii) *social mobilization and advice on establishment of organizations responsible for on-farm water management* - consultants to provide advice on the establishment of organizations for on-farm water management including social mobilization of water users and operating costs for social mobilization in the Project schemes; (iv) *training and consultancy for organizations responsible for on-farm water management* – a program of training and consultancy on organizational development, legal support, management, operation and maintenance of on-farm systems and financial management to be provided by the Project, where appropriate in cooperation with the UASCG Water User Support Unit; (v) *UASCG Water User Support Unit strengthening* – consultants for preparation of guidelines and training material and training of UASCG staff on organizational development, legal support, management operation and maintenance of on-farm systems and financial management for organizations responsible for on-farm water management including WUO. The Project will establish a team of six to eight field consultants which will work in close cooperation with the UASCG water user support unit, to be located on Project schemes, to implement field level activities with water users and other stakeholders for each of the activities described above.

COMPONENT 2 LAND MARKET DEVELOPMENT (US\$2.25 million)

22. The Component will finance the pilot phase of a land registration program as outlined in the Minutes of Meeting N3, dated November 08, 2013 - of Interagency Coordination Council for Legal Provision of Development of Land Administration in Georgia in order to redefine and test the policies and procedures for registration of agricultural land¹¹ that would allow the majority of existing land ownership rights to be registered (regularization). This involves three key elements including (i) *Policy and Procedural Development*, (ii) *Pilot Registration*, and (iii) *Land Registration Monitoring System Development*.

23. The implementing agency for the component will be the Ministry of Justice (MOJ). The National Agency for Public Registration (NAPR) will implement the component and will report to the responsible Deputy Minister of Justice.

¹¹ This refers specifically to *agricultural reform land* which is the agricultural land that was allocated to private individuals during land reform starting in 1992.

24. The component will have duration of 30 months. During phase I (months 0-12) the component will focus on policy and procedural development and the initial phase of the pilot registration activity. Phase II will involve expansion of the pilots (months 13-30) and derivation of lessons learned and consolidation of procedures and plans (months 25-30) for nationwide application (which is not funded under the project). The key elements of the Component are described below.

25. *Policy and Procedural Development* including the development of the Government's Guidelines for Land Registration by the Project - This will result in: (i) further development of the approach set out in the Minutes of Meeting N3, dated November 08, 2013 - of the Interagency Coordination Council for Legal Provision of Development of Land Administration in Georgia, recommended policies and associated legal reforms, which would define how different land possession scenarios (see main text paras.11-13) would be dealt with under the pilot - this would involve defining standards for evidence in the absence of primary documentation, simplifying registration in inheritance cases, setting procedures for regularizing occupied areas which are larger or smaller than the size allocated in original privatization, rules for discriminating state and municipal properties, and streamlining conflict resolution procedures; (ii) recommended revisions to those policies, legal reforms and dispute resolution mechanisms at the end of the pilot as a basis for nationwide land registration program. The Inter-Ministerial Commission (IMC) on Land is chaired by the MOJ and will review and approve legal/procedural reforms proposed under the component. The Project will finance consultants and associated operating expenses.

26. *Pilot Registration* - This will result in registered land titles for all land plots included in the pilot. About eight selected areas containing a total of about 48,000 parcels have been preliminarily selected for piloting based a classification of the variety of land tenure situations in the country. In line with the Minutes of Meeting N3, dated November 08, 2013 - of Interagency Coordination Council for Legal Provision of Development of Land Administration in Georgia, the pilot will focus exclusively on agricultural reform land¹². Results from pilots will inform the design of national program of land registration in years 3-5 of the Project by the government (national roll-out will not be financed under the Project). The Project would finance salaries of consultants and associated operating costs, private surveyor contracts, surveying equipment, computer hardware and software, and consultants for the key elements of the pilot which include: (i) training of staff and surveyors; (ii) social mobilization; (iii) land title document collection; (iv) surveying land plots; (v) updating maps and registration documents; (vi) dispute resolution; and (vii) registration and issue of electronic certificates. NAPR will, with its own financial resources, carrying an extensive public information campaign at national and field level through public meetings and mass media, to maximize land holders participation and cooperation in the pilot and to help ensure a high level transparency in the process which will be essential for ensuring the credibility of the pilot registration process.

27. The pilot registration activity would proceed in two phases: an initial developmental phase in one area which would focus on developing a methodology for regularization; a second expansion phase would then proceed to test the methodology in an additional seven areas. In both phases,

¹² Land allocated during land privatization from 1992 to date.

the pilot will be adaptive and learning, with continual feedback to NAPR and IMC about the nature and frequency of irregularities encountered and the effectiveness or the legal/procedural solutions provided and on cost effectiveness. The adaptive and learning approach in pilots will be informed by the monitoring and evaluation activity which will be implemented in parallel.

28. *Land Registration Monitoring System Development* – This will involve design and implementation of systems for monitoring land registration, and evaluating its economic impact. It will assess the effectiveness of policies and procedures for pilot land registration, assess the quantitative impact of land registration (including impact on land transactions, land disputes, investment in land, farm productivity and profitability through a baseline survey to be conducted in year 1 and repeated in years 3 and 5) and assess progress in implementation of nationwide land registration in future, including creation of standardized core indicators for national land monitoring and their publication. The Project will ensure the inclusion of female land owners in pilot registration. It will seek to ensure that recommended policies and procedures, in particular those relating to joint ownership and inheritance of land, protect the rights of female land owners. Development of the monitoring system will address issues of land governance and information availability, highlighted in the recent Land Governance Assessment Framework (LGAF) report. Implementation of this component will start with development and publication of key land market indicators, specified in annex 1 of the LGAF report. The Project would finance a contract with a local survey company as well as consultants.

Component 3 Project Management (US\$2.1 million)

Sub-Component 3.1 MOA Project Management (US\$1.95 million)

29. This component would finance project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring, evaluation and progress reporting, relating to Component 1. Monitoring and evaluation of the impact of Component 1 on PDO and Intermediate Outcome indicators will be undertaken through a baseline survey to be conducted in year 1 and repeated in years 3 and 5.

30. The implementing agency for Component 1 Irrigation and Drainage Improvement will be the MOA through the MOA Project PPMD which will report to the MOA.

Sub-Component 3.2 NAPR Project Management (US\$0.15 million)

31. This component would finance project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring of component implementation and progress reporting, relating to Component 2.

32. The implementing agency for Component 2 will be the MOJ through NAPR, which will report to the responsible Deputy Minister of Justice. The Deputy Minister of Justice will report to IMC, which is responsible for overseeing land governance policy in Georgia, and which is chaired by the Minister of Justice.

Annex 3: Implementation Arrangements

GEORGIA: IRRIGATION AND LAND MARKET DEVELOPMENT PROJECT

A. Project Institutional and Implementation Arrangements

Component 1 Irrigation and Drainage Improvement

1. The implementing agency for Component 1 Irrigation and Drainage Improvement will be the MOA through the MOA PPMD which will report to the Minister of Agriculture. Should MOA establish a new entity in future for management of donor funded projects, it would be subject to an assessment of financial management and procurement capacity before being involved in the Project. MOA and PPMD staff has substantial previous experience of managing Bank Projects between 2001 and 2011.
2. The PPMD was established under the MOA International Relations Department on July 1st, 2011 and is a successor to the Agricultural Development Project Coordination Centre (ADPCC) which was established in 2000 and liquidated on June 30th, 2011. The ADPCC had and PPMD has considerable experience in managing Bank projects, including the Bank funded Irrigation and Drainage Community Development Project (2001-2009) and the Bank/ IFAD funded Rural Development Project (2005-2011).
3. With regard to Component 1 – Sub-component 1.1 Irrigation and Drainage Rehabilitation and Modernization, UASCG, a fully state owned joint stock company, is the legal owner of off-farm irrigation and drainage systems (dams, headworks, primary canals and most secondary canals). The MOE is the legal owner of on-farm irrigation and drainage systems (remaining secondary and all tertiary canals). UASCG is responsible for irrigation and drainage service delivery, maintenance and rehabilitation of the irrigation system for all irrigation and drainage infrastructure owned by UASCG and the MOE within the limits of the budget provided to it. UASCG reports to MOA on all matters except those relating the ownership of irrigation and drainage systems for which it reports to the MOE.
4. The PPMD will contract suitably qualified consultants to prepare designs for rehabilitation and will contract qualified irrigation and drainage engineers for supervision of irrigation rehabilitation works. PPMD consultants will coordinate closely with UASCG which will review and approve designs and completed works.
5. Sub-component 1.2 Strengthening of Irrigation and Drainage Institutions:
 - (i) *Preparation of a National Irrigation and Drainage Strategy:* The MOA Department of Amelioration, which is primarily responsible for irrigation and drainage policy, will lead the development of the National Irrigation and Drainage Strategy covering issues including long term institutional arrangements for service delivery, regulation of services and water pricing. The MOE, Ministry of Environmental Protection and Ministry of Finance and the Office of the Prime Minister will also be consulted given the cross-sectoral and fiscal implications of the proposed strategy.

