THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

FOR OFFICIAL USE ONLY

Report No: PAD4554

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A
PROPOSED GRANT

IN THE AMOUNT OF SDR 32.2 MILLION
(US$45 MILLION EQUIVALENT)

TO THE
REPUBLIC OF TAJIKISTAN

FOR A
RESILAND CA+ PROGRAM: TAJIKISTAN RESILIENT LANDSCAPE RESTORATION PROJECT

February 2, 2022

Environment, Natural Resources, and The Blue Economy Global Practice
Europe and Central Asia Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective December 31, 2021)

Currency Unit =	Tajikistani Somoni (TJS)
TJS 11.30 =	US$1
US$1 =	SDR 0.71449

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AFOLU	Agriculture Forestry and Land Use
CAMP4ASB	Climate Adaptation and Mitigation Program for Aral Sea Basin
CAREC	Regional Environmental Centre for Central Asia
CASP+	Community Based Agriculture Support Programme - Phase II
CAWMP	Community Agriculture and Watershed Management Project
CDD	Community-Driven Development
CEP	Committee for Environmental Protection
CGIAR	Consortium of International Agricultural Research Centers
CIG	Common Interest Group
CPF	Country Partnership Framework
CRI	Corporate Result Indicator
DFIL	Disbursement and Financial Information Letter
EIRR	Economic Internal Rate of Return
ELMARL	Environmental Land Management and Rural Livelihoods
ENPV	Economic Net Present Value
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
EX-ACT	Ex-Ante Carbon-Balance Tool
FA	Forest Agency under the Government of Republic of Tajikistan
FAO	Food and Agriculture Organization
FCV	Fragility, Conflict, and Violence
FLR	Forest Landscape Restoration
FM	Financial Management
FUG	Forest User Group
GBAO	Gorno Badakhshan Autonomous Oblast
GDP	Gross Domestic Product
GEF	Global Environment Facility
GFDRR	Global Facility for Disaster Reduction and Recovery
GHG	Greenhouse Gas
GIS	Geographic Information System
GIZ	German Society for International Cooperation (*Deutsche Gesellschaft für*

	Internationale Zusammenarbeit)
GoT	Government of Republic of Tajikistan
GRM	Grievance Redress Mechanism
ICARDA	International Center for Agricultural Research in the Dry Areas
ICBA	International Center for Biosaline Agriculture
ICR	Implementation Completion and Results Report
ICSD	Interstate Commission on Sustainable Development
IFAD	International Fund for Agricultural Development
IFR	Interim Financial Report
IT	Implementation Team
IUCN	International Union for Conservation of Nature
JFM	Joint Forest Management
KBA	Key Biodiversity Area
KfW	*Kreditanstalt für Wiederaufbau*
LDN	Land Degradation Neutrality
M&E	Monitoring and Evaluation
MIS	Monitoring Information System
MoF	Ministry of Finance
MoU	Memorandum of Understanding
NBS	Nature-Based Solutions
NBT	Nature Based Tourism
NDC	Nationally Determined Contribution
NDS	National Development Strategy
NFI	National Forest Inventory
NPV	Net Present Value
PDO	Project Development Objective
PIU	Project Implementation Unit
PMP	Pasture Management Plan
POM	Project Operations Manual
PPSD	Project Procurement Strategy for Development
PRT	Pasture Reclamation Trust
PSC	Project Steering Committee
PUU	Pasture User Union
REFCA	Regional Engagement Framework for Central Asia
ROAM	Restoration Opportunities Assessment Methodology
RRRA	Regional Risk and Resilience Assessment
SCLMG	State Committee for Land Management and Geodesy
SDG	Sustainable Development Goals
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SFME	State Forest Management Entities
SGC	Sub-grant Committee
SGM	Sub-Grant Manual
SISPNA	State Institution of the Specially Protected Natural Areas
SLMTJ	Sustainable Land Management Tajikistan
SMEs	Small and Medium Enterprises
SFF	State Forest Fund

TNP	Tajik National Park
TOR	Terms of Reference
UCA	University of Central Asia
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
WBG	World Bank Group
WOCAT	World Overview of Conservation Approaches and Technologies
WUA	Water User Association

Regional Vice President: Anna M. Bjerde

Country Director: Tatiana Proskuryakova

Regional Director: Steven N. Schonberger

Practice Manager: Kseniya Lvovsky

Task Team Leader(s): Drite Dade, Rajesh Koirala

TABLE OF CONTENTS

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Afghanistan, Kyrgyz Republic, Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan	RESILAND CA+ Program: Tajikistan Resilient Landscape Restoration Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P171524	Investment Project Financing	Substantial

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	[ ] Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
24-Feb-2022	30-Sep-2027

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The Project Development Objective is to increase the area under sustainable landscape management in selected locations in Tajikistan, and promote Tajikistan's collaboration with Central Asia countries on transboundary landscape restoration.

Components

Component Name	Cost (US$, millions)
Component 1. Strengthen Institutions and Policies, and Regional Collaboration	6.50
Component 2. Enhance Resilient Landscapes and Livelihoods	35.50
Component 3. Project Management and Coordination	3.00

Organizations

Borrower:	Republic of Tajikistan
Implementing Agency:	The Committee for Environmental Protection under the Government of the Republic of Tajikistan

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	45.00
Total Financing	45.00
of which IBRD/IDA	45.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	45.00
IDA Grant	45.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Tajikistan	0.00	45.00	0.00	45.00
National PBA	0.00	15.00	0.00	15.00
Regional	0.00	30.00	0.00	30.00

Total	**0.00**	**45.00**	**0.00**	**45.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2022	2023	2024	2025	2026	2027	2028
Annual	5.00	10.00	15.00	10.00	5.00	0.00	0.00
Cumulative	5.00	15.00	30.00	40.00	45.00	45.00	45.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food, Urban, Resilience and Land, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Low
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Moderate
7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description

Section I.A.1 of Schedule 2 of the Financing Agreement. No later than three (3) months after the Effective Date, the

Recipient shall establish and thereafter maintain throughout Project implementation a Project Steering Committee ("PSC").

Sections and Description
Section I.A.4 of Schedule 2 to the Financing Agreement. Prior to the carrying out of Part 1.2 of the Project, the Recipient, through CEP, shall enter into an agreement with an entity duly qualified to support regional cooperation on sustainable development issues in Central Asia, under terms of reference and conditions satisfactory to the Association.

Sections and Description
Section I.C.1 of Schedule 2 to the Financing Agreement. For the implementation of Parts 2.1(c)(iii), 2.2(c), and 2.4 of the Project, the Recipient, through CEP, shall make Subgrants to Beneficiaries in accordance with eligibility criteria and procedures acceptable to the Association and set forth in the SGM.

Sections and Description
Section I.C.2 of Schedule 2 to the Financing Agreement. The Recipient, through CEP, shall make each Subgrant under a Subgrant Agreement with the respective Beneficiary on terms and conditions approved by the Association.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	the Recipient has set up the CEP-IT with composition, resources and terms of reference acceptable to the Association
Type	Financing source	Description
Effectiveness	IBRD/IDA	the Recipient, through CEP, has adopted the POM in form and substance satisfactory to the Association; and
Type	Financing source	Description
Effectiveness	IBRD/IDA	the Recipient, through CEP, has signed an MOU with each of the Participating Agencies, in form and substance satisfactory to the Association.
Type	Financing source	Description
Disbursement	IBRD/IDA	No withdrawal shall be made under Category (3) in the Financing Agreement unless and until the Subgrants Manual has been adopted by the Recipient, through CEP, in form and substance satisfactory to the Association.

I. STRATEGIC CONTEXT

A. Country Context

Regional Context

1. **Drylands in Central Asia are one of the most rapidly degrading and climate-vulnerable areas in the world.**[1] A mix of natural arid conditions and increasing anthropogenic pressures, such as converting land to intensified commercial agriculture, logging, and grazing, have led to land degradation, deforestation, erosion, loss of vegetation cover, and loss of biodiversity. This, in turn, has affected the productivity of agriculture, the resilience of transport and infrastructure, and the potential for tourism development, while increasing the fragility of the region. The region is increasingly exposed to intense weather events and natural disasters, which further degrade the landscapes and the living conditions and economic opportunities of people. Climate change impacts are expected to worsen the condition of countries' natural resources and the overall resilience of their populations and ecosystems.

2. **Land degradation, including deforestation, costs on average 6 percent of Central Asian countries' gross domestic product (GDP), with the cost of inaction being six times higher than the cost of action**[2] **due to a strong dependency of the population and the economy, including the forestry and agriculture sectors, on landscapes.** Since 1990, degradation-related disasters have affected the lives of over 10 million people in Central Asia and caused damages worth around US$2.5 billion.[3] One key example is the degraded Aral Seabed, which produces massive sand and salt storms with tragic impacts on livelihoods and health of communities in Kazakhstan and Uzbekistan. Another example is the increased frequency of landslides and mudflows in Tajikistan and the Kyrgyz Republic that has led to an economic cost of about US$750 million to Tajikistan alone in the last decade.[4] Arresting the degradation of regional pubic goods, such as water and land, will improve the livelihoods of the poor, including their climate resilience, and increase global interest in Central Asia's vast and largely pristine natural resource endowment for 'clean and green' agricultural exports and tourism.[5]

3. **Investing in forest landscape restoration (FLR) is critical to address the complex nexus of local livelihoods, land degradation and deforestation, climate change, environmental security, biodiversity conservation, and economic growth.** Implementation of interventions, as viewed through a landscape lens, allows to balance across a mosaic of interdependent land uses, such as protected areas, ecological corridors, agroforestry systems, agriculture, and riparian strips, through a wide range of restoration strategies. FLR helps recover the ecological functionality of the landscape while meeting a variety of

[1] Magero. C. 2019. *Drylands and Climate Change – Synthesis Paper*. https://www.iucn.org/sites/dev/files/content/documents/drylands_and_climate_change_gdi.pdf*; and,* World Bank. 2019. https://blogs.worldbank.org/voices/fighting-climate-change-planting-trees-sea.

[2] Kazakhstan: 3 percent; Kyrgyz Republic: 11 percent; Tajikistan: 10 percent; Turkmenistan: 4 percent; Uzbekistan: 3 percent. Source: Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10.

[3] EM-DAT International Disaster Database, *Université Catholique de Louvain*, D. Guha-Sapir, Brussels, Belgium. *https://www.emdat.be/.*

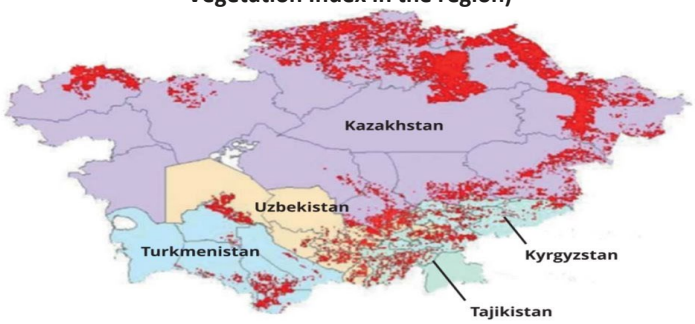
[4] According to World Bank data.

[5] World Bank Group Regional Engagement Framework for Central Asia (REFCA, June 2020.

human needs, including its ability to contain erosion and floods, food and firewood production capacity, and protection of downstream water supplies, among others. As noted in the 2019 Special Report on Climate Change and Land of the Inter-governmental Panel on Climate Change (IPCC),[6] landscapes are both a source and a sink of greenhouse gases (GHGs) and play a key role in the exchange of energy, water, and aerosols between the land surface and atmosphere. Landscape restoration can, therefore, contribute to reducing the negative impacts of multiple stressors, including climate change, on ecosystems and societies and improve resilience of ecosystems and people affected by climate change.

4. **In Central Asia, land degradation and reforestation are particularly prevalent in border areas, causing increased vulnerability of natural ecosystems and acute regional externalities.** Central Asian countries face similar land management challenges due to a region-wide increase in land degradation related to animal husbandry, rangeland degradation, irrigated agriculture and salinization, soil erosion, encroachment of agriculture into marginal lands, vulnerability to climate change, and high population in rural areas along the borders (see figure 1). Land degradation also widely affects rural populations which are the most vulnerable to poverty and unemployment. These border areas also experience degradation-related natural disasters such as landslides and floods, which, in turn, impact key transboundary infrastructure such as roads, railways, transboundary trade, transboundary watersheds (such as the Amu Darya and Sir Darya River basins), and tourism development along the region's Silk Road. The region's transboundary biodiversity corridors, home to some globally important migratory routes and critically endangered species, are also affected in terms of their ability to conserve biodiversity.[7] Climate change impacts on forests and their vitality are essential for semiarid environments such as Central Asia, where the mountain regions belong to the globally important biodiversity hotspots. Alterations in species distribution or drought-induced tree mortality might result not only in a loss of biodiversity but also in a loss of other ecosystem services, as evidenced[8] through impacts on juniper trees in the Zaamin National Park.

Figure 1: Hotspots of Land Degradation in Central Asia (determined by changes in Normalized Difference Vegetation Index in the region)



Source: Nkonya, E. et al. 2016 (Eds), Economics of Land Degradation and Improvement – a Global Assessment for Sustainable development.

5. **These shared regional challenges require joint solutions to achieve impact at scale, and after decades of national focus, Central Asian leaders are beginning to form a regional mindset.** A regional vision for FLR and collaborative action by the governments is needed to make a real impact on the resilience of these shared landscapes and the people who depend on them. This will also result in important regional spillovers that are transboundary in nature, such as improved connectivity and

[6] *https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf*.
[7] UN Environment. Convention on Migratory Species February 2020; Report on Transboundary Conservation Hotspots for Central Asia Mammals Initiative. https://www.cms.int/sites/default/files/document/cms_cop13_inf.27_cami-tb-hotspots_e.pdf.
[8] Seim A, G Omurova, E Azisov, K Musuraliev, K Aliev, T Tulyaganov, et al. 2016. "Climate Change Increases Drought Stress of Juniper Trees in the Mountains of Central Asia." *PLoS ONE* 11 (4): e0153888. https://doi.org/10.1371/journal.pone.0153888.

integrity of natural resources, increased resilience of regional climate-sensitive cross-border infrastructure such as roads, railways, and increased opportunities for local development and resilience of transboundary communities. Such regional impacts cannot be achieved through isolated country actions that restrict the flow of information and technologies, reduce the efficiency of actions, and could result in adverse impacts on neighboring countries. In recent years, the governments have expressed a recognition and need for regional cooperation to jointly address environmental and climate challenges, bringing new opportunities to develop a regional vision, culture, and mindset for cooperation. This is witnessed with the joint signing of the 2018 Astana Resolution on reinforced cooperation on landscape restoration. In 2019, the countries joined the ECCA30 Initiative to support these efforts in partnership with European states and prominent development partners, and in 2020, the countries endorsed a 10-year Regional Environmental Program for Sustainable Development under the auspices of the Interstate Commission on Sustainable Development (ICSD) and signed a Joint Declaration of intent to cooperate in the field of climate and security within the framework of Green Central Asia. Recent years have also seen the formation of regional institutions and platforms around joint environmental and natural resource challenges. Examples include the Executive Committee of International Fund for Saving the Aral Sea, the Blue Peace Central Asia initiative on transboundary water management, and the World Bank-supported Climate Adaptation and Mitigation Program for Aral Sea Basin (CAMP4ASB - P151363). The establishment of a regional platform on landscape degradation is pending.

6. **The World Bank Central Asia Resilient Landscape Restoration Program (RESILAND CA+ Program) was formed in 2019 to provide Central Asian countries with a regional framework for landscape restoration with the aim of increasing the resilience of regional landscapes in Central Asia.** This umbrella program finances analytics and advisory on FLR and supports investment projects in Central Asian countries, one of which is the proposed Tajikistan Resilient Landscapes Restoration Project. The project is developed alongside RESILAND CA+ Program of projects in Uzbekistan and the Kyrgyz Republic, glued together by a Regional Exchange Platform for high-level dialog on FLR (see annex 5 for further details on the RESILAND CA+ Program). A collective, harmonized, and regional approach of the RESILAND CA+ Program is considered the most effective method for FLR with shared border areas being hotspots of land degradation, deforestation, and poverty, thereby making national approaches not as effective. The program is also aligned with a national vision of addressing the degradation of regional public goods by working together as one region.

7. **Land degradation, deforestation, and other environmental stressors combined with factors such as rapid population growth and the lack of effective binding arrangements over shared common resources (for example, land, water, and infrastructure) drive fragility, conflict, and violence (FCV) in border areas.** Actions supported under the RESILAND CA+ Program include enhancing regional cooperation on transboundary natural resource management, investing in climate-resilient livelihoods opportunities in vulnerable communities, investing in climate-resilient infrastructure, and supporting cross-border social and cultural exchanges between local authorities and communities to build trust—all of which address the natural resource and climate change-related FCV driver (for example, the Peace Park in the Tajikistan project under RESILAND CA+ Program). The Regional Risk and Resilience Assessment (RRRA) of the Ferghana Valley and Central Asia-Afghanistan border areas highlights that land degradation, water scarcity, and frequent natural disasters along the northern Afghanistan-Tajikistan/Uzbekistan border are exacerbated by climate change and result in competition over scarce land, suppress

livelihoods, fuel migration, and reinforce vulnerabilities in local communities.[9] Land, forests, and water in the northern Afghanistan-Tajikistan/Uzbekistan border area could come under further stress if there is an influx of refugees from Afghanistan to Tajikistan[10] and if trans-national governance arrangements are unable to function effectively due to the change in government in Afghanistan.

8. **The RESILAND CA+ Program: Tajikistan Resilient Landscapes Restoration Project** meets the following eligibility criteria of the IDA-19 Regional Window:

Table 1. Project Eligibility for IDA-19 Regional Financing

Eligibility Criteria	Project Eligibility
The operation involves three or more countries, all of which need to participate, and at least one of them is an IDA-eligible country. Two, if, at least, one IDA-eligible is fragile and conflict-affected situations.	The project is part of the regional RESILAND CA+ Program, which includes projects in Uzbekistan (IDA country), the Kyrgyz Republic (IDA country), and Tajikistan (IDA country).
The operation would have benefits, either economic or social, that spill over country boundaries.	The project will have regional spillovers: (a) improved connectivity and integrity of natural resources across borders, (b) increased resilience of key regional infrastructure prone to the impacts of land degradation (for example, roads and railways), and (c) increased resilience of transboundary communities benefitting from more productive landscapes and livelihood opportunities.
There is clear evidence of country and regional ownership of the operation.	The project was requested formally by the Government of Republic of Tajikistan in a letter to the World Bank in December 2018. Further, Tajikistan has demonstrated its commitment to FLR and the need for regional cooperation and action through a regional program approach as follows: In July 2018, several Caucasus and Central Asian countries, including Tajikistan, reaffirmed their commitments to the Bonn Challenge global target of restoring deforested and degraded land, by adopting the Astana Resolution. In 2019, Tajikistan joined the Europe, Caucasus, and Central Asia ECCA30 regional initiative to accelerate implementation of the global Bonn Challenge. In addition, the World Bank received a letter in November 2021 from the Chairman of the Committee for Environmental Protection stating Government's commitment to the RESILAND Program.
The operation provides a high level of policy harmonization that has a well-developed and broadly supported regional strategy.	The project will help establish a Regional Exchange Platform for high-level dialog to support harmonization of policies and approaches to transboundary landscape restoration between countries, designed as a subcomponent of the project (Subcomponent 1.3). The platform will result in a Memorandum of Understanding (MoU) for restoration of transboundary landscape corridors in Central Asia, a regional methodology for ecosystem classification and inventory, an MoU for

[9] The RRRA was conducted jointly by the World Bank, United Nations, and United Kingdom's Foreign Commonwealth and Development Office with the objectives of promoting shared understanding of FCV drivers, risks, and sources of resilience; establishing a foundation for better coordinated and more impactful regional and cross-border engagements; and strengthening policy dialog with governments, including on programming policies to respond to these FCV drivers and risks. RRRA: Summary of Findings and Recommendations for Tajikistan Partner Policy Consultations. Unpublished PowerPoint Presentation, August 25, 2021.

[10] WBG. 2021. *Central Asia Refugee Needs Assessment: Preliminary Findings*. Washington, DC.

Eligibility Criteria	Project Eligibility
	the designation of transboundary 'peace parks', a protocol for tourism across transboundary protected areas, a nature-based solutions (NBS) protocol for transboundary road protection, and a regional online database on sustainable landscape management.

9. **Each national project under RESILAND CA+ Program will address landscape restoration using specific entry points valid to the country.** For example, Tajikistan will focus on climate-smart agriculture, forest, and pasture management, while Uzbekistan will focus on tree-based systems, protected areas, and nature-based tourism.

Country Context

10. **Tajikistan—a mountainous country with over 90 percent area covered by mountains—has had rapid economic growth between 1998 and 2016.** During this period the country's per capita real income more than doubled and the poverty rate rapidly declined. GDP doubled between 1998 and 2018.[11] Between 2000 and 2020, the poverty rate fell from 83 percent of the population to 26.5 percent, while the economy grew at an average rate of 7 percent per year. However, two major external shocks in 2009 and 2014 slowed down economic development, along with progress in poverty reduction. Tajikistan was able to survive the global financial crisis in 2009 due to strong remittances and increased support from development partners. The Government estimates that about 31 percent of the population are poor, more than 70 percent of whom live in rural areas. The country has a population of about 9.66 million, mostly young. Poverty reduction has been driven mostly by labor earnings and remittances. As of summer, 2021, about 40 percent of households had at least one migrant member. Tajikistan is one of the world's most remittance-dependent countries.[12] However, social vulnerabilities and fragility risks persist for several reasons. These include the legacy of the 1992–97 civil war, persistent poverty pockets, especially certain regions, income insecurity, underemployment and unemployment, and security risks emanating from the 1,400 km border with Afghanistan.[13] Data from 2016 suggest that about 29 percent of youth ages 15–24 years were not in employment, education, and training in Tajikistan. Consequently, the Government has emphasized creating youth job opportunities as a priority.

11. **Although the COVID-19 pandemic caused a major economic slowdown in Tajikistan, disproportionately affecting the poor, the country is experiencing a fast recovery.** During 2020, restrictions on labor mobility and economic activity at home and abroad resulted in low migrant remittances (remittances fell by 6.3 percent in 2020), weaker consumer demand, and reduced investments.[14] However, from a real GDP growth rate of 4.5 percent in 2020, this has increased to 8.7 percent in the first half of 2021. Tajikistan achieved higher economic growth through an increase in the export of precious metals and considerable pickup in domestic demand. In addition, the gradual opening of air traffic with the Russian Federation stimulated the inflow of migrant remittances and supported the recovery of household consumption.[15]

[11] https://tradingeconomics.com/tajikistan/gdp-per-capita.
[12] World Bank. 2019. *Country Partnership Framework FY19–FY23*.
[13] World Bank. 2019. *Country Partnership Framework FY19–FY23*.
[14] World Bank. 2020. *Tajikistan: Economic Slowdown Amid the Pandemic*. Country Economic Update Fall 2020. Washington, DC.
[15] https://thedocs.worldbank.org/en/doc/d5f32ef28464d01f195827b7e020a3e8-0500022021/related/mpo-eca.pdf.

12. **The economic outlook hinges on the pace of the vaccination rollout and the resiliency of the global economy.** The government expects new deliveries of vaccines in the remainder of 2021 and next year through donations and self-procurement. Real GDP growth is projected at 6 percent in 2021, and moderate in the medium term. Remittances and foreign investment are projected to rise, reflecting a better growth outlook in Russia and China. Poverty is projected to fall in 2021, due to economic recovery and improvements in household income. In response to the pandemic, the Government of the Republic of Tajikistan (GoT) developed action plans on Country Preparedness and Response and on Preventing and Reducing the National Economy's Exposure. The first focuses on health and social aspects; the second on food security, resilient livelihoods, institutions, and job creation. Although recovery continued through August 2021 for some measures of well-being, Tajikistan's labor market remained weak, and food insecurity more prevalent than it was typical before the pandemic. Although employment quickly regained lost ground after the initial shock of the COVID-19 outbreak, a second surge in joblessness took hold in November 2020 and has, thereafter, remained abnormally high. In August 2021, about 33 percent of households still reported reducing food consumption due to cost and more than 40 percent that they were worried about obtaining enough food. But 2021 also brought several bright spots and improved conditions. A rebound in migration and remittances provided substantial relief as the share of migrants actively working in 2021 surpassed pre-pandemic levels. As of August 2021,[16] households reporting that one or more members were abroad for work also approached levels last reached in 2019. Progress in COVID-19 vaccinations maintained an auspicious trend, with about 83 percent of adults saying they were either vaccinated or planned to be in August 2021.

13. **Tajikistan is one of the most vulnerable countries to climate change.** Tajikistan has one of the lowest levels of GHG emissions—both in absolute and per capita terms—in Central Asia.[17] However, Tajikistan is the most vulnerable to climate change mainly due to its low adaptive capacity. In the Notre Dame-Global Adaptation Index for 2019,[18] Tajikistan ranks 100 out of 128 countries with overall score 46.8, Vulnerability 0.39, and Readiness 0.32. Relative to other countries, its current vulnerabilities are manageable but improvements in readiness will help it better adapt to future challenges. Tajikistan is the 72nd least-vulnerable country and the 52nd least-ready country. Climate change affects all types of interventions: agriculture, forest, land restoration—in pasture and protected areas—; erratic precipitation pattern; poor growth of vegetation; and increased incidence of fire, disaster risks, loss of biodiversity and pest and disease outbreak.

B. Sectoral and Institutional Context

14. **Land degradation and unsustainable use of natural resources pose considerable constraints for rural development.** Rural poverty remains concentrated in communities dependent on natural resources, particularly on forest, pasture, water resources, and agriculture.[19] At least 10 percent of Tajikistan's population is living on degraded lands,[20] while soil erosion affects about 70 percent of arable land.[21]

[16] Listening2Tajikistan Survey of Wellbeing, WBG 2021.
[17] The Government of the Republic of Tajikistan. 2021. *The Updated NDC of the Republic of Tajikistan*.
[18] https://gain.nd.edu/our-work/country-index/.
[19] UNDP (United Nations Development Programme). 2012. *Tajikistan Poverty in Context of Climate Change.*
[20] GoT. 2016. *National Development Strategy of The Republic of Tajikistan (up to 2030)*. Dushanbe.
[21] World Bank. 2018. *Systematic Country Diagnostic*.

15. **The key challenges in addressing land degradation include** (a) inadequate technical capacity, investment, and collaboration at regional and national levels that hinder adequate planning and implementation of landscape restoration and (b) lack of financial incentives, preventing government agencies and local communities from adopting landscape restoration practices. The project addresses these challenges in four key interconnected land used: forestry, pasture, protected areas, and agriculture crop-based livelihoods.[22]

16. **Tajikistan's limited forest cover is diminishing rapidly due to overexploitation and uncontrolled grazing.** The country, once with 25 percent forest cover, now has only 3 percent, which is also under tremendous pressure. While the forest area is only 3 percent, area under the Forest Agency (FA) is 13 percent, which is mostly maintained as grazing land. For 70 percent of the population that is rural, fuelwood is the primary energy source due to an inconsistent energy supply.[23] Additional constraints in the sector include unclear responsibilities and jurisdictions; weak administrative, managerial, and law enforcement capacities; and lack of sustainable forest management schemes.[24] Evidence-based forest policy making and monitoring is impaired due to lack of up-to-date data and mapping. There has been no national forest inventory (NFI) since 1990. Damage due to fire, pest, disease, and dieback are also not recorded in any systematic manner. A robust national forest monitoring system would help make international reporting more credible.

17. **Land degradation is also a threat in protected areas.** Currently, about 22 percent of Tajikistan is demarcated as protected areas and recreational zones, with limited use of natural resources or full prohibition of access to land with valuable ecosystems. Most of the Tajik landscape falls within the 'Mountains of Central Asia' biodiversity hotspot and priority Key Biodiversity Areas (KBAs) of the Critical Ecosystems Partnership Fund. Tajikistan is also a member of the Convention on Biological Diversity and prepared a National Biodiversity Strategy and Action Plan in 2016. However, implementation remains poor due to inadequate financing and technical capacity. Protected areas lack management plans, measures to prevent or reduce degradation, and opportunities for co-management with stakeholders. At the policy level, national biodiversity conservation legislation does not fully align with the requirements of the Convention on International Trade in Endangered Species of Wild Fauna and Flora or the Convention on Migratory Species.

18. **Pasture stocks are also rapidly deteriorating, mostly because of poor management.** Factors involved in the deterioration of pastureland, which accounts for some 80 percent of agricultural land,[25] include (a) the deterioration of the socialist system of livestock production and organized structure of pasture management starting in the early 1990s; (b) the challenges of administering and maintaining a public good such as pastures, while over 90 percent of animals are held in household farms; (c) the limited effectiveness of pasture user unions (PUUs) as a result of incomplete transfer of land use rights and uncertain financial viability; (d) the additional pressure on resources from the more than threefold growth

[22] Other areas, such as water resource management particularly for irrigation, livestock husbandry, and commercial agriculture, have not been focused on this project because they are well covered by other projects, for example, World Bank project on irrigation/water sector (Tajikistan Resilient Irrigation Project [P175356]), International Fund for Agricultural Development (IFAD) project on agriculture/livestock, and World Bank project on commercial agriculture (Tajikistan Agriculture Commercialization Project [P132652]).

[23] World Bank Group. 2018. *Tajikistan - Systematic Country Diagnostic: Making the National Development Strategy 2030 a Success - Building the Foundation for Shared Prosperity (English). Report Number 126209. Washington, D.C.*

[24] GTZ. 2010. *Forest Sector Analysis of the Republic of Tajikistan.*

[25] The Government of the Republic of Tajikistan. 2014. *The Third National Communication under UNFCCC.*

of the rural population over the past 50 years; (e) increased livestock units (for example, number of cattle has increased by 70 percent over 1991–2019[26]; and (f) climate change impacts, particularly the increasing erosive capacity of rainfall exacerbating soil erosion. Following the collapse of the Soviet pasture management system, there has been a lack of funding for restoration and maintenance of pastures and related infrastructure. About 85 percent of pastures are subject to erosion. Growing livestock numbers have increased pressure on pastures located around settlements, while remote and summer pastures are relatively underutilized. The actual stocking rate represents 205 percent of the carrying capacity of pastures. Pasture restoration and enhancement of their productivity need to go hand in hand with reduction of livestock numbers.

19. **Climate change is expected to increase the intensity and frequency of extreme climate events, leaving Tajikistan's economy and people increasingly vulnerable**. Tajikistan faces relatively high disaster risk and is ranked 64 out of 191 countries in the INFORM 2019 Index for Risk Management.[27] This risk is driven most significantly by exposure to drought, for which Tajikistan ranks 8th in the world.[28] Risk is also enhanced by moderate levels of flood exposure and relatively low levels of coping capacity. The implications of climate change for exposure to natural hazards are costly to the economy and its people, for example, average annual losses to all types of flood are estimated at US$48 million[29] in Tajikistan. Tajikistan also faces significant risks from flash floods and notably glacier lake outburst floods. These events can also happen as a result of, or cause, landslides and dangerous mudflows.[30]

20. **Climate change has also had a detrimental impact on vegetation health in Tajikistan, now identified as a hotspot of potential dryland expansion,[31] desertification, and shifts in species leading to biodiversity loss.** Over 1992–2011, rising air temperatures were associated with significant loss of 'greenness'.[32] These losses have been linked to increased water deficits driven primarily by greater evapotranspiration which result in stunted plant growth and desiccation. Tajikistan contained most of the land that is immediately vulnerable to desertification[33] with sustainability challenges, soil health, and forest fires, which are likely to be exacerbated by climate change.[34] Issues such as the projected increase in the erosive capacity of rain—and its impact on soil quality—will increase the pressure on key ecosystem

[26] FAO (Food and Agriculture Organization). 2021. *Animal Production and Pasture Management - Sub-sector Analysis and Investment Plan: Contribution to Tajikistan National Investment Plan for Food and Nutrition Security and Sustainable Agriculture Development (2021-2030)*.
[27] Climate Change Risk Profile, World Bank, 2021. https://climateknowledgeportal.worldbank.org/sites/default/files/2021-09/15919-WB_Tajikistan%20Country%20Profile-WEB.pdf.
[28] The World Bank Group and the Asian Development Bank. 2021. *Climate Risk Country Profile: Tajikistan.*
[29] UNISDR (United Nations Office for Disaster Risk Reduction).2014. Prevention Web: Basic Country Statistics and Indicators (accessed August 14, 2018), https://www.preventionweb.net/countries.
[30] GFDRR (Global Facility for Disaster Reduction and Recovery). 2017. *Disaster Risk Profile: Tajikistan*. https://www.gfdrr.org/sites/default/files/Tajikistan.pdf
[31] Huang, J., H. Yu, X. Guan, G. Wang, and R. Guo. 2016. "Accelerated Dryland Expansion under Climate Change." *Nature Climate Change* 6 (2): 166–171. https://www.nature.com/articles/nclimate2837.
[32] Zhou, Y., L. Zhang, R. Fensholt, K. Wang, I. Vitkovskaya, and F. Tian. 2015. "Climate Contributions to Vegetation Variations in Central Asian Drylands: Pre- and Post-USSR Collapse." *Remote Sensing* 7 (3): 2449–2470. https://doi.org/10.3390/rs70302449.
[33] Zhang, G., C. M. Biradar, X. Xiao, J. Dong, Y. Zhou, Y. Qin, . . . R. J. Thomas. 2018. "Exacerbated Grassland Degradation and Desertification in Central Asia during 2000–2014." *Ecological Applications* 28 (2): 442–456.
[34] Loboda, T. V, L. Giglio, L. Boschetti, and C. O. Justice. 2012. "Regional Fire Monitoring and Characterization Using Global NASA MODIS Fire Products in Dry Lands of Central Asia." *Frontiers of Earth Science* 6 (2): 196–205. https://link.springer.com/article/10.1007/s11707-012-0313-3.

functions.[35] These changes, in combination with issues such as glacial melt and drought, will likely result in significant shifts in species' viable ranges (both in natural ecosystems and for agricultural purposes).[36] Hence, there is a strong need for local land management and development practices such as conservation in protected areas, land restoration, and strengthening ecosystem resilience, to prevent biodiversity loss.

21. **The agriculture sector makes critical contributions to food security and reduction of rural poverty.** It accounts for 20 percent of national GDP andprovides 61 percent of the country's employment[37]. However, climate change will affect Tajikistan's agriculture and, in turn, food security due to dependence on water resources. Climate change is expected to lead to increased annual mean temperatures,[38] more intense heavy precipitation events, shortening of rainfall seasons, fewer frost days, and changes in growing season length. These processes, along with mismanagement of land resources, will likely lead to increased desertification, landslides, and erosion. Available estimates indicate that approximately 82 percent of all land in Tajikistan is already affected by soil erosion to some degree.[39] The poor, who are mostly dependent on agricultural livelihoods, will become increasingly vulnerable as impacts on agriculture and food production may increase relative food prices and reduce agricultural wages.[40]

Government Policies and Strategies

22. **Tajikistan is committed to reducing landscape degradation through reforestation and afforestation.** In 2018, Tajikistan, along with five other Caucasus and Central Asian countries, signed the Astana Resolution to restore about 2.7 million ha of degraded forest landscapes. Tajikistan specifically committed to restoring 66,000 ha of degraded forests by 2030.[41] The Forestry Agency under the Government of the Republic of Tajikistan (FA) has developed the Forest Development Strategy (2016–2030), but this is yet to be adopted by GoT, so there is no dedicated funding for implementation. The action plan for implementing the strategy lists detailed activities along with specific targets, but a lack of adequate investment and capacity means that most activities have not started, and targets remain unattained. The National Development Strategy (NDS) 2030 addresses energy issues and aims to provide a reliable energy supply. Planting 1,000 ha, rehabilitating 2,000 ha, and supporting natural forest regeneration on 8,000 ha of forests annually is envisaged. The updated Nationally Determined Contribution (NDC) aims to have 1.8 million tons of CO_2 sequestered by forests by 2030.

23. **The NDS (2015–2030) prioritizes the development of the 'green economy',** and the Medium-Term Development Program for 2016–2020 focused on achieving the Sustainable Development Goals (SDGs) and adopting climate change adaptation measures in order to transition to a green economy. For

[35] Duulatov, E., X. Chen, A. C. Amanambu, F. U. Ochege, R. Orozbaev, G. Issanova, and G. Omurakunova. 2019. "Projected Rainfall Erosivity over Central Asia Based on CMIP5 Climate Models." *Water* 11 (5): 897. https://doi.org/10.3390/w11050897.
[36] Luo, Y. et al. 2018. "Contrasting Streamflow Regime Induced by Melting Glaciers across the Tien Shan – Pamir – North Karakoram." *Nature – Scientific Reports* 8:16470. https://www.nature.com/articles/s41598-018-34829-2.
[37] https://www.ifad.org/en/web/operations/w/country/tajikistan
[38] According to the Nationally Determined Contributions (NDC) toward Climate Change submitted by the GoT - NDC https://unfccc.int/resource/docs/nap/tainap01e.pdf.
[39] UNDP (United Nations Development Programme) and UNEP (United Nations Environment Programme). 2012. Poverty-Environment Initiative in Tajikistan
[40] Shah, M., and B. Steinberg. 2012. *Could Droughts Improve Human Capital? Evidence from India*. http://www.frbsf.org/economic-research/files/Shah_Steinberg.pdf.
[41] UNECE (United Nations Economic Commission for Europe). 2018. *Ministerial Roundtable on Forest Landscape Restoration in Caucasus and Central Asia*. Summary Report

the transition, forestry and agriculture are recognized as two key sectors. The Medium-Term Development Program for 2021—2025, aims at strengthening the resilience of ecosystems and existing biodiversity as part of climate change and disaster risk management. To restore natural ecosystems and preserve biodiversity, the following tasks have been set: increasing the area of forest plantations (on average 1,500 ha per year), restoring degraded ecosystems (from 20 percent to 39 percent), protecting and restoring associated water resources of ecosystems, and stopping the process of loss of biodiversity. The National Strategy for Adaptation to Climate Change (up to 2030) identifies the priority adaptation measures, which include improving the pasture management system; developing forest plantations aimed at reducing the impact of winds; strengthening forestry, agro-forestry, joint forest management (JFM), conservation of natural resources, and management skills; and promoting better soil and erosion protection.

24. **Tajikistan has adopted a participatory forest management approach—JFM.** JFM enables the local population—either individuals or groups—to become involved in forest management and support the rehabilitation of degraded natural forests over the long term. Since 2018, the required subsidiary regulations and by-laws are in place. State Forest Management Entities (SFMEs) (or Lezkhoses) are now obliged to support JFM. The FA, SFMEs, and forest users in previous donor-supported areas have gained an understanding of JFM and are now able to share this approach more widely, paving the way for a national rollout. Due to contradictions between the forest and land codes, areas with no forest cover are not considered for JFM. Resolving this issue would facilitate inclusion of new areas for JFM.

25. **Similarly, the Pasture Law 2019 delegates management of pasture to local communities.** Pasture users form PUUs, develop Pasture Management Plans (PMPs), and become collectively responsible for pasture management. There are around 430 active PUUs in the country. The PUUs are proving to be an appropriate and potentially cost-effective system for the management of pasture, but areas for improvement and challenges remain. Their operationality remains limited by issues of land tenure and financial viability, which do not provide a conducive environment for PUUs to operate optimally. Similarly, operationalizing the 2019 Pasture Law requires developing by-laws, environmental standards, and transfer of land use rights particularly to support PUUs.

26. **Tajikistan recognizes the need to reduce GHG emissions and adapt to climate change through investments in different sectors including agriculture and forestry.** Following the 2015 Paris Agreement, Tajikistan submitted its Intended Nationally Determined Contributions in March 2017. An updated NDC was submitted in October 2021. Based on the updated NDC, Tajikistan aims to set a flexible target of not exceeding 60–70 percent of the 1990[42] level by 2030 (which amounts to 21.32–24.87 $MtCO_2$-eq), without international assistance. A target of 50–60 percent of the 1990 level by 2030 (which amounts to 17.76–21.32 $MtCO_2$-eq) is set with substantial international support including access to affordable financial resources, technology transfer, and technical cooperation. Among the sectors prioritized in the updated NDC, as in the first NDC, are agriculture, forestry, and other land uses.

27. **Although Tajikistan has made commitments to working across sectors to better manage landscapes, the country faces a number of challenges**: (a) weak institutional structures for developing integrated approaches, (b) limited technical capacity of public services to promote integrated and participatory processes; (c) lack of coherent and relevant information and systems for integrated planning coupled with limited knowledge sharing, (d) lack of investments to address degradation, (e) limited

[42] The net GHG emissions of the Republic of Tajikistan in 1990 were estimated at 35.53 $MtCO_2$-eq.

knowledge among communities of improved landscape management practices, and (f) lack of incentives to adopt such practices and implement NBS. All three primary participating government institutions (FA, Pasture Reclamation Trust [PRT] and State Institution of Specially Protected Natural Areas [SISPNA]) are working in challenging conditions with poorly resourced central and field offices and personnel. Conditions are particularly challenging in SFMEs, field offices of the protected areas units, and Pasture Commissions. SFMEs are central to managing the forests sustainably. However, the typical SFME lacks equipment, uniforms, tools, transport, and technology. In terms of human capacity, very few are trained foresters or young staff who are willing to contend with the low and unreliable wages.

28. **Landscape quality and people's livelihoods are interlinked and attempt to improve one while ignoring the other do not produce optimum results.** Landscape restoration increases productivity of the land base which results in higher income for farmers, enabling them to adopt more sustainable practices and further contributing to landscape health and vigor. Landscapes can be resilient through integrated and spatially focused approaches and improved rural livelihoods. Making landscapes resilient requires long-term commitment and sustained efforts from the Government and other stakeholders. Hence, strengthening policy frameworks and institutional capacity are crucial for sustainable landscape restoration outcomes. The positive outcomes are multiplied when such a transboundary challenge is addressed regionally, through concerted efforts and maximization of resources. The Government's commitment to NDC, Land Degradation Neutrality (LDN), Bonn Challenge, ECCA30, and Astana Resolution provides a strong basis for projects aiming at landscape restoration.

C. Relevance to Higher Level Objectives

29. **The project is aligned with the World Bank Europe and Central Asia Green Transition Priorities (2021), which are derived from the market transition challenge in the Europe and Central Asia region.** These include (a) 'Natural Capital Renewal' by restoring forest land, rangeland, and biodiversity in green corridors, and introducing climate-smart livelihoods and land use practices in rural communities for mitigation, adaptation, and growth; (b) 'Natural Disaster and Climate Resilience' by supporting landscape restoration in targeted transboundary corridors toward reducing risk and strengthening communities and resilience of infrastructure to natural disasters and climate change; and (c) 'Just Transitions' by enhancing citizen engagement in policy discussions and land use planning processes.

30. **The World Bank Group (WBG) Regional Engagement Framework for Central Asia (REFCA) gives the highest priority to programs that improve connectivity and sustainability of regional public goods.** Both aims are supported by the project. The REFCA further emphasizes the impact of land degradation on road connectivity, critical hydropower dams, and environmental investments. Accordingly, the REFCA recognizes RESILAND CA+ Program as one of two key WBG programs which address the Climate, Environment, and Disaster Risk Management priority under Pillar 2 (Regional Public Goods). The project will finance interventions in landscapes within transboundary corridors traversing Tajikistan, Uzbekistan, and the Kyrgyz Republic (focusing on the Tajik side of the border) with important regional spillovers related to improved connectivity and integrity of natural resources across borders, increased resilience of key regional infrastructure, and increased resilience and livelihoods of transboundary communities, and will foster regional collaboration on landscape restoration in Central Asia.

31. **The proposed project is well-aligned with the third objective, Improving Resilience of Residents in Local Communities, of the first pillar in the Country Partnership Framework (CPF) for FY19–FY23 (Report Number 135875; discussed at the Board on May 9, 2019).** The project aligns with the CPF

objective to improve resilience in rural communities through increased land productivity and livelihood assets. The CPF states that the WBG aims to support national and regional activities that will address environmental vulnerabilities such as land degradation and unsustainable use of natural resources that hinder rural development. These include activities that are essential for livelihoods and social welfare and support the development of key sectors such as forestry, agroforestry, climate-smart agriculture, and agribusiness, as proposed in this project. The range of activities will also increase the resilience of landscape assets against climate risks and other natural hazards.

32. **The project aligns with WBG Climate Action Plan 2021–2025[43] and WBG Action Plan on Climate Change Adaptation and Resilience.** The project helps align the WBG financing flows with the goals of the Paris Agreement by reducing emissions and climate vulnerabilities in key sectors. The WBG Adaptation and Resilience Action plan identifies forests and integrated landscape management as one of six adaptation themes which the WBG will support, stating that the WBG is looking to support interventions through an integrated landscape management approach that avoids deforestation and promotes landscape restoration and sustainable forest management for 120 million hectares of forests in 50 countries. The Europe and Central Asia Climate Change Action Plan considers food, landscape, and water as key systems transformations that support Europe and Central Asia's Green Transition Priorities, emphasizing that healthy landscapes are critical for the livelihoods of the poorest and efforts to increase adaptation and mitigation results.

33. **The project will support the operationalization of the WBG Gender Strategy for FY16-FY23 (Report No. 102114).** The Strategic Objective of Removing Constraints for More and Better Jobs will be supported by ensuring that women have equal access to new nature-based jobs in the forest sector such as staff in SFMEs, establishment and management of tree plantations, Nature Based Tourism (NBT) activities, and reforestation/afforestation programs. The Strategic Objective of Removing Barriers to Women's Ownership and Control of Assets will be supported by providing women with access to local financial services (small grants) and diversifying income with forest and agriculture job opportunities. The Strategic Objective of Enhancing Women's Voice and Agency and Engaging Men and Boys will be supported by ensuring that women participate equally in project-supported activities, including decision-making on land uses, and benefit equally from capacity-building programs. Specific activities will be included in the project Gender Action Plan.

34. **The project will support the WBG's COVID-19 Crisis Response Approach,[44] World Bank Europe and Central Asia Green Transition Priorities (2021), and WBG Gender Strategy for FY16-FY23.** While not considered a COVID-19 response operation, the project will support the green recovery aspects of the WBG response strategy as articulated in the June 2020 COVID-19 Crisis Response Approach Paper under Pillar 4 (Strengthening Policies, Institutions, and Investments for Rebuilding Better) during the Resilient Recovery Stage. It will do so by (a) assisting the GoT to further implement the National Investment Plan for Food and Nutrition Security and Sustainable Agriculture Plan (2021–-30), and (b) financing the restoration of degraded lands in select transboundary landscapes through an integrated approach, including livelihood support.

35. **The project will support Tajikistan's global commitments on LDN and NDC to GHG mitigation.** It will support Tajikistan's commitment under the 2018 Bonn Challenge to restore 66,000 ha of degraded

[43] https://pubdocs.worldbank.org/en/368601543772742074/2025-Targets-to-Step-Up-Climate-Action.pdf.
[44] As articulated in the Approach Paper, dated June 8, 2020.

forest land by 2030,[45] and the 2018 Astana Resolution on reinforced cooperation on landscape restoration in Central Asia. In 2019, Tajikistan joined the ECCA30 Initiative to support these efforts in partnership with European states and prominent development partners, and in 2020, along with other countries in the region, Tajikistan endorsed a 10-year Regional Environmental Program for Sustainable Development under the auspices of the ICSD and signed a Joint Declaration of Intent to cooperate on climate and security within the framework of Green Central Asia. The project will support Tajikistan in reaching its LDN target for 2030[46] and its 2017 NDC targets of 60–70 percent (unconditional) and 50–60 percent (conditional) GHG emissions as of 1990 by 2030[47] and continuing its efforts on climate adaptation-related capacity building. The project will also reinforce the United Nations Decade on Ecosystem Restoration initiative, which calls for the protection and revival of ecosystems across the world and aims to halt the degradation of ecosystems and restore them to achieve global goals by 2030.

II. PROJECT DESCRIPTION

36. **Project approach.** Land degradation in Tajikistan, as outlined in earlier sections, is broad-based, covering multiple land uses and sectors. The approach to landscape management in the project recognizes multiple drivers of degradation and country-specific challenges and constraints. Thus, the project will support sustainable land management in forestry, pasture, protected areas, and small-scale cropping systems. Other areas such as water resource management particularly for irrigation, livestock husbandry, and commercial agriculture have not been chosen for support because there are donors, including the WBG, International Fund for Agricultural Development (IFAD), and others, active in these sectors. Regionally, the project aims to strengthen collaboration with neighboring countries in key aspects of landscape management.

37. **All planning will encourage women's leadership, follow citizen engagement mechanisms, and be based on good practice principles for a landscape approach that reconciles different and often competing land uses.** The Committee for Environmental Protection (CEP) and Tajik organizations have considerable experience in participatory planning with both the World Bank- and other donor-supported projects. Participatory planning processes will build on lessons learned from past and current projects and programs in rural development, as well as from natural resource management,[48] and climate resilience projects.[49] The project will build on the GoT's experience and projects such as the Environmental Land Management and Rural Livelihoods (ELMARL) Project and CAMP4ASB and other World Bank- and donor-funded projects on agriculture, forestry, pasture, and protected areas in the country. A community-driven development (CDD) approach will feature strongly in the project, enabling village- and community-based/resource user groups and organizations to take responsibility for the choice, design, and management of smaller-scale landscape and livelihood investments.

[45] https://www.iucn.org/news/forests/201807/caucasus-and-central-asia-demonstrate-impressive-political-will-restoration-and-bonn-challenge.
[46] Set in 2019 as follows: "By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world."
[47] GoT. 2021. The *Updated NDC of the Republic of Tajikistan*.
[48] Caritas. 2019. "Disaster Risk Reduction - Opportunities for Sustained Action to Reduce Vulnerability and Exposure." Policy Brief TJ19-101.
[49] GIZ (German Society for International Cooperation [*Deutsche Gesellschaft für Internationale Zusammenarbeit*]). 2019. *Integrative Land Use Management Approaches in Tajikistan*.

38. **Project areas/districts** have been selected in consultation with Government and other stakeholders based on a combination of criteria: poverty incidence, potential for integrated landscape restoration (incorporating pasture, agriculture, water, forestry, and biodiversity), regional and transboundary corridors, and complementarity with Government- and donor-funded initiatives. When overlaid on the current arrangements of river basins, the project sites fall in the following river basins: (a) Zarafshon basin covering three districts—Ayni, Panjekent, and K. Mastchoh (in Sughd oblast, bordering Uzbekistan and the Kyrgyz Republic); (b) Upper Panj covering four districts—Vanj, Rushon, Shughnon, and Murghab (in Gorno Badakhshan Autonomous Oblast [GBAO], bordering the Kyrgyz Republic and Afghanistan); and (c) Lower Kofarnihon covering three districts—Shahrituz, Nosir Khosrov, and Qubodiyon (in Khatlon oblast, bordering Uzbekistan and Afghanistan). These sites include sub-basins and tributaries of regionally important rivers, as well as protected and forest areas, and KBAs that share boundaries with the above countries. Resources of national and regional significance in these sites include riparian forests (tugai), threatened fauna (snow leopard), and transport infrastructure.

Figure 2. Project Transboundary Corridors

Note: Map cleared by Bank's Cartography Unit on January 20, 2022

A. Project Development Objective

39. **The goal of the RESILAND CA+ Program is to increase resilience of regional landscapes in Central Asia.** The regional impact of the program will be measured by aggregating the results of individual country projects and monitoring the results of regional activities. For this purpose, the Project Development Objective (PDO) and PDO-level indicators have been harmonized. See annex 5 for more details about the program and impact indicators.

PDO Statement

40. The PDO is to increase the area under sustainable landscape management in selected locations in Tajikistan, and promote Tajikistan's collaboration with Central Asia countries on transboundary landscape restoration.

41. This PDO is uniform across all projects under the RESILAND CA+ Program with sustainable landscape management practices differing based on the specific country contexts. In the case of Tajikistan, sustainable landscape management includes practices such as agroforestry (intercropping with trees and shelterbelts); improved grazing land management through temporal enclosure, rotational grazing, and enrichment planting; plantations and reforestation; protected area management; soil fertility and water harvesting and efficiency measures; climate-smart agriculture; and other relevant practices, Sustainable landscape management practices will be carried out by the Government, SFMEs, the private sector, and rural communities in the targeted locations, whose capacities will be increased to carry these out.

PDO Level Indicators

42. The following are the indicators to measure the achievement of the PDO and the project's key results

(a) Land area under sustainable landscape management practices (CRI[50], Ha)

(b) People benefitting from landscape management practices (Number, sex disaggregated)

(c) Transboundary sustainable landscape management policies harmonized (Number).

B. Project Components

43. **Project activities are grouped into the following three interrelated components**, which are further grouped into subcomponents. See annex 2 for further details and section III.A. for a summary of implementation arrangements by components.

Component 1: Strengthen Institutions and Policies, and Regional Collaboration (US$6.50 million)

44. This component will finance consulting services, training and workshops, equipment, vehicles, and goods to strengthen national and regional institutions in landscape management and promote collaboration with countries facing similar challenges. The regional spillovers of this component are related to cross-fertilization of knowledge and harmonization of policies, standards, technologies, and consistency in evaluation methods for transboundary landscape restoration across Central Asian countries.

Subcomponent 1.1. Strengthen Institutions and Policies (US$4.50 million)

45. **Strengthening policy, legal and implementation frameworks.** The project will finance analysis and revisions of existing policy, legal, and implementation frameworks for forests, pastures, and protected areas to help align these with national and international obligations including NDC commitments. Areas for potential revision that would support new and innovative approaches to integrated landscape

[50] CRI = Corporate Result Indicator.

management will also be explored, for example, for expanding the areas in which JFM can be implemented. The project will support (a) drafting of by-laws, standards, and regulations to operationalize the Pasture Law and (b) analyses of the contradictions between the forest and land codes and amendments that would increase reforested/afforested areas under JFM. The project will support CEP to work with other relevant agencies in their continuing role of environmental monitoring and reporting on environmental status, including LDN, Sustainable Development Goals, climate change commitments, and so on. This will include a review of Tajikistan's stated LDN targets, which will be refined based on new information from inventories on the degradation status of the country, including submission of a revised communication document for government approval.

46. **Landscape restoration strategy and action plan.** The project will finance preparation of a national landscape restoration strategy and action plan. This activity will build on the results of the Restoration Opportunities Assessment Methodology (ROAM), conducted during preparation.[51] An important input into the strategy will include the use of the WBG approach which estimates climate resilience risk assessment for landscape restoration, including afforestation.[52] This approach would better inform the national forest program and the protected area program, as well as participatory planning experiences in the project. This strategy and action plan seek to complement ongoing river basin planning.

47. **Protected area strategy and action plan.** There is no overall national protected area strategy and action plan to guide the development and management of the protected area system. Similar in scope to the National Forest Strategy and Action Plan, the strategy will define the objectives, priorities, and measures for the reform and key development of the country's protected area system for the next 15–20 years.

48. **Institutional capacity building.** The project will finance a range of important and necessary capacity-building activities to improve and increase knowledge and skills of staff. Building on the curriculum development by other donors (notably GIZ), the project will support (a) on-the-job training for operational and technical staff on landscape restoration, and through short courses, workshops, seminars, and so on, on a range of topics to build capacities to engage in landscape restoration; (b) post-graduate studies for qualifying students for study in the region, or elsewhere, on key topics, for example, landscape management, forest conservation, and pasture management; and (c) curricula development for universities and schools in the country to improve formal and youth vocational training in landscape restoration. These academic activities will be coordinated with Ministry of Education and Science. The project will also support rehabilitation and improvement of SFME offices, district-level pasture commissions, and selected special protected area units. The project will finance the purchase and installation of office and field equipment, as well as vehicles to improve field operations. For select offices, the project will finance the purchase of machinery such as tractors for field operations, as well the construction of living quarters for field staff.

49. **Strengthening research and knowledge management.** The project will support activities to strengthen the country's research base and knowledge management for landscape management

[51] ROAM provides analytical outputs on (a) land degradation and deforestation geospatial/biophysical aspects and (b) economic modeling within a framework that assess the social, political, and institutional readiness to implement large-scale restoration.

[52] The WBG climate resilience assessment approach provides a climate change risk exposure assessment for WB landscape restoration projects. Eight classes of climate hazards can be projected for site specific location, up to 2050. Impacts and possible mitigation measures can be identified through the approach and can be incorporated into project design and implementation. The approach will be applied in several project sites during project implementation.

approaches. These activities include (a) research and analytical studies to be carried out in partnership with research and academic institutions on topics such as assessing drivers of land degradation, climate risk assessment, market development and access, payment for environmental services feasibility assessment, and NBS applications; (b) knowledge management through support for platforms, such as Sustainable Land Management Tajikistan (SLMTJ), dissemination focusing on exchange and learning and similar initiatives, and annual review meetings; and (c) study tours and exchanges within the country and with neighboring and other countries.

Subcomponent 1.2. Strengthen Regional Collaboration (US$2 million)

50. **The objective of this subcomponent is to promote Tajikistan's collaboration with Central Asian countries on transboundary cooperation and landscape restoration, given the critical need to address emerging threats at the regional level, including impacts of climate change.** Activities supported under the subcomponent have been designed in support of the RESILAND CA+ Program and they will enable better governance and management of shared resources, exploit economies of scale related to regional Nature-Based Tourism (NBT), and facilitate collective action to address these and other common goals.

51. The subcomponent will support the implementation of several key regional activities identified by the ICSD in its 10-year Regional Environmental Program for Sustainable Development, including development of (a) an MoU for facilitating border crossing for NBT[53] in protected areas and unique natural sites shared between countries; (b) an MoU for using common modern methods of inventory of flora and fauna diversity and ecosystem conditions among transboundary corridors; (c) a joint transboundary management plan for ecological corridors for migratory animals and transboundary cooperation agreements for addressing issues of protection of key species and habitats, including protected areas from fires, invasive species, and so on; (d) a protocol for using NBS, including erosion control and tree planting along roads to increase resilience of infrastructure; and (e) an MoU for the designation of a transboundary 'Peace Park' between countries along the lines of the United Nations Convention to Combat Desertification (UNCCD) Peace Forest Initiative (2020).[54] To deliver these, the project will also finance a Regional Exchange Platform, which will allow countries to come together to address challenges, find regional solutions for shared challenges faced by multiple countries, and thus promote global public goods. The Platform will host (a) semiannual meetings of RESILAND CA+ Program implementing entities to discuss program progress; (b) annual forums for ministries responsible for forests, landscape restoration, and environment to discuss landscape management and restoration trends and actions; and (c) annual forums for the broader cross-section groups of stakeholders engaged in landscape restoration, including nongovernmental entities, prominent regional organizations, private sector, and development partners. The platform will allow for a two-way dialog between the Government and non-governmental actors in Central Asia on technologies and approaches to landscape restoration, including knowledge exchange. Uzbekistan Resilient Landscape Restoration Project also has a regional component which will allow active participation of Uzbek and other Central Asian stakeholders to jointly deliver the outputs

[53] Nature-based tourism in subcomponent 1.2, eco-tourism in subcomponent 2.3, and community-based tourism in subcomponent 2.4 will all focus on directly addressing climate vulnerability. With its close connections to the environment and climate itself, tourism is considered vulnerable and highly climate-sensitive economic sector. At the same time, tourism is a contributor to Greenhouse Gas (GHG) emissions, including emissions from transport and accommodation. Tourism provides alternative livelihood specifically to people working in climate-sensitive sectors. All subcomponents will aim to provide climate-related information on the tourism sites to both tourists as well as local communities and to apply tools, methods and techniques associated with the management of climate change in tourism.

[54] https://www.unccd.int/news-events/unccd-ready-welcome-countries-new-peace-forest-initiative.

listed above. In addition, Uzbekistan Resilient Landscape Restoration Project will finance a regional online database, in which Tajik stakeholders will actively participate and benefit from. The database, to be financed under Uzbekistan Project, will be established and hosted at the Regional Environmental Centre for Central Asia (CAREC) (http://centralasiaclimateportal.org) to store and publish data and publications on sustainable landscape management and restoration. The implementation of this subcomponent will be phased by focusing during the first eight months of the project on the establishment of an overarching governance structure composed of implementing entities of the projects under the RESILAND CA+ Program and then begin to implement the subcomponent work plan.

Component 2: Enhance Resilient Landscapes and Livelihoods (US$35.50 million)

52. **This component includes four subcomponents covering different aspects of landscapes and livelihoods: Forest Restoration and Sustainable Forest Management; Integrated Pasture Management and Restoration; Protected Area Management and Biodiversity Conservation; and Landscape Restoration and Livelihoods.** Under this component, the project will finance consulting services, equipment, and goods and provide sub-grants to community-based groups and organizations. The regional spillovers of this component are related to improved connectivity and integrity of natural resources across borders (including biodiversity), increased resilience of key regional infrastructure such as roads, and increased resilience and reduced fragility of natural resource management-based livelihoods of corridor communities. All four subcomponents are designed to enhance rural livelihoods through land-based restoration and/or conservation activities, as well as address climate variability and change. Approaches such as JFM and community-based tourism are relatively new in Tajikistan but offer pathways to broaden rural livelihood options while restoring productive natural resources. Support for integrated and community-based pasture management and climate-smart cropping practices will be opportunities to enhance the financial viability and sustainability of existing, more traditional livelihood strategies.

Subcomponent 2.1. Forest Restoration and Sustainable Forest Management (US$15.50 million)

53. The expected outcome from this subcomponent is to restore degraded forests and improve management of existing forests through proper planning and implementation of activities such as afforestation and natural regeneration. The FA will lead on the technical aspects of this subcomponent, which includes the key activities detailed in the following paragraphs:

54. **National Forest Inventory.** The project will finance a national-level systematic NFI using a low sampling density. The NFI exercise will employ state-of-the art methodologies for conducting forest inventories, including geospatial and earth observation data.

55. **Forest management plans.** The project will finance the preparation and implementation of up to eight participatory sustainable forest management plans for SFMEs (district-/region-based forest entities) in the project sites. Preparation of the plans will build upon experience of earlier methods.[55] Based on these activities, 10-year plans will be elaborated, with measures and costs identified for sustainable forest management (including JFM plans) and KBAs and corresponding maps developed. Development of plans

[55] Under the *Kreditanstalt für Wiederaufbau* (KfW)-supported project, 'Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan', a methodology for the preparation of participatory forest management plans for SFMEs has been developed. At present, only Khovaling SFME, a project site for KfW, has a such a plan.

at this scale for forestry will be coordinated with PMPs. Sustainable forest management plans will be operationalized through SFMEs' annual plans.

56. **Implementation of sustainable forest management plans.** Key activities in the forest management plans will include restoration/afforestation encompassing pistachio forests, plantations of poplar and fruits, and saxaul planting and fruit plantations; natural regeneration; assisted natural regeneration (including enrichment planting of native species, fencing, soil improvement measures, and so on); forest protection from cutting, grazing, and fire and management for disease and pests; improved forest management through silvicultural treatments such as thinning, stand management, and fire management; improved pasture productivity and fodder production within the State Forest Fund (SFF); and erosion and landslide control through soil bioengineering and small retention structures such as live palisades.[56] Activities to be supported directly with project financing are as follows:

(a) **Forest nurseries.** The project will support semi-modernization measures in eight SFMEs-operated nurseries in the project sites. The project will also promote the development of private backyard nurseries to bolster seedling supply for afforestation and natural regeneration and as an income generation activity for rural households. About 50 backyard nurseries are expected to be established in the project sites.

(b) **Assisted natural regeneration.** SFMEs will further improve SFF land through assisted natural regeneration in 8,000 ha. SFMEs will carry out activities that will include measures such as fencing to protect regenerating areas and soil improvement and enrichment planting to increase the quality and number of trees and/or species diversity.

(c) **Afforestation and fuelwood plantations.** The project will provide sub-grants to forest user groups (FUGs) – up to US$100,000 to each FUG – in line with the requirements of JFM to do afforestation and fuelwood plantations. Sub-grants will be disbursed in tranches based on implementation progress of agreed activities in the JFM contracts. SFMEs will provide technical assistance to FUGs, and FUGs will carry out afforestation in approximately 4,120 ha (including 220 ha of fuelwood plantation) as part of JFM. JFM essentially involves leasing forest land to local people and sharing benefits among tenants and SFMEs over the long term. The tenants rehabilitate and use their forest plots according to management plans, with SFMEs advising on forest rehabilitation. Based on experience,[57] SFMEs will develop contracts primarily with FUGs rather than individual households. FUGs will sign contracts for the land use rights with SFMEs for up to 20 years. A suitably qualified organization will be contracted to mobilize participants and groups, develop plans, and provide support to FUGs. There are several organizations in the country that are experienced in the facilitation of similar activities. Plans will be developed jointly by SFMEs with FUGs for a consolidated area. Assessments and plans will be prepared of proposed locations and species to be planted, and risks and mitigation measures will be established. Afforestation works, including for fuelwood plantations, will use fast-growing native species planted on both SFF and non-SFF lands, to supply growing demand of fuelwood.

[56] UNDP. 2018. *Flood Disaster Risk Reduction Manual for Tajikistan, Part III: Best Management Practice Examples*.
[57] KfW-supported project 'Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan'.

Subcomponent 2.2. Integrated Pasture Management and Restoration (US$10 million)

57. The PRT of the Ministry of Agriculture will lead on technical aspects of this subcomponent, which includes the following key activities.

(a) **Geobotanical surveys and pasture inventories.** The project will finance cadastral assessment of pasture resources and geobotanical surveys in the project districts, with data digitized for planning and monitoring purposes. Within this activity, the project will pilot the use of 'smart inventories' based on updated methods and statistical analysis. Staff at the State Committee for Land Management and Geodesy (SCLMG) and PRT will conduct the assessments. The resulting surveys and inventories will be used for the overall monitoring system for pasture in the country and in the preparation of PMPs that are mandated by the Pasture Law.

(b) **Forage seed demonstration plots.** Establishment of seed demonstration plots for native forage species in selected locations in the project districts covering about 200 ha. These plots will be under the management of the PRT and serve to demonstrate the production of forage seeds and supply suitable seeds to PUUs and others.

(c) **Pasture/Livestock Management Plans.** The project will provide sub-grants to PUUs – up to US$100,000 to each PUU – to support sustainable pasture-/fodder-based livestock production systems in selected areas. Suitably qualified organizations will be contracted to provide facilitation support to establish PUUs[58] and prepare PMPs with livestock owners. The focus of support will be PUUs, whether these are to be created or existing unions are to be strengthened. Where PUUs are to be created, these will be primarily at village and jamoat levels (and at district level, if needed, depending on resource use regimes). Sub-grants will be provided to PUUs for 64 PMPs in line with the requirements of the Pasture Law. Sub-grants will be disbursed in tranches based on implementation progress of agreed PMPs. Within specified budget limits, the plans will identify activities as needed to support (i) measures to improve pasture productivity to increase soil carbon stocks and sustainability, such as protecting areas for regeneration, pasture rehabilitation, weed removal, seasonal closure, nitrification-inhibiting practices in pastures, access to remote pastures, and needs for supplementary fodder production; (ii) erosion and landslide control in pasture areas through plantation, soil bioengineering, and small retention structures such as live palisades; (iii) improved grazing management and promotion of silvo-pastoralism; (iv) animal health requirements and breed improvement measures; and (v) implementation responsibilities, targets, and indicators. Pasture management will be complemented by the establishment of small productive and climate-resilient facilities such as shelters, shading canopies, feeding stalls, salt licks, scratching posts, drinking water troughs, sheep baths, and fences to enhance animal welfare and improve the productivity and resilience of livestock systems.

Subcomponent 2.3. Protected Area Management and Biodiversity Conservation (US$2 million)

58. This subcomponent will be technically led by the State Institution of the Specially Protected Natural Areas (SISPNA), as part of CEP, and includes the following key activities. Given the limited

[58] Under the provision of the Pasture Law, PUUs are established as public independent activity bodies by pasture users for joint use of pastures.

management capacities of SISPNA, investments are generally smaller scale and thus modest compared to those in other subcomponents but represent a departure from business-as-usual approaches in the Tajik context.

(a) **Priority protected area management plans.** Four management plans will be prepared or updated for Tajik National Park (TNP) and Zorkul Special Reserve in GBAO (which border the Kyrgyz Republic and Afghanistan), Yagnob National Natural Park in Sughd, and State Natural Reserve Tigrovaya Balka in Khatlon (bordering Afghanistan). Management plans are not in place for all protected areas, and if they exist, they are outdated. Plans will comprise standard elements of management arrangements, conservation and restoration measures, protection and enforcement, monitoring, education and awareness, stakeholder engagement, ecotourism and recreation, prioritized actions, and associated costs. Planning activities will involve boundary surveys, spatial planning, economic and financial analysis, and stakeholder consultations.

(b) **Implementation of protected area management plans.** The project will support implementation of selected priority activities in the four protected areas including (i) remote and field-based monitoring with community participation, for example, camera traps and censuses of key species; (ii) small-scale interpretation of protected area assets and attractions for visitors, for example, signage, exhibits, and so on; (iii) restoration of degraded natural land-based habitats through small-scale afforestation and natural regeneration and conservation of wildlife grazing areas for key species, for example, Bukhara deer, Marco Polo sheep, and ibex (identified as affected by upward and downward slope movements due to climate change)[59]; (iv) pilot measures to resolve human-wildlife conflicts in TNP, for example, pens to protect livestock from predators; and (v) preparation of management tools, for example, digital resources and digital thematic maps. For communities in the vicinity of protected areas in the project sites, community-based nature tourism is an income generation opportunity while providing incentives to conserve biodiversity when planned in line with protected area objectives.

Subcomponent 2.4. Landscape Restoration and Livelihoods (US$8 million)

59. The project will provide sub-grants to villagers/farmers organized as Common Interest Groups (CIGs) to implement small-scale livelihood investments based on existing Village Development Plans and actions. Suitably qualified organizations will be contracted to facilitate formation of CIGs. CEP will transfer sub-grants directly to the bank accounts of CIGs. The CEP Implementation Team (IT) will provide the technical lead for this subcomponent and oversee the management of sub-grants to beneficiaries.

60. Under this subcomponent, the project will support crop land-based livelihoods—climate-smart crop production practices and technologies—through sub-grants for sub-projects to groups of farmers that form CIGs. They will be eligible for grants to address degradation issues such as on-farm salination, erosion, and low productivity in ways that can increase income for members and reduce degradation impacts and increase climate adaptation. The focus will be the adoption of practices such as (a) diversification of agricultural/horticultural crops; (b) improved crop varieties and biotechnology that

[59] Idrisova, A. 2012. *Climate Change Impact on Biodiversity: And its Implication for Protected Areas Management in Tajikistan.* https://www.amazon.com/Climate-change-impact-biodiversity-implication/dp/3848444755.

reduce emissions; (c) water-efficient crops and varieties and cultivation methods; (d) erosion control measures such as increasing vegetative cover along the sides of linear infrastructure (roads) and planting of shelterbelts; (e) harvesting and processing of different crops, including cooling and storage; (f) reduced tillage intensity and cover crops, crop rotation, perennial cropping systems, cultivation of deep rooting species; (g) higher inputs of organic matter to soil and processing and application of manure; and (h) small-scale community-based tourism activities around protected areas. Project-financed sub-grants to each CIG will not exceed US$10,000 and will require a match of 5 percent if provided in cash, or 10 percent if provided in-kind as beneficiary contributions.

Component 3. Project Management and Coordination (US$3 million)

61. This component will finance the operating costs of the implementation team for the project under the Center for Implementation of Investment Projects within CEP (CEP IT) to carry out project management functions for both Components 1 and 2. Support will be provided for procurement, financial management (FM), technical support, environmental and social risk management, coordination, reporting, and monitoring and evaluation (M&E). The IT will be responsible for (a) coordinating closely with project partners in forestry, pasture, and protected areas, as well as with other stakeholders and (b) ensuring project compliance with environmental and social standards (ESS), gender aspects, grievance redress mechanism (GRM), and citizen engagement. The central CEP IT will be supported by project-financed province-level technical units with core personnel in key areas such as pasture management, forestry, and biodiversity conservation, as needed. A Geographic Information System (GIS)-based M&E system will be established to monitor the implementation of Component 2 investments.

Project Financing

Components	Implementing Agency	Cost (US$, millions)
Component 1. Strengthen Institutions and Policies, and Regional Collaboration	**CEP**	**6.50**
Subcomponent 1.1. Strengthen Institutions and Policies		4.50
Subcomponent 1.2. Enhance Regional Collaboration		2.00
Component 2. Enhance Resilient Landscapes and Livelihoods	**CEP**	**35.50**
Subcomponent 2.1 Forest Restoration and Sustainable Forest Management		15.50
Subcomponent 2.2 Integrated Pasture Management and Restoration		10.00
Subcomponent 2.3 Protected Area Management and Biodiversity Conservation		2.00
Subcomponent 2.4. Landscape Restoration and Livelihoods		8.00
Component 3. Project Management and Coordination	**CEP**	**3.00**
TOTAL		**45.00**

62. **Climate co-benefits.** The project aims to support climate action by addressing the identified vulnerabilities and supporting activities in the forestry and agricultural sector required to meet Tajikistan's international climate agreements. These activities have been developed to specifically support climate action, and they are additional to what would have happeded in a business-as-usual approach for this type of intervention. The project will generate significant climate co-benefits by contributing to both climate change mitigation and adaptation. Carbon sequestration will be enhanced through project

activities such as reforestation, assisted natural regeneration, agroforestry, pasture management, climate-smart cropland cultivation, and protected area management. Improved landscape management through these activities reduces landscape vulnerability to climate change impacts and enhances resilience through NBS, protection and preservation of protected areas (boosting ecosystem resilience), ecotourism, and climate-resilient livelihoods. Reduced vulnerability and enhanced resilience would mean improved adaptation of landscapes and biodiversity to expected risks posed by climate change.

63. Indicators that will measure progress toward achievement of climate co-benefits include the PDO indicator 'land area under sustainable landscape management practices', which will yield the carbon emission reductions through the Ex-Ante Carbon-Balance Tool (EX-ACT) and an intermediate results indicator 'net greenhouse gas (GHG) emissions (CRI, Metric tons/year)'. In terms of mitigation co-benefits, this project outlines the NDC commitments and context in paragraphs 18 and 22 outlining how the project will support Tajikistan's commitments on 1.8 $MtCO_2$ sequestered by forests by 2030 according to the updated NDC to GHG mitigation through investments in forestry and agriculture sectors.

64. **The total GHG emission reduction benefits have been estimated through the project's life considering the estimated shadow price of carbon that will evolve from year to year according to the World Bank Shadow Price of Carbon Guidance Note (2017)**. This will result into a benefit stream of US$163.55 million with lower bound estimates, and an economic rate of return (ERR) of 39.5 percent (details in the economic analysis annex). For identified risks, appropriate resilience measures have been included in the project design as climate change-resilient practices. The climate vulnerability context has been outlined starting from para 1 and highlights the main areas of vulnerability in para 10 under country context and then specifies links of climate vulnerabilities in the context of drylands (para 1), disasters (para 15), land degradation (para 4, 16), forestry (para no 3, 16), and pasture and agriculture (para 14, 17). Para 19 outlines how the activities are aligned and will help Tajikistan meet its climate change resilience-related targets in the midterm development program and the national action plan for adaptation to climate change. Detailed links of climate change-relevant activities and subcomponents are provided in annex 4: Climate Co-Benefits.

65. **These interventions contribute directly to climate change mitigation, adaptation, and community resilience to climate change vulnerabilities.** For example, the project will (a) promote adoption of a range of sustainable forest and pasture management practices; (b) adopt agroforestry practices to diversify vulnerable livelihoods; (c) support capacity building and training on climate-resilient forestry, pasture, water, and agricultural practices; (d) conduct forest and pasture inventories and support information management systems at the national level; (e) develop forest and PMPs incorporating climate adaptation and risk management provisions and guidelines; and (f) adopt climate-smart agriculture practices. Carbon sequestration will be enhanced through the project activities such as afforestation, reforestation, JFM, agroforestry, pasture management, and climate-smart agriculture. Improved landscape management through these activities, informed by climate risk assessments at the national level (Subcomponent 1.1) and climate information portal at the regional level (Subcomponent 1.2), helps reduce landscape vulnerability to climate change impacts and enhance climate resilience.

66. The project's contribution to GHG accounting has been estimated using the FAO EX-ACT. It is estimated that, as a result of the project, the gross carbon balance over 20 years will be – 4,137,689 tCO_2 eq emissions avoided. The net carbon balance over 20 years will be – 4,954,208 tCO_2 eq emissions avoided, which would mean – 247,710 tCO_2-eq per year or –1.4 tCO_2-eq per hectare per year. These are

'substantial' emission reductions of more than 25,000 tCO_2eq per year, specifically Subcomponents 2.1 and 2.2 have more than 100 percent reductions over and above baseline (details in annex 4, table 4.1).

67. **Gender.** The Gender Assessment and Gender Action Plan for WBG in Tajikistan (2020), Asian Development Bank's Tajikistan country gender assessment (2016), and other literature examining national policies, strategies, sectoral plans, and programs were reviewed. The Country Gender Assessment for Tajikistan (2020) notes that (a) less women than men have financial accounts, saved at a financial institution, or borrow start-up credit[60], (b) entrenched social norms and patriarchal family structures contribute to low female decision-making power in public and private settings, and (c) representation of women in rural and township jamoats stands at around 15 percent. Tajikistan has several laws and strategies working toward the gender sensitive policy, for example, 'On State Guarantees of Equal Rights and Opportunities for Men and Women' (2005), National Strategy for Activization of the Role of Women in the Republic of Tajikistan for 2011–2020 (2010), and the approved Presidential Grants for Women Entrepreneurs (2008–2011). However, these strategies have to be updated and revisited in the context of (a) COVID-19 and its disproportionate impact on women and (b) dependence on natural resources—timber and non-timber forest produce—for livelihoods.

68. **The project is narrowing mainly two gender gaps: voice and agency, and access to finance.** The project design incorporates relevant activities to invest and indicators to monitor the progress in closing the gender gap. The cultural roles of women in Tajikistan influence their participation in rural livelihood strategies but can vary widely across regions. Even though women dominate the agricultural labor force (more than 60 percent of women work in agriculture), relatively few have meaningful decision-making power, for example, in households, PUUs, and FUGs. The current baseline of women representation in these PUUs/FUGs is low[61]. Women also have limited access to financial resources and lack business planning skills and legal knowledge for establishing small enterprises. To address the gender gap, facilitating organizations will be required to have expertise in gender mainstreaming and social inclusion. Forest management and protected areas management planning will require participation of women and vulnerable groups. Mobilization will use mechanisms that help ensure participation, for example, women only sessions, appropriate scheduling, and local dialect communication. Local community-based organizations will be appraised for their inclusion of women, the poor, and other vulnerable groups. Where inequities exist, opportunities will be sought to address these imbalances, for example, targeting certain types of production activities/sub-grants to women and vulnerable groups. Design of landscape restoration-related livelihood proposals will build on skills and interests of women, for example, crop/tree choices.

69. **In addressing the barriers to female voice and agency, the project will ensure female representation in natural resource management groups.** This will be done by setting up gender quotas (at least one female in all executive committees where they are no female representation and increasing percentage of female representation where low). This would include training in both technical and soft skills (such as leadership, management, public speaking) as well as facilitating access to information and networks. Within the Government, the project will actively support women's participation in further

[60] The Assessment Report states that many women in Tajikistan are not confident in their skills and abilities to manage a business. Less than 10% of women borrow money to start, operate or expand a farm or business.

[61] Based on stakeholder consultations and data collected for Social Assessment for the project, while women are well represented in PUUs (47% of all members), they are less visible in management roles. Fewer than a third of PUU management positions are held by women (31.4%), and there are only 7 female PUU leaders in more than 400 PUUs. Since JFM through FUGs has only been piloted, there are no comparable data available.

education, for example, quotas for scholarships and attendance in training. The analysis informed gender gaps related to landscape restoration and livelihoods and helped define actions and indicators in the project mainstreamed into the components and several results indicators (see table 2).

70. **In addressing the barriers to access to finance, the project will provide financial and technical support to women-led initiatives**. The project will prioritize project grants to women and/or women-led groups to encourage financial inclusion via financial and technical support to their initiatives and encourage increased adoption of landscape restoration practices by specific groups of women (that is, rural women, women farmers, abandoned wives of labor migrants, and so on). Trainings organized to address barriers to female voice and agency will focus on financial management, business development and entrepreneurship. The project will actively involve women in designing livelihood activities, for example, crop choices, processing, and so on. This will encourage specific groups of women to develop skills and interests in business development and entrepreneurship.

Table 2. Gender Gaps, Actions, and Indicators

Gender Gap	Gender Action	Gender Indicator[62]
Objective 1. Improving Human Endowments (health, education, and social protection)		
Women are less educated than men, especially in rural areas. There are fewer female than male graduates on integrated landscape management (including on forestry, agriculture, pasture management, veterinary science, and social studies)	As part of capacity building in Component 1, provide scholarships to undergraduate- and graduate-level students to study on integrated landscape management (including on forestry, agriculture, pasture management, veterinary science, and social studies)	Share of female fellowship recipient
Objective 2: Removing Constraints for More and Better Jobs (care services, unsafe transport, occupational sex segregation, and entrepreneurship)		
Double burdening of women. Activities directed at empowering women create additional burdens or increase women's workload.	Organize trainings and consultation activities in a gender-friendly way (that is, aligning with female work schedules and spaces and their daily reality: accommodate childcare needs and/or schedules/locations convenient for women and using communication tools that take into account cultural barriers that create information asymmetries).	Share of women participating in trainings and consultations
Objective 3. Removing Barriers to Women's Ownership of and Control over Assets (land, housing, financial inclusion, and technology, including ICT[63])		
There is a large gender gap in the ownership of property and assets (physical, financial). Moreover, women are financially less included than men.	Prioritize project grants to women and/or women-led groups to encourage financial inclusion via financial and technical support to their initiatives and encourage increased adoption of landscape	Share of sub-grants disbursed to women-led or predominantly women groups (included in the Results Framework).

[62] Only two indicators from this table are included in the Results Framework. The rest will be monitored and reported in progress reports.
[63] ICT = Information and communication technology.

Gender Gap	Gender Action	Gender Indicator[62]
	restoration practices by specific groups of women (that is, rural women, women farmers, abandoned wives of labor migrants, and so on). Build on skills and interests of women in terms of design of activities, for example, crop choices, processing, and so on.	
Objective 4. Enhancing Women's Voice and Engaging Men and Boys (child marriage, gender-based violence, engaging men and boys, women's participation and decision-making in service-delivery in governance structures)		
Inventory data gathered by forestry agency or PRT is currently not disaggregated by gender	Ensure that all data gathered as part of the project, including forest or pasture inventories, will be disaggregated by gender, where appropriate.	All data gathered as part of the project are gender disaggregated, as applicable
Gender gaps in voice and decision-making, especially over natural resources and the new organizations such as PUUs that have mandates for resource management	Encourage women's membership of resource management organizations, and in management or decision-making roles on boards/councils of groups/unions to be formed as part of the project, for example, through incentives for their inclusion, setting quotas for women members to access financing.	Percentage of PUUs/FUGs/CIGs that have women members in decision-making roles on their councils/boards/committees (included in the Results Framework)

71. **Citizen engagement.** The project has a citizen engagement-oriented design and will benefit from feedback monitoring throughout implementation. During preparation, the project carried out stakeholder consultations with civil society, academia, and other relevant stakeholders, and their feedback were duly incorporated into the project design. Project implementation will include mechanisms to engage citizens, beneficiaries, and stakeholders. The project will carry out meaningful stakeholder consultations through focus groups and surveys; employ monitoring mechanisms such as satisfaction surveys, GRMs, and multi-stakeholder forums; and deploy tools for remote consultations and, where appropriate, organize socially distanced gatherings, following local regulations. The team will work closely with the gender and social specialist and will ensure that the existing consultation plans have been designed with citizen engagement in mind and/or have a stand-alone citizen engagement plan. According to best practices, this will also be reflected in the scope of the activities in the project.

Table 3. Citizen Engagement Mechanisms, Project Activities, and Indicators

Citizen Engagement Mechanism	Project Activity	Indicator
Participatory planning and participatory monitoring	Various resource management plans to be supported by the project, such those for catchments, forest management, and pasture management, will be developed through participatory planning, including participatory watershed GIS mapping, and	Share of management plans supported by the project are developed through participatory planning and include participatory monitoring. (This indicator is not used in the

Citizen Engagement Mechanism	Project Activity	Indicator
	they will include the provisions of participatory monitoring.	Results Framework, but it will be monitored and reported in progress reports.)
Citizen satisfaction surveys	Organize project activities like training and grants such that they fully reflect the needs of direct beneficiaries; collect data on beneficiaries' perceptions; and monitor and adjust activities based on feedback received.	Percentage of direct beneficiaries who are satisfied with project activities
GRM	Grievances are registered in the GRM and responded to within two weeks and resolved within four weeks.	Percentage of feedback/grievances resolved within the stipulated service standards for response times

C. Project Beneficiaries

72. **The primary project beneficiaries are expected to be rural communities; private farmers and farmer groups; villages and village communities, including women and youth; and resource user groups (for example, for pastures and forests).** These communities and groups will benefit from technical and financial support to implement technologies and approaches that improve their livelihoods and increase their resilience while also contributing to the restoration of ecosystem functions. Under Components 1 and 2, Government agencies are expected to benefit from technical support and capacity building for integrated landscape planning. Staff in these agencies at both central and field levels will also benefit from investments in improved equipment and infrastructure and improved and more accessible data to support timely decision-making related to landscape restoration. At the regional level, the main beneficiaries are governments of the five Central Asian countries, which will gain knowledge about landscape restoration and other solutions for emerging regional issues and will be provided with opportunities to create and foster partnerships around these issues of common interest.

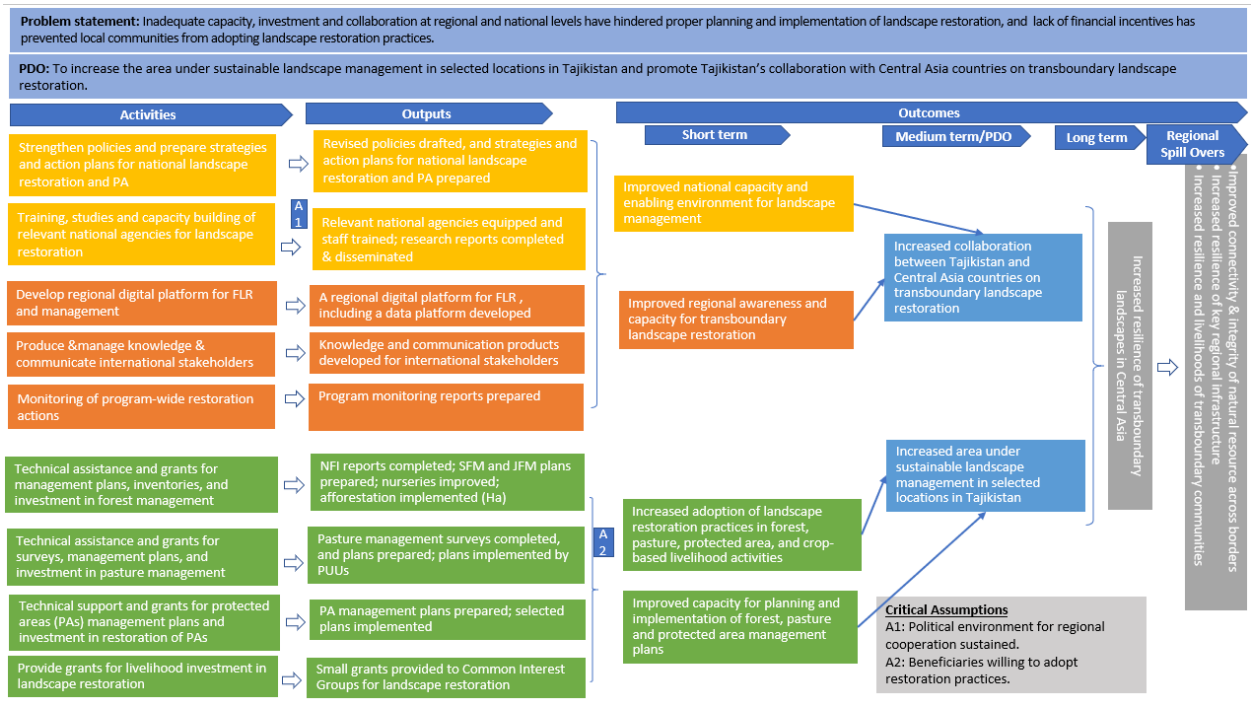
D. Results Chain

73. **Theory of change.** The problems which underlie the theory of change are (a) inadequate technical capacity, investment, and collaboration at the regional and national levels that hinder adequate planning and implementation of landscape restoration and (b) lack of financial incentives, preventing government agencies and local communities from adopting landscape restoration practices. These issues are addressed through institutional strengthening both at the national and regional levels and through integrated approaches to forest, pasture, and protected area management with active involvement of local communities, as shown in figure 3. The first problem is addressed by supporting improvements in forest, pasture, and protected area policy and legislation; participatory development of landscape restoration and protected area strategies and action plans; refined LDN and other similar reporting; and strengthening the institutional and technical capacities of centralized and decentralized government and research entities working in forest, pasture, and protected areas. Combined, these activities will improve the national enabling environment for landscape restoration in the country. At the regional level, the project will support the development of a regional platform for landscape restoration, production, and management of cutting-edge knowledge and communication and the tracking of restoration programs for timely decision-making activities, which will improve government (and nongovernmental entities)

awareness and capacity for transboundary landscape restoration. To address the second problem statement, the project will support participatory integrated landscape planning of the selected project sites, and based on the plans, finance greening programs (for example, reforestation and afforestation) to restore degraded forest areas and lands.

74. The project outcomes are expected to support increased resilience of transboundary landscapes in Central Asia, with regional spillovers on the connectivity and integrity of natural resources across borders, resilience of key regional infrastructures, and resilience and livelihoods of cross-border communities. Implementation of the abovementioned integrated package of activities will address the project problem statements and will result in achieving the catalytic impact in FLR. The theory of change is presented in figure 3.

Figure 3. Theory of Change



E. Rationale for Bank Involvement and Role of Partners

75. **Rationale for World Bank involvement.** Public financing in Tajikistan for air, water, and soil protection was equivalent to 0.1 percent of GDP in 2019, which is much lower than the estimated costs of environmental degradation (8.1 percent GDP equivalent). The provision of public sector financing will help fill this gap by investing in building back better by supporting an economic transition through sustainable landscape management practices and livelihoods derived thereof. This will support the provision of global, regional, and national public goods.

76. The WBG has accumulated significant global experience with integrated landscape management and restoration approaches across the world, with substantial programs in countries, such as China,

Ethiopia, and others, which can provide valuable lessons and innovations for Tajikistan. Tajikistan will also generate valuable lessons and knowledge in this area that can be a model for other parts of the country, the region, and the world through the World Bank's global network. Given the integrated and multisectoral nature of the project, the World Bank can play a key role, through its convening power, in helping create and sustain the institutional arrangements for integrated development and foster open communications among various agencies involved in implementing the project and representatives of districts, villages, and rural areas supported by the project.

77. The WBG would add value by (a) convening global experience, knowledge, sectors, and organizations to support investing in solutions that require managing trade-offs and opportunities in the landscape; (b) providing operational assistance to prepare, de-risk, and implement the operation. Implementation support will focus on fiduciary aspects including risks, results monitoring, capacity development, and knowledge development; and (c) supporting regional dialogues for transboundary landscape issues that can be reinforced through the World Bank-led RESILAND Program.

78. According to the REFCA, the WBG is well-positioned to help the region adjust with customized solutions and financing where two or more countries share programmatic goals. The WBG is aware that successful regional cooperation takes serious efforts over an extended period and is committed to this process. The implementation of the proposed project is alongside other WBG projects currently under preparation, including the Uzbekistan Resilient Landscapes Restoration Project (UZ RESILAND, P174135), Kyrgyz Republic Integrated Forest Ecosystems Management Project (under supervision), and Global Environment Facility (GEF)-funded Kazakhstan Landscapes Restoration Project. When combined, these projects provide a unique opportunity to tackle this regional challenge in a coherent way. The project will provide valuable lessons and insights to the design of the Kyrgyz RESILAND and the Afghanistan RESILAND projects, which are envisaged for a later stage.

79. **Role of partners.** The project will collaborate with international donors active in natural resource management, rural development, environment, and climate-change-related sectors. There are strong synergies with IFAD, which is preparing the Community Based Agriculture Support Programme - Phase II (CASP+). Similarly, there are synergies with GIZ which focuses on the following priority areas in Tajikistan: (a) environment and climate, (b) economic development and employment, and (c) social development. Other agencies active in land resource management and rural development with which the project will coordinate closely include the UNDP, UNECE, FAO, Caritas-Switzerland, World Food Programme, European Union, KfW, Asian Development Bank, International Union for Conservation of Nature (IUCN), and UNCCD Secretariat. Additional key partners include the World Overview of Conservation Approaches and Technologies (WOCAT), the Consortium of International Agricultural Research Centers (CGIAR), Bioversity International, International Center for Biosaline Agriculture (ICBA), and International Center for Agricultural Research in the Dry Areas (ICARDA).

F. Lessons Learned and Reflected in the Project Design

80. The project design reflects important lessons from World Bank-financed portfolio of landscape and related projects across the globe and in Tajikistan, and from similar regional platforms.[64]

(a) **Political economy and national interests are dominant drivers of regional programs.** Where the political will and incentives of governments to pursue common goals are unequal and where there is asymmetry in the size of the economy and related influence within a region or subregion, regional platforms managed by regional economic entities could bridge this imbalance. This observation prompted the inclusion of a regional subcomponent in the design of the project and in other projects under the RESILAND CA+ Program, with CAREC, a widely endorsed and recognized regional organization, responsible for execution.

(b) **Key lessons for effective regional platforms include** (i) understanding the importance of joint advocacy efforts to mobilize resources at scale and galvanize action up to senior policy levels; (ii) incorporating both the regional and national components under one project with national annual work plans to ensure sufficient funding for regional actions and synergies; (iii) using regional platforms to monitor and evaluate intervention-related biophysical changes at the regional level; (iv) understanding the critical need for well-funded and effective communication in natural resource management interventions to inform policy makers, promote practitioners' networking and capacity building, and reach out to a large number of beneficiaries; and (v) housing digital platforms within a single institution to ensure sustainability. The regional platform's key purpose is to stimulate joint efforts around landscape restoration in Central Asia. It is integrated into the design and budgets of the Tajikistan and other national projects under the RESILAND CA+ Program to ensure availability of funding, and one of its core functions would be to monitor the impact of RESILAND CA+. A portion of the subcomponent's budget is allocated for communication activities and housing Central Asia's knowledge hub on landscape restoration with links to such platforms outside the region.

(c) **Regional investment model for effective integration.** Different implementation models exist for regional projects: projects executed by a regional organization across several countries such as the Great Green Wall and Building Resilience through Innovation, Communication & Knowledge Services (BRICKS) Project (P130888); projects executed by countries in a region through separate financing agreements, such as the Central Asia Hydrometeorology Modernization Project (P120788); or a regional umbrella program with individual country projects, such as the Central Asia South Asia Electricity Transmission and Trade Projects (P161503, P165313, P160230, and P166615) and Central Asia Road Links Program Projects (P145634, P159220, and P166820). The model chosen for the regional umbrella RESILAND CA+ Program with individual country projects is based

[64] As discussed in (a) IEG (Independent Evaluation Group). 2021. *The Natural Resource Degradation and Vulnerability Nexus: An Evaluation of the World Bank's Support for Sustainable and Inclusive Natural Resource Management (2009–2019)*; (b) IEG. 2019. *Two to Tango: An Evaluation of the WBG Support to Fostering Regional Integration; (c) Implementation Completion and Results Report (ICR) of Tajikistan: Environmental Land Management and Rural Livelihoods Project* (P122694, ICR00004451); (d) *ICR of Building Resilience through Innovation, Communication & Knowledge Services (BRICKS)* (P130888, Report No. ICR00004839); and (e) *ICR of the First Phase of the Central Asia Road Links Program (CARS-I)* (P132270, Report No. ICR00004743).

on the last option, chosen based on lessons on enhanced country ownership and envisioned risks of COVID-19-related externalities.

(d) **Establishing a direct link between natural resource rehabilitation and tangible economic and social benefits is essential for increased uptake of sustainable land management activities.** The best results are obtained where conservation techniques that are profitable for farmers can be developed, and a menu of interventions can be offered that combine income and conservation objectives. This approach underpinned previous successful World Bank projects Community Agriculture and Watershed Management Project (CAWMP) and ELMARL Project). Findings from the ELMARL Project show that communities recognized the value of environmental protection for their livelihoods, which served as a motivation to adopt and maintain sustainable land management practices that are now viewed as a viable alternative to 'business-as-usual' agricultural practices. The proposed project will build on and continue to promote a similar approach in its support of livelihood interventions, for example, crop diversification, intensive water-efficient horticulture, forest nurseries, and so on.

(e) **Stakeholder participation at different levels is critical for building ownership and sustainability in landscape management approaches**. The ELMARL Project highlighted the value of (i) CDD planning and decision-making in creating ownership among rural communities to take responsibility for interventions and maintain their livelihoods in sustainable ways and (ii) engaging district-level decision-makers in the review of investments, which was critical for buy-in and helped elevate sustainable land management and climate resilience issues to the district level. Ensuring participation across different levels and sectors will continue to be important in this project, particularly given the focus on landscapes in which there are multiple and often competing land uses. At the same time, it is important to recognize the challenges of participatory approaches where transaction costs can be prohibitive and total agreement elusive. The project will build on the experience of the ELMARL Project and other similar projects adopting a participatory approach for the development of sub-basin-level landscape restoration diagnostics. Stakeholder analysis and engagement will be critical for the development of various types of landscape-level strategies and management plans, for example, forests and protected areas. The project will also work with an inter-ministerial Project Steering Committee (PSC).

(f) **Capacity building at all levels, communication, and access to information are important for the widespread adoption of new practices.** The involvement and commitment of Government agencies at various levels and community organizations are important factors contributing to project success. People require the ability to participate and accept certain roles and responsibilities in landscape restoration and management. While CDD approaches, as used in the ELMARL Project and other projects in Tajikistan, have been effective in ensuring transparency and prioritizing local needs, significant capacity building was required of communities, local governments, and the implementing agency. Even with the capacity developed in CEP since 2013, the project cannot underestimate the need to continue to build stakeholder capacities, particularly given the integrated approaches needed in landscape restoration and the absence of a formal extension service in the country. The project has included a range of capacity-building activities that cover government, research institutes, and communities. The project is also investing in

knowledge management generation and capture and making information accessible for land users and managers to improve landscape restoration practices.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

81. **Implementing agency.** The project is implemented by CEP,[65] the central government authority whose mandate is to coordinate policies and investments on sustainable natural resource management, climate change mitigation and adaptation, hydrometeorology, environmental monitoring, and awareness, in collaboration with the Forest Agency, the PRT under the Ministry of Agriculture, (Participating Agencies) and the SISPNA, which is not a separate agency but a unit within CEP. CEP comprises central departments/divisions, substructural organizations (including SISPNA), self-financing enterprises, and CEP offices in most districts of the country. In total, there are about 2,000 staff, with about 100 at the center and the remainder in cities/districts and substructural organizations. Two partner agencies, FA and PRT, will be technical leads for Subcomponents 2.1 and 2.2, respectively, with SISPNA (part of CEP) acting as technical lead for Subcomponent 2.3, but all project fiduciary and project implementation responsibilities remain with CEP. An MOU will be signed by CEP with each of the Participating Agencies.

82. **CEP functions in implementation and staffing.** The overall responsibility for project management and coordination will be with CEP and its implementation team (CEP-IT). The CEP IT will be responsible for fiduciary management, environmental and social risk management, contract management and M&E, and supervision of implementation of project activities under Components 1 and 2. The CEP IT will manage the project Designated Account in a financial institution acceptable to the Association and be responsible for reporting to the World Bank. At the central unit of the CEP IT, personnel will comprise a Project Director (Chair), the CEP IT Coordinator, a project field coordinator, and component coordinators. The project will support procurement, FM, M&E, technical (for example, forestry, pasture, protected area management, water resources, and agriculture), and environmental and social/gender specialists. Implementation will also be supported through project-financed field-based focal points located in 7 of the 10 project districts. The district CEP offices will provide additional support for the project at the field level. The appointed Project Director and the component coordinators will be civil servants who will be supported by local specialists.

83. **Other key project partners.** CEP, as the lead implementing agency for the project, will be supported by and work closely with three key partners: (a) FA[66] and SFMEs for activities related to NFI, forest management planning, JFM, and natural regeneration; (b) PRT[67] (under the Ministry of Agriculture) and its regional offices for pasture inventory activities, demonstration plots, and oversight of PMPs; and (c) SISPNA[68] and respective protected area units for protected areas management planning and investments. Additionally, CEP will work with the SCLMG for certain mapping and GIS-related activities.

[65] CEPwas established by the Decree of the Government of the Republic of Tajikistan No. 357 dated September 2, 2021.
[66] Forest Agency under the Government of Republic of Tajikistan has been established and operating pursuant to the government's Decree No. 132 dated February 28, 2014.
[67] Pasture Reclamation Trust under Ministry of Agriculture has been established and operating by order of the Ministry of Agriculture No. 104, dated August 18, 2017.
[68] State Institution of the Specially Protected Natural Areas was established and operating pursuant to the government's Decree dated September 2, 2021 No 357. This institution is housed within CEP.

Cooperation between CEP and the Participating Agencies will be set out in MoUs that define the roles and responsibilities of each institution.

84. **Project Steering and Sub-Grant Committees.** A PSC will be established no later than three months after the Effective Date and will include representatives of CEP, FA, Ministry of Agriculture, Ministry of Finance, State Committee for Land Management and Geodesy, State Committee on Investment and State Property Management, and community-based organizations (PUUs and FUGs are represented in a rotation mode). Chaired by the Deputy Prime Minister, the PSC will provide oversight, coordination, and guidance on project management. Details of these arrangements will be provided in the Project Operational Manual (POM) . In addition, the government will establish a Sub-Grant Committee (SGC) involving representatives of relevant ministries, agencies, Chamber of Accounts and local governments. The SGC will have review and approval responsibilities and operational functions related to sub-grants, which will be elaborated in detail in the Sub-Grant Manual.

85. **For Subcomponent 1.2, CEP is expected to contract CAREC directly, given its regional mandate and capacities.** CAREC is in a unique position in convening Central Asian governments and regional stakeholders in addressing environment, land degradation and climate change-related issues common to the region and has experience of exceptional worth to undertake activities under this sub-component**.** Established in 2001 by a joint decision of all five Central Asian states, the European Union, and UNDP, CAREC is an independent, nonpolitical, not-for-profit international organization. CAREC is recognized by national, regional, and international partners and has a regional mandate to assist the Central Asian governments and regional and international stakeholders in addressing environmental and sustainability challenges across the region and Afghanistan. With 20 years of experience, CAREC is today a leading regional knowledge hub in the field of environment, