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Report No: 75667-TJ

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT
IN THE AMOUNT OF US$9.45 MILLION
FROM
THE PILOT PROGRAM FOR CLIMATE RESILIENCE
OF THE STRATEGIC CLIMATE FUND (PPCR)

AND

ON A

PROPOSED GRANT
IN THE AMOUNT OF US$5.4MILLION
FROM
THE GLOBAL ENVIRONMENT FACILITY TRUST FUND

TO THE

REPUBLIC OF TAJIKISTAN

FOR AN

ENVIRONMENTAL LAND MANAGEMENT AND RURAL LIVELIHOODS PROJECT

February 28, 2013

Sustainable Development Department
Central Asia Regional Office
Europe and Central Asia Region

CURRENCY EQUIVALENTS

February 8, 2013

Currency Unit	=	Tajikistan Somoni
4.76 Tajikistan Somoni	=	US$1
US$0.21	=	1 Tajikistan Somoni

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
CAWMP	Community Agriculture and Watershed Management Project
CEP	Committee for Environmental Protection
CIG	Common Interest Group
CPS	Country Partnership Strategy
DFID	UK Department for International Development
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
EMF	Environmental Management Framework
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEO	Global Environment Objective
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IFAD	International Fund for Agricultural Development
IG	Implementation Group
IMP	Integrated Pest Management
JRC	Jamoat Resource Center
LRCSP	Land Registration and Cadastral System for Sustainable Agriculture Project
MDB	Multilateral Development Bank
NGO	Non-governmental Organization
PAMP 2	Second Public Employment Project
PDO	Project Development Objective
PMP	Pest Management Plan
PPCR	Pilot Program for Climate Resilience
PUG	Pasture User Group
SIC	State Investment Committee
SPCR	Strategic Program for Climate Resilience
SUDVIO	Social Union for Development of Village Organization
UNDP	United Nations Development Programme

USAID	US Agency for International Development
WB	World Bank
WUA	Water User Association

Regional Vice President:	Philippe H. Le Houérou
Country Director:	Saroj Kumar Jha
Sector Director:	Laszlo Lovei
Sector Manager:	Kulsum Ahmed
Task Team Leader:	Angela Armstrong

REPUBLIC OF TAJIKISTAN
Environmental Land Management and Rural Livelihoods Project

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PAD DATA SHEET

Tajikistan

Environmental Land Management and Rural Livelihoods Project (P122694)

PROJECT APPRAISAL DOCUMENT

EUROPE AND CENTRAL ASIA

ECSEN

Report No.: PAD413

Basic Information			
Project ID	Lending Instrument	EA Category	Team Leader
P122694	Specific Investment Loan	B - Partial Assessment	Angela G. Armstrong
Project Implementation Start Date		Project Implementation End Date	
10-Jun-2013		31-May-2018	
Expected Effectiveness Date		Expected Closing Date	
03-Jun-2013		31-May-2018	
Joint IFC			
No			
Sector Manager	Sector Director	Country Director	Regional Vice President
Kulsum Ahmed	Laszlo Lovei	Saroj Kumar Jha	Philippe H. Le Houerou

Borrower: Ministry of Finance			
Responsible Agency: Committee on Environmental Protection			
Contact:	Talbak Salimov	Title:	Chairman
Telephone No.:	992-37-236-40-59	Email:	muhit@hifzitaliat.tj

Project Financing Data(US$M)					
[ ]	Loan	[X]	Grant	[ ]	Other
[ ]	Credit	[ ]	Guarantee		

For Loans/Credits/Others	
Total Project Cost (US$M):	16.88
Total Bank Financing (US$M):	0.00

Financing Source	Amount(US$M)
BORROWER/RECIPIENT	0.00
Global Environment Facility (GEF)	5.40
Local Communities	2.03
Strategic Climate Fund Grant	9.45
Total	16.88

Expected Disbursements (in USD Million)

Fiscal Year	2013	2014	2015	2016	2017	2018	0000	0000	0000
Annual	0.25	2.40	3.70	3.80	3.30	1.40	0.00	0.00	0.00
Cumulative	0.25	2.65	6.35	10.15	13.45	14.85	0.00	0.00	0.00

Project Development Objective(s) and Global Environmental Objective(s)

The overall Project Development Objective (PDO) and Global Environmental Objective (GEO) is to enable rural people to increase their productive assets in ways that improve natural resource management and resilience to climate change in selected climate vulnerable sites.

Components

Component Name	Cost (USD Millions)
Rural Production and Land Resource Management Investments	10.14
Knowledge Management and Institutional Support	4.74
Project Management and Coordination	2.00

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 [ ]
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
Article 5.01		03-Jun-2013	

Description of Covenant

Grant Agreement shall not become effective until: (i) Recipient has executed and delivered GEF Grant Agreement and PPCR Agreement; (ii) Operational Manual, satisfactory to the Bank, has been adopted by the Recipient; (iii) Recipient has signed contract for procurement and installation of 1c accounting software; and (iv) Recipient has recruited financial management and disbursement consultants.

Name	Recurrent	Due Date	Frequency
Section I A(1) of Schedule 2	X		Monthly

Description of Covenant

The Recipient, through the Committee on Environmental Protection (CEP), shall carry out the Project in accordance with the requirements, criteria, organizational arrangements and operational procedures set forth in the Project Operational Manual and the Environmental Management Framework (EMF).

Name	Recurrent	Due Date	Frequency
Section I B(1) of Schedule 2	X		Monthly

Description of Covenant

The Recipient, through the CEP, shall: (i) prepare, prior to commencement of any works under the Project, EAs and associated EMPs, in accordance with the EMF, which shall be subject to prior review by the Bank; (ii) carry out the Project in accordance with respective EAs and associated EMPs; and (iii) not amend, suspend, or abrogate provisions of respective EAs and EMPs without prior approval.

Name	Recurrent	Due Date	Frequency

Section I B(2) of Schedule 2	**X**		Monthly

Description of Covenant

The Recipient shall not undertake any Project activities that involve land acquisition or resettlement.

Name	**Recurrent**	**Due Date**	**Frequency**
Section IV B(1) of Schedule 2	**X**		Monthly

Description of Covenant

No withdrawal shall be made in respect to a particular Sub-grant for Subcomponents 1.1 and 1.2 unless (i) CEP and the relevant selected NGO have executed a contract under Component 2 of the Agreement, containing terms satisfactory to the Bank; and (ii) a Subproject Agreement for the respective Sub-grant has been entered between the Beneficiary and CEP, containing terms satisfactory to the Bank.

Team Composition

Bank Staff

Name	**Title**	**Specialization**	**Unit**
Joseph Paul Formoso	Senior Finance Officer	Senior Finance Officer	CTRLA
Angela G. Armstrong	Senior Operations Officer	Team Leader	ECSEN
Adam Shayne	Lead Counsel	Lead Counsel	LEGLE
Dilshod Karimova	Procurement Analyst	Procurement Analyst	ECSO2
Bobojon Yatimov	Senior Rural Development Specialist	Senior Rural Development Specialist	ECSAR
Shodi Nazarov	Financial Management Analyst	Financial Management Analyst	ECSO3
Farzona Mukhitdinova	Operations Analyst	Operations Analyst	ECSAR
Natalia Yegorova	Counsel	Counsel	LEGIA

Non Bank Staff

Name	**Title**	**Office Phone**	**City**
David Lugg	Agricultural Specialist		London
German Kust	Environmental Specialist		Moscow
Nandita Jain	Participatory Natural Resource Management Specialist		Washington

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Tajikistan	Khatlon	Viloyati Khatlon		X	
Tajikistan	Region of Republican Subordination	Region of Republican Subordination		X	

Institutional Data

Sector Board

Environment

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Agriculture, fishing, and forestry	General agriculture, fishing and forestry sector	65	60	
Water, sanitation and flood protection	General water, sanitation and flood protection sector	15	25	
Public Administration, Law, and Justice	Public administration-Agriculture, fishing and forestry	12	10	
Public Administration, Law, and Justice	Public administration-Water, sanitation and flood protection	8	5	
Total		100		

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

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Rural development	Other rural development	30

Environment and natural resources management	Other environment and natural resources management	30
Financial and private sector development	Micro, Small and Medium Enterprise support	15
Environment and natural resources management	Environmental policies and institutions	15
Social dev/gender/inclusion	Participation and civic engagement	10
Total		100

I. STRATEGIC CONTEXT

A. Country Context

1. Tajikistan has enjoyed relative political stability and has had steady economic growth since 1997, with real GDP growth of 7.4% in 2011. The agricultural sector accounts for around 24% of GDP (average for 2000-2010, World Bank, 2011). Much of the growth in 2011 was driven by external factors including increased remittances, a good cotton harvest in response to high world cotton prices and increased export earnings from aluminum in response to high world aluminum prices. Despite an improved fiscal position in 2011, the government's capacity to respond to adverse events remains limited. Some structural reforms have been undertaken in the agriculture, energy, transport and private and financial sectors, but these reforms need to be accelerated. Tajikistan still faces seasonal energy shortages and periodic food insecurity. Although over a million Tajik citizens have escaped poverty and social conditions have improved, low agricultural productivity and rudimentary safety nets have left the 45% living below the poverty line vulnerable to shocks and stresses. Tajikistan is rated as the most vulnerable to climate change impacts of the 28 countries in Europe and Central Asia (ECA); a function of its high exposure and sensitivity to climate change impacts coupled with very low adaptive capacity.

B. Sectoral and Institutional Context

2. **Land Resources and Agriculture.** Tajikistan has an area of some 141,000 km2 (14.1 million ha) of which about 90% is considered upland and mountainous. More than two thirds of the population is rural and dependent on 4.6 million ha of agricultural land, the majority of which is rain-fed pasture. Only about 850,000 ha are arable land, of which some 500,000 ha are irrigated and under rotation between cotton and cereal crops. Wheat, potatoes and horticulture with few significant irrigation systems and extensive pasture areas characterize upland agro-ecosystems. Irrigated cotton in rotation dominates lowland systems. The agricultural sector accounts for 64% of employment, and is generally characterized by low productivity. Environmental degradation and unsustainable use of natural resources are important constraints, and the country's predominantly mountainous terrain makes it particularly vulnerable to natural disasters. Mono-cropping and improper land use practices, such as wasteful irrigation methods and inadequate drainage, are associated with soil degradation and stagnating yields, especially in lowland areas. Pasture degradation, due in part to overgrazing and poor stocking practices, is an important threat. In upland areas, the conversion of steep slopes to cereal production has contributed to land degradation. Chronic energy shortages have also resulted in increased burning of organic matter and vegetation that would otherwise be available as fertilizer or ground/tree cover. Other land uses affected by degradation include rain-fed cropping and forests (CDE, 2011).

3. **Climate Risks.** Climate variability and change are likely to pose additional and significant risks, particularly for those pursuing subsistence agriculture or pastoralism, and only reinforce the need to follow sound land resource management principles. Long-term meteorological records indicate that the mean temperature in Central Asia has been rising at a

rate of 1°C to 2°C over the last 100 years (IPCC, 2007). For Tajikistan, current predictions indicate that overall temperatures will increase by about 0.1°C-0.2°C per decade,[1] with some models predicting up to 2°C increase in winter temperatures by 2050. While precipitation levels have not shown significant increase between 1940 and 2000, the accelerated melting of glaciers has been well documented in recent years (Hydromet, 2008). Even under the most conservative scenarios, in the long-term, precipitation is anticipated to decrease and the frequency and severity of extreme events such as droughts, floods, mudslides, etc., are expected to increase.

Table 1. Observations and predictions about climate change in Tajikistan (Christensen et al. 2007; Hydromet, 2008)

Observations	**Predictions**
The ground air temperatures have increased The mean max annual temp increased (0.5 – 1.0°C) /100	Temperatures will increase 0.1 – 0.2°C / decade in all areas of Tajikistan
The number of days over 40°C has increased	Drought will occur more intensively and frequently
In spring, there is an increase in the number of cold spells in mountain zones	
The winters are becoming warmer The duration of frost-free days has increased	The maximum increase in temperature is expected in the winter (i.e. 2°C by 2050)
The amount of precipitation has remained relatively constant	The intensity and irregularity of heavy rainfall events will increase
The amount of precipitation in areas <2500m asl has increased in summer/ autumn (37-90% over the last 70yrs)	The levels of precipitation will change unevenly due to topography and altitude
The number of days with precipitation has decreased	Precipitation will be higher in winter, lower in summer

4. It is expected that Tajikistan's agriculture will be exposed to increasingly low and erratic rainfall coupled with drying up of water resources through increased regional temperatures, higher evapotranspiration, reduced snow accumulation in mountain glaciers and an increased frequency of extreme events. These changes will lead to impacts, such as fluctuations in the hydrological cycle - especially from glacial retreat and flash floods – with downstream consequences nationally and regionally for agro-ecosystems and water resources. Predicting the impacts of climate change, and thus the development of adaptation strategies will need to consider variation due to geographical and seasonal factors, and both long-term trends (e.g., temperature increase and reduced number of days of precipitation) and short-term events (e.g., heavy rainfall events).

5. While there has been a significant change in the rural sector with the break-up of collective farms into family and individual farms, this has often resulted in a drop in skills at the family farm level. Transformation of land management practices at the local level is required to better deal with the range of challenges, including those associated with climate variability and change. Widespread adoption of sustainable land and water management strategies and practices for agro-ecosystems will help farmers and communities to address these issues, and adapt, as well as become more resilient, to climate change by improving local livelihoods and food security, and restoring productive natural resources. More specifically, improved technologies and management practices can enable farmers to adapt to climate variability and change, address increasing periods of drought, and combat climate change by sequestering carbon, particularly in

[1] UNFCC (2008)

soils.

6. **Strategies and Programs addressing Land Resource Management and Agriculture.** Since 2007, the Government, with the assistance of development partners, has taken concrete actions to reduce its intervention in agricultural production as well as to resolve the cotton farm debt that hinders growth. A Presidential Decree for cotton debt resolution was promulgated and a government resolution and an action plan to resolve the cotton debt and reform the agriculture sector was approved. The action plan serves as the platform for developing and implementing agrarian reforms to ensure freedom to farm, accelerate efforts to ensure proper land titling, improve irrigation and drainage infrastructure and institutions, improve farmers' access to finance and collateral, and increase returns to farmers and cotton sector recovery. These reforms also support the Government's commitment to sustainable agricultural development in the non-cotton sub-sector, including food crops and fodder for livestock, as these crops have significant potential to raise the current level of productivity, and can be readily sold in domestic markets. Under irrigation, maximizing the role of Water User Associations in water management is a key feature, as is changing the basis of irrigation water management from administrative boundaries to river basin and hydrological units. In a separate Government initiative, a draft Pasture Law has been prepared and is being considered by the Chambers of Parliament. The draft contains provisions for the establishment of Pasture User Associations.

7. Tajikistan has several strategies and programs relevant to natural resource and sustainable land management. These programs include the National Framework Programme to Combat Desertification (2005), the National Action Plan for Climate Change Mitigation (2003), and the National Communications on Climate Change (2002, 2008). The Government is currently preparing the Third National Communication on Climate Change which aims to enhance the evidence base for climate change risks and impacts on priority sectors (natural resources, national economy and human health) and provide opportunities to mainstream climate adaptation and mitigation activities in national development policy and programs, as well as in other projects and programs on climate change and sustainable development. Tajikistan is an active party to the following relevant United Nations Conventions: (i) to Combat Desertification; (ii) on Climate Change; and (iii) on Biodiversity Conservation.

8. **Pilot Program for Climate Resilience.** Tajikistan is one of 18 countries participating in the Pilot Program for Climate Resilience[2] (PPCR) supported by Multilateral Development Banks (MDBs). In Tajikistan, the participating MDBs are: World Bank (WB); European Bank for Reconstruction and Development (EBRD); and Asian Development Bank (ADB). The PPCR will help ensure that, in the shorter term, investments in critical sectors become resilient to climate change and enhanced capacity, awareness, evidence and institutional frameworks are built for a longer-term climate resilient development pathway within Tajikistan, thus providing a

[2] The Climate Investment Funds (CIFs) were designed by developed and developing countries and are implemented with the Multilateral Development Banks (MDBs) to bridge the financing and learning gap between now and the next international climate change agreement. CIFs are two distinct funds: the Clean Technology Fund (CTF) and the Strategic Climate Fund (SCF) which consists of three programs: the Pilot Program for Climate Resilience (PPCR), the Forest Investment Program (FIP), and the Scaling-Up Renewable Energy in Low-Income Countries Program (SREP).

catalyst for further investment. The PPCR in Tajikistan comprises two Phases. Phase 1, approved in June 2010, encompassed technical assistance activities to strengthen Tajikistan's capacity and analytical evidence base and help refine needed investments included under Phase 2. Included in Phase 1 was an assessment of sustainable land management practices and agriculture livelihoods. This project incorporates relevant findings and recommendations from this assessment.

9. **Institutions and Climate Change Response.** Also included in Phase 1 was a stocktaking and institutional assessment of Tajikistan's capacity for climate resilience. This assessment found that the effectiveness of institutions in addressing climate impacts and managing risks is constrained due to information gaps, as well as limited capacity for information generation and analysis.[3] In terms of institutional arrangements, responsibilities related to climate change are spread over a number of government agencies and departments. Further, climate change risks are currently not mainstreamed in development planning; current policies, such as the National Development Strategy, the Poverty Reduction Strategy, and the National Climate Change Plan do not link climate change to key climate sensitive production sectors or poverty alleviation goals, nor do they identify adaptation measures and targets. Also, although some key agencies have moderate knowledge of climate risk management, this is not shared at the district or local levels, and monitoring and evaluation of climate change projects is absent. These constraints hinder the processes necessary for capturing and sharing information that would meet the needs of planners and decision makers. Successfully building climate change resilience in Tajikistan will require strengthening the capacities of key institutions to manage climate risks and impacts, as well as increasing engagement with those most adversely affected by climate change. Capacity building must also be designed to reach those who are marginalized and most vulnerable.

10. **Capacity Building for Climate Resilience (PPCR).** Under Phase 2 of the PPCR, ADB is currently preparing a Capacity Building for Climate Resilience Project that will enhance capacity for climate change adaptation planning at national and local levels. The project will support the integration of climate risks into development planning, including the development of a National Adaptation Strategy that will identify and rank climate adaptation priorities and measures, as well as the development of a climate risk management system to support line ministries in screening development projects for climate risks. The ADB-supported project will also strengthen the monitoring of results of the country's six PPCR-funded projects (see below) to optimize shared learning among lead agencies, as well as donors, and harmonize actions.

11. **Climate Science.** The project will benefit from current operations in climate science in Tajikistan. The WB/PPCR financed Central Asia Hydrometeorology Modernization Project is supporting improvements to the national hydro-meteorological monitoring system to provide timely warnings on dangerous events, support water management, and build the evidentiary basis for climate variability and change. As they prepare and implement rural investment plans, ELMARL project beneficiaries can benefit from activities to expand the provision of

[3] A gap analysis of line ministries' capacity to manage climate change found that, although 71% of operations were exposed to climate risks, only 12% of respondents factored climate change in their planning. Respondents identified the need for more equipment (59%), improved technical skills (53%), and better training (41%).

hydromet products to consumers, and bolster the national forecasting, warning, and response system. Under Phase 2, ADB will be implementing a Climate Science and Modeling Program to enhance Tajikistan‘s capacity to conduct climate science and glaciology research, develop climate change models and interpret the outputs from those models. Analytical work planned under EMARL can benefit from the results of this program.

12. **Strategic Program for Climate Resilience (SPCR)**. Under the leadership of the Government, with support from the MDBs, Tajikistan developed its Strategic Program for Climate Resilience (SPCR) that was endorsed in November 2010 by the PPCR Sub-Committee, which accepted the further development of its expected activities. The SPCR presents the country driven strategic approach to climate resilience, and defines the underlying investment program for PPCR support. The Trust Fund Committee agreed to a funding envelope of up to US$50 million as grant resources to finance the Tajikistan SPCR. Other components of the SPCR receiving financial support in Phase 2 are: Enhancing Climate Resilience of the Energy Sector (US$10 million); Climate Science and Modeling Program (US$3 million); Improvement of Weather, Climate and Hydrological Service Delivery (US$7 million); Building Climate Resilience in the Pyanj River Basin (US$15.3 million); and Building Capacity for Climate Resilience (US$3 million). This project will coordinate closely with these other components to share data, results and experience where relevant, and will contribute to distilling results and lessons learned at the program level to help achieve the overall goals of the PPCR in Tajikistan.

C. Higher Level Objectives to which the Project Contributes

13. **National Programs and Strategies.** The project is aligned with strategies and policies of the Government of Tajikistan. The National Development Strategy (2015) and Poverty Reduction Strategy III (PRS, 2012) both emphasize the need to promote economic growth, especially in rural areas, and recognize the importance of addressing environmental issues, including land management, for the country’s development and poverty reduction goals. In line with these national strategies, the SPCR seeks to promote sustainable and resilient growth ensuring more sustainable livelihood development, water and energy security, health, and social equity in the long-term. The National Environmental Action Plan also states that a primary challenge for the country is land degradation, including deterioration of pasturelands, arable and irrigated lands and forests. The government is planning to take on a new agenda to strengthen natural disaster risk management, weather forecasting, and climate change adaptation to reduce vulnerability and thus increase agricultural output.

14. **Relationship with Country Partnership Strategy.** The project is aligned with the ECA Regional Strategy pillar of climate action for sustainable growth. The project is included in the 2010-2013 Country Partnership Strategy (CPS) Progress Report for Tajikistan, which extends the CPS to end-FY14 to align the CPS with the government’s medium-term planning process. The project will contribute to the FY13-14 CPS Program’s emphasis on achieving inclusive, sustainable growth, and in particular, supports the country-level priority of increasing agricultural productivity and food security, as well as the greater priority placed on gender. The project builds on the experience and lessons learned from the Community Agriculture and Watershed Management Project (CAWMP, 2005-2012), and has benefitted from a sector study

on farmer perceptions of land reform and sustainable agriculture, which included consideration of relevant Bank-financed projects.[4] As such, the project meets the CPS principle of scaling up previous operations, by developing links from rural productivity investments to market development. The project also seeks to address gender and social inclusion issues through its use of participatory processes, and the monitoring and evaluation of project results.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

15. The overall Project Development Objective (PDO) and Global Environmental Objective (GEO) is to enable rural people to increase their productive assets in ways that improve natural resource management and resilience to climate change in selected climate vulnerable sites.

B. Project Beneficiaries

16. Primary project beneficiaries are expected to be at least 21,000 rural households in selected project sites representing a population of approximately 126,000 persons (average six persons per household).[5] Of the total beneficiary population, it is anticipated that at least 40% will be female. The selection of project sites and populations takes into account: degree of climate and other environmental vulnerability based on findings from the PPCR Phase 1 assessment and other sources;[6] extent of farmland restructuring since secure land tenure is an important aspect of sustainability; contiguous upland, middle hills and lowland sites to facilitate resource management approaches; donor complementarity to help ensure support not provided by the project, e.g., in market development, and thus make use of complementary financial support being provided by agencies such as the UK Department for International Development (DFID) and German Agency for International Development (GIZ); and avoiding overlap with similar activities supported by other agencies.

C. PDO Level Results Indicators

17. Progress towards achieving the PDO will be measured using the following indicators and end of project targets:

- Number of households supported [in project area] that have adopted climate change and sustainable land management practices will reach 21,000;
- Land users adopting sustainable land management practices as a result of the project will reach 12,000;
- Proportion of the population by household in target villages reporting at least X%[7] increase in well-being or household/livelihood assets will be at least 50%;[8]

[4] World Bank and USAID (2012), Tajikistan: Farmer and Farmer Worker Perceptions of Land Reform and Sustainable Agriculture, Washington DC.
[5] Project sites will focus on the districts of Farkhor, Kulob, Khovaling, Baljuvan, Tavildara, and Jirgatol, plus additional districts in the Kulob sub-region of Khatlon for the WUA activity (sub-component 1.2).
[6] World Bank (2011) Tajikistan: Economic and Distributional Impacts of Climate Change, Poverty Reduction and Economic Management, Europe and Central Asia, (#63718), World Bank, Washington DC.
[7] To be determined during year one baseline study.

- Area in hectares in the project sites covered by effective agricultural, land, and water management and improved climate resilience practices will be at least 30,000;
- Number of direct project beneficiaries will reach 126,000; and
- Percentage of female beneficiaries will be at least 40%.

III. PROJECT DESCRIPTION

18. **Project Scope.** The proposed project will comprise three components implemented over five years: (1) Rural Production and Land Resource Management Investments; (2) Knowledge Management and Institutional Support; and (3) Project Management and Coordination. These components all include a combination of grant funding from PPCR and GEF, and demonstrate the value-added of these grant financing sources. This innovative combination of PPCR and GEF financing has helped shape the scope of the project, and allows the project to pilot certain activities that could not have otherwise been implemented at this scale. The design incorporates lessons based on experiences under previous and on-going projects in the sector, notably the Bank and GEF-financed CAWMP, but also successful approaches supported by other donors in the field. Project sites will include districts in three different agro-ecological zones - uplands, hill lands and lowlands – as recommended by the PPCR Component A5 Phase 1 Agriculture and Sustainable Land Management Report. Care is also taken to coordinate with efforts of other projects and donors, including the Bank's Second Public Employment for Sustainable Agriculture (PAMP 2) and Land Registration and Cadastral System for Sustainable Agriculture Projects (LRCSP), Family Farming Project (USAID), International Fund for Agricultural Development (IFAD) and Asian Development Bank (ADB).

A. Project Components

Component 1. Rural Production and Land Resource Management Investments (US$10.14 million: US$5.61million from PPCR, US$2.50 million from GEF, and US$2.03 million from beneficiary contributions).

19. This component provides financing in the form of small grants for subcomponent 1.1. Sustainable village-based rural production and land resource management, and grants for the management plans under sub-component 1.2. Larger-scale initiatives in sustainable community land management.

20. ***Sub-component 1.1. Sustainable village-based rural production and land resource management.*** This sub-component aims to promote the adoption of innovative rural production and land management measures, and related small-scale infrastructure investments, by providing small-scale grants at the village level to help rural livelihoods become more resilient to climate change in selected climate vulnerable districts. Villages will prioritize investments based on a fixed budget for each type of rural investment determined by the number of households. Within a plan of action, participants will decide on the allocation of investments to groups of households (Common Interest Groups, CIGs) using rules that limit the funding for any one household. At

[8] Measurements to be disaggregated by gender.

least 50% of the village households should participate in either farm production or land resource management investments. Villages will use a toolkit with best practices (e.g., those documented in the Phase 1 Assessment on sustainable land management) to ensure that those investments selected are the most appropriate to address climate risks identified in the jamoat-level assessments. Only those investments that have clear linkages to the findings of community adaptation and environmental appraisals and that address environmental (at village and jamoat-level), economic, and social feasibility will be financed. This represents a departure from business-as-usual development planning. Communities will factor not only climate risks at the farm level, but also take into account broader environmental and climate relationships and impacts at the jamoat level.

The project will finance investments in three categories that are expected to contribute to household assets and sustainable land management, and increase climate resilience, examples of which are listed below:

(i) Farm Production: field and horticultural crop productivity and diversification, livestock production efficiency, agro-processing and market access;

(ii) Land Resource Management: pasture management, water management, soil fertility, integrated pest management, and sustainable sloping lands cultivation (including orchards, woodlots, shelter-belts); and

(iii) Small-scale rural production infrastructure: irrigation/drainage system rehabilitation, minor transport infrastructure, renewable energy, and energy efficiency measures.

Project-financed grants to CIGs for each subproject under categories (i), (ii), and (iii) will not exceed US$7,000 and will require a match of 25% in beneficiary contributions which may be in cash or in-kind.

21. ***Sub-component 1.2. Larger-scale initiatives in sustainable community land management.*** Certain aspects of natural resource and climate change adaptation issues are better addressed at scales beyond the village. Of particular concern, to both sustainable land management and productive rural livelihoods in the context of climate change, are pasture management and on-farm water management. While pasture degradation and access are pressing issues in both lowland and upland areas, the consequences of poor water management are especially critical in lowland areas where agriculture depends primarily on irrigation. Project support to improve and strengthen knowledge, skills and organizational arrangements at the farmer and community-level for transforming land resource management will be critical to building adaptive capacity, and thus resilience to climate change.

22. *1.2.1 Sustainable community pasture management.* This activity aims to introduce sustainable community-managed pasture/fodder-based livestock production systems in up to eight selected jamoats. Participatory Pasture and Livestock Management plans will be financed, and grants requiring at least 25% beneficiary match provided to Pasture User Groups (PUGs) for plan implementation. The PUGs will be responsible for developing and implementing the plans and will be formed (or strengthened if already existing) at the jamoat level. The plan will define: (a) measures to improve pasture productivity, such as rotational grazing, protecting areas for regeneration, pasture rehabilitation, improving access to remote pastures, and needs for supplementary fodder production; (b) grazing utilization levels; (c) animal health requirements

and breed improvement measures; (d) investment needs; and (e) implementation responsibilities, targets and indicators.

23. *1.2.2 On-farm water management in lowland areas.* This activity aims to introduce sustainable on-farm water management practices in irrigated cropland primarily in lowland districts. Up to eight existing Water User Associations (WUAs) will be supported to introduce, test and demonstrate practices that could contribute to improving on-farm water management and efficiency, maintain soil quality and reduce land degradation, and increase resilience to climate change. A certain percentage of the WUA managed area will have to be under family farms to help ensure sustainability of investments. Soil and irrigation water quality tests will be carried out along with an assessment of cropping patterns and productivity to provide information for the plan. The Water Management plan will propose water saving and soil conservation technologies that could improve water use efficiency such as improved leveling and drip irrigation, reduce salinity, protect soil such as conservation agriculture and tree-planting, and improve soil fertility such as inclusion of legumes in the rotation or composting. Grants will be provided to each WUA depending on the area with beneficiaries contributing a 25% match (in cash or kind) to project financing.

Component 2. Knowledge Management and Institutional Support (US$4.74 million: US$2.34million from PPCR and US$2.40 million from GEF)

24. This component will provide facilitation services and technical and institutional support for rural populations to plan, implement and manage rural investments. Relevant data collection and analysis, and information exchange for wider adoption of sustainable land management will also be supported.

25. ***Sub-component 2.1. Facilitation support and technical advice.*** This sub-component includes financing for community mobilization, participatory planning and implementation support of plans at the village and/or jamoat and resource user group level. Locally-based international agencies and NGOs, and national NGOs, with a track record in similar activities will be contracted to facilitate the participatory planning and resource assessments, community mobilization, and assist groups in the preparation and implementation of rural investments and pasture and on-farm water management plans (funded under Component 1). These organizations will also help build the technical and organizational capacities of these groups to implement and manage their investments and plans. The contracted agencies/NGOs will coordinate with local government, other NGOs, collaborating partners such as GIZ, and other supporting organizations to provide these services as needed. The project will also work with community-based agencies such as Jamoat Resource Centers, Social Unions for Development of Village Organizations (SUDVOs) or other civil society organizations, and local bodies such as schools, so that they can support and engage with farmer groups/associations and village-based organizations.

26. For village-level investments under sub-component 1.1. contracted NGOs will facilitate participatory jamoat-level environmental analyses to help beneficiaries assess and understand the extent of resources, threats and impacts and the relationships between these factors at a scale broader than farm and village-levels. Similarly, jamoat-level assessments of community-based adaptation to climate change will be prepared. These assessments will enable participants to

factor in the potential impact of climate change on livelihoods and vulnerability to disasters by using local and scientific knowledge (where available, e.g., from Tajik Hydromet) of climate variability and change and its likely effects. Local knowledge will include information about trends and changes experienced by communities themselves and strategies they have used in the past to cope with similar shocks or gradual climatic changes. The project will then use the successful approach of village-level participatory appraisals and community action plans implemented under CAWMP, which promote fairness, equity, and transparency. Facilitating organizations will assist beneficiaries to identify and design appropriate investments that show clear linkages to the findings of environmental and climate change adaptation appraisals while taking into account environmental, economic and social feasibility.

27. ***Sub-component 2.2. Training, analysis, dissemination and networking.*** A program will be instituted to improve skills and knowledge through training courses, workshops, study tours and other activities, in key topics such as environmental assessment and monitoring; integrated land, water and grazing management; integrated pest management (IPM); gender issues and climate change adaptation. The project will support analytical work on topics that include soil quality and extent of land degradation, market development and access, potential incentive policies for sustainable land management practices, and changes in productivity and environmental conditions resulting from technological change, payment for environmental services, impacts of project supported pasture and water management activities, etc. The aim is to provide guidance for the design and sustainability of rural investments both within and beyond the project. The project will support the documentation, dissemination, and knowledge exchanges of successful project tools and approaches for their continued replication and support. Dissemination will be supported through a focus on exchange and learning between project sites and with similar initiatives, including farmer-to-farmer exchanges and best farmer practice competitions, plus sharing results and lessons learned with national and regional stakeholders at workshops/seminars. Contracted trainers, NGOs, and specialists will carry out programs at farmer, community, local government and management level. Support will also be included for project evaluation, including assessments at project mid-term and completion.

Component 3. Project Management and Coordination (US$2.00 million: US$1.5 million from PPCR and US$0.50 million from GEF)

28. This component will finance the operating costs of an Implementation Group (IG) within the Committee for Environmental Protection (CEP) to carry out project management functions for both Components 1 and 2. Support will be provided for procurement, financial management, coordination, reporting, and monitoring and evaluation. The IG will be responsible for coordinating with the country PPCR Secretariat, participation in PPCR program-level activities and ensuring project reporting is in line with the overall program/SPCR process.

B. Project Financing

Lending Instrument

29. **Financing Instrument.** The project will be a five-year operation, financed with grant resources from the PPCR (US$9.45 million) and GEF (US$5.4 million) trust funds, with a total project investment cost of US$14.85 million. Beneficiary contributions are estimated at

US$2.03 million. These contributions will be predominantly in-kind matches valued at 25% of project financing for rural investments under Component 1.

Project Cost and Financing

Project Components	Project cost	PPCR and GEF Financing	% Financing
1.Rural Product and Land Resource Management	US$ 10.14 M	US$ 8.11 M	80%
2.Knowledge Management and Institutional Support	US$ 4.74 M	US$ 4.74 M	100%
3.Project Management and Coordination	US$ 2.00 M	US$ 2.00 M	100%
Total Project Costs	US$16.88M	US$14.85 M	

30. Given the strong synergies between the DFID/GIZ Growth in Rural Economy and Agriculture (GREAT) program, supporting sustainable economic growth in rural areas, and the Environmental Land Management and Rural Livelihoods Project, the Bank, client and DFID/GIZ teams have agreed to coordinate during the implementation of both operations. Through this collaboration, the PPCR/GEF-supported producers will receive capacity building in market development under the GREAT program. Although the DFID/GIZ and PPCR/GEF financed operations will be implemented separately, the teams have estimated that approximately US$4.8 million under the GREAT program could be considered complementary financing to the Environmental Land Management and Rural Livelihoods Project.

C. Lessons Learned and Reflected in the Project Design

31. The project design reflects lessons learned and findings from past and on-going Bank financed projects and analytical work in Tajikistan, including CAWMP, LRCSP, PAMP I, Farmers and Farm Worker Perceptions of Land Reform and Sustainable Agriculture, and relevant findings from the PPCR Phase 1 Assessment of sustainable land management (SLM) and agriculture in the country. The project also reflects lessons learned from Bank-financed natural resource management and rural development projects in other countries (e.g., Kyrgyz Republic Agricultural Investment and Services Project). Experience from SLM and rural development projects of other donors in Tajikistan, e.g., DFID, GIZ, Aga Khan Foundation, Caritas, UNDP is also reflected in the project design. Key lessons are summarized below:

- *Smaller farming units with tenure security and having freedom to farm independently of government mandates* can contribute to increasing the adaptive capacities of farmers. In a study of farmer perceptions of land reform and agriculture in Tajikistan,[9] such farming units made more investments and adopted more environmental management practices than large collective farms.
- *Direct investment support to farmers through a systematic small grants program***,** coupled with facilitation and training can build entrepreneurial capacity through a learning-by-doing approach. Farmers can assume responsibility for sustaining their livelihoods in financially and environmentally sound ways. The project will also collaborate with other development partners to enable farmers to access support related to marketing and finance.

[9] World Bank and USAID (2012), Tajikistan: Farmer and Farmer Worker Perceptions of Land Reform and Sustainable Agriculture, Washington DC.

- *Fixed budgets with limits on funds available for each type of rural production investment, village and, household are effective ways for villagers to allocate resources.* Such mechanisms can foster prioritization of investments by cost-effectiveness and risk. Combined with participatory planning, they can also support even wider distribution of project financing than expected. Additionally, participants perceive these mechanisms as being fair and less susceptible to being captured by elites.
- *A multi-stakeholder approach to project implementation* with partnerships between government and civil society is worthwhile even in contexts where limited prior experience and local conditions make management challenging. Such approaches can improve project transparency and accountability, increase respect for partners' strengths, and provide new learning opportunities for project participants. The project will include an orientation phase at the start to help ensure stakeholders understand project objectives and approaches, and roles and responsibilities.
- *User groups, such as those for pasture and water, are feasible ways to improve resource management.* Community-based planning and implementation processes can contribute to sustainability and more equitable benefits. The project will include capacity building support to strengthen the long-term viability of these groups and will work with existing groups where possible.
- *Identifying and highlighting innovative farmers is an effective way to encourage replication* since these farmers demonstrate technologies that are adapted appropriately to local climatic and other conditions. The project will include competitions and the database developed under the PPCR Phase 1 assessment to identify such innovators and include them as part of training activities.

32. As mentioned above, lessons learned from the recently completed CAWMP indicated that direct investment support to farmers, coupled with facilitation and training, helped farmers assume responsibility for sustaining their livelihoods in environmentally sound ways. CAWMP also demonstrated that participatory planning along with village and household budget limits was an effective mechanism for villagers to prioritize and assess environmental risks, as well as allocate resources. To further disseminate this aspect, the process and results need to be documented and then shared widely with government, donors and other implementing agencies and organizations so that similar measures can be included in future planning processes. Lastly, CAWMP showed that providing CIG producers with greater marketing support to help their products reach commercial scale (e.g., value chain development) would have been beneficial.

33. The proposed Environmental Land Management and Rural Livelihoods Project will build on CAWMP's achievements and lessons; it will continue to promote successful community development mechanisms where support is provided at the village level to promote the adoption of innovative rural production and land management measures, by providing small-scale grants to help rural livelihoods become more resilient to climate change in selected climate vulnerable districts. In addition, it will expand support for climate change resilience and improved land management at larger scales by supporting pasture management and on-farm water management with resource user groups at jamoat and other levels, and also coordinating with other donors such as GIZ/DFID, through their GREAT program, to provide further opportunities of assisting project-supported producers in market development. The project will also explore opportunities for further scale-up of sustainable land management practices, by exploring incentive

mechanisms that can incorporate project lessons and results into national strategies, policies and programs, in an effort to ensure that there is the potential for broader replicability of these practices in the country. In this respect, the project will ensure that results and lessons learned are disseminated to national and regional stakeholders, projects and programs capitalizing where possible on the Government's project implementing agency's role as a focal point for international conventions and regional initiatives such as the Central Asia Countries Initiative for Land Management (CACILM).

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

34. **Project implementation.** The project follows the concept of community-driven development with CIGs or other community-based organizations such as PUGs or WUAs taking responsibility for the choice, design and management of rural investments and resource management plans. In support of sub-component 1.1., experienced, locally-based NGOs will facilitate community mobilization, participatory planning, identification of CIGs, rural investment planning and implementation, and will help build the technical and administrative capacities of these groups. Similarly, facilitation support will be contracted for the preparation of pasture and on-farm water management plans under sub-component 1.2., which will be implemented at larger scales of operation than the rural production investments. The contracted NGOs will coordinate with local government, other local NGOs, community-based organizations and other supporting organizations to provide these services as needed. Where present, government appointed jamoat-level agronomists will provide relevant technical assistance in the preparation of rural investments and resource management plans and participate in relevant project supported skills development activities. Fund flow arrangements are designed to be transparent with the transfer of grant funds from the IG to beneficiary accounts in local banks. Rural investment plans for villages and resource management will reference Jamoat Development Plans where these are available. District administration and line agency representatives will be will be included in a review process of rural investment proposals.

35. **Project management.** Given the project's emphasis on environmental land management and climate change resilience, the CEP with its mandate for natural resource management and climate change policy, as well environmental awareness raising and environmental monitoring, will serve as the project's implementing agency. In addition, the CEP, through the State Administration for Hydrometeorology is currently implementing the Bank/PPCR financed Central Asia Hydrometeorology Modernization Project. An Implementation Group (IG) established within the CEP, comprising existing CEP staff and contracted technical assistance, will have responsibility for project management and coordination functions. The IG will prepare overall project work plans and budgets, update operational manuals, facilitate inter-ministerial coordination, and carry out project administration (e.g., financial management, procurement, specialist recruitment, monitoring, evaluation and reporting). District CEPs will provide additional coordination, and technical and project management support at the field level. The project IG will contribute to the overall PPCR program, including reporting project results, lessons learned, etc., into the broader PPCR/SPCR results framework, participation in programmatic knowledge management activities and annual reviews, etc. The Secretariat

currently serves as the overall focal point for PPCR in Tajikistan, coordinates the overall PPCR program, including reporting on program-level results and impacts. As per their government responsibilities, the IG will report through the CEP to the respective Deputy Prime Minister.

36. An inter-ministerial commission will also be established to support interagency coordination, monitor project progress, as well as settle controversies that might arise during project implementation. The commission will be chaired by the CEP Chair, and will include representatives from the Ministry of Agriculture, State Committee for Land Use and Geodesy, Committee for Women and Family Affairs, Academy of Agricultural Sciences, State Committee for Investment and State Property, Ministry of Energy and Industry, and Ministry of Land Reclamation and Water Resources. The PPCR Secretariat will also serve as a mechanism for inter-ministerial coordination and sharing of information about project activities and any concerns.

37. **Coordination with development partners.** The project, under the leadership of the CEP, will collaborate with international donors active in rural development, agriculture and related sectors. The DFID supported GREAT project implemented by GIZ has strong synergies with the project, and it is expected to provide opportunities for capacity building of PPCR/GEF-supported producers. The project will also coordinate closely with the United States Agency for International Development, especially with their Family Farming Project that is supporting food security efforts including the establishment of WUAs. Other agencies active in land resource management and rural development with which the project is expected to coordinate include UNDP, Food and Agricultural Organization, IFAD, Caritas-Switzerland, as well as ADB, which is also implementing PPCR-financed projects.

B. Results Monitoring and Evaluation (M&E)

38. A Project Results Framework is provided in Annex 1. The project's M&E system will involve the Implementation Group, regional CEP offices, facilitating organizations, community based organizations, project beneficiaries and other stakeholders, e.g., schools, as needed. The M&E system will reflect relevant experience and good practice in Tajikistan and elsewhere, highlighting the roles of different project partners in collecting, processing and disseminating essential project data and results. Output monitoring will take into account the challenges of remoteness and poor communications infrastructure of project sites, as well as limited and variable local capacities. Data collection and reporting formats for field-based partners will aim to capture essential information while being relatively straightforward to implement. Outcome monitoring and project impact assessments will make use of the data collected by field-based partners, as well as specialized data collection and analyses conducted with external technical assistance as needed. Monitoring and evaluation will make use of primary data collected from the project sites and beneficiaries, and supplemented by secondary data from existing sources. The project will also report on project performance using the GEF Land Degradation Tracking Tool.

39. During the project's preparation, a detailed 'Guide for project monitoring and evaluation' will be produced as part of the Project Operational Manual. The document will provide guidance on the roles and responsibilities of project beneficiaries and partners, plus other relevant stakeholders in collecting, analyzing and communicating project data and results.

The Guide will stress, in particular, issues and approaches related to the monitoring of livelihood impacts, and sustainable land and water management activities including their relationship with the project Environmental Management Framework. The M&E unit of the Implementation Group will coordinate and oversee project M&E including progress reporting to relevant stakeholders. By producing timely and pertinent information, the M&E system will be a key management instrument aimed at helping decision-making processes and support adaptive management. The project is expected to contribute to CEP's mandate to monitor and report on natural resource management both for national and international audiences. To date, limited resources and technical skills have affected their activities in this regard.

C. Sustainability

40. Agriculture production investments that provide an incentive framework and source of financing for improved climate change adaptation and environmental land management will contribute to the sustainability of rural investments and reducing vulnerability to climate risks. The use of community-driven development is also expected to contribute to generating long-term benefits. Whether as CIGs, PUGs or WUAs, farmers and villagers will be key decision-makers on what investments to implement, who should benefit and the distribution of financial resources across the various investments, thus building ownership. Proposals for these investments and plans will require that participants consider economic, climate change risks, environmental and social/institutional sustainability, e.g., cash flows and cost recovery arrangements, environmental conservation and mitigation measures, working with existing community or resource-based institutions or establishing organizations such as pasture user groups to support long-term operations. Villagers will also be responsible for financial management of and procurement for investments. Furthermore, the requirement of beneficiary contributions (including cash contributions for rural infrastructure) will help build ownership and also contribute to the sustainability of these investments. Institutional sustainability will be addressed through capacity building of the participating rural population, community-based organizations, participating NGOs, the CEP and relevant line ministries. Through field-based implementation and collaboration with facilitating organizations and others on how to better support communities in coping with climate change risks, it is expected that the CEP will be better equipped to mainstream these approaches in regional and national programs and planning exercises. It should be noted that CEP is also leading the development of a national adaptation strategy and that project results and lessons will be key inputs into this process.

41. The project will coordinate closely with the PPCR component Building Capacity for Climate Resilience so that national planning and policy for adaptation takes into account project experiences and results from community-driven approaches. In particular, the project will provide valuable field-based practical experience of participatory approaches implemented at scale that brought together a variety of stakeholders and made available a range of information sources, e.g., combining local knowledge and experience of climate variability with weather data from Hydromet. Through the project's knowledge management activities and as part of the larger PPCR, policy makers and other interested parties will have access to new data and analyses of rural livelihood, land management and climate change issues. Finally, the project can provide insight into and data for policy makers about the role of women in rural production; a critical contribution given the changing demographics in Tajikistan's rural sector.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

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

B. Overall Risk Rating Explanation

42. The overall risk rating for implementation is moderate. The incorporation of experience and lessons learned from previous and current projects reduce the likelihood of project risks associated with design, environmental and social issues, markets, and sustainability. The more substantial risks for implementation stem from implementing agency capacity and the project's community driven development approach.

43. Key risks with mitigation measures include:

- *Implementing agency.* CEP experience with managing World Bank financed projects is limited with a risk that project start-up and certain aspects of implementation are delayed. A work plan to help ensure that ECA readiness requirements for implementation can be met was prepared. Fiduciary and technical capacities within existing CEP staff appointed to the Implementation Group have been assessed, and areas for additional support have been identified. Implementation of a training plan will further increase IG management capacities.
- *Community Driven Development approach.* There is a lack of procurement and financial management knowledge and capacity at the community level, resulting in the risk that implementation could be delayed. To mitigate this risk, procurement training will be provided to facilitating organizations to support communities in developing grant proposals, and facilitating organizations will also provide technical support to communities to assist them in subproject implementation and oversight.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analyses

44. The project is expected to generate a variety of benefits not all of which can be quantified. Key benefits will include increased agricultural productivity resulting in greater household financial capital and contributions to national-level economic growth, and improved capacities and knowledge in sustainable agricultural practices. This will promote more environmentally sound land mangement practices at farm-level and also the sustainability of project benefits. The beneficiary requirement and the selection of village investments within fixed budget constraints provide an incentive, which encourages prioritization of investments with maximized marginal returns within a site-specific context. Productivity increases will be expected in rain-fed and irrigated systems, horticultural crops (fruit and nut trees), agro-forestry systems (especially intercropped woodlots), livestock and fodder production. Project funds will not be used to provide loans. In the base case (20% attrition of participants, lower end of range of gross revenue estimates, 12% discount range, 20 year time horizon) including all other project management, institutional support and knowledge management costs, the financial internal rate of return for the project is estimated at 46%. The high returns are driven in mainly by the investments in farm productivity and land management. But it should be noted that given the nature of investments, returns are expected to show considerable variation. The net present value of the project is calculated to be about US$14 million (using a discount rate of 12%). The NPV becomes positive in Year 6 as a significant number of investments are expected to reach full development. Benefits will be sustained through farmers, CIGs and resource user groups/associations acquiring the knowledge and capacity to transform their practices, and through widespread adoption by these beneficiaries of incentives linking economic returns to better evironmentally sound land management, and usufruct rights with stewardship responsibilities. Investment in the country's pastures builds the basis for these areas to provide critical ecosystem services important for climate change resilience to many millions of downstream populations in Tajikistan and other Central Asian countries who are dependent on irrigation, drinking water, hydropower, and other benefits. Social and institutional networks and relationships will be strengthened benefiting the management of key resources such as water and pasture, as well as the generation of economic returns.

B. Technical

45. The project promotes a number of technologies for environmental land management and livelihood strategies. Many of these are being demonstrated and shown to be effective in Tajikistan (see inventory in PPCR Phase 1 SLM and Agriculture assessment, CAWMP Implementation Completion and Results Report), while others will reflect globally available good practice examples. Throughout, the project will build on local knowledge and technologies, as well as relevant international good practice. For the small-scale infrastructure works, existing national standards will be applied and the selection of technologies will take into account the need for simple maintenance that groups of farmers or herders can undertake themselves. Thus no significant technical challenge is expected, but technical capacity to support widespread adoption and dissemination will need to be strengthened and increased.

C. Financial Management and Disbursement

46. All fiduciary functions for the project, including financial management and disbursement, will be carried by the Implementation Group (IG) organized internally within the Committee for Environmental Protection of the Republic of Tajikistan (CEP). This IG within the CEP has no prior experience in implementing World Bank-financed projects. The Chairman of the CEP will appoint a Deputy Chairman as the Project Director, in charge of project management. The Project Director will take operational decisions, exercise fiduciary responsibilities and ensure project implementation according to a Project Implementation Plan. The Chief Accountant of the CEP has overall responsibility for financial management arrangements and a Financial Management (FM) Consultant and a Disbursement Consultant will be hired within the IG to support the Chief Accountant in maintaining adequate financial management arrangements.

47. An assessment of the financial management arrangements was undertaken in October 2012, updated in January 2013, which confirmed that the FM arrangements currently do not yet fully meet the necessary FM and disbursement requirements but upon meeting two conditions of effectiveness (see below), the CEP will fully satisfy the Bank's fiduciary requirements.

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

Recommended Actions for Capacity Building	Responsibility	Completion Date
1. Sign a contract for the procurement, installation and adaptation of the 1C accounting software that will be utilized by CEP for project accounting, budgeting and reporting. CEP has to make provisions for adequate training on the accounting system for its effective use by FM and Disbursement staff. The accounting system will have inbuilt controls to ensure data security, integrity and reliability, and the functionality of automatic generation of IFRs.	CEP	By Effectiveness
2. Recruit FM and disbursement consultants to support the finance staff of the CEP, who will be responsible for project FM and disbursement functions.	CEP	By Effectiveness

49. The IG will open two Designated Accounts (DAs) in US$ (one for the PPCR Grant and the other for the GEF Grant). Given the large volume of small value transactions to the communities as well as a very tight payment schedule due to the seasonality of activities, it is recommended to open the DAs in a financial institution capable of managing such transactions in a very timely manner.

50. For example, under Component 1 of the Project, the project estimates that there will be approximately 2,500 subprojects (investments designed and implemented at the community level) that will require approximately 5,500 – 6,000 fund transfers from the project's Designated Account to an account at the community level. These transfers are expected to be greatest during the period between CY2014 to CY2017; where in one year up to approximately 2,500 transfers will need to be made in the space of 5 to 6 months. Subproject activities implemented at the

community level will be seasonal in nature. If a transfer is not made in a timely fashion (in some cases within 2 weeks period), it is possible that a planned subproject could be delayed for one year. For example, planting of crops and trees have short seasonal planting windows to guarantee their survival. This means that disbursement delays of even two weeks could have disruptive consequences on the project's implementation and performance.

51. The law on the state budget for CY2013 allows the budget organizations to use commercial banks for the implementation of external (international) grants. Consequently, it is suggested to open the DAs in a commercial bank acceptable to the Bank for this operation. At a later date, the Bank and Government will review the possibility of transferring the DAs to the Treasury, once the Treasury transition from TMIS to SGBNet is complete. The ceiling for the Designated Accounts and other disbursement details will be provided in the Disbursement Letter.

52. Project management-oriented IFRs will be prepared under the project. The CEP will be required to adopt the accounting software with capacity to generate the reports required by the Bank. The local FM Consultant will be responsible for submission of interim un-audited financial reports (IFRs) that will be generated by the accounting software based on formats agreed with the World Bank. The reports, to include Statement of Sources and Uses of Funds, Uses of Funds by Project activities (Components & Expenditure Categories) and Statements of Designated Accounts (DAs), will be submitted to the World Bank within 45 days after the end of each quarter, with the first reports under the proposed Project being submitted after the end of the first full quarter following initial disbursement.

53. The CEP does not have any overdue audits.

54. The annual audited financial statements together with the auditor's opinions and the management letter will be provided to the Bank within six months after the end of each Client fiscal year or after the project's closing date. The project audit will include the project financial statements, SOEs and DA Statements. The cost of the audit will be financed from the project funds. Following the Bank's formal receipt of the audited financial statements from the Client, the Bank will make them available to the public in accordance with the Bank's Access to Information (AI) Policy through its website. In addition, the Client will publish the audit reports in a manner satisfactory to the Bank.

D. Procurement

55. Procurement for the proposed Project will be carried out in accordance with World Bank Guidelines. Specifically, procurement will be carried out in accordance with: (i) "Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers," dated January 2011; (ii) "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers," dated January 2011; and (iii) the provisions stipulated in the Grant Agreements. The World Bank Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credit and Grants, dated October 15, 2006 and revised on January 2011, would also apply. Further, the project's procurement arrangements are in line with the Guidance Note for Design and Management of Procurement Responsibilities in Community-Driven Development Projects, dated March 15, 2012.

56. A procurement capacity assessment of the Implementation Group (IG), relevant staffing, and systems was carried out in the proposed IG of the CEP in October 2012. Generally, CEP has staff in place for their own procurement following national procurement procedures, but has no prior experience with World Bank-financed procurement and community driven development procedures, as well as contracting facilitation assistance. The procurement risk is rated as high. Procurement capacity needs to be both strengthened and increased to meet project requirements. Measures to address this limitation include development of a manual of procurement procedures, including guidelines for community procurement, accompanied by training for all relevant CEP staff and stakeholders during implementation, and appointing a procurement consultant familiar with Bank procurement procedures following the project's effectiveness. An initial procurement plan and key draft terms of reference covering the first 18 months of project implementation were developed prior to negotiations. Details on procurement arrangements are included in Annex 3.

E. Social (including Safeguards)

57. The project will not fund any activities that may result in land acquisition, involuntary re-settlement or livelihood displacement. Under component 1, subprojects financed through grants to farmers will be screened to ensure they will not result in the involuntary resettlement or economic displacement of any third parties. This will be done using a checklist in the Project Operational Manual. Community pasture management plans may restrict access for regeneration, but as temporary measures that will increase grazing resources in the long-term. The OP 4.12. is not considered to be triggered since such restrictions will be community-driven. The Project Operational Manual will provide guidelines for parties to negotiate mutually agreeable arrangements in cases where conflicts may arise from transhumance pastoral activities and the negotiations will be documented.

58. **Gender and social inclusion.** The cultural roles of women in Tajikistan influence their participation in rural livelihood strategies, but can vary widely across regions. Despite the fact that is widely acknowledged that women carry out most of the agricultural labor in the country, relatively few have meaningful decision-making power. The project will seek to address gender and social inclusion issues through its use of participatory processes, and the monitoring and evaluation of project results. Where appropriate, the project will coordinate activities with the Committee for Women and Family Affairs.

59. *Rural investment planning and management.* Facilitating organizations will be required to have expertise in working on gender issues and with vulnerable and marginal groups, as well as in using participatory techniques. Community mobilization activities will use mechanisms that help ensure participation, e.g., women only sessions, hold meetings when women, the elderly, etc., can participate. Participatory rural appraisal will include tools that identify and describe the status and extent of marginal groups. Local organizations and groups will also be appraised for gender and their inclusion of women and the poor, and possible actions identified to address inequities. Where inequitable arrangements are found that exclude or marginalize vulnerable groups, opportunities will be sought where possible to address these inequities, e.g., targeting a proportion of certain types of production investments to groups of vulnerable households. The choice of rural investments will build on the skills, interests and motivation of

marginal groups including women, e.g., roles in water management, decisions on crop choices. Rural investment design will take into account women's roles and responsibilities, including establishing women only groups if appropriate. The choice of training methods will take into account the preferred methods of learning of women and others, e.g., single-sex groups, women-to-women exchanges. The project will also explore mechanisms, such as financial incentives, to encourage female participation in the management of resource user groups.

60. *Monitoring and evaluation.* At the village and jamoat-level, monitoring and evaluation will include all relevant stakeholders and make use of participatory techniques to help define indicators, as well as in data collection and analysis. Within the IG, resources will be allocated to provide technical assistance to oversee and monitor social development aspects of the project. Gender disaggregated data will be collected and analyzed regarding project beneficiaries, and representation in participating community-based organizations.

61. **Stakeholder participation.** Stakeholders include rural households, national and international NGOs, national and local government agencies and institutions, donors, and relevant members of the private sector. This project reflects relevant findings and recommendations of the PPCR Phase 1 assessment of sustainable land management and agriculture, which included participatory processes and numerous stakeholder consultations at local, regional and national levels. With its community-driven development focus, local farmers and villagers will take the lead in decision-making on investment choices, with the support of a range of other stakeholders. Partnerships between government and civil society are important aspects of project implementation, and will contribute to transparency and accountability plus provide new learning opportunities for project participants. The project will collaborate with a number of donor agencies to build on synergies and avoid duplication of efforts.

F. Environment (including Safeguards)

62. The environmental impact of the project is expected to be largely positive and no major adverse environmental impacts are anticipated. The project supports investments in rural production and land resource management, which will be selected and designed by local communities with the technical assistance from NGOs and specialists. The project is expected to increase the adoption of effective agricultural, land, and water management practices in the project sites and thus contribute to soil and water conservation, and building climate resilience. The project falls under category B – partial assessment, and an Environmental Management Framework (EMF) has been prepared. Consultations on the EMF were completed on December 18, 2012 and the document was made available to the InfoShop on February 5, 2013 and released within Tajikistan on February 6, 2013.

63. The EMF covers Component 1 activities, and takes into account lessons learned from relevant projects (e.g., CAWMP, LRCSP) to help ensure that the measures included are within the country's implementation capacity. The EMF provides details on rural investment, and pasture and on-farm water management plan preparation and approvals, and sets out responsibilities for environmental monitoring by project partners that include beneficiaries, facilitating organizations, the IG, local authorities/specialists and relevant line ministries. Rural investments financed through the provision of small grants (including those proposed under pasture and on-farm water management plans) to farmers will be screened to ensure that they do

not result in adverse impacts on the environment. Proposals will identify potential environmental impacts of activities, and include mitigation measures for any likely negative impacts. Grant agreements will specify conditions, including environmental compliance, for release of tranche payments to farmers. The project does not include any investment in dams, and construction of new canals or head works that will increase water extraction from main sources. The project does not include construction of new roads. The project area does not include parks or sanctuaries or other areas of high biodiversity significance.

64. Project impacts on natural habitats are expected to be generally positive. Investments to reduce grazing pressures around settlements through increased access to remote summer pastures may affect the biodiversity values of these areas. The OP 4.04 is triggered to take into account risks associated with access to summer pastures that may involve adverse impacts on biodiversity. The EMF includes procedures for screening the risks of proposed subprojects and identifying measures to mitigate these risks, as well as enhance biodiversity values. Rapid ecological baselines and environmental assessment of potentially affected areas will be conducted as needed on a case-by-case basis. The project will include capacity-building activities to assist local institutions, NGOs and beneficiaries to engage in adaptive management of natural habitats.

65. The project will support more systematic adoption of Integrated Pest Management (IPM) as elements of rural production investments. However, investments financed by the project could lead to agricultural intensification and increased production of high-value crops, which can trigger an increased use of agrochemicals, including pesticides. Experience with other projects (e.g., CAWMP, LRCSP) showed that a complicated and comprehensive separate Pest Management Plan (PMP) was too ambitious to implement as a result of low skills and knowledge among local farmers. As result, for this project a more effective approach to reducing the application of harmful pesticides will focus on knowledge and skills building with field trainings on demonstration plots selected from practices of innovative and effective farmers. The EMF will include a special section on pest management-related environmental risks.

Annex 1: Results Framework and Monitoring

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project
Results Framework

Project Development Objective and Global Environmental Objective: To enable rural people to increase their productive assets in ways that improve natural resource management and resilience to climate change in selected climate vulnerable sites

PDO Level Results Indicators*	Core	Unit of Measure	Baseline	Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description (indicator definition etc.)/Comment
				YR1	YR2	YR3	YR4	YR5				
1. Number of households supported [in project area] that have adopted climate change and sustainable land management practices[10]		The number of households	0	2,000	6,800	13,800	19,500	21,000	Quarterly reports from field partners, bi-annual reports from IG	Rural investments records and database, project reports, satellite imagery.	Jamoat-level bodies, facilitating organizations, IG, District CEPs, specialists	Cumulative target. Households may participate in more than one investment.[11]
2. Land users adopting sustainable land management practices as a result of the project	X	The number of households	0	800	4,400	8,200	10,000	12,000	Quarterly reports from field partners, bi-annual reports from IG	Rural investments records and database, project reports, satellite imagery.	Jamoat-level bodies, facilitating organizations, IG, District CEPs, specialists	Cumulative target.
3. Proportion of population by household in target villages reporting at least XX% increase in well-being or household/livelihood assets[12]		The % of households	0			33%		50%	Baseline, end of project	Field surveys, interviews, participatory appraisals,	Contracted specialists, IG	Index of well-being or household assets developed through a

[10] Relates to PPCR Transformation Indicator (core) A1.3 (December 2012)
[11] Overlap between farm production and land management will be estimated and the number reduced accordingly. Households participating in rural infrastructure investments will not be included since all households in a village can benefit.
[12] Relates to PPCR Transformation Indicator A1.1 (December 2012)

												participatory process.[13] Disaggregated by gender.
4. Number of hectares in project area covered by effective agricultural, land and water management practices suited to local agro-ecological conditions and climate change resilience[14]		The number of hectares	0	1,000	8,000	18,000	25,000	30,000	Quarterly reports from field partners, bi-annual reports from IG	Rural investment records and database, field surveys, project reports, satellite imagery,	Jamoat-level bodies, IG. District CEPs	Cumulative target. Includes both directly and indirectly affected areas.[15]
5a. Direct project beneficiaries 5b. Proportion of project beneficiaries who are women	X X	The number of beneficiaries Percentage	0 0	12000	40080	108000 33%	117000	126000 40%	Quarterly reports from field partners, bi-annual reports from IG	Rural investments records and database, interviews, project reports	Jamoat-level bodies, facilitating organizations, IG, District CEPs, beneficiaries	
Intermediate Results												
Intermediate Results (Component One): Rural Production and Land Resource Management Investments.												
1.1. Total value in USD m of rural		USD	0	0.85m	3.19m	6.98m	9.34m	10.14m	Quarterly	Financial	IG,	Cumulative

[13] Index will be developed through a participatory approach at the project's outset, and then apply this more systematically through a simple survey type activity at mid-term and then at project completion.

[14] GEF Land Degradation Focal Area Strategy expected outcome indicator for Strategic Objective 1

[15] Area affected by direct (e.g., area under drip irrigation, crop rotation, new crop varieties, etc.) and indirect (e.g., summer pasture made available through provision of watering holes, livestock shelter) practices and investments which result in at least one of the following:

- Prevent or reduce soil erosion
- Increase vegetative cover through perennial crops and pasture
- Provide soil and moisture conservation
- Improve soil quality
- Improve water use efficiency
- Increase sustainable fodder or wood supply
- Increase sustainable renewable energy supply
- Extend integrated pest management

production and land resource management investments (including at least 25% beneficiary match) in villages where project is operational									reports from field partners, bi-annual reports from IG	reports, rural investment records and database		target. Component 1.1 only
1.2.1. Number of pasture management plans under implementation by Pasture User Groups 1.2.2. Number of on-farm water management plans under implementation by Water User Associations in lowland areas		The number of plans	0 0	0 0	4 4	8 8	8 8	8 8	Bi-annually	Project reports	IG	Cumulative number, targets may change depending on sites selected during year one of implementation
1.3 Hectares in which local communities have adopted management practices in land use and land use change, resulting in restoration and enhancement of carbon stocks.		The number of hectares	0	1,000	8,000	18,000	25,000	30,000	Year 2 and 5	Satellite imagery, ground truthing project plots, subprojects database, projects reports		Technical assistance to develop methodology and overall support
Intermediate Results (Component Two): Knowledge Management and Institutional Support.												
2.1. Degree to which villages have integrated climate change adaptation and environmental appraisals into community action plans and are implementing appropriate investments[16]		The rating on scorecards	0					At least 75% of plans will have acceptable	Quarterly reports from field partners, bi-annual reports from IG	Project records and reports, scorecard developed to assess plans and their implementation	Jamoat-level bodies, facilitating organizations, IG	

[16] Relates to PPCR Program Outcomes Indicator (core) B1 (December 2012)

								scores				
2.2. Number of client days of training provided in organizational and technical topics		The number of days	0	2,500	17,000	15,500	7,000		Quarterly reports from field partners, bi-annual reports from IG	Project reports	Jamoat-level bodies, facilitating organizations, IG	Assumes one person per benefitting hh participates in 2 days training, results disaggregated by gender

Annex 2: Detailed Project Description

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project

Project Sites

1. Project sites will comprise districts in three different agro-ecological zones - uplands, hill lands and lowlands – as recommended by the PPCR Component A5 Phase 1 Agriculture and Sustainable Land Management Report. District and site selection will take into account: (i) degree of climate and other environmental vulnerability; (ii) degree of farm restructuring; (iii) representation of upland, hill land and lowland areas and contiguity of sites to facilitate resource management approaches (watershed, river basin); (iv) potential to sustainably increase food security and agricultural growth, and successful environmental management; and (v) donor complementarity and avoidance of duplication.[17] Care will also be taken to coordinate with efforts of other projects and donors, including the Bank's Second Public Employment for Sustainable Agriculture and Public Employment (PAMP 2) project, USAID's Family Farming Project, and Asian Development Bank (ADB). The project will also use, where possible, the outputs of other PPCR and GEF operations, e.g., the expanded range of hydromet products for consumers, agro-biodiversity inventories.

Project Phasing

2. Project activities will be phased to better manage implementation and to build upon lessons learned in earlier stages. There will be an orientation phase for all relevant stakeholders so that they are better informed about the project goals, approaches and activities. Sub-component 1.1. (Sustainable village based rural production and land resource management) will begin implementation in upland and lowland sites in year 1, with the middle hill districts entering the project in Year 3. Within districts, jamoats and villages will also be phased in gradually. Each village will have two years to receive support from the project and implement the associated investments. Sub-component 1.2 will also be phased in, with pasture and water management plan development starting in Year 1, for about half of the WUAs and PUGs (four each) and in the second year for the other half. Implementation of the plans will begin in the second year. The preparation and implementation of the plans for each WUA and PUG would be completed over a three-year period.

Project Components

3. **Component 1. Rural Production and Land Resource Management Investments (Total US$10.14 million of which US$8.11 million project financing and $2.03million beneficiary contribution).** This component provides grant financing to communities in selected climate vulnerable sites to implement rural production and land and water resource management investments. The first sub-component supports village-level investment implementation. A second sub-component supports user groups and associations to implement pasture and on-farm

[17] Project activities will likely focus on the districts of Farkhor, Kulob, Khovaling, Baljuvan, Tavildara, and Jirgatol, plus additional districts in the Kulob sub-region of Khatlon for the WUA activity (sub-component 1.2).

water management at larger scales. Technical assistance for planning, monitoring and evaluating these investments is provided in Component 2.

4. ***Sub-component 1.1. Sustainable village-based rural production and land resource management (US$6.51 million project financing).*** This sub-component aims to promote the adoption of innovative rural production and land management measures, and related small-scale infrastructure investments, by providing small-scale grants at the village level to help rural livelihoods become more resilient to climate change. The project will use a similar approach of participatory village action planning implemented under CAWMP and other projects, which promotes fairness, equity, and transparency. Villages will prioritize investments based on a fixed budget for each type of rural investment determined by the number of households. Within a village plan, participants will decide on the allocation of investments to groups of households (Common Interest Groups, CIGs) using rules that limit the funding for any one household. Villages will use a toolkit with best practices (e.g., those documented in the Phase 1 Assessment on sustainable land management) to ensure that those investments selected are the most appropriate in relation to the climate and environmental risks identified in the jamoat-level assessments. Only those investments that have clear linkages to the findings of community adaptation and environmental appraisals and that address environmental (at village and jamoat-level), economic, and social feasibility will be financed. This represents a departure from business-as-usual development planning. Communities will factor not only climate risks at the farm level, but also take into account broader environmental and climate relationships and impacts at the jamoat level.

5. The project will finance investments in three categories that are expected to improve household assets and sustainable land management, and build climate resilience, examples of which are listed below:

(i) Farm Production: field and horticultural crop productivity and diversity (e.g., crop rotations, drought resistant varieties, diversified cropping regimes, community seed funds, low-cost greenhouses), livestock production efficiency (e.g., breed choice, veterinary services), agro-processing and market access;

(ii) Land Resource Management: pasture management (e.g., fodder productivity through appropriate species, rotational grazing, watering holes, growing perennials on slopes), water management (e.g., drip irrigation and similar measures, water harvesting), soil fertility (e.g., composting, mulch crops) integrated pest management (e.g., use of pheromone traps, biological controls) and sustainable sloping lands cultivation (including terracing, intercropped orchards and woodlots, shelter-belts); and

(iii) Small-scale Rural Production Infrastructure: irrigation/drainage system rehabilitation, minor transport infrastructure rehabilitation (e.g., repair of bridges), renewable energy (e.g., low cost solar energy, and energy efficiency measures (e.g., improved stoves, insulation).

6. *Budget constraints and beneficiary contribution requirements.* Investment proposals will be prioritized within formula-based fixed budgets for each category for each village as a whole. Each participating household will have a limit placed on the value of a one-time grant that they can receive for either farm production or land resource management or rural infrastructure. At least 50% of the village households should participate in either farm production or land resource management investments. Project-financed grants to CIGs for each investment under categories

(i), (ii), and (iii) will not exceed US$7,000 and will require a match of 25% in beneficiary contributions which may be in cash or in-kind. Beneficiaries of rural infrastructure investments (category iii above) will have to contribute at least 5% of the total cost in cash at inception. Grants under this subcomponent will be disbursed in tranches directly to beneficiaries or groups to their own bank account with Amanatbank that has branches in most Jamoats.

7. ***Sub-component 1.2. Larger-scale initiatives in sustainable community land management (US$1.60 million project financing).*** Certain aspects of natural resource management and climate change adaptation are better addressed at scales beyond the village. Of particular concern, to both sustainable land management and productive rural livelihoods in the context of climate change, are pasture management and on-farm water management. While pasture degradation and access are pressing issues in both lowland and upland areas, the consequences of poor water management are especially critical in lowland areas where agriculture depends primarily on irrigation. Project support to improve and strengthen knowledge, skills and organizational arrangements at the farmer and community-level for transforming land resource management practices will be critical to building adaptive capacity, and thus resilience to climate change. This subcomponent will support the implementation of community-based a) pasture and livestock management plans; and b) on-farm water management in irrigated areas. Funds will be provided for pasture user groups (PUGs) and water user associations (WUAs) to implement a variety of eligible investments to sustainably improve resource management and productivity, as well as associated training and demonstration activities. Funds for the implementation of the plans will be provided through the Implementation Group directly to the user groups or associations as defined in sub-grant agreements in tranches based on achievement of agreed milestones.

8. *1.2.1 Sustainable community pasture management.* To help mitigate the effects of climate change on the rural population and slow degradation processes, the project will introduce and demonstrate sustainable pasture/fodder-based livestock production systems in selected areas. The sub-component builds on the work of Caritas Switzerland program with livestock groups in Muminabad District, a pilot carried out during the Bank-funded CAWMP in Dar-Dar Jamoat in Aini District, and other organizations active in pasture issues. The approach includes the establishment of Pasture User Groups (PUGs) primarily at village and jamoat levels (and at district level, if needed, depending on resource use regimes).

9. Up to eight participatory pasture and livestock management plans will be financed, and grants requiring at least 25% beneficiary match provided to Pasture User Groups (PUGs) for plan implementation. The PUGs will be responsible for implementing the plans and will be formed (or strengthened if already existing) at the village level. Within specified budget limits, the plan will identify: (a) measures to improve pasture productivity and sustainability, such as rotational grazing, protecting areas for regeneration, pasture rehabilitation, improving access to remote pastures, and needs for supplementary fodder production; (b) grazing utilization levels; (c) animal health requirements and breed improvement measures; (d) investment needs; and (e) implementation responsibilities, targets and indicators.

10. Investments could include: (i) infrastructure to access and use remote pastures, such as spot road improvements, stock watering points, shelters and stock-pens, and milk cooling

equipment; (ii) small machinery to produce and harvest fodder; (iii) rehabilitation measures for degraded areas such as fencing, weed and shrub control, and re-seeding; (iv) inputs for supplementary fodder production such as seeds; (v) vaccinations and parasite control; and (vi) artificial insemination. Grant funds could also be used for training and for provision of office equipment and furnishings for PUGs. Plans may need to include arrangements for access to and management practices/rules for grazing areas that are beyond the jamoat boundaries in other areas of the district and even further. Activities will also include a demonstration program of field days, publications such as leaflets, and videos and broadcasts (funded under sub-component 2.2.). This sub-component will not support any measures that could lead to overgrazing and its harmful impacts. Use of pesticides under WHO Class 1a and 1b and Class II, purchase of stock for production, ploughing of steep slopes without terracing, activities on protected areas such as National Parks or Reserves, dam construction (for stock watering points) of more than 3 m in height, or any other activities increasing environmental risks and hazards.

11. *1.2.2. On-farm water management in lowland areas.* To help mitigate the effects of climate change on the rural population, the project will focus on improving on-farm water management, including promotion of efficient irrigation technologies; water-efficient crops and varieties; sustainable land management; and crop productivity. Activities will build on the work of other projects that have helped to establish WUAs and will work with existing WUAs that are functioning well, primarily in lowland areas.

12. The project will provide grant financing for up to eight plans to be implemented by WUAs, and which will require a 25% match (as cash or in-kind) in beneficiary contributions. At least 80% of the WUA managed area will have to be under family farms to help ensure sustainability of investments. Investments could include: a) provision of equipment for drip irrigation and land-leveling; b) cleaning drains to alleviate waterlogging and for salinity control; c) provision of seedlings for planting shelter belts, protecting canals, and as an intercrop; d) materials for conservation agriculture; and e) seeds of improved drought, pest, disease, and salt-tolerant varieties. Grant funds could also be used for training and for provision of office equipment and furnishings for WUAs. The plan will also include implementation responsibilities, targets and indicators, plus a demonstration program of field days, publication such as leaflets, and videos and broadcasts (funded under sub-component 2.2). Non-eligible activities include: construction or purchase of buildings; use of pesticides under WHO Class 1a and 1b and Class II; growing of tobacco or other products; purchase of inputs other than those required for establishing demonstrations; or dam construction of more than 3 m in height.

13. **Component 2. Knowledge Management and Institutional Support (US$4.74 million).** This component provides facilitation services and technical and institutional support, for rural populations to plan, implement and manage rural investments. Relevant data collection and analysis, and information exchange for wider adoption of sustainable land management will also be supported.

14. ***Sub-component 2.1. Facilitation support and technical advice.*** This sub-component will support community mobilization, participatory planning and implementation support of plans at village-level, and at larger scales in the case of pasture and on-farm water management.

15. *Sustainable village-based rural production and land resource management.* Locally-based international agencies and NGOs, as well as national NGOs, with a track record in similar activities will be contracted to facilitate participatory planning, identify CIGs, assist groups in the preparation, implementation and monitoring of rural investments (funded under Component 1), and build the technical and administrative capacities of these groups. NGOs will need to include communication activities for project stakeholders, especially at the start of site-based work, to ensure a clear understanding of the project. Training of project beneficiaries and partners, including local community organizations, in group operations and technical aspects of rural production investments will be an important element of facilitation assistance. Topics will include a range of environmental, organizational, social, financial management, procurement, and technical issues relevant to community planning and implementation.

16. *Participatory environmental, climate change and village appraisals.* Prior to village level planning under sub-component 1.1., participatory jamoat-level environmental analyses will be conducted to help beneficiaries assess and understand the extent of resources, threats and impacts and the relationships between these factors. Similarly, participatory jamoat-level assessments of community-based adaptation to climate change will be prepared. These assessments will enable participants to factor in the potential impact of climate change on livelihoods and vulnerability to disasters by using local and scientific knowledge (where available, e.g., Tajik Hydromet data) of climate variability and change and its likely effects. Local knowledge will include information about trends and changes experienced by communities themselves and strategies these communities have used in the past to cope with similar shocks or gradual climatic changes. These appraisals will provide context and information for participatory village-level assessments that will cover key social, economic, environmental issues and climate risks. Villagers will then prepare action plans based on these findings and in conjunction with the financial rules, indicate the proposed investments and beneficiaries (as CIGs), and overall costs. In order to be financed, investments proposed by beneficiaries will need to show clear linkages to the findings of environmental and climate change adaptation appraisals while taking into account environmental, economic and social feasibility and financing rules.

17. Organizations will also help arrange the local appraisal of rural investment proposals, as well as any necessary permissions or technical support from local authorities. The contracted agencies/NGOs will coordinate with local government, NGOs, and other supporting organizations, include collaborating projects such as GREAT, to provide these services as needed. The project will also partially finance costs for community-based agencies such as Jamoat Resource Centers (JRCs), Social Unions for Development of Village Organizations (SUDVOs) or other civil society organizations, and local institutions such as schools so that they can provide technical support to and engage with to CIGs and other village-based organizations.

18. *Larger-scale initiatives in sustainable community land management.* Facilitation support similar to that for village-based rural investments, e.g., mobilization, training, planning, implementation support and monitoring, is included for larger-scale initiatives. Instead of working with CIGs, contracted organizations, again with proven track records in relevant activities, will be required to facilitate the formation of PUGs or work with existing WUAs as described in sub-component 1.2. above. Contracted NGOs will work with district and jamoat-level government specialists and CEP staff, to assist and train PUGs and WUAs to prepare,

implement and monitor participatory pasture and on-farm water management plans. In the case of pasture and livestock management, mobilization of PUGs will include organizing and conducting meetings with various stakeholders such as local authorities, village groups (e.g., mahallas, existing livestock or user groups), village members to inform and obtain consensus for PUG formation. Establishing the PUGs will require community general assemblies developing and agreeing on charters, and finally registration. Comprehensive pasture and fodder assessments and evaluation of the feed/fodder balances will be carried out to inform plan development. These assessments will include participatory appraisals and other tools such as questionnaires. Initial activities for the on-farm water management plans will include meetings with local authorities about the proposed activities, and meetings with WUA management and members to assess and finalize arrangements for their participation. Planning will include soil and irrigation water quality tests along with an assessment of cropping patterns and productivity.

19. ***Sub-component 2.2. Training, analysis, dissemination and networking.*** The project will finance a range of activities that aim to improve the skills and knowledge of beneficiaries and key stakeholders for environmental land management and sustainable rural livelihoods. Activities will be carried out at farmer, community, local government, project management and national levels by contracted trainers, NGOs, and specialists. Financing will also be provided for preparing and distributing printed and audio-visual material.

20. *Project orientation.* Activities will include a project orientation phase to share project goals, approaches and activities with project partners and key stakeholders such as line ministries, local government, local NGOs and community-based organizations. This phase may also include field visits where feasible to examples from the WOCAT (World Overview of Conservation Approaches and Technologies) Tajikistan inventory prepared under Phase 1 of the PPCR, winners of previous "best farmer practice competitions" (e.g., from LRCSP, CAWMP) and other relevant initiatives and operations.

21. *Knowledge and skills.* A program will be implemented to improve skills and knowledge in key topics such as environmental assessment and monitoring; integrated land, water and grazing planning and management; integrated pest management (IPM); participatory processes; gender and other social development issues; and climate change adaptation. Activities will include; training of trainers courses for NGO and Implementing Group staff; practical training for project beneficiaries, community based organizations and groups, local government specialists and CEP staff (e.g., field visits/study tours and exchanges within Tajikistan and to neighboring countries, on-site training); and training courses, workshops and seminars for project implementing partners and stakeholders. Some project beneficiaries, e.g., WUAs and PUGs, may benefit from periodic joint workshops/seminars to share experiences.

22. *Analytical support.* The project will support analytical work to provide guidance for the design and sustainability of rural investments both within and beyond the project. Topics to be covered include soil quality and extent of land degradation, opportunities and constraints in market development and access for selected products, grazing management and livestock production, potential incentive policies for sustainable land management practices, and changes in productivity and environmental conditions resulting from technological change, etc. The project will also finance a pilot analysis of project results using a framework of "payment for

environmental services." Support will also be included for project evaluation, including evaluations at project mid-term and completion, and impact assessments of specific project activities. The project will provide financing for technical assistance and related costs to carry out studies and assessments.

23. *Dissemination and networking.* Dissemination will be supported through a focus on exchange and learning between project sites and with similar initiatives, including farmer-to-farmer exchanges and best farmer practice competitions, plus sharing results and lessons learned with national and regional stakeholders. Winners of competitions will serve as demonstration and training resources for project participants and other stakeholders. The project will support the documentation, dissemination, and knowledge exchanges of successful project tools and approaches for their continued replication and support. For example, following on from PPCR Phase 1, CEP will look for ways to most effectively share this information, through knowledge management systems such as WOCAT, which operates as a global database. The project will generate a number of practical, how-to tools for various audiences, e.g., women, herders, farmers, etc., that will be shared widely. Under this sub-component funds will also be allocated to demonstrate and share the experiences and results of pasture and on-farm water management plans. Annual project review meetings will be held to share results among project stakeholders, as well with other interested parties such as donors, civil society and the private sector.

24. **Component 3. Project Management and Coordination (US$2.00 million).** This component will finance the operating costs of project management functions to be carried out by the Implementing Group within the Committee for Environmental Protection for both Components 1 and 2. Key functions include procurement, financial management, coordination, reporting, and monitoring and evaluation.

25. Financing will be provided for fixed and or short-term specialists in procurement, financial management, monitoring and evaluation, and technical assistance in environmental management, social development and in other areas as per approved work and procurement plans. The project will support coordination with the overall country PPCR program, including participation and contributions to programmatic monitoring and evaluation and knowledge management. Financing will also be provided for targeted training and other activities in areas such as participatory planning, integrated land management, participatory resource management and other relevant areas to help build the capacity of existing CEP staff, especially those with project responsibilities. The project will support office furniture and equipment, incremental operating expenses (including travel), and partial operating costs for CEP district offices participating in the project.

Annex 3: Implementation Arrangements

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project

A. Project Implementation and Institutional Arrangements

1. **Project Implementation.** The project follows the concept of community-driven development with CIGs or other community-based organizations such as PUGs or WUAs taking responsibility for the choice, design and management of rural investments and resource management plans. Experienced, national and international NGOs operational in Tajikistan will facilitate community mobilization, participatory planning, identification of community interest groups (CIGs), rural investment planning and implementation, and will help build the technical and administrative capacities of these groups. The contracted NGOs will coordinate with local government, other local NGOs and supporting organizations to provide these services as needed. In particular, for sub-component 1.1 (Rural Production and Land Resource Management Investments), the NGOs will work with community-based organizations such as JRCs/SUDVOs and others, to provide additional technical assistance. Similarly, facilitation support will be contracted for the preparation and support of pasture and on-farm water management plans (sub-component 1.2.), which will be implemented at larger scales of operation than the rural production investments. Fund flow arrangements are designed to be transparent with the transfer of grant funds from the IG to beneficiary accounts in local banks. District administration and line agency representatives will be included in a review process of rural investment proposals.

2. **Project Management.** The overall responsibility for project management will be with the Committee for Environmental Protection (CEP). As per the agreement between the Government of Tajikistan and the World Bank, an Implementation Group responsible for fiduciary and technical support will be established within CEP. Existing staff of the CEP will be given responsibilities in the IG for overall project management, coordination, financial management, procurement, administration, monitoring and evaluation, and components 1 and 2. Qualified individual consultants will be selected to support this team in fiduciary and technical aspects of the project. District CEPs will provide additional project support at the field level. The CEP Accountant will have responsibility for overall project financial management with the support of financial management consultant/s as needed. Similarly, a procurement consultant will be selected to support the CEP Procurement Officer. Additional support for oversight and technical assistance will also be needed in the IG for environmental management, social development and training. Regional CEP staff will participate in the project on a part-time basis.

3. An inter-ministerial commission will also be established to support interagency coordination, monitor project progress, as well as settle controversies that might arise during project implementation. The commission will be chaired by the CEP Chair, and will include representatives from the Ministry of Agriculture, State Committee on Land Use and Geodesy, Committee for Women and Family Affairs, Academy of Agricultural Sciences, State Committee on Investments and State Property, Ministry of Energy and Industry, and Ministry of Land Reclamation and Water Resources.

4. The PPCR Secretariat also provides a coordination mechanism through an Inter-Ministerial Committee that includes coordination functions within the program and with other

interested parties. The project IG will contribute to the overall PPCR program, including reporting project results, lessons learned, etc., into the broader PPCR/SPCR results framework, and participation in programmatic knowledge management activities and annual reviews, and so on. The Secretariat currently coordinates the overall PPCR program in the country, including reporting on program-level results and impacts.

5. The project will be implemented based on a Project Operational Manual (POM), which will be fully prepared by project effectiveness. The POM will include: (i) the project's overall operating, fiduciary and decision making procedures; (ii) rural production and land resource management investment guidelines; and (iii) guide to project monitoring and evaluation. The POM may be amended by mutual agreement between the IG in the CEP and the World Bank.

B. Financial Management and Disbursements

Country Issues

6. The Public Expenditure and Financial Accountability Assessment (PEFA), which was finalized in November 2012, reveals overall improvement of the credibility of the budget, budget classifications and improvement in the comprehensiveness and transparency of the government spending. However, the budget execution reports and consolidation are still done with significant manual input using basic software not intended to safely store and generate budget data. Technical and staff capacity at the Ministry of Finance (MoF) and local financial bodies at the local government level remain weak. Although, the Treasury undertook automation of its local offices with the software (TIMSv2) that allows payments to be recorded and processed electronically, the MoF has made a decision on adoption of the new information system (SGB.Net).

7. The Treasury Single Account (TSA) has been implemented at the Republican level. The MoF is intending to bring all remaining local treasury accounts to TSA in near period. Completion of that task is dependent on effective modernization of MoF IT Center infrastructure.

8. According to the 2012 PEFA, effectiveness of internal audit has been enhanced, in particular, the presence of internal audit departments and their development over the last three years. However, more emphasis should be done on systems improvement and risk management. Such an audit function should meet international standards and should focus on systemic issues in relation to: reliability and integrity of financial and operational information; effectiveness and efficiency of operations; safeguarding of assets and compliance with laws, regulations, and contracts.

9. External audit of the budget execution reports is undertaken by Anti-Corruption and State Financial Control Agency. The audit methodology and scope are not fully consistent with international standards. Therefore, the audits of Bank-financed projects, as required by IDA, have been performed by audit firms pre-qualified by the Bank. Recently, the Chamber of Accounts (CA) was established by the Government of Tajikistan (GoT). However, the CA will need additional staff and capacity building to provide professional and independent assurance in the use of public resources. Moreover the segregation of duties between the CA and other stakeholders, notably Anti-corruption Agency needs to be clarified.

10. To minimize financial risk, there has been a need to "ring fence" financial resources in Bank-financed projects in order to provide the appropriate fiduciary safeguards. Most Bank-financed projects in Tajikistan are implemented through stand-alone project implementing agencies that install parallel accounting systems to those used in the respective line ministries. The project implementing entities use the cash basis of accounting, which is allowed under International Public Sector Accounting Standards (IPSAS), and in many cases sufficient for proper project accounting.

11. Based on assessments of the country Public Financial Management (PFM) system, only some elements of the country FM systems are planned to be used under the Project. These include the limited use of budgeting, accounting and reporting elements.

Implementation Arrangements

12. The CEP through the IG will manage project funds, including the Designated Accounts, maintain accounts, have the accounts audited, facilitate the work of consultants, and review consultant outputs. The CEP will ensure that project resources are managed with due attention to economy, efficiency and effectiveness, and that project funds would be used only towards the realization of project objectives.

Weaknesses and Action Plan

13. The FM system currently has three main weaknesses, which are as follows:

i. The project will be guided, supervised and monitored by CEP staff who will work on the project in addition to their current responsibilities, which will increase their workload. They will be acting as the Project Director and the Activity Leaders.
ii. The Project Operational Manual (POM) has not yet been prepared, and has to be finalized by Project Effectiveness. This will be a general condition of the Effectiveness. The POM will include an FM Chapter that will clearly describe financial reporting, accounting and internal control policies and procedures, budgeting and planning mechanisms. Specifically, segregation of duties will be addressed.
iii. The existing accounting system of the CEP is different from the WB's requirements for investment operations. Therefore, the CEP will need to introduce the automated accounting software for the project.

14. The following Action Plan has been agreed to be implemented to ensure satisfactory FM arrangements that meet Bank requirements:

Recommended Actions for Capacity Building	Responsibility	Completion Date
1. Sign a contract for the procurement, installation and adaptation of the 1C accounting software that will be utilized by CEP for project accounting, budgeting and reporting. CEP has to make provisions for adequate training on the accounting system for its effective use by FM and Disbursement staff. The accounting system will	CEP	By Effectiveness

Recommended Actions for Capacity Building	Responsibility	Completion Date
have inbuilt controls to ensure data security, integrity and reliability, and the functionality of automatic generation of IFRs.		
2. Recruit FM and disbursement consultants to support the finance staff of the CEP, who will be responsible for project FM and disbursement functions.	CEP	By Effectiveness

15. The project's overall residual FM risk is currently High and is expected to become Substantial after implementation of the mitigation measures.

Planning and Budgeting

16. Under the project, the IG will be responsible for the preparation and consolidating of annual project budgets based on procurement plans, and separate budgets received from the various agencies. The CEP currently follows the budget guidelines issued by the Ministry of Finance. Overall, project budgets, prepared on an annual basis, will form the basis for allocating funds to project activities. The budgets will be prepared in enough detail, by activities and account codes, and broken down by quarters. Annual budgets should be agreed with the World Bank before final approval, and approved annual budgets will then be entered into the accounting software and used for periodic comparison with actual results as part of the interim financial reporting. The annual budget 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.

Accounting System

17. The project accounting will be maintained on the cash basis, with supporting documentation maintained in files in accordance with existing government financial regulations and standards acceptable to the Bank. For reporting purposes, cash basis and the World Bank guidelines for investment projects will be used under the project. At the CEP, the accounting system comprises manual (handwritten) records and Excel spreadsheets. Currently the CEP has no plans to automate its accounting and reporting, which is an area of potential weakness with substantial risk of errors that could undermine reliability of financial reports produced by the accounting system. Therefore, the CEP will need to install suitable accounting software for the project accounting and reporting. The signing of the contract for the procurement, installation and adaptation of such software is a condition of the Effectiveness. This system will ensure a proper tracking of resources and expenditures, and will generate quarterly financial reports in formats acceptable to the Bank. The chart of accounts for the project will allow tracking of project transactions and reporting by source of financing, project components, and type and category of expenditure. The system will have safeguards against the input of inaccurate data using appropriate security profiles. In addition, regular back ups of the accounting data will be made. Given the absence of funds, such a system can only be installed after the project's effectiveness. It is expected that the amount of transactions in the first two months will be small, and they will be entered into the software once it is procured and installed.

Accounting Policies and Procedures

18. The Project will have a clear formal set of appropriate accounting procedures and internal controls, including authorization and segregation of duties. Key internal controls for the project will include the following: (i) segregation of duties; (ii) proper authorization and approval procedures; and (iii) restricted access to the accounting system.

19. The FM section of the POM will describe the details of these procedures and controls. The adaptation of POM will be the general condition of the Effectiveness. It will include an FM Chapter that will clearly describe financial reporting, accounting and internal control policies and procedures, budgeting mechanisms and segregation of duties.

Accounting Staffing

20. The CEP has a Department of Planning, Accounting and Finance, which consists of four specialists: the Head of Department (or the Chief Accountant (CA)), the Chief Specialist-Materials, the Chief Specialist-Salary, and the Chief Specialist-General matters (this person acts as a Cashier as well).

21. In addition to these staff, the IG will hire two more staff (an FM Consultant and a Disbursement Consultant), who will be responsible for all fiduciary aspects of the project. They will report directly to the Project Director, but they also will provide daily support to the Chief Accountant, who has overall responsibility for financial management arrangements. The recruitment of the FM and disbursement consultants will be a condition of Project Effectiveness.

Internal Controls

22. The POM's FM section will document the internal control mechanisms with a focus on ensuring the completeness of accounting transactions, reliability of accounting data, safeguarding of project assets (including safe custody of cash and other assets), proper monitoring of contracts, proper authorization and documentation of all project expenditures, and full accountability of project funds. The POM will reflect project structures and allow for an appropriate segregation of functions, based on clearly defined job descriptions with different authority levels. It also describes the procedures for managing the flow of funds needed to support project activities. It also will include the procedures on the selection of the beneficiaries, provisions to pay the beneficiaries and verifications of contributions made by local communities.

23. The project should maintain an adequate segregation of duties. To achieve this, the CEP will need to utilize the existing accounting staff as well. Specifically, the Chief Accountant will review and authorize payments and the Cashier will maintain cash books and process cash payments. Another staff member (the FM Consultant) will be required to process transactions and keep records in the automated accounting software. The FM Consultant will also be responsible for other financial arrangements, except those tasks assigned to the Disbursement Consultant. Other tasks, such as preparation of withdrawal application, reviewing of support documents, preparation of financial reports, and facilitation of the process of project audits will be implemented by both the FM and Disbursement Consultants.

24. The IG will not have an internal audit function, which is acceptable given its size and structure.

Financial Reporting

25. Project management-oriented interim unaudited financial reports (IFRs) will be prepared under the project. The CEP will be required to adopt accounting software in order to generate Bank required reports. The local FM Consultant will be responsible for submission of IFRs that will be generated by the accounting software based on formats agreed with the World Bank. The reports, to include Statement of Sources and Uses of Funds, Uses of Funds by Project activities (Components & Expenditure Categories) and Statements of Designated Accounts (DAs), will be submitted to the World Bank within 45 days after the end of each quarter, with the first reports under the proposed Project being submitted after the end of the first full quarter following initial disbursement. Draft formats of the IFR have been prepared and agreed with the CEP.

External Audit

26. An external auditor will provide assurances that the proceeds of the grant are used for the purposes for which the funds were provided. The CEP has not previously implemented Bank projects and as such, it does not have any overdue audits.

27. The project audit will include the project financial statements, SOEs and DA Statements. The annual audited project financial statements will be submitted to the Bank within six months after the end of each Client fiscal year or after the project's closing date. The cost of the audit will be financed from project funds. The following table identifies the audit reports that will be submitted by the IG, along with the submission due date:

Audit Report	Due Date
The Project financial statements (PFSs) to include Statement of Sources and Uses of Funds, Uses of Funds by Project Activity, SOE Withdrawal Schedule, DA Statements and Notes to the financial statements.	Within six months of the end of each fiscal year of the Client or from the project's closing date.

28. Audited project financial statements will be publicly disclosed in accordance with the Bank's Access to Information (AI) Policy through its website, upon receipt. In addition, the IG will publish the audit reports in a manner satisfactory to the Bank.

Funds Flow and Disbursement Arrangements

29. **Disbursement Arrangements.** The following disbursement Methods may be used: (i) reimbursement; (ii) advance payment; (iii) direct payment; and (iv) special commitment. Details on the ceiling of the DAs will be provided in the Disbursement Letter. Withdrawal applications for the replenishments of the DAs will be sent to the World Bank at least on a quarterly basis.

30. **Designated Accounts**. The IG will open two Designated Accounts (DAs) in US$ (one for the PPCR Grant and the other for the GEF Grant). Given the large volume of small value transactions to the communities as well as a very tight payment schedule due to the seasonality

of activities, it is recommended to open the DAs in a financial institution capable of managing such transactions in a very timely manner. The delay in payments by two weeks may result in the postponement of a subproject for a year (until the next season), which will severely compromise the implementation of the project. The law on the state budget for CY2013 allows the budget organizations to use commercial banks for the implementation of external (international) grants. Consequently, it is suggested to open the DAs in a commercial bank acceptable to the Bank for this operation with a possibility to transfer DAs to the Treasury at a later stage of the project implementation once the Treasury transition from TMIS to SGBNet is complete. The ceiling for the Designated Accounts and other disbursement details will be provided in the Disbursement Letter.

31. **Fund Flow to Beneficiaries.** The CEP will avoid use of cash payments under Component 1.1. All payments to the beneficiaries have to be made through bank transfers and directly to the recipients (Common Interest Group that consists of groups of farmers) avoiding any intermediate party like Jamoat Resource Center or other Village Development Organizations. It is planned that each participating Common Interest Group (CIG) will appoint one member as an accountant/cashier to manage cash withdrawal from the commercial bank and distribution to other members or payments for delivered services or procured items. For example, once the Subgrant Agreement has been signed between the CEP IG and the CIG for the community investment plan, the designated CIG cashier will open a bank account for the group in a local Amonatbank. The IG's Designated Account will then be provided with a copy of the Subgrant Agreement, including the listing of recipient households within the CIG that will receive financing as well as the agreed terms and amounts. The IG Designated Account would then release funds to the COG bank account according to the terms of the Subgrant Agreement.

32. The CEP will work with the Pasture User Group (PUG) and Water User Association (WUA) under Components 1.2.1 and 1.2.2 that will be registered as the legal entities and they will open the bank accounts to receive the project funds. Once a Subgrant Agreement is signed between the CEP IG and the PUG or WUA, payments to beneficiaries will be made through bank transfers from the IG's Designated Account to the PUG or WUA's project bank account according to the terms of the Agreement.

33. **Statement of Expenditures (SOEs).** Disbursements below the thresholds (stipulated in the Disbursement Letter) will be made according to certified SOEs. Full documentation in support of SOEs would be retained by the implementing agency for at least two years after the World Bank has received the audit report for the fiscal year in which the last withdrawal from the Grant Account was made. This information will be made available for review during supervision by the World Bank staff and for annual audits which will be required to specifically comment on the propriety of SOE disbursements and the quality of the associated record-keeping.

FM Supervision Plan

34. FM monitoring will take place at least two times per year during the initial stages of project implementation, which may be decreased later during project implementation. During these reviews, the Bank will: (i) review the project's quarterly IFRs and annual audited financial statements, as well as the auditor's management letters; and (ii) review the Project's financial management and disbursement arrangements and control environment to ensure continued compliance with the Bank's minimum financial management requirements.

C. Procurement

General

35. Procurement for the proposed project would be carried out in accordance with the World Bank's Guidelines "Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" (January 2011); Consulting services will be procured under the Bank's 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 Grant Agreements. The World Bank Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credit and Grants dated October 15, 2006 and revised on January 2011, would also apply. The general description of various items under different expenditure categories is provided below. For each contract to be financed by the Grant, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame will be agreed between the Recipient and the Bank project team in the Procurement Plan. This is a Community Driven Development (CDD) operation, in which the project's procurement arrangements are in line with the Guidance Note for Design and Management of Procurement Responsibilities in Community-Driven Development Projects, dated March 15, 2012.

36. **Procurement of Goods, Works and Services by Communities.** Small value works, goods and services under Sub-component 1.1: Sustainable village-based rural production and land resource management (US$6.51 million of project financing) and some small value works, goods and services under Sub-component 1.2: Larger-scale initiatives in sustainable community land management (US$1.60 million of project financing) will be procured following World Bank Procurement Guidelines paragraph 3.19 Community Participation in Procurement. Under sub-Component 1.1, the maximum sub-grant will be US$7,000. The procurement procedures to be followed by communities/beneficiaries will be elaborated in the Project Operational Manual and will be prepared by the project's effectiveness date.

37. **Procurement of Goods (including installation as needed).** Goods to be procured under the project would include office equipment and furniture, vehicles and FM software. Procurement will be done through National Competitive Bidding (NCB), Shopping and Direct Contracting procedures. The Standard Bidding Documents for goods following NCB procedures will be agreed with the Bank prior to initiating NCB.

38. **Selection of Consultants.** Consultant services to be procured under the project would include: hiring of NGOs to support PUGs and WUAs; hiring of NGOs to build capacity of CIGs; data collection and analysis; facilitation and technical support to communities; third party QA/QC consultant; and project related studies and assessments following Consultant Guidelines paragraph 3.16. The following methods will be used for selecting consulting firms depending on the nature and complexity of assignments and the estimated budget of the services: Quality- and Cost-Based Selection (QCBS), Quality-Based Selection (QBS), Selection under a Fixed Budget (FBS), Least Cost Selection (LCS), Selection Based on Consultant's Qualification (CQS), Selection of Individual Consultants, and Single-Source Selection (SSS). Short lists of consultants for services estimated to cost less than US$100,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

39. **Training activities which will be carried out other than through service providers' contracts include** training-of-trainers and practical training for project beneficiaries, partners and key stakeholders. Training activities will be procured through procedures agreed with or satisfactory to the Bank. These procedures will be described in detail in the project Operational Manual. Training related expenditures are defined in the Grant Agreements.

40. **Operational Costs.** Operating costs of the CEP central and regional offices following national procedures will include all expenses necessary to ensure proper implementation of the project, such as travel and communication expenses, project monitoring and evaluation, financial audits, etc. Budget for operating costs will be prepared and cleared by the Bank**.**

Assessment of implementing agency's procurement capacity

41. An assessment of the Implementing Agency's capacity to conduct project procurement was carried out, based on the Procurement Risk Assessment and Management System (P-RAMS), in October 2012.

42. Procurement activities will be carried out by CEP, through the established IG. The CEP does not have prior experience with procurement under World Bank-financed projects. The CEP will nominate existing staff who will have overall procurement responsibility, including coordination of procurement activities within the organization. The CEP procurement staff will be assisted by a local procurement consultant, who will be contracted following the project's effectiveness, with experience in World Bank project procurement as well as procurement in community-driven development projects. CEP procurement staff as well as CEP technical specialists overseeing component implementation will be required to participate in extensive training on the procurement of goods/works and consulting services in accordance with the 2011 Bank Guidelines and contract management. The project will hire third party Quality Assurance /Quality Control (QA/QC) consultant to provide quality assurance of scattered civil works.

43. The overall procurement risk is rated high. The risks associated with procurement and the mitigation measures were identified in the assessment of the agency's procurement capacity and are summarized in the table below:

Description of Risk	Risk Rating	Mitigation Measures	Residual Risk Rating
CDD Operation: (i) Lack of procurement knowledge at community level and lack of documentation for audit; (ii) lack of technical skills to implement small civil works; and (iii) fraud and corruption.	H	Procurement training to Facilitation teams by Bank staff and to communities by Facilitation teams. Hiring of technical support agency to provide design documentation, technical notes to construct and supervise. Hiring of third party QA/QC consultant to provide QA of scattered civil works.	S
Potential procurement delays: arrangements for clearance of evaluation reports with the State Investment Committee (SIC) may lead to procurement delays; Government officials from different agencies, who would be involved in project procurement through Tender Committees may not be familiar with international procurement procedures; experience with the past and on-going projects in country shows frequent procurement delays, many iterations resulting in delay and loss of bids.	H	Monitoring submission of the documents and getting responses from the SIC and reflecting this information in the evaluation reports; intensive procurement training for government staff, including Tender Committee members, involved in conducting procurement; advanced preparation of technical specifications or TORs and involvement of technical staff and users in preparation of specifications; Bank's feedback to preparation of the TORs.	S
Community participation in procurement: Community groups may lack the necessary capacity; large number of parties involved, the small value and multiplicity of contracts, and the scattered locations of the subprojects that render problematical controls across individual sub-projects.	H	The POM will define the minimum requirements that a beneficiary community should fulfill before it can be permitted to handle procurement; facilitation support contracted to empower and train communities; internal controls and audits at the CEP follow normal fiduciary procedures.	S
Contract administration procedures may not be adequate to ensure efficient and timely contract performance; contract amendments not processed diligently	S	Establishment of contract management system; more emphasis and training on appropriate contract management; regular physical inspections and compliance checks and quality control of the deliverables by the IG.	M
Perceived **level of corruption** in	S	Enforcement of public disclosure and	S

the country is high.		transparency provisions of the Bank's Guidelines; Close Bank implementation supervision.	
Average	H		S

Procurement Plan

44. The Procurement Plan has been agreed between the Recipient and the Project Team. As this is a CDD operation, the Procurement Plan covers only procurement by the IG. After the project is approved by the Board it will be published on the Bank's external website. The Procurement Plan will be updated in agreement with the Bank project team annually or as required to reflect actual project implementation needs and improvements in institutional capacity. The thresholds for methods of procurement and prior review limits are detailed in the Procurement Plan. A summary of the Procurement Plan for the first 18 months of implementation is provided below.

(a) Goods Contracts (first 18 months)

Package No.	Description/ Location	Procurement Method	Review By Bank (Prior / Post)	Invitation Date	Expected Bid-Opening Date	Contract Award Date	Completion Date
A	B	D	E	F	G	H	I
1	Office furniture and equipment	SH	post	Jul 13	N/A	Aug 13	Oct 13
2	FM Software	SH	prior	May 13	N/A	Jun 13	Jun 13
3	Vehicles	SH	post	Sep 13	N/A	Oct 13	Nov 13
4	Sub-grants	CDD	post				

(b) Consulting Services (first 18 months)

Package No.	Description of Assignment	Selection Method	Review by Bank Prior / Post	Adverti-sement for EOI Date	Expected Proposal Submission Date	Contract Award Date	Comple-tion Date
A	B	D	E	F	G	H	I
1	NGO for Facilitation support for lowlands	QCBS	prior	Jun 13	Aug 13	Oct 13	Mar 16
2	NGO for Facilitation support for uplands	QCBS	prior	Jun 13	Aug 13	Oct 13	Oct 15
3	Facilitation support for PUG	CQS	prior	Oct 13	Nov 13	Nov 13	Nov 14
4	Facilitation support for WUA	CQS	post	Oct 13	Nov 13	Nov 13	Nov 14
5	Project audit	LCS	prior	Block	Audit	Block	Audit

(c) Individual Consultants (first 18 months)

Package No.	Description of Assignment/ Location	Selection Method	Review by Bank Prior / Post	Adverti-sement for EOI Date	Expected Proposal Submission Date	Contract Award Date	Comple-tion Date
A	B	D	E	F	G	H	I
1	Pasture Mgt Training	IC	post	Oct 13	Oct 13	Nov 13	Feb 13
2	Water Mgt Planning/Training	IC	post	Oct 13	Oct 13	Nov 13	Feb 13
3	Gender Issues/Training	IC	post	Oct 13	Oct 13	Nov 13	Feb 13
4	CCA/Env Appraisals/Training	IC	post	Oct 13	Oct 13	Nov 13	Feb 13
5	Communication Strategy	IC	post	Mar 14	Mar 14	Apr 14	Jun 14
6	Soil Quality and LD Study	IC	post	Jan 14	Jan 14	Feb 14	Jun 14
7	Livelihoods Assessment	IC	post	Jun 13	Jun 13	Jul 13	Oct 13
8	Global Env Benefits	IC	post	Sep 13	Sep 13	Oct 13	Jan 14
9	IG FM	IC	prior	May 13	May 13	Jun 13	Jun 14
10	IG Procurement	IC	prior	May 13	May 13	Jun 13	Jun 14
11	IG Disbursement	IC	post	May 13	May 13	Jun 13	Jun 14
12	IG Env Management	IC	post	Jul 13	Jul 13	Aug 13	Aug 14
13	IG Social Development	IC	post	Jul 13	Jul 13	Aug 13	Aug 14
14	IG Village Investments (FM	IC	post	Jul 14	Jul 14	Aug 14	Aug 15
15	IG M&E	IC	post	Oct 13	Oct 13	Nov 13	Nov 14
16	Interpreter	IC	post	Jun 13	Jun 13	Jul 13	Jul 14
17	Raion local technical consultants	IC	post	Jul 13	Jul 13	Aug 13	Aug 14

Procurement Supervision

45. Procurement Supervision and Procurement Post Review will be based on the CDD Guidance Note, dated March 15, 2012. The external audit TOR will include verification of procurement processes, as per the Operational Manual and asset verification. The TOR of the community facilitation teams will include asset verification through photographs. These results will be further reviewed during field visits carried out by implementation support missions. The post review of procurement processes carried out by the IG will be conducted on a sample basis (20% in terms of number of contracts) by the procurement specialist based in the region/country office and one ex-post review report will be prepared per fiscal year, including findings of physical inspections for not less than 10 percent of the contracts awarded during the review period. In addition, two supervision missions are expected to take place per year. During supervision missions, the team will review results of external audit and facilitation team monthly reports and summarize these findings in the Aide Memoire.

D. Environmental and Social (including safeguards)

46. The Implementation Group within the CEP will undertake primary responsibility for addressing the environmental and social aspects of the project. The IG will ensure that related safeguard measures (such as Environment Management Plans) are effectively implemented. The CEP is responsible for natural resource management and climate change policy, as well awareness raising and environmental monitoring. Safeguards implementation activities, such as environmental reviews and environmental management activities, will draw upon the capacity of the Committee which has experience with environmental assessments, environmental management and legal and regulatory requirements. Additional capacity will be needed to support environmental management and social development aspects including training, data analysis, and if needed for environmental assessment to prepare documentation such as EMPs and/or EMP check lists. The Project Operational Manual and the Environmental Management Framework (EMF) will provide detailed guidance on measures to help ensure compliance with safeguards.

Environment (including safeguards)

47. **Impacts.** The environmental impact of the project is expected to be largely positive and no major adverse environmental impacts are anticipated. The project is expected to increase the adoption of effective agricultural, land water management practices in the project sites and thus contribute to soil and water conservation, and building climate resilience. The project expects to increase production in areas already under cultivation or that have been left fallow. Investments in pasture and degraded fragile lands, and the cultivation of horticultural crops, woodlots and the planting of shelterbelts in sloping lands will contribute to soil and water conservation. On-farm water management in lowland areas is also expected to contribute to soil and water conservation through measures such as improved irrigation efficiency, adoption of water-efficient crops and varieties.

48. The project falls under category B – partial assessment, and an Environmental Management Framework has been prepared. Consultations on the EMF were completed in

December 18, 2012 and the document was made available to the Info Shop on February 5, 2013 and released within Tajikistan on February 6, 2013.

49. The EMF covers Component 1 activities. This EMF takes into account lessons learned from relevant projects (e.g., CAWMP, LRCSP) to help ensure that the measures included are within the country's implementation capacity. These lessons and resulting actions for ELMARL include:

- A workable four-part environmental monitoring system for small-scale rural investments -
    - Assessment of environmental risks at the stage of preparing/formulating subprojects and selection of alternative proposals;
    - Selection of environmentally effective proposals and rejection of environmentally ineligible (according to a check list specific for each category of rural investments);
    - Evaluation of environmental efficiency indicators during subprojects' implementation (at least twice: mid-term and completion), with updating of activities if necessary; and
    - Assessment of the environmental outcomes by the types of subprojects.
- Shifting from a less effective approach of "preventing negative environmental impact" to more successful and clear message to local people of "promotion of environmental benefits", which implicitly covered the environmental risks assessment issues by using matrices of environmentally eligible and ineligible types of activities, participatory environmental analysis and management trainings (including conceptual modeling of threats, impacts and relationships, ranking of threats, mapping of agro-ecosystem functions, local environmental assessment). The POM for ELMARL will provide better and more consistent guidance, e.g., participatory appraisal tools and minimum planning requirements, than was done for CAWMP on environmental planning and monitoring aspects. Additionally, ELMARL will have an orientation phase to help ensure project goals, approaches and activities are made clear to project stakeholders.
- Limited success in collaboration with the government agencies and field officers responsible for environmental monitoring and control primarily due to inadequate project management capacity. With the CEP responsible for project management, its field staff will be more engaged in the environmental management aspects of field activities.
- Potential facilitating organizations operating in Tajikistan, e.g., the Aga Khan Foundation, UNDP, and others, have acquired better environmental management and monitoring skills and capacities over the past five years, which have been tested in Tajik conditions. This more experienced and larger pool of skills is potentially available to ELMARL.

50. The EMF provides details on rural investment, and pasture and on-farm water management plan, preparation and approvals, and sets out responsibilities for environmental monitoring by project partners that include beneficiaries, facilitating organizations, the IG, local authorities/specialists, and relevant line ministries. Rural investments financed through the provision of small grants to farmers (including those proposed under pasture and on-farm water management plans) will be screened to ensure that they do not result in adverse impacts on the environment. Proposals will identify potential environmental impacts of activities, and include mitigation measures for any likely negative impacts. Activities to monitor and evaluate planned Grant agreements will specify conditions, including environmental compliance, for release of

tranche payments to recipients. Guidance on planning, implementation, monitoring and evaluation will also be given in the POM.

51. The project does not include any investment in dams, resettlement, and construction of new canals or head works that will increase water extraction from main sources. The project does not include construction of new roads. The project area does not include parks or sanctuaries.

52. Project impacts on natural habitats are expected to be generally positive. Investments to reduce grazing pressures around settlements through increased access to remote summer pastures may affect the biodiversity values of these areas. The OP is triggered to take into account risks associated with access to summer pastures may involve adverse impacts on biodiversity. The EMF will include procedures for screening the risks of proposed investments and identifying measures to mitigate, as well as enhance biodiversity values. Rapid ecological baselines and environmental assessment of proposed activities in potentially affected areas will be conducted as needed on a case-by-case basis. The project will include capacity-building activities to assist local institutions, NGOs and beneficiaries to engage in adaptive management of natural habitats.

53. The safeguard policy on Pest Management (OP4.09) is triggered since investments financed by the project could lead to agricultural intensification with increased production of high-value crops, which may result in an increased use of agrochemicals, including pesticides. Experience with other projects (e.g., CAWMP, LRCSP) showed that a complicated and comprehensive separate Pest Management Plan (PMP) was too ambitious to implement as a result of low skills and knowledge among local farmers. As result, for this project a more effective approach to reducing the application of harmful pesticides will focus on raising awareness and educating potential beneficiaries regarding safe pesticide handling and use of Integrated Pest/Farm Management to enhance sustainability and reduce human and environmental exposure to dangerous products. The EMF will include a special section on pest management-related environmental risks.

Social (including safeguards)

54. **Impacts.** The project is expected to increase productive assets for participating households, enabling them to be better equipped to address risks including those associated with climate change. Stakeholder capacities for building rural livelihoods based on sound environmental management will be increased at various levels including village, jamoat and national. Male migration overseas has left female heads of households who will benefit from acquiring new skills critical for sustainable agro-ecosystems. Social and institutional networks and relationships will be strengthened benefiting the management of key resources such as water and pasture, as well as the generation of economic returns.

55. **Safeguards.** The project will not fund any activities that may result in land acquisition, involuntary resettlement or economic displacement. Under component 1, subprojects financed through grants to farmers will be screened to ensure they will not result in the involuntary resettlement of any third parties. This will be done using a checklist in the Project Operational Manual.

56. Although it is possible that local communities will choose to voluntarily restrict access to areas presently used for pasture for regeneration purposes, no such restrictions will be imposed involuntarily by any government agencies. These temporary measures will increase grazing resources in the long-term. The OP 4.12. is not considered to be triggered since such restrictions will be community-driven. Screening criteria will be in place to ensure that voluntary restrictions of access for regeneration purposes do not close corridors used by any outside herders moving between winter and summer pastures. The Project Operational Manual will provide guidelines for parties on the proper use of the criteria. The IG and participating communities will also keep records of the negotiations and consultations relating to voluntary restrictions to be able to prove that any such restrictions proposed by the communities themselves, were indeed voluntary.

57. *Gender*. The cultural roles of women in Tajikistan influence their participation in rural livelihood strategies, but can vary widely across regions. Despite the fact that is widely acknowledged that women carry out most of the agricultural labor in the country, relatively few have meaningful decision-making power. The project will seek to address gender and social inclusion issues through its use of participatory processes, and the monitoring and evaluation of project results to support adaptive management. Where appropriate, the project will coordinate activities with the Committee for Women and Family Affairs particularly with their district-level information centers.

58. *Rural investment planning and management.* Facilitating organizations will be required to have expertise in working on gender issues and with vulnerable and marginal groups, as well as in using participatory techniques. Community mobilization activities will use mechanisms that help ensure participation, e.g., women only sessions, hold meetings when women, the elderly, etc., can participate. Participatory rural appraisal will include tools that identify and describe the status and extent of marginal groups. Local organizations and groups will also be appraised for gender and their inclusion of women and the poor. Where inequitable arrangements are found that that exclude or marginalize vulnerable groups, opportunities will be sought where possible to address these inequities, e.g., targeting a proportion of certain types of production investments to groups of vulnerable households. The choice of rural investments will build on the skills, interests and motivation of marginal groups including women, e.g., roles in water management, decisions on crop choices. Rural investment design will take into account women's roles and responsibilities, including establishing women only CIGs or subgroups in PUGs and WUAs, in the case of pasture and water management, if appropriate. The choice of training methods will take into account preferred methods of learning for women and others, e.g., single-sex groups, women-to-women exchanges. The project will also explore mechanisms, such as financial incentives, to encourage female participation in the management of user groups/associations.

59. *Monitoring and evaluation.* At the village and jamoat-level, monitoring and evaluation will include all relevant stakeholders and make use of participatory techniques to help define indicators, as well as in data collection and analysis. Within the IG, resources will be allocated to provide technical assistance to oversee and monitor social development aspects of the project. Disaggregated data will be collected and analyzed regarding project beneficiaries, and

representation in participating community-based organizations.

E. Project Monitoring and Evaluation

60. The Project's monitoring and evaluation activities will be focused on several types of data specific to activities under each component in accordance with the results framework described in Annex 1. The primary responsibility for project monitoring and evaluation will reside with the Implementation Group, and in particular its M&E unit. This unit will work closely with other units of the IG, and respective project consultants. The project's M&E system will also involve district CEP offices, facilitating organizations, participating community organizations, such as JRCs/SUDVOs and others, project beneficiaries and other stakeholders as needed. The M&E system reflects relevant experience and good practice in Tajikistan and elsewhere, with emphasis on stakeholder participation, especially by project beneficiaries. However, the CEP has limited experience of community-driven development and participatory processes. External assistance will be needed, particularly in the initial stages to develop key participatory indicators and establish necessary methodologies and baselines (e.g., for PDO outcome 2 indicator). The project will also report on project performance using the GEF Land Degradation Tracking Tool.

61. To help ensure reliability of data, collection and reporting requirements for field-based partners will aim to capture essential information with formats and approaches that are relatively straightforward to implement. The use of a consistent approach to the participatory planning of rural investments and pasture/off-farm water management with a reasonable set of core data requirements will contribute to reliable data. Support will be provided for evaluations of the project at mid-term and completion. These evaluations will include specialized organizational assessments of CIGs, PUGs and WUAs. Project monitoring and evaluation data will be disaggregated by gender and vulnerable groups to assess the effectiveness of project approaches and adjust these as needed. By producing timely and pertinent information, the M&E system will be a key management instrument aimed at helping decision-making processes and supporting adaptive management.

62. A 'Guide for project monitoring and evaluation' will be included in the POM. The document will provide guidance on the roles and responsibilities of project beneficiaries and partners, plus other relevant stakeholders in collecting, analyzing and communicating project data and results.

F. Role of Partners

63. The project is a five-year operation, financed with PPCR (US$9.45 million) and GEF (US$5.4 million) grant resources, with a total project investment cost of US$14.85 million. Beneficiary contributions are estimated at US$2.03 million. These contributions will be predominantly in-kind matches valued at 25% of project financing for rural investments.

64. There is also agreement with DFID/GIZ that US$4.8 million of their support for the Growth in Rural Economy and Agriculture – Tajikistan (GREAT) program will be considered a parallel financing to meet GEF co-financing requirements. GREAT is supporting sustainable

economic growth in rural areas and has strong synergies with the combined PPCR/GEF financed operation. Although the DFID/GIZ and the PPCR/GEF financed operations are designed and implemented separately, arrangements will be made to facilitate ongoing coordination and collaboration. Thus GEF's requirement of no less than US$15.0 million of co-financing will be met through the PPCR, beneficiary contributions and DFID/GIZ complementary support.

Annex 4: Operational Risk Assessment Framework (ORAF)

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project

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Project Stakeholder Risks

1. Stakeholder Risk	Rating	Moderate				
Description: 1.1 Uncertainty about the content and timing of the proposed pasture policy (including Pasture Law and regulations), leading to the risk that some pasture management investments under the project may be ineffective. 1.2 Overlapping land management jurisdictions could result in conflicts in project. 1.3 There are several donors (e.g., GIZ, DFID, ADB, IFAD) implementing projects in land, water and pasture management. As such, there is a risk of overlap as well as differing priorities and goals. 1.4 Local authorities may not support community and household control over rural investment allocations and land management by delaying or not providing certain approvals, e.g., for land use right certificates.	**Risk Management:** 1.1 Analysis conducted in 2010 assessed that there was legal space to support community based pasture management in the absence of pasture policy reform. Current draft reform indicates scope for management for pasture as common property regimes through pasture user associations as proposed in the project. In regard to the current reform process, the Bank will engage in the on-going policy dialogue, sharing good practice examples from CAWMP and elsewhere in pasture management.					
	Resp: Client	Stage: Implementation	Recurrent: ☑	Due Date:	Frequency:	Status: Not Yet Due
	Risk Management: 1.2 Inter-ministerial commission of relevant ministries, chaired by CEP, will be established no later than 30 days after project effectiveness and will be responsible for resolving specific land jurisdiction conflicts pertaining to the project on a consensus basis.					
	Resp: Client	Stage: Both	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due
	Risk Management: 1.3 The Bank team will closely coordinate with key donors to ensure that project design, including site selection, makes efficient use of resources and avoids duplication of institutional arrangements and project activities. A donor mapping exercise will be conducted during preparation to assist in site selection.					
	Resp: Bank	Stage: Both	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: In Progress
	Risk Management					

	1.4 The project will use previously tested successful arrangements from Bank projects involving (a) local authorities in consultation and training and (b) key legal covenants (e.g., operational manuals, land use rights certificate issuance).					
	Resp: Client	Stage: Implementation	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due

Implementing Agency (IA) Risks (including Fiduciary Risks)

2. Capacity	Rating	Substantial				
Description: 2.1 Ownership and Commitment. If project implementation is led by an IG under the State Committee for Environmental Protection (CEP), there is a risk that other relevant ministries (e.g., Ministry of Agriculture) may not cooperate to support proposed project activities. 2.2 IG Selection: IG appointment process is delayed. 2.3 IG Capacity: Lack of capacity in fulfilling project's managerial, technical, and fiduciary requirements.	**Risk Management:** 2.1 Ownership and Commitment. The CEP will organize an inter-ministerial commission, including representatives from all relevant ministries and state bodies, to gain their full support and to achieve their close engagement in, as well as support in overseeing, project activities.					
	Resp: Client	Stage: Both	Recurrent: ☐	Due Date: 07/03/2013	Frequency:	Status: In Progress
	Risk Management: 2.2 IG Selection: IG to be selected during project preparation. Recruitment of core fiduciary consultants to be a condition of effectiveness.					
	Resp: Client	Stage: Both	Recurrent: ☐	Due Date: 06/03/2013	Frequency:	Status: In Progress
	Risk Management: 2.3 IG Capacity: Facilitating organizations will provide technical assistance in community-driven approaches. Guidance is available from CAWMP (operational manuals, Environmental Management Framework, training protocols, etc.). The administrative procedures used by the IG will be strengthened during project preparation to identify areas where efficiency can be improved. Procurement and financial management will be strengthened through hiring of specialists and staff training.					
	Resp: Both	Stage: Both	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: In Progress
3. Governance	Rating	Moderate				
Description: 3.1 Decision Making: A risk that facilitating	**Risk Management:** 3.1 Requirements for village and subprojects planning will be revised based on the experience of previous projects (e.g., CAWMP, LRCSP) so that there is active community engagement and decision-making at these stages. TORs					

organizations (FOs) rather than the Common Interest Groups (CIGs) may drive rural investment decisions, due to the comprehensive requirements for subprojects.	of contracted FOs will stress importance of facilitation and capacity building.						
	Resp: Client	Stage: Implementation	Recurrent: ☑	Due Date: 12/15/2015	Frequency:	Status: Not Yet Due	
3.2 There is a risk that given the number of stakeholders involved in the project, the IG may be ineffective in dealing with and managing other project partners, leading to tensions in project coordination and implementation.	**Risk Management:** 3.2 The Project Operational Manual will describe in detail respective responsibilities for each concerned agency and effective oversight measures. An adequate provision will be made for the project oversight in the budget and staffing of the IG. The project will facilitate opportunities, e.g., annual meetings, with stakeholders involved in implementation (IG, district and jamoat level local government authorities, community organizations, NGOs, contractors) to share experiences and progress.						
	Resp: Client	Stage: Both	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: In Progress	

Project Risks

4. Design	Rating	Low					
Description: 4.1. Farmer-led activities promoted by the project are constrained due to resistance by government authorities to independent decision-making by farmers and resource user associations in some districts. 4.2 Lack of experienced local NGOs to implement assigned project activities	**Risk Management:** 4.1 The selection criteria for project districts will be tightened to include indicators of support for farm restructuring and user associations/groups.						
	Resp: Client	Stage: Both	Recurrent: ☑	Due Date: 12/15/2015	Frequency:	Status: In Progress	
	Risk Management: 4.2 A mix of experienced international and national NGOs will be used to meet project requirements. The project design will also consider promoting close partnership and coordination between experienced international NGOs acting as facilitating organizations and local NGOs. The project will also procure necessary technical assistance to fill key gaps.						
	Resp: Both	Stage: Implementation	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due	
5. Social and Environmental	Rating	Low					
Description: 5.1 There is a risk that individual rural production investments may have negative impacts on the environment. e.g., harmful pest	**Risk Management:** 5.1 The IG has prepared a comprehensive, general EMP/EMF that addresses all potential project activities, their potential impacts on environment and human health and safety, and arrangements for their avoidance, minimization, mitigation and management. The EMP will also address ways to enhance and maximize positive						

<table>
<tr><td>management, uncontrolled harvesting of wild plants.

5.2 Cultural attitudes and practices may limit the active participation of women in rural production investments

5.3 Conflicts may arise where non-project herders' migratory routes to pasture pass through grazing areas set aside under the project for regeneration.</td><td>environmental impacts. The project will use lessons learned and experience from previous similar projects to develop the EMP, including environmental planning and M&E guidelines to promote adaptive management. The project, as well as support from other projects, will provide additional capacity building for project partners and stakeholders to help ensure compliance with the EMP.

Resp: Client | Stage: Both | Recurrent: ☑ | Due Date: 05/31/2018 | Frequency: | Status: In Progress

5.2 Village and rural investment planning tools, e.g., participatory rural appraisal methods, will encourage women's participation. The choice of rural investments will build on women's skills, interests and motivation, e.g., water management, crop choices. Rural investments design will take into account women's roles, responsibilities, including establishing women only groups if appropriate. The choice of training methods will take into account women's preferred methods of learning, e.g., single-sex groups, women-to-women exchanges. The project will monitor gender participation in rural investments.

Resp: Client | Stage: Implementation | Recurrent: ☑ | Due Date: 05/31/2018 | Frequency: | Status: Not Yet Due

5.3 Risks of conflict will be assessed, and if relevant, mutually acceptable agreements between affected parties will be established and monitored.

Resp: Both | Stage: Implementation | Recurrent: ☑ | Due Date: 05/31/2018 | Frequency: | Status: Not Yet Due</td></tr>
<tr><td>6. Program and Donor</td><td>Rating: Low</td></tr>
<tr><td>Description:

6.1 Delay in implementation of GIZ/DFID GREAT Program could delay complementary project financing and technical assistance.</td><td>Risk Management:

6.1 GIZ/DIFD Program is being implemented according to schedule.

Resp: Bank | Stage: Implementation | Recurrent: ☑ | Due Date: 12/15/2015 | Frequency: | Status: Not Yet Due</td></tr>
<tr><td>7. Delivery Monitoring and Sustainability</td><td>Rating: Moderate</td></tr>
<tr><td>Description:

7.1 Rural production investment benefits may not be sustained</td><td>Risk Management:

7.1 The project's focus on livelihoods provides an effective incentive framework for sustaining rural production investments. Beneficiary contribution requirements also promote ownership of grant investments for rural production. Selection and design guidelines for rural production investments will include addressing environmental, economic and social viability, and build on lessons learned from similar projects.</td></tr>
</table>

	Resp: Both	Stage: Implementation	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due
8. Other (Optional)	Rating: Moderate					
Description: Beneficiaries may be unable to purchase or access appropriate inputs or profitably sell their production.	**Risk Management:** The project will provide training and analytic support on marketing and collaborate with other marketing and rural financing programs.					
	Resp: Both	Stage: Implementation	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due
9. Other (Optional)	Rating: Substantial					
Description: CDD Operation: (i) Lack of procurement knowledge at community level and lack of documentation for audit; (ii) lack of technical skills to implement small civil works; and (iii) fraud and corruption.	**Risk Management:** Procurement training to Facilitating teams by Bank staff and to communities by Facilitation teams. Adequate technical expertise within contracted facilitation support NGOs. Hiring of technical support consultant to provide design documentation, technical notes to construct and supervise. Hiring of third party QA/QC consultant to provide QA of scattered civil works.					
	Resp: Client	Stage: Implementation	Recurrent: ☑	Due Date: 05/31/2018	Frequency:	Status: Not Yet Due

Overall Risk

Implementation Risk Rating: Moderate

Description:

Given the project's stakeholder, design, capacity, and delivery monitoring risks, the overall implementation risk is rated as Moderate.

Annex 5: Implementation Support Plan

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project

Strategy and Approach for Implementation Support

1. In order to facilitate the achievement of the PDO, the partnerships between the Government, the Bank and other partners will require rigorous implementation support efforts covering fiduciary, technical and analytical aspects. Additionally, implementation support will have a strong focus on mitigation measures to address key risks identified in the ORAF.

2. Given the diversity of activities that the project supports, the task team will require a corresponding range of skills covering sustainable land management, general agriculture, market development and social development. The expertise should have sufficient versatility to cover operational and technical aspects of project activities, as well as related policy issues. The team will also require periodic expertise in communications to support project dissemination activities. The technical team will additionally need to support the implementing agency in monitoring and evaluation of results, both in design and implementation and making adjustments as needed.

3. The project's implementation arrangements and current capacity gaps identified in the ORAF, and in the appraisal summary necessitate the need for significant support from the Bank team on the fiduciary and related M&E aspects of the project. The team will need to work with the Implementation Group to have financial management systems place in a timely manner. In order to ensure that the community-driven approaches are fully operational and that adequate facilitation support is contracted, the Bank team of fiduciary and technical specialists will have to work closely with the Implementation Group to provide guidance on procedures and feedback the preparation of TORs and contracts. Fund flow from the IG to beneficiaries will require particular guidance and scrutiny to ensure that is both timely and transparent.

4. On safeguard compliance, the team will provide support to ensure proper implementation and monitoring of the project's EMF and other requirements related to social aspects.

5. The underpinnings of the support strategy outlined above will essentially ensure the implementation of the mitigation measures reflected in the ORAF, particularly for higher-rated risks such as implementing agency and CDD approach (substantial) and stakeholder and program delivery and monitoring risks (moderate).

6. The Implementation Support Plan will be reviewed at least once year to ensure that it continues to meet the implementation support needs of the project.

Implementation Support Plan

7. The levels and typology of analytical, technical, fiduciary, safeguard support for the implementation of the proposed project are detailed below.

i) Focus of Implementation Support

Time	Focus	Skills Needed	Resource Estimate	Partner Roles
First twelve months	- Financial Management: functioning accounting systems, training, ensuring fund flow arrangements for CDD - Procurement: contracting facilitation support, training, - establishing M&E system	- Financial management and procurement with experience of CDD - Sustainable land management, general agriculture, social development and participatory processes, monitoring and evaluation	$150,000	DFID/GIZ support access to market development assistance.
12 to 36 months	- Project Implementation - Procurement - Financial Management - Safeguards compliance - M&E	- Sustainable land management, general agriculture and rural development, social development and participatory processes, market development, monitoring and evaluation - Financial management and procurement with experience of CDD	$200,000	DFID/GIZ support access to market development assistance
36 months to completion	- Project Implementation - Procurement - Financial Management - Safeguards compliance - M&E	- Sustainable land management, general agriculture and rural development, social development and participatory processes, market development, communications, monitoring and evaluation - Financial management and procurement with experience of CDD	$275,000	

ii) Skills Mix for Implementation Support

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Team Coordination			

Sustainable Land Management	20	10	Soil and water conservation expertise in addition to general natural resource management, safeguards
General Agriculture	20	10	General agricultural production
Social Development	20	10	Social development including safeguards and participatory processes for natural resource management.
Market Development	8	4	Agricultural and horticultural value chains with small-scale producers
Communications	4	2	Dissemination strategies for a range of audiences with different media
Financial Management	20	0	Country Office
Procurement	20	0	Country Office

iii) Partners

Name	Institution	Role
Implementation Group	Committee for Environmental Protection	Main counterparts for ELMARL
DFID/GIZ	Bi-lateral donors – United Kingdom, Germany	Parallel co-financing, support for access to market development

Annex 6: Economic and Financial Analysis

TAJIKISTAN: Environmental Land Management and Rural Livelihoods Project

1. **Project Context**. The economic analysis of ELMARL is made difficult due to the nature of the expected outcomes and the process of rural investment selection and design. The nature and composition of project activities in which households and groups engage will be known only as implementation proceeds. This aspect of the project complicates the analysis since it is difficult to predict the number of investments, and combinations of activities within investments. Generally current productivity levels are low both in absolute terms and relative to other Central Asian countries. The project would expect to generate productivity changes in major cropping and livestock systems and corresponding increases in gross revenues as a result of investments for the participating households. For the purposes of the cost-benefit analysis, the quantifiable benefits considered are from expected increases in agricultural and horticultural productivity as a result of investments in on-farm production, pasture and water management and horticulture, and user cost savings from rural infrastructure.

2. **Incentive Framework.** The project recognizes the need to combine direct support for rural economic production (through grants) with activities that increase communities' knowledge and awareness of environmental transformations and therefore enable communities to embed this knowledge in their decision-making processes and institutions. Benefits will be sustained through farmers and groups acquiring the knowledge and capacity to transform their practices and widespread adoption of incentives linking economic returns to environmentally sound land management, and usufruct rights with stewardship responsibilities. Experience elsewhere shows that a community-linked approach engenders cost-effective investment, local ownership, improved operations and management, and sustainability. In this project, investment viability is further strengthened through the preparation and screening process that takes into account economic and financial considerations as well as the inclusion of vulnerable groups in public good investments and other technical, environmental and social criteria. The beneficiary requirement and the selection of village investments within fixed budget constraints also provide an incentive, which encourages prioritization of investments with maximized marginal returns within a site-specific context.

3. **Changes in Rural Productivity**. The project is expected to generate a variety of benefits not all of which can be quantified. Key quantifiable benefits will include increased agricultural productivity resulting in greater financial capital for households and contributions to national level economic growth. The following estimates for expected changes use data where relevant from the recently completed CAWMP (see table below), which had a similar investment approach. Productivity and resulting households revenue increases are expected for:

- *Rainfed Systems* – Wheat, barley, potato and forage are major rainfed crops in the project areas. In addition to incremental production of these crops under the project, there will likely be some diversification or intensification of other rainfed crops. Based on data from CAWMP in which incremental revenues from these types of investments are expected to be about US$300/HH at full development in four years.

- *Irrigated Systems* – Cotton, grains (mainly wheat), non-forage legumes and vegetables are the major irrigated crops in the project areas. Increases in yields would be expected primarily from improved water and soil management, minor irrigation system rehabilitation, and changes in cropping systems and production practices. In lowland systems, households revenues are expected to increase by about US$250 as a result of yield increases at full development, and in upland/middle hills by about (US$300/HH) at full development.
- *Livestock* – Increases in the production of livestock herds are expected mainly through improvements in grazing management, animal feeding and veterinary services. However, investments in livestock management and expected benefits would be carefully assessed for their environmental sustainability. Revenues from the sales of livestock products are expected to increase by US$200-US$300 depending on the nature of the investment.
- *Horticultural Crops and Viticulture* – a range of nuts and fruits, and vines are the primary products in the project areas. In some locations horticulture may replace annual crops on sloping lands or be conducted on fallow land. In other locations, orchards may be restocked. Apples and walnuts have been taken to represent horticulture, with apples yielding 45kg/tree (9 years) and walnuts 30kg/tree (12 years) at full development. It was assumed that smaller numbers of households would participate fruit and nut cultivation in lowland areas.

Off-farm and secondary benefits include:

- *Improved Water and Energy Supply* – Some benefit in time saved in water and fuel collection is expected from investments in water and renewable energy supply, but given the relative low level of investment in rural infrastructure this will be small. The benefit per household is calculated by multiplying the time saved by the opportunity cost of rural labor.

Other expected productivity changes are given below. The results of CAWMP indicate the benefits of these activities can comparable to those associated with investments in cropping systems and horticulture in crop yields respectively:

- *Agro-forestry* – Primary products are fuel wood and timber, which are often in demand. Benefits are expected from woodlots as well as shelterbelts and fencing.
- *Other activities* – Benefits from the establishment of activities such as apiculture.

Examples of Incremental Increases in Annual Household Revenues at Years 3 and 4 from CAWMP (2011) (financial prices)

Rural Investment Activity	**Production Value/HH in US$**
Forage Production	250-300
Grazing Management (animal shelter and rotational grazing)	200 - 300 (increase in value of livestock in herd)
Potatoes and Forage	250 - 300
Beekeeping	150 - 500
Poultry	300-350
Livestock production	200-400

4. **Underlying Assumptions.** The following key assumptions underlie the analysis:

- For the purposes of the analysis, farm productivity and land resource management investments estimated to be on average about US$250 per household. The average cost per participating household for investment in rural infrastructure is estimated at US$50;

- An attrition of 20 percent of participating households due to investment failure or for other reasons;
- It is expected that about 21,000 households would participate directly in at least one type of village-level rural production investment, and about 7,200 in pasture and off-farm water management plans;
- Farm productivity, soil and water conservation and pasture management investments are expected to reach full development in four years, orchards in nine years, and rural infrastructure in two years;
- There is phased implementation of rural investments over the five years of the project; and
- Of the households participating in village-level investments, 45% are in the uplands and middle hills and 55% in the lowland areas of the project.

5. **Project Performance Analysis.** The total project cost is US$14.85 million spread over a period of five years. For sub-component 1.1., the phasing of households participating in the project approximates the targets outlined for PDO indicator 1. For sub-component 1.2., activities will take place in years 2-5 (inclusive), with 50% of plans starting implementation in Years 2, and the remainder in Year 3. Given the assumptions of phasing beneficiaries and investments, the project is expected to reach full development in Year 15 (calendar year 2027 assuming a project start in 2013). In the base case (20% attrition of participants, low gross revenue estimates, 12% discount rate, 20 year time horizon) including all other project management, institutional support and knowledge management costs, the financial internal rate of return for the project is estimated 46%. The high returns are driven in mainly by the investments in farm productivity land management. But it should be noted that given the nature of investments returns are expected to show considerable variation. The net present value of the project is calculated to be about US$14 million (using a discount rate of 12%). The NPV becomes positive in Year 6 as a significant number of investments are expected to reach full development.

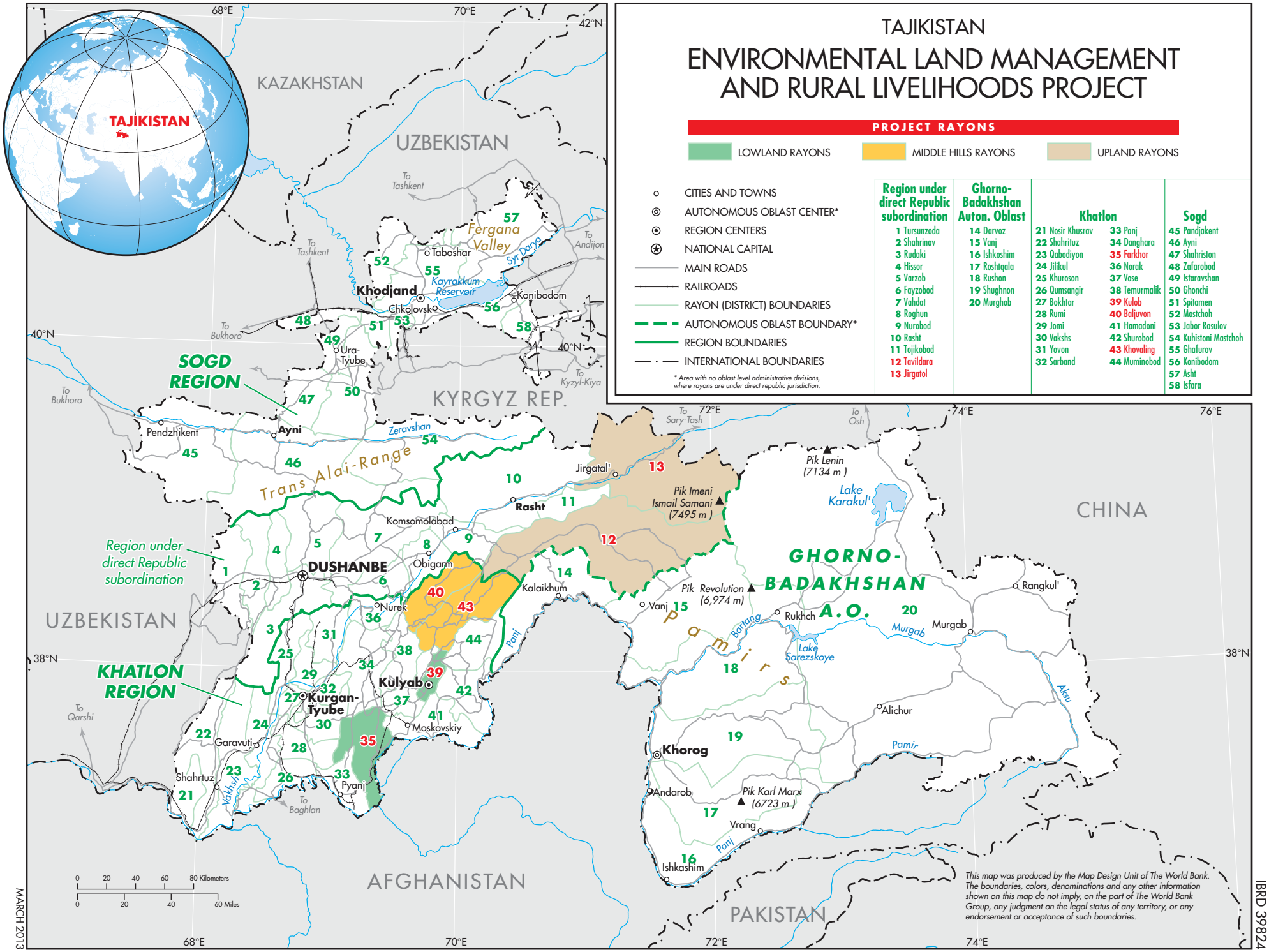
6. **Project Outcomes.** The project results framework includes composite indicator that will assess changes in the well-being or assets of participating households. The indicator will be developed through a participatory process at the project's outset and will include a measure to assess changes in agricultural and horticultural production resulting from project investments.

7. **Non-quantified Benefits.** The project is expected to generate various benefits that have not been quantified nor included in the analysis. These include key off-farm benefits (other than environmental benefits discussed below) such as:

- *Off-farm Income-generation Acti*vities – Attention to marketing aspects during rural investment planning and collaboration with agricultural growth efforts, such as GREAT, is expected to generate benefits from value-addition to agricultural and horticultural products, increased access to markets and improved knowledge, skills and organization of producers; and
- *Food Security* – Experience with CAWMP indicates that benefits may arise for non-project participants since villagers have a practice of sharing surplus produce with vulnerable and less well-off households and individuals.

8. **Environmental Benefits.** The project will have a positive impact on the environment and natural resource base of the project area, with benefits that include: increase in vegetative

cover and soil and water conservation. Investment in the country's pastures builds the basis for these areas to provide critical ecosystem services to many millions of downstream populations in Tajikistan and other Central Asia countries who are dependent on irrigation, drinking water, hydropower and other benefits. A pilot assessment of the potential for payment for ecosystem services will be undertaken in the project. Project investments are also expected to contribute to carbon sequestration for which estimations will be carried out.


TAJIKISTAN
ENVIRONMENTAL LAND MANAGEMENT AND RURAL LIVELIHOODS PROJECT
PROJECT RAYONS
LOWLAND RAYONS
MIDDLE HILLS RAYONS
UPLAND RAYONS
CITIES AND TOWNS
AUTONOMOUS OBLAST CENTER*
REGION CENTERS
NATIONAL CAPITAL
MAIN ROADS
RAILROADS
RAYON (DISTRICT) BOUNDARIES
AUTONOMOUS OBLAST BOUNDARY*
REGION BOUNDARIES
INTERNATIONAL BOUNDARIES
* Area with no oblast-level administrative divisions, where rayons are under direct republic jurisdiction.
Region under direct Republic subordination
1 Tursunzoda
2 Shahrinav
3 Rudaki
4 Hissor
5 Varzob
6 Fayzobod
7 Vahdat
8 Roghun
9 Nurobod
10 Rasht
11 Tojikobod
12 Tavildara
13 Jirgatol
Ghorno-Badakhshan Auton. Oblast
14 Darvoz
15 Vanj
16 Ishkoshim
17 Roshtqala
18 Rushon
19 Shughnon
20 Murghob
Khatlon
21 Nosir Khusrav
22 Shahrituz
23 Qabodiyon
24 Jilikul
25 Khuroson
26 Qumsangir
27 Bokhtar
28 Rumi
29 Jomi
30 Vakshs
31 Yovon
32 Sarband
33 Panj
34 Danghara
35 Farkhor
36 Norak
37 Vose
38 Temurmalik
39 Kulob
40 Baljuvon
41 Hamadoni
42 Shurobod
43 Khovaling
44 Muminobod
Sogd
45 Pandjakent
46 Ayni
47 Shahriston
48 Zafarobod
49 Istaravshan
50 Ghonchi
51 Spitamen
52 Mastchoh
53 Jabor Rasulov
54 Kuhistoni Mastchoh
55 Ghafurov
56 Konibodom
57 Asht
58 Isfara
SOGD REGION
KHATLON REGION
GHORNO-BADAKHSHAN A.O.
DUSHANBE
Khodjand
Kurgan-Tyube
Kulyab
Khorog
Ayni
Rasht
Jirgatal'
Kalaikhum
Taboshar
Konibodom
Chkolovsk
Ura-Tyube
Pendzhikent
Komsomolabad
Obigarm
Nurek
Vanj
Rukhch
Murgab
Rangkul'
Alichur
Andarob
Vrang
Ishkashim
Moskovskiy
Garavuti
Shahrtuz
Pyanj
Kayrakkum Reservoir
Fergana Valley
Syr Darya
Zeravshan
Trans Alai-Range
Pik Lenin (7134 m)
Pik Imeni Ismail Samani (7495 m)
Pik Revolution (6,974 m)
Pik Karl Marx (6723 m)
Lake Karakul'
Lake Sarezskoye
Bartang
Murgab
Panj
Vakhsh
Aksu
Pamir
Pamirs
KAZAKHSTAN
UZBEKISTAN
KYRGYZ REP.
CHINA
AFGHANISTAN
PAKISTAN
To Tashkent
To Andijon
To Bukhoro
To Qarshi
To Baghlan
To Sary-Tash
To Osh
To Kyzyl-Kiya
68°E
70°E
72°E
74°E
76°E
42°N
40°N
38°N
0 20 40 60 80 Kilometers
0 20 40 60 Miles
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