- (ii) *Preparation of a National Rehabilitation and Modernization Plan:* Project consultants will work with the MOA Amelioration Department and UASCG to develop the plan. Specialist consultants will be contracted on irrigation modernization. The Project will consult in particular with the Ministry of Environmental Protection and Ministry of Finance in preparing the plan.
- (iii) *Institutional Strengthening of UASCG in Management, Operations and Maintenance:* Project consultants will work with the UASCG on management on maintenance management improvement, water delivery management improvement, water delivery technology improvement, development of irrigation service plans and service agreements, and improvement of billing system technology.
- (iv) *Upgrading of UASCG Machinery and Equipment for Maintenance:* The MOA PPMD will procure irrigation and drainage maintenance machinery and equipment and IT equipment for UASCG. UASCG will demonstrate that a sufficient budget and maintenance plans are in place for this machinery and equipment and sign an agreement with MOA setting out UASCG's obligations to maintain this machinery and equipment once received.
- (v) *Preparation of Operation, Maintenance and Financing Plans for Selected Schemes:* Project consultants will work with UASCG to prepare operation, maintenance and financing plans for off-farm irrigation and drainage systems for each irrigation and drainage scheme selected under the Project. Similarly, the Project consultants will work with existing or new organizations responsible on-farm water management once established to prepare similar plans for on-farm irrigation and drainage systems for each irrigation and drainage scheme selected under the Project. The plans will form the basis of an agreement between MOA and UASCG, setting out their respective obligations regarding rehabilitation, operation, maintenance and financing.
- (vi) *Preparation of Annual UASCG Operational Plans for 2015/16:* Project consultants will work with UASCG to support preparation of UASCG operational plans for 2015 and for 2016.
- (vii) *Development of Institutional Arrangements for On-Farm Irrigation Service Delivery:* Project consultants including consultants with substantial experience of on-farm water management institutions, will explore institutional options for on-farm irrigation system ownership and management, drawing on international experience, including WUO development as well as alternative or complementary options that consider the potential role of existing or new private or public service providers and operators (including UASCG). The consultants will also support the preparation of an operation, maintenance and financing plan for each scheme and based on this the preparation of an agreement between MOA, the organization owning the on-farm system and the organization responsible for on-farm water management, setting out their respective obligations regarding rehabilitation, operation, maintenance and financing.

At the field level, the Project will contract a team of six to eight field based consultants to provide support, including social mobilization, organizational development and technical training on on-farm water management to: (i) support the development of institutional arrangements for on-farm water management and help ensure widespread representation of water users interests in these institutional arrangements; and (ii) simultaneously, support water users in taking a more active role in irrigation management under the existing institutional arrangements by supporting informal water user representatives in communicating with UASCG on irrigation scheduling , cleaning and maintenance needs. They will work in close cooperation with the UASCG water user support unit.

Consultants will also raise the awareness of regional and municipal local government and MOA staff on institutional arrangements for on-farm water management. Where local NGOs have sufficient experience and resources, the Project may contract them to support these tasks, although current local NGO capacity in irrigation development is currently low.

Component 2 Land Market Development

6. The implementing agency for Component 2 will be the MOJ through NAPR, which will report to the responsible Deputy Minister of Justice. The Deputy Minister of Justice will report to IMC, which is responsible for overseeing land governance policy in Georgia, and which is chaired by the Minister of Justice.

7. *Policy and Procedural Development:* NAPR will contract consultants to assist NAPR in the development of policies and procedures for land registration. These policies and procedures will be approved by the IMC of which MOA is a member and which is chaired by the MOJ.

8. *Pilot Registration:* NAPR will also contract consultants to assist NAPR in implementation of pilot registration in cooperation with NAPR staff. NAPR will contract local NGOs to undertake social mobilization and contract local survey companies to undertake surveying – both will be technically supervised by NAPR. Local government will contribute its existing resources to support pilot registration under the guidance of NAPR.

9. *Land Registration Monitoring System Development:* NAPR will contract local and consultants to assist them in: designing and implementing systems to: (i) assess the effectiveness of policies and procedures for pilot land registration; (ii) assess the quantitative impact of land registration (including impact on land transactions, land disputes, investment in land, farm productivity and profitability); and (iii) assess progress in implementation of nationwide land registration in future.

Component 3 Project Management

10. MOA PPMD and NAPR will be responsible for overall project management, including coordination and technical supervision of the implementation, financial management, procurement, monitoring, evaluation and progress reporting for their respective components.

11. MOA PPMD will prepare a POM for Component 1 and Sub-Component 3.1, and NAPR will prepare a POM for Component 2 and Sub-Component 3.2, describing the detailed institutional and implementation arrangements, acceptable to the Bank and this will be a condition for Project effectiveness.

B. Financial Management, Disbursements and Procurement

Financial Management

12. **Country Issues:** Georgia has made substantial progress since 2003 in addressing widespread system corruption issues. Citizens no longer cite corruption among their top preoccupations (as they did pre-2003). Georgia's performance in the annual Doing Business surveys has also been impressive (Georgia has been ranked 9th place¹³ in the world). At the same time, financial management and accountability systems still require improvement.

13. The 2013 Public Expenditure and Financial Accountability assessment in Georgia revealed significant improvements in policy orientation of the budget and planning process in Georgia; significant progress was observed in terms of improving the scope and nature of external audit. The following areas of public financial management still requiring improvement include legislative scrutiny of external audit reports, internal audit and quality of financial reporting. Since 2013 the government¹⁴ has undertaken several measures to improve its systems of financial management. The revenue accounting was transferred from the National Bank of Georgia (NBG) to the Treasury, and a system for cash management has been introduced. The severe cash shortages of the past few years have been addressed. From January 2006 a Single Treasury Account was introduced. In addition, the Bank's financial management team has reviewed the Treasury system and assessed it as satisfactory for holding the Bank-financed projects' designated account (DA). Therefore, the Treasury Service will be used for holding the Project's DA. The country budget system will also be used for this Project. For all the other FM elements the MOA PPMD and NAPR respective systems will be used for this Project.

14. Specific procedures have been developed by the Project to secure proper financial accountability of this project and to minimize project financial management risks. Additional financial management arrangements in the Project will include the audit of project financial statements by independent auditor acceptable to the Bank, in accordance with term of reference acceptable to the Bank.

15. **Implementing Entities:** There will be two implementing agencies involved in the financial management function under the proposed project. The MOA through the PPMD is the Project Implementing Agency for Component 1 and related project management under Component 3. The PPMD of MOA will be responsible for financial management arrangements of Component 1, including budgeting, accounting, funds flow and financial reporting. The MOA has experience in implementing the Bank-financed projects. FM arrangements at the PPMD MOA

¹³ The World Bank and The International Finance Corporation (2012), "Doing Business 2013: Smarter Regulations for Small and Medium-Size Enterprises," Washington DC, USA.

¹⁴ A recent change in the government has taken place in Georgia, which however is expected to have no impact on the FM arrangements of the project.

(including accounting, reporting, planning, and budgeting and staffing) have been assessed and are considered satisfactory to the Bank. MOJ through the NAPR will implement Component 2 and related project management under Component 3. NAPR will be responsible for the financial management arrangements including the flow of funds, budgeting, accounting, reporting, and auditing under the remaining project components. The MOA PPMD will be responsible for the consolidation and submission of the project’s annual budgets, quarterly IFRs, and annual financial statements to the World Bank. The MOA will be responsible for appointment of an independent auditor for the Project with terms of reference and qualifications acceptable to the Bank.

- a) **Strengths:** The significant strengths that provide a basis for reliance on the project FM system include the significant experience of the FM staff at the MOA PPMD involved with the project implementation in the Bank-financed projects, sound accounting system in place, and successfully implemented a number of Bank-financed projects with highly satisfactory FM rating. In addition unmodified (clean) audit opinions were issued by the auditors on the Bank-financed projects previously implemented¹⁵ by the project management team.
- b) **Weaknesses:** The main weaknesses are: (i) NAPR lacks prior experience in the Bank-financed projects; (ii) there is no existing FM Manual that clearly describes financial reporting, accounting and internal control policies and procedures, budgeting and planning mechanisms to be followed by NAPR for Bank Projects; and (iii) NAPR FM staff have no prior experience in accounting and financial reporting in relation to Bank Projects.

16. The following Action Plan has been agreed to be implemented to ensure existence of satisfactory financial management arrangements that meet Bank requirements:

Actions for capacity building	Responsible	Completion Date
1. Develop the FM chapter of the POM for Component 1 and Sub-Component 3.1 (MOA) and develop the FM chapter of the POM for Component 2 and sub-component 3.2 (MOJ), to reflect the project related internal control, budgeting, external auditing, financial reporting and accounting policies and procedures	MOA and MOJ	By Effectiveness
2. Establish an automated accounting system satisfactory to the Association to be utilized by NAPR for Project accounting, budgeting and reporting. The accounting system shall have functionality of automatic generation of Statement of Expenditures (SOEs) and IFRs for the	MOJ	Before disbursements for Component 2 and Sub-Component 3.1.

¹⁵ Several Bank-financed projects were implemented by the FM team engaged under the Project.

project, and with inbuilt controls to ensure data security, integrity and reliability.		
3. Appoint a financial manager whose terms of reference, qualifications and experience shall be acceptable to the Association, to assume the responsibilities of the Project financial manager within the NAPR.	MOJ	Before disbursements for Component 2 and Sub-Component 3.1.

17. **Budgeting and Planning:** The MOA PPMD has acceptable planning and budgeting capacity. Under the Project, the MOA PPMD will be responsible for the preparation of the annual budget under Component 1 and Sub-Component 3.1 and consolidating these with separate budgets received from the NAPR for Component 2 and Component 3.2, into the annual project budgets based on procurement plans, and. The annual budgets at the implementing agencies will be prepared in detail, which is necessary for monitoring the existing projects and will be based on the final procurement plan approved by the World Bank.

18. **Accounting and Maintaining of Accounting Records:** The MOA PPMD and NAPR will use modified cash basis for accounting purposes and cash basis IPSAS for project reporting purposes For the project accounting MOA PPMD will use *Copper* (in-house developed accounting software), which has been used at ADPCC for a number of years, and has been found to be adequate. For project accounting, budgeting and reporting NAPR will procure and install the accounting system that will have functionality of automatic generation of SOEs and IFRs for the project, and with inbuilt controls to ensure data security, integrity and reliability.

19. The FM staff at the MOA PPMD, consisting of the financial manager and the accountant, is knowledgeable in the Bank FM policies and procedures, with many years of experience in implementing Bank-financed projects. The financial manager is also responsible for financial reporting, while withdrawal applications are prepared by the accountant and verified by the financial manager. The financial manager participated in a number of joint regional fiduciary workshops organized by the Bank, with the latest held in Odessa, Ukraine, in April 2013.

20. NAPR will hire qualified FM staff responsible for overall FM arrangements for the NAPR implemented parts of the project, including maintenance of accounting records, preparation of SOEs and withdrawal applications, financial reporting, budgeting and planning, and etc.

21. **Internal Controls:** There is overall adequate internal control system in place at the MOA. Before project implementation, the PPMD will update its FM manual for the previously implemented projects to reflect the activities and controls for the MOA PPMD implemented parts of the Project. The reconciliation of the Project accounting records with the World Bank disbursement data will be performed monthly via the WB Client Connection. There is an internal audit function at the MOA, while no such function exists at the PPMD given the small size of the team.

22. NAPR shall appoint a financial manager whose terms of reference, qualifications and experience shall be acceptable to the Bank, to assume the responsibilities of the Project financial

manager within the NAPR. The financial manager will be dedicated to Project related duties. Expenditures incurred under the NAPR implemented components will be authorized by the NAPR Director and verified for the eligibility and accuracy by the NAPR Financial Manager.

23. Specific internal control activities for NAPR implemented parts of the Project will be described in the Financial Management chapter of the POM for Component 2 and Component 3.2, including: procedures over cash transactions including maximum allowed daily cash operations, expenditure authorization, invoices approval and payments processing procedures; data backup arrangements; reconciliation procedures of project records with Client Connection, safeguards of assets, including cash, etc.

24. **Financial Reporting:** MOA PPMD and NAPR will produce separate financial reports for that part of the project that is implemented by that respective agency. The MOA PPMD will consolidate IFRs and produce a full set of the project consolidated IFRs every six months throughout the life of the project to minimize the financial reporting risk. The format of IFRs has been confirmed during assessment and includes: (i) Project Sources and Uses of Funds, (ii) Uses of Funds by Project Activity, (iii) Designated Account Statements, (iv) A Statement on Financial Position, and (v) SOE Withdrawal Schedule. These financial reports will be submitted to Bank within 45 days of the end of each calendar semester. The first semester IFRs will be submitted after the end of the first full semester following the initial disbursement.

25. The following table identifies the audit reports that will be required to be submitted to the Bank together with the due date for submission.

<u>Audit Report</u>	A. Due Date
<p><u>Financial statements – continuing entity(water institutions)</u> The financial statements include (i) a statement of financial position, (ii) a statement of comprehensive income, (iii) a statement of changes in equity, (iv) a statement of cash flows and (v) notes, comprising a summary of significant accounting policies and other explanatory information.</p>	<p>Within six months of the end of each fiscal year. For the PFS also at the closing of the Project.</p>
<p><u>Project financial statements (PFS).</u></p> <p>a) The cash receipts and payments of the project during the year [or period] ended [MONTH DATE, YEAR], showing the World Bank, project funds from other donors, and counterpart funds separately,</p> <p>b) Accounting policies and explanatory notes¹⁶ (including additional accounting policies and disclosures), covering</p> <ul style="list-style-type: none"> • a Summary of Summary Reports or SOEs used as the basis for the submission of withdrawal applications in the notes, as appropriate; 	

¹⁶ The explanatory notes should include reconciliation between the amounts shown as "received by the project from the World Bank" and that disbursed by the Bank and a summary of movements on the project's Designated Account.

<ul style="list-style-type: none"> • A Statement of Designated Account in the notes, as appropriate; • A Statement of Financial Position showing Accumulated Funds of the Project, bank balances, other assets of the Project, and liabilities, if any; and <p>c) When the entity makes publicly available its approved budget, a comparison of budget and actual amounts either as a separate additional financial statement or as a budget column in the statement of cash receipts and payments.</p>	
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26. In addition, the State Audit Office, the country's supreme audit institution, performs external audits of MOA and NAPR and the projects it implements.

27. Flow of Funds and Disbursement arrangements: For those parts of the Project implemented by the MOA PPMD and the NAPR will open the DA in the Treasury as a Treasury's foreign currency account at the NBG (where almost all DAs for ongoing Bank-financed projects in Georgian are held), and on terms and conditions acceptable to the Bank. For those parts of the Project implemented by NAPR, the NAPR will open the Designated Account at a commercial bank.

28. Project funds will flow from (i) the Bank, either: (a) via the DA to be maintained in the Treasury service accounts at the National Bank of Georgia, which will be replenished on the basis of SOEs or full documentation; or (b) on the basis of direct payment withdrawal applications and/or special commitments, received from the MOA PPMD or NAPR; and (ii) the government, via the Treasury through normal budget allocation procedures initiated by the implementing agency in accordance with standard Georgian Treasury and Budget execution regulations. Those funds will be used to finance eligible expenditures under the Project. Withdrawal applications documenting funds utilized from the DA will be sent to the Bank at least every three months.

29. The following disbursement methods may be used under the Project: Reimbursement, Advance, Direct Payment, and Special Commitment. The DAs ceiling is proposed to be established at US\$2.25 million, which will be finalized and reflected in the Disbursement Letter, where the detailed instructions on withdrawal of the Project proceeds are provided.

30. Retroactive Financing: Retroactive financing will not exceed US\$6 million and will be used for (i) Component 1 - initial payment on construction contracts on Kvemo Samgori (Kakheti Region), Tbisi-Kumisi (Kvemo Kartli Region), Zeda Ru (Shida Kartli Region) irrigation schemes; and (iii) Sub-Component 3.1 MOA PPMD Project Management. Pursuant to the Bank's policies (B.P 10.00) retroactive financing is permitted under the following conditions: (a) the activities financed by retroactive financing are related to the Project Development Objectives and are included in the Project description; (b) the payments are for items procured in accordance with the applicable Bank procurement procedures; (c) the total amount of retroactive financing is 20 percent or less of the financing amount; and (d) the payments are made by the borrower not more than 12 months before the expected date of legal agreement signing.

Procurement

31. Procurement under the proposed Project will be carried out according to the “Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Recipients” (January 2011), and “Guidelines for Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Recipients” (January 2011) and the provisions in the Legal Agreement.

32. The Bank’s anti-corruption norms (“Guidelines on Preventing and Combating Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants”) of October 15, 2006 and revised in January 2011 will be applied.

33. Country and sector level risks: The latest country level risk assessment for public procurement was carried out during the preparation of the Country Procurement Assessment Report in 2009. It was conducted on the basis of the OECD-DAC/World Bank four pillars for public procurement. The conclusion was that all four pillars needed improvements in order for the system to meet the international standards and best practices. A three year action plan was prepared and Georgia is making slow progress towards fulfilling the proposed actions. One important completed step was the introduction and implementation of an electronic procurement system of Georgia for all government contracts.

34. The Bank has assessed the mentioned system and the decision has been reached to use the same for the Bank funded projects for procurement of simple goods following shopping procedures, below threshold of US\$100,000 with minor modifications to the current system, as agreed with Competition and State Procurement Agency (CSPA). The Bank is currently working with the CSPA and other counterparts to further modify the e-procurement system to be used for more complex NCB and ICB procurement methods.

Procurement Risk Assessment and Mitigation Measures

35. Procurement under the Project will be conducted by the MOA PPMD and NAPR. Risks and respective mitigations measures are as follows:

a. MOA PPMD

36. No full time procurement specialist is recruited in PPMD, therefore there is a risk of poor implementation arrangements until a qualified procurement specialist is recruited.

37. Also, Project will finance a substantial amount of contracts and therefore a risk that contracts might not be managed properly. Therefore, it has been agreed with MOA that at least one Procurement Consultant, with demonstrated experience in the Bank Financed Projects shall be recruited before initiation of any procurement process. Also for contract management purposes, one dedicated Contract Management Specialist shall be appointed to manage all contracts financed under the Project.

38. The project risk for procurement is deemed “High” before mitigation and “Substantial” after mitigation measures are applied.

39. The PPMD is responsible for implementing procurement under the Project. The PPMD consists of 5 staff members (civil servants) and 5 consultants as follows: 1 Project Manager, 1 Financial Manager, 1 Accountant, 1 part time Procurement Specialist, and 1 Civil Engineer. In addition to the regular procurement functions, the Project Manager is responsible for overall monitoring and management of the unit. The procurement consultant is experienced in carrying out procurement under Bank financing.

40. A decree of the MOA establishing an evaluation committee is issued for each separate tender. The Evaluation Committee comprises MOA staff as well as consultants. Depending on the nature and scope of the package, different specialists are included in the evaluation committee. The Evaluation committee normally comprises 5-6 members. Consultants are included in evaluation committee without the voting rights and final evaluation report is approved by MOA staff on the evaluation committee. Evaluation usually takes from 2-3 weeks.

41. No separate contract monitoring/management department has been set up, but contract management responsibilities are undertaken by Project Manager and Civil Engineer of the PPMD as the case may be.

42. Staff/Consultants have attended several Training/study tours abroad. The Project Management team, including the Project Manager, Financial Manager and M&E Specialist has recently attended project management training in Jordan, organized by IFAD including a study Tour in Albania in 2011 – M&E together with Civil Engineer under the division.

43. All written records are kept in the Procurement Department. No archive is in place. No special system is in place, but required documents can be easily obtained manually. The record keeping of PPMD is generally acceptable. Files include the copies of advertisements, minutes of Bid Opening, Bid Evaluation Reports and other documents related to procurement process. Valuable documents (bid/performance securities, originals of bids/technical/financial proposals etc.) are kept in safe with Financial Manager, and access to such documents is solely granted to the Financial Manager as well as procurement consultant.

b. NAPR (National Agency of Public Registry)

44. NAPR staff does not have past exposure to the Bank's and/or other donor procurement procedures, as NAPR has not implemented any Bank and/or donor financed projects. The decision has been reached with NAPR that at least one, part time Procurement consultant, with demonstrated experience in the Bank Financed Projects will be recruited before any procurement is carried out. In addition, the Bank procurement specialist will conduct a one day training to update and disseminate the latest developments in the Bank's procurement procedures and to familiarize the staff with lessons learned during implementation of other Bank's projects in Georgia.

45. The procurement of high value or complex packages is foreseen under Component 2. As procurement packages under Component 2 are not complex and considering the mitigation measures proposed and the fact that all goods to be procured under Component 2 with an estimated value of US\$100,000 equivalent or less will be procured using the e-procurement system of Georgia, the project risk for procurement is deemed "Substantial" before mitigation, and "Moderate" after mitigation measures are applied.

46. The NAPR Procurement Division consists of 7 staff members - as follows: Head of Division, Deputy Head, 4 main specialists and 1 specialist. In addition to the regular procurement functions, the Head of the procurement division is responsible for overall monitoring and management. All member of procurement division have extensive knowledge and experience in conducting public procurement, prior to 2010, when procurement was paper based and after introduction of the e-procurement system. All staff members of procurement division have seven years or more of procurement related experience. Furthermore, the entire procurement team has been operating as one team since 2006. The budget for 2013 was around US\$18 million with the largest tender announced for construction of public registry houses for the amount of US\$8 million.

47. Evaluation is conducted by permanent members of Tender Commission and assisted by the procurement division. The Tender Commission comprises:

- Head of tender commission - Deputy Head of NAPR
- Head of Procurement Division
- Deputy head of Procurement Division
- Head of Financial and Economic Division
- Head Legal Division
- Head of Logistics Division
- Head of IT Department
- Head of Geodesic and Cartography Division

48. The Tender Commission Apparatus is in charge of preparing the minutes of the meetings. Normally, if no substantial clarifications are to be sought from bidders, decision of the tender commission is approved on the day following bid opening and the contract is signed as per the law on the state procurement of Georgia.

49. Additional clearance is required from the State Chancellery for any procurement with estimated contract value above GEL 100,000. This might impede the procurement process and delay the contract award, but NAPR advise that the State Chancellery possess relevant qualifications and a group of competent Procurement Specialists and such clearances require between 7-10 days.

50. Procurement staff has attended public procurement training which is conducted by CSPA on a rolling basis, however, staff do not have any exposure to overseas training.

51. A post review of procurement actions shall be conducted once a year. At least one out of five procurement packages not subject to Bank prior review will be examined ex-post.

52. The procurement procedures along with the thresholds for Bank review are described below and reflected also in Procurement Plan (PP) prepared by the borrower dated 19 March 2014 and cleared by the Bank. Retroactive phase will comprise mainly three civil works packages for

rehabilitation of irrigations schemes with aggregate estimated contract price of approx. US\$ 20 Mill.

53. The PP will be updated as agreed with the Project Team annually or as required to reflect the actual project implementation needs.

54. Procurement of goods and non-consulting services: Goods and non-consulting services estimated to cost US\$1 million equivalent and more will be procured through ICB. Goods, and non-consulting services estimated to cost less than US\$ 1 million may be procured through NCB, and less than US\$100,000, through shopping.

55. Procurement of works: Works contracts estimated to cost more than US\$10 million equivalent will be procured through ICB. Those estimated to cost US\$10 million or less may be procured through NCB, and less than US\$200,000 through shopping.

56. Selection of consultants: Consulting services will be procured according to the Bank’s Consultant Guidelines mentioned above and will include those needed to supervise civil works, and capacity building, etc. The Bank’s Standard Request for Proposal (RFP) (revised in October 2011) will be used to select all consulting firms. Consultant selection methods will include Quality and Cost-Based Selections (QCBS), Fixed-Budget Selection (FBS), Consultant Qualifications (CQS), Least-Cost Selection (LCS), Single-Source Selection (SSS) and Individual Consultants (IC). The latter will be selected according to Section V of the Consultant Guidelines. This method will require comparing at least three qualified and available candidates to assume the assignments.

57. Short lists composed entirely of national consultants: Short lists of consultants for services estimated to cost less than US\$300,000 equivalent per contract may be composed entirely of national consultants, according to the provisions of paragraph 2.7 of the Consultant Guidelines.

58. Operating costs: These expenditures, approved by the Bank on the basis of budgets (acceptable to the Bank), will be carried out by the PPMD and NAPR for Project implementation, management and monitoring, including the costs of support staff salaries (excluding salaries of the Recipient’s staff), communication, editing, printing and publication, translation, vehicle operation and maintenance, bank charges, local travel costs and field trip expenses, office rentals, utilities, and office supplies.

Expenditure Category	Method	Prior Review Thresholds
1. Goods and Non Consulting Services	ICB	All contracts
-“-	NCB	As agreed in PP
-“-	SH*	As agreed in PP
-“-	DC	As agreed in PP
2. Works	ICB	All contracts
-“-	NCB	As agreed in PP
-“-	SH	As agreed in PP
-“-	DC	As agreed in PP

* As the Bank has agreed to use the government’s e-procurement portal for procurement of simple goods under US\$ 100K, only invitation to quote (ITQ), including specifications will be reviewed prior to initiation of procurement process.

For consulting services:

Expenditure Category	Method	Procurement Method Thresholds	Prior Review Thresholds
3. Consulting Services Firms	QCBS		As agreed in PP
	FBS		As agreed in PP
	QBS		As agreed in PP
	LCS		As agreed in PP
	CQS	≤ \$300 K	As agreed in PP
	SSS		As agreed in PP
4. Consulting Services Individuals	IC		As agreed in PP
	SSS		As agreed in PP

Particular Methods of Procurement of Goods and Works

59. Except as otherwise provided in table below, goods and works shall be procured under contracts awarded on the basis of ICB.

60. Other methods: The following table specifies the methods of procurement, other than ICB, which may be used for goods and works. The Procurement Plan shall specify the circumstances under which such methods may be used.

Procurement Method
<p>(a) National Competitive Bidding (NCB), subject to the additional provisions set forth in below:</p> <p>(i) “Open competitive procedures” (i.e., “public tender”) shall be the default rule. A single envelope procedure shall be used for the submission of goods, works, or non-consulting services.</p> <p>(ii) Invitations to bid shall be advertised in at least one widely circulated national daily newspaper allowing a minimum of thirty (30) days for the preparation and submission of bids. Advertisements published in foreign language newspapers shall be in compliance with such a 30-day-minimum in number of days for bids preparation and submission.</p> <p>(iii) Bidding shall not be restricted to pre-registered firms. If registration is required, it shall not be denied to eligible bidders for reasons unrelated to their capacity and resources to successfully perform the contract (e.g., mandatory membership in professional organizations, classification, etc.). Post-qualification shall be conducted to verify that the bidder has the capability and resources to successfully perform the contract.</p> <p>(iv) Government-owned enterprises in Georgia shall be eligible to participate in bidding only if they can establish that they are legally and financially autonomous, operate under</p>

commercial law and are not a dependent agency of the Government. Government-owned enterprises will be subject to the same bid and performance security requirements as other bidders.

(v) Procuring entities shall use the appropriate Bank's sample bidding documents, including pre-qualification documents, for the procurement of goods, works, or non-consulting services, and such documents shall contain draft contract and conditions of contract including clauses on fraud and corruption, audit and publication of award, all acceptable to the Bank.

(vi) Bids shall be opened in public, immediately after the deadline for submission of bids. Bidder's representatives shall be permitted to attend the bid opening.

(vii) Extension of bid validity shall be allowed once only for not more than thirty (30) days. No further extensions should be requested without the prior approval of the Bank.

(viii) Evaluation of bids shall be based on quantifiable criteria expressed in monetary terms as defined in the bidding documents, no merit point system and no domestic preference shall be used in the evaluation of bids. Contracts shall be awarded to qualified bidders having submitted the lowest evaluated substantially responsive bid and no negotiations shall be carried out prior to contract award.

(ix) Civil works contracts of long duration (e.g., more than eighteen (18) months) shall contain an appropriate price adjustment clause.

(x) No bid shall be rejected purely on the basis that the bid price is higher than the estimated budget for that procurement. All bids shall not be rejected and new bids solicited without the Bank's prior concurrence.

(b) Shopping

(c) Direct Contracting

C. Environmental and Social (including safeguards)

61. The Project is expected to have a positive long-term environmental impact as the rehabilitation of irrigation schemes will lead to decreasing water losses and improving efficiency of water supply. To mitigate possible negative impacts of the construction and operation phases, relevant safeguard policies will be applied to the Project. OP/BP 4.01 Environmental Assessment is triggered, as the Project will invest in physical works. According to this policy and based on the screening outcome, the Project is classified as environmental Category B. The Project will finance multiple investments, not all of which are identified upfront, however general types of environmental and social impacts expected from these investments are already known and are similar in many ways. Therefore an Environmental and Social Management Framework (ESMF) has been prepared for the Project. The final ESMF was disclosed through the web pages of the MOA and UASCG in Georgian and English languages. Stakeholder consultation meetings were held in the office of the MOA in Tbilisi as well as in three municipalities located near the already identified Project sites. Feedback was received from the representatives of the Ministry of

Environment and Natural Resources Protection, NGOs, Agrarian University of Georgia, and the Georgian Technical University, as well as from the Project affected people around the selected irrigation schemes. The ESMF was then finalized, re-disclosed in-country and posted in the Bank's InfoShop.

62. The ESMF provides detailed guidance on the preparation of site-specific Environmental Management Plans (EMPs) and carries a template for the preparation of checklist EMPs for irrigation rehabilitation projects. EMPs for three identified schemes are already prepared and disclosed. Similar documents will be developed for each individual investment, disclosed and discussed with local stakeholders. MOA will ensure that EMPs are included in tender packages and then get incorporated into the contracts for the provision of works, so that their implementation becomes mandatory for contractors.

63. *OP 4.09 Pest Management* is triggered, because agriculture will intensify in the coverage areas, which could entail more intensive usage of pesticides. A Pest Management Plan is not required, because the Project will not finance purchase and application of pesticides, however good pest and pesticide management practices will be promoted through MOA's agricultural extension and demonstrations supported in particular by USAID.

64. *OP/BP 4.12 Involuntary resettlement* is triggered in relation to the Irrigation and Drainage Improvement Component and accordingly the MOA has prepared and disclosed a Resettlement Policy Framework (RPF). The RPF will guide the development of site specific Resettlement Action Plans (RAPs) to ensure that the possible risks of resettlement, loss of land and loss of income are mitigated. The PPMD will employ a resettlement expert, satisfactory to the Bank, to conduct an ex post review of the implementation of the RAPs and to furnish promptly to the Bank the findings and recommendations for follow up action resulting from each such review. Under Component 2, the piloting of the land registration process may require resolving cases where landowners have extended their residences or land use onto State-owned land. Formalization of ownership could result in people losing access to State-owned land with adverse economic impacts. Rather than applying OP4.12 to this component however, it is agreed that a 'Country Systems' approach should be followed. In this case the country system to be evaluated for equivalence and acceptability (per OP 4.00) is the Government's Guidelines for Land Registration describing the policies and procedures for land registration, which will set out the policy and standards to address such cases of loss of access to land, and the institutional mechanism which is being set up to implement them. Approval of the draft Guidelines for Land Registration prepared in accordance with terms of reference acceptable to the Bank will be a condition for carrying out pilot registration. Pilot land registration will be implemented according to the provision of guidelines for land registration.

65. *Safety of Dams OP/BP 4.37 is triggered.* Since two dams serve two selected schemes in the Project area (Sioni Dam serves Kvemo Samgori Scheme and Algeti dam serves Tbsi Kumisi Scheme), the Safety on Dams Policy (OP 4.37) is triggered. Works to ensure compliance with international dam safety standards are to be included in designs for irrigation rehabilitation. A dam safety panel will be established by the government to oversee compliance with Bank dam safety requirements before carrying out any works and to report its findings annually to the Bank.

66. *OP/BP 7.50 Projects on International Waterways* is triggered, because irrigation schemes in east Georgia abstract water from rivers that drain into the Caspian basin across the border with Azerbaijan. However, the project design is limited to the rehabilitation of existing irrigation schemes; no new irrigation schemes or extensions of schemes will be constructed. The government has confirmed that the Project will not include investments that may increase water intake by any schemes compared to their originally designed intake capacity. Consequently, communication with the riparians was not deemed necessary. The Bank's Regional Vice President approved an exception to notification of riparians under OP/BP 7.50 on February 20th, 2014.

67. MOA through the PPMD will be an implementing entity for Component 1 of the Project. Although the MOA has past experience of implementing Bank-financed projects and has worked with other multilateral and bilateral donors, its current in-house capacity to apply environmental and social safeguards is insufficient for smooth implementation of the Project. The PPMD will therefore hire qualified consultants capable of ensuring good environmental and social performance of the Project. The ongoing needs of PPMD and the MOA will continue to be assessed during the Project, and the targeted TA will be provided for strengthening their capacity as necessary.

D. Monitoring & Evaluation

68. Project PDO and intermediate results level will be monitored through two baseline surveys. One will be implemented by the PPMD to measure impact of Component 1 on irrigation and drainage services and farm productivity. The other will be implemented by NAPR to measure the impact of Component 2 on land market activity, levels of investment in agricultural land as well as participation in credit markets. The surveys will be repeated at mid-term and project completion.

69. At the intermediate results level PPMD and NAPR reports and a series of surveys will measure: (i) water users provided with new/ improved irrigation and drainage services; (ii) water users provided with new/ improved irrigation and drainage services (female water users); (iii) national irrigation and drainage strategy prepared and endorsed; (iv) number of land titles registered in project pilot areas; (v) direct project beneficiaries; and (vi) female beneficiaries.

Project implementation progress and M&E results will be presented in the MOA PPMD and NAPR quarterly and annual progress reports. The fourth quarterly reports of each year will be annual reports, providing information of the project's performance during the past year as well as the future annual work plans and budgets for the coming year. A completion report will also be prepared at the end of the project. A mid-term review will be undertaken in the third year of the Project to evaluate whether the Project design remains valid, to assess progress in meeting the PDO and to propose any remedial measures or necessary changes to the Project Design. A Project information system and web site will also be established in MOA to document technical reports, impact studies and public information prepared under the Project for each component. Project M&E costs will be fully funded through under the Project.

Annex 4: Operational Risk Assessment Framework (ORAF)

Georgia: Irrigation and Land Market Development Project (P133828)

Stage: Board Approval

Risks						
Project Stakeholder Risks						
Stakeholder Risk	Rating	Moderate				
Risk Description: Efforts to accelerate rehabilitation, results in weak selection of schemes and inadequate consultation with water users regarding irrigation rehabilitation design.	Risk Management:					
	The Client and the Bank should agree on selection criteria during Project preparation.					
	Resp: Bank	Status: Completed	Stage: Preparation	Recurrent:	Due Date: 31-Dec-2013	Frequency:
	Risk Management:					
Water users will be consulted on irrigation rehabilitation designs						
Resp: Client	Status: In Progress	Stage: Both	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS	
Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	Rating	Low				
Risk Description: Project Management Capacity: 3.3.1 NAPR capacity in financial management and procurement of Bank financed projects is inadequate. Irrigation Design Capacity: 3.3.2 Inadequate local design capacity to maintain modernized systems in the long-term. Land Market Institution Capacity: 3.3.3 Inadequate private sector capacity to undertake surveys.	Risk Management:					
	3.3.1 The Bank will ensure that MOA and NAPR staff attends relevant fiduciary training with the Bank.					
	Resp: Both	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 31-Dec-2014	Frequency:
	Risk Management:					
	3.3.1 The M&E system, Project M&E unit staffing plan, databases and terms of reference for baseline surveys will be prepared during the first six months of the Project					
	Resp: Client	Status: Not Yet Due	Stage: Preparation	Recurrent:	Due Date: 31-Dec-2014	Frequency:
	Risk Management:					
	3.3.1 A condition of effectiveness is: The Recipient has submitted to the Association: (a) the Operational Manual for Parts A and C.1 of the Project; and (b) the Operational Manual for Parts B and C.2 of the Project, both including the financial management chapter in form and substance satisfactory to the Association.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 31-Jul-2014	Frequency:
	Risk Management:					

		3.3.1 A condition of effectiveness is: Notwithstanding . . . , no withdrawal shall be made . . . under Categories (2)(a) and (2)(b) unless and until the Recipient's Ministry of Justice has: (i) established an automated accounting system satisfactory to the Association to be utilized by NAPR for Project accounting, budgeting and reporting;				
Resp:	Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 31-Jul-2014	Frequency:
Risk Management:						
3.3.1 A condition of effectiveness is: Notwithstanding . . . , no withdrawal shall be made . . . (ii) appointed a financial manager whose terms of reference, qualifications and experience shall be acceptable to the Association, to assume the responsibilities of the Project financial manager within the NAPR;						
Resp:	Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 31-Jul-2014	Frequency:
Risk Management:						
3.3.2 The bidding documents for irrigation modernization (e.g. SCADA systems for headworks) will include a requirement for contractors to provide guidance, training and support if necessary during the early years of operation, to the organization responsible for the maintenance of that infrastructure.						
3.3.3 N/A						
Resp:	Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
Governance		Rating	Moderate			
Risk Description:		Risk Management:				
If there were frequent changes in Minister/ Deputy Ministers in MOA and MOJ in future this could potentially undermine continuity of approach to irrigation improvement and speed of decision making.		Project Implementation under MOA for Component 1 activities will be undertaken through the MOA PPDM which will provide management continuity.				
		Project Implementation under MOJ for Component 2 activities will be undertaken through the NAPR which will provide management continuity.				
Resp:	Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
Risk Management:						
The Bank will ensure MOA PPMD, NAPR and bidders' awareness of Bank procurement and complaints procedures.						
Resp:		Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
Both		Not Yet Due	Implementation	<input checked="" type="checkbox"/>		CONTINUOUS
Project Risks						
Design		Rating	Substantial			
Risk Description:		Risk Management:				
4.1.1. Irrigation infrastructure: In future, without		4.1.1 Water users will be consulted on irrigation rehabilitation designs, in particular for rehabilitation of on-farm systems, to encourage participation in institutional arrangements for on-farm water management				

<p>rehabilitation and improved water delivery, potentially, farmers' will have little interest in participating in institutional arrangements for on-farm water management.</p> <p>4.1.2. Irrigation institutions: The pace of development of institutional arrangements for on-farm water management will be slower than the pace of rehabilitation on on-farm systems so there will be no functional institutional arrangements for on-farm water management to operate and maintain the rehabilitated on-farm infrastructure.</p> <p>4.1.3 Legal ownership of on-farm infrastructure: In future water users will potentially have fewer incentives to invest in maintenance of on-farm irrigation systems until an inventory of the on-farm system has been completed and its ownership registered.</p> <p>4.1.4 Access to infrastructure & services: A failure to coordinate the geographical targeting of public/donor investments means that the comprehensive range of infrastructure & services needed to make irrigated agriculture viable are not established.</p> <p>4.1.5 Insecure land titles reduce farmers' opportunities to sell or lease out land that has been improved through irrigation rehabilitation, resulting in reduced incentives for farmers to invest in maintenance of irrigation systems.</p> <p>4.1.6 Hydropower interests: Competition between hydropower interests and irrigation interests at national and local level negatively affect irrigation water provision.</p> <p>4.1.7 Representation in institutions for on-farm water management: In future weak governance arrangements in institutions for on-farm water management, including weak representation of woman and the poor in the governance structures of these organizations leads to elite capture and inequitable water distribution.</p>	Resp: Client Status: In Progress Stage: Both Recurrent: <input checked="" type="checkbox"/> Due Date:	Frequency: CONTINUOUS	
	Risk Management: 4.1.2 The Strengthening Irrigation and Drainage Institutions Sub-Component will support the development of institutional arrangements for on-farm water management on each scheme. Such arrangements must be established for each scheme before any rehabilitation of on-farm works (with the exception of some critical on-farm irrigation infrastructure) on that scheme is carried out.		
	Resp: Client Status: Not Yet Due Stage: Implementation Recurrent: <input checked="" type="checkbox"/> Due Date:	Frequency: CONTINUOUS	
	Risk Management: 4.1.3 An inventory of infrastructure (as part of design) and an assessment of its ownership will be undertaken before rehabilitation of any infrastructure.		
	Resp: Client Status: In Progress Stage: Both Recurrent: <input checked="" type="checkbox"/> Due Date:	Frequency: CONTINUOUS	
	Risk Management: 4.1.3 The long-term arrangements for ownership of on-farm infrastructure and asset transfer will be defined during support the development of institutional arrangements for on-farm water management on each scheme. Such arrangements must be in place for each scheme before any rehabilitation of on-farm works (with the exception of some critical on-farm irrigation infrastructure) on that scheme is carried out.		
	Resp: Client Status: In Progress Stage: Both Recurrent: <input checked="" type="checkbox"/> Due Date:	Frequency: CONTINUOUS	
	Risk Management: 4.1.4 MOA PPM will prepare a plan setting out other donor agricultural extension (especially USAID) and other complementary agricultural development activities in project selected schemes.		
	Resp: Both Status: In Progress Stage: Implementation Recurrent: <input type="checkbox"/> Due Date: 30-Sep-2014	Frequency:	
	Risk Management: 4.1.5 The pilot land registration program financed under the Project will include a sample of plots with irrigation to ensure that issues specific to irrigated land are addressed.		
	Resp: Both Status: Completed Stage: Preparation Recurrent: <input type="checkbox"/> Due Date: 28-Feb-2014	Frequency:	
	Risk Management: 4.1.5 N/A The nationwide land registration program scheduled to start in 2015, will include Project areas where irrigation rehabilitation will take place. 4.1.6 N/A		
	Resp: Client Status: Not Yet Due Stage: Implementation Recurrent: <input type="checkbox"/> Due Date: 30-Jun-2017	Frequency:	
	Risk Management:		

	4.1.7 The Project will prepare a detailed social mobilization matrix setting out the process for public information dissemination and consultation with water users. The matrix will help to ensure the representation of all types of irrigation water users and the inclusion of women and the poor, in institutional arrangements for on-farm water management. The Project will support the design of mechanisms to ensure proper representation of all types irrigation water users in their governance structure.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
Social and Environmental	Rating	Moderate				
<p>Risk Description:</p> <p>4.2.1 Construction results in temporary loss of cultivated land, temporary suspension of existing irrigation water delivery during construction.</p> <p>4.2.2 Land surveying and certification results in displacement of those whose income is generated from farming illegally occupied land.</p> <p>4.2.3 Rehabilitation potentially affects availability of irrigation water downstream, causing disputes.</p> <p>4.2.4 Inadequate dam safety measures place downstream communities at risk of flood damage from dam failure.</p>	Risk Management:					
	4.2.1 The Project triggers resettlement policy OP 4.12 for the Irrigation and Drainage Improvement Component. Resettlement Action Plans to be prepared for each scheme were land acquisition is expected.					
	Resp: Client	Status: In Progress	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
	Risk Management:					
	4.2.2 The Project will adopt a country systems approach for the Land Market Development component to help ensure that policies for the pilot land registration adhere to the principles of the Banks Resettlement Policy					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent:	Due Date: 30-Jun-2015	Frequency:
	Risk Management:					
	4.2.2 A legal covenant is: For the purposes of carrying out Part B.2 of the Project, the Recipient shall: (a) furnish to the Association for approval, the draft guidelines for land registration prepared in accordance with terms of reference acceptable to the Bank, including that the guidelines be fully consistent with the Safeguards Documents and the Association's Safeguard Policies.					
	Resp: Client	Status: In Progress	Stage: Both	Recurrent:	Due Date: 30-Jun-2015	Frequency:
	Risk Management:					
4.2.3 The MOA has confirmed to the Bank that the Project will exclude any investments in rehabilitation that increase water abstraction compared to the original design.						
Resp: Client	Status: Completed	Stage: Preparation	Recurrent:	Due Date: 31-Dec-2013	Frequency:	
Risk Management:						
4.2.4 A withdrawal condition is: Notwithstanding ..., no withdrawal shall be made:...under Category (1)(a) for works under Part A.1 of the Project unless and until the Recipient has established the dam safety panel						
Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: X	Due Date:	Frequency: CONTINUOUS	

Program and Donor	Rating	Moderate				
Risk Description: 4.3 USAID and other donor support for complementary extension services to the Project areas as envisaged by MOA, is not confirmed	Risk Management: 4.3.1 MOA PPM will prepare a plan setting out other donor agricultural extension (especially USAID) and other complementary agricultural development activities in project selected schemes.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency CONTINUOUS
Delivery Monitoring and Sustainability	Rating	Moderate				
Risk Description: Delivery 4.4.1 Willingness to pay for irrigation: Low water user willingness to pay for irrigation undermines the financial sustainability of the irrigation system. Monitoring 4.4.2 Activity and Output Monitoring: Inadequate irrigation design and construction supervision results in low quality rehabilitation. Sustainability 4.4.3 Impact monitoring and sustainability: Inadequate M&E system for monitoring impact on farm incomes and financial sustainability.	Risk Management: 4.1.1 The Institutional Development Sub-Component will support preparation of an operation, maintenance and financing plan for each irrigation scheme selected under the Project. Initially the plans will cover operation and maintenance of off-farm systems. For off-farm systems, the plans will include: (i) an operation and maintenance schedule; (ii) an estimate of full operation and maintenance costs for the off-farm system, to be included in the UASCG annual cost projections; and (iii) calculation of the relative contribution to operation and maintenance costs from irrigation service fees from farmers and government subsidies to UASCG. A similar plan will be prepared for on-farm systems and organizations responsible for on-farm water management, must be in place, setting out their respective obligations regarding rehabilitation, operation, maintenance and financing.					
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS
Risk Management: 4.4.1 The Project will provide advice on water charging: In order to increase cost recovery from water uses and reduce the burden of subsidized operation and maintenance on the budget, the Project will recommend improvements to the formula for water charging (towards a system that reflects the level of water usage) and recommend a plan for improving cost recovery from water users.						
Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS	
Risk Management: 4.4.1 Schemes will be selected based on their financial (as well as economic) viability, including an assessment of water user willingness to pay.						
Resp: Client	Status: Not Yet Due	Stage: Both	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS	
Risk Management: 4.4.2 The Project design will include qualified design and construction supervision engineers and a clear schedule of design and construction contract supervision.						
Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent: <input checked="" type="checkbox"/>	Due Date:	Frequency: CONTINUOUS	

	<p>Risk Management: 4.4.3 The Project will establish a baseline survey at the start of the Project which will measure impact on farm incomes as well as financial sustainability at farm and irrigation service provider level.</p>						
	Resp: Client	Status: Not Yet Due	Stage: Implementation	Recurrent:	Due Date: 30-Sep-2014	Frequency:	
6. Overall Risk							
Overall Preparation Risk: Moderate				Overall Implementation Risk: Substantial			
<p>Risk Description: There is a moderate risk of changes to the Component 2 budget including reductions of the budget of critical activities during negotiations.</p>				<p>Risk Description: The risks of poor maintenance of irrigation systems as a result of: (i) insufficient progress on establishing irrigation institutions for management of on-farm irrigation systems; (ii) low willingness to pay for irrigation and (iii) inadequate government funding, is substantial.</p>			

Annex 5: Implementation Support Plan

GEORGIA: Irrigation and Land Market Development Project

I Strategy and Approach for Implementation Support

1. Implementation support aims to: (i) ensure the high technical quality of the project activities and bring the Bank international experience in irrigation and improvement and modernization, development of irrigation and drainage institutions and land registration to Georgia; (ii) ensure that the institutional approach to both irrigation and drainage improvement and land registration is an inclusive one based on broad based consultation with beneficiaries and representation of the interests of women and vulnerable groups; (iii) ensure that the institutional approach to both irrigation and drainage improvement and land registration provides a foundation not only for implementation of the Project but for longer term development, particularly since both components are intended to provide a foundation for longer term national programs.
2. Implementation support will also ensure efficient, transparent and accountable fiduciary management. While MOA PPMD has substantial experience in fiduciary management of Bank projects, NAPR will need to recruit staff with relevant experience. Early implementation support will therefore focus in particular on ensuring sufficient capacity is established in NAPR. Staff from MOA PPMD and NAPR will participate in Bank fiduciary training at the first opportunity. Thresholds for post- and prior-review of procurement packages have been established. The team's procurement and technical specialists will work closely with the MOA PPMD and with NAPR to provide continuous inputs into and feedback on the preparation of procurement packages and to carrying out procurement as such. All Terms of References for national and consultants would be subject to prior review.
3. Given that a number of environmental and social safeguards require compliance at an early stage of the project, implementation support on these safeguards will be most intensive during the first six months of implementation support.
4. The Bank team will also ensure that project implementation monitoring and reporting systems are established at an early stage, that the baseline surveys for monitoring Project impact are properly established and that technical outputs are properly archived and available to the public where appropriate through a project web-site.
5. Overall, the Bank will as far as possible make use of locally, regionally based staff for financial management and procurement implementation support (based in Tbilisi), environmental safeguards (based in Tbilisi), monitoring and evaluation implementation support (based in Baku), and land component implementation support (based in Tbilisi and Bishkek).

II Implementation Support Plan

6. *Technical Implementation Support for Component 1:* The Bank team will include an irrigation engineer with substantial Bank experience to assess the selection of schemes, the technical quality of rehabilitation designs, which will be verified through site visits, to review

and advise the Task Team Leader (TTL) on the approval of bidding document and contract revisions, and to provide guidance to MOA PPMD engineers in construction supervision and acceptance of completed works. The Bank team will also include expertise to provide similar support in relation to dam improvement and monitor compliance with dam safety safeguards requirements. The team will also provide guidance to MPA PPMD in identifying companies with relevant experience in designs for irrigation modernization. The Bank team will include expertise with substantial experience on institutional arrangements for irrigation and drainage services, in similar countries in the region where irrigated agriculture is dominated by small farmers, in particular on institutional arrangement for on-farm water management.

7. *Technical Implementation Support for Component 2:* A Bank Land Administration Specialist supported by an FAO funded land administration consultant based in Tbilisi will lead implementation support for the Land Market Development Component. The Bank team will help to expose NAPR to experience from other countries in the region in land registration as well as to the Bank's global experience in land registration. The team will provide guidance, review and approve Project recommendations on policies and procedures for pilot land registration before they are submitted to the IMC. The Bank team will undertake substantial field work in pilot locations to assess the technical quality of land registration work. The team will also monitor the adequacy of measures to ensure the transparency of decision making relating to boundary demarcation decisions, public disclosure of decisions and fair resolution of disputes under the Project.

8. *Financial Management Implementation Support:* As part of its project implementation support mission, the Bank's Financial Management Specialist (FMS) would conduct risk-based financial management supervision within six months of project effectiveness, and then at appropriate intervals. During project implementation, the Bank would supervise the project's financial management arrangements in the following ways: (a) review the project's semiannual Interim Financial Report and annual audited financial statements and auditor's management letter and remedial actions recommended in the auditor's Management Letters; and (b) during the Bank's on-site supervision missions, review the following key areas: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) disbursement management and financial flows, including counterpart funds, as applicable; and (iv) any incidences of corrupt practices involving project resources. As required, a Bank-accredited FMS would assist in the implementation support process. During the implementation support missions, in order to mitigate risks, the FMS would compare the contracts unit costs to similar costs using the Internet and local market. More frequent implementation support missions may take place during the first part of the Project. The FMS would consider joint fiduciary missions with procurement colleagues.

9. *Procurement Implementation Support:* A Bank Procurement Specialist based in Tbilisi will be a member of the project team throughout the Project and join the regular Bank supervision missions. The frequency of procurement supervision is expected to be twice per year. In addition to the prior review supervision to be carried out by the Bank team, procurement post reviews are to be carried on at least 10 percent of the contracts subject to post review. As a minimum, one post review report which will include physical inspection of sample contracts including those

subject to prior review will be prepared each year and not less than 10 percent of the contracts will be physically inspected.

10. *Environmental Safeguards Implementation Support:* A Bank Environmental Specialist based in Tbilisi will review EMPs for each irrigation scheme rehabilitated under Project and provide guidance to the MOA PPMD environmental specialist on site to help ensure works contractors' compliance with EMPs. The specialist will also provide guidance to MOA PPMD on project activities to encourage integrated pest management practices amongst beneficiaries. The Environmental Specialist will work with the Bank's Irrigation team to monitor compliance with Dam Safety safeguards requirements.

11. *Social Safeguards Implementation Support:* The Bank team Socialist Development Specialist will join regular supervision missions. The specialist will in particular focus on assessing the equivalence and acceptability of policies and procedures on land registration with OP 4.12 in line with the Country Systems approach to OP 4.12 adopted for this Project. The Social Specialist will also provide guidance to the MOA PPMD on the methodology for assessing whether land acquisition is required for irrigation rehabilitation and where this is the case, provide guidance on the preparation and monitoring of scheme specific RAPs.

III Implementation Support Summary

12. Table 1 presents the main focus of implementation support over the life of the Project

Table 1 Implementation Support

Time	Focus	Skills Needed	Resource Estimate	Partner Role
0-12 months	Project Management Systems Scheme selection and irrigation rehabilitation off-farm design and works. Dam safety Irrigation institutions including on farm water management Policy and procedures for land registration/ equivalence and acceptability with OP 4.12	Task Team Leader Co-Team Leader/ M&E Irrigation Engineer Dam Engineer Irrigation Institutions Land Market Specialist Land Administration Financial Management Procurement Environmental Safeguards Social Safeguards	US\$137,500	FAO to be requested (i) fund locally based Land Administration Specialist and (ii) partially fund Irrigation Posts.
12-48 months	Irrigation rehabilitation off-farm works/ on-farm designs Dam safety Irrigation institutions including on farm water management Pilot registration implementation	Task Team Leader Co-Team Leader/ M&E Irrigation Engineer Dam Engineer Irrigation Institutions Land Market Specialist Land Administration Financial Management Procurement	US\$114,000/ yr.	FAO to be requested (i) fund locally based Land Administration Specialist and (ii) partially fund Irrigation Posts.

Time	Focus	Skills Needed	Resource Estimate	Partner Role
	and M&E	Environmental Safeguards Social Safeguards		
48-60 months	Irrigation rehabilitation on-farm works. Dam safety Irrigation institutions including on farm water management Project M&E	Task Team Leader Co-Team Leader/ M&E Irrigation Engineer Irrigation Institutions Financial Management Procurement Environmental Safeguards Social Safeguards	US\$105,000/yr.	FAO to be requested partially fund Irrigation Posts.

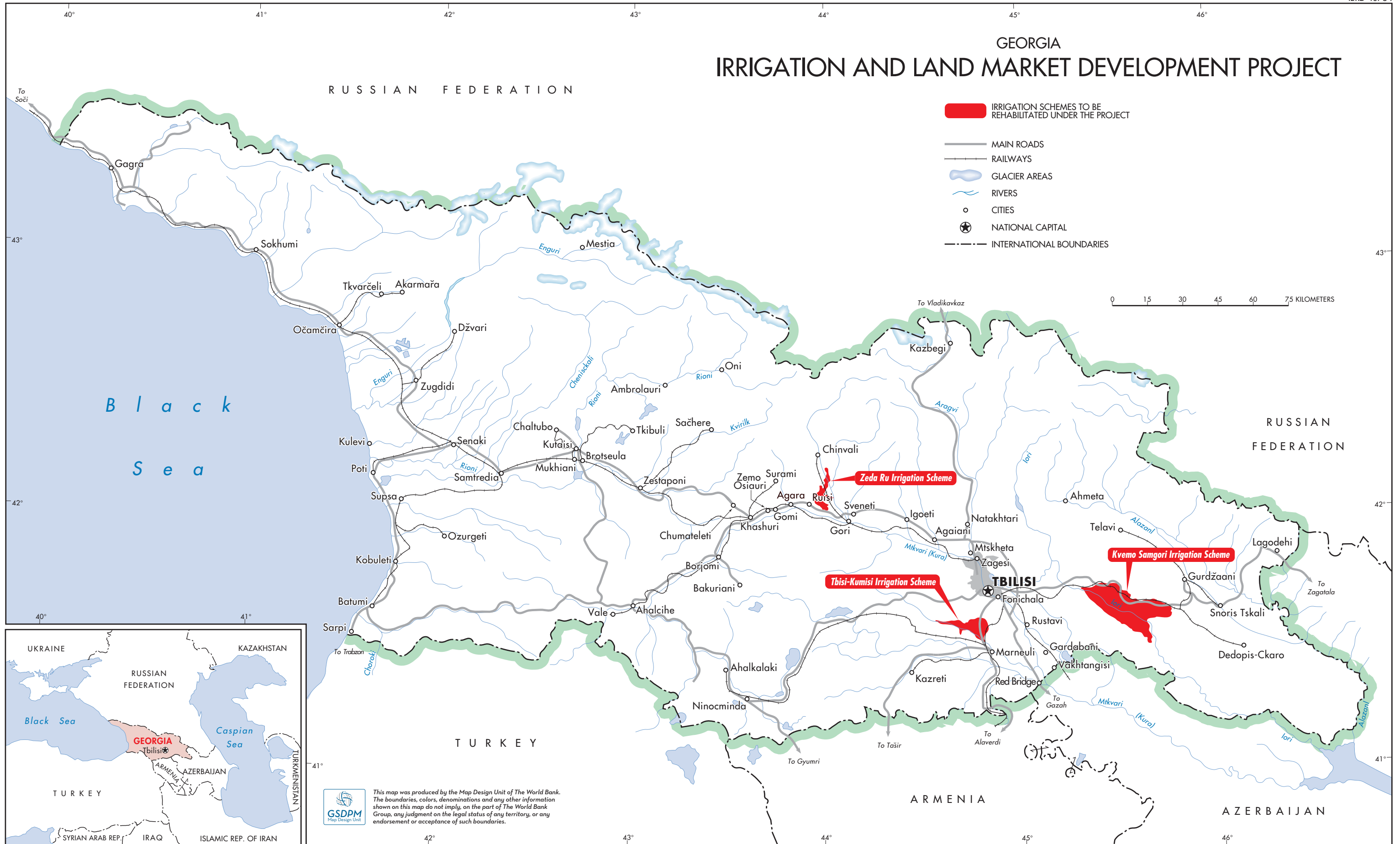
Table 2 Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	25	10	
Co-Team Leader/ M&E Specialist	25	16	In Region
Irrigation Engineer	11	10	FAO
Dam Engineer	5	10	FAO
Irrigation Institutions Specialist	12	10	
Land Market Specialist	10	12	In Region
Land Administration Specialist II	14	-	FAO / In country
Financial Management Specialist	15	-	In Country
Procurement Specialist	15	-	In Country
Environmental Specialist	10	-	In Country
Social Development Specialist	10	5	

Table 3 Partners

Name	Institution/Country	Role
FAO	FAO/CP	Implementation Support

GEORGIA IRRIGATION AND LAND MARKET DEVELOPMENT PROJECT



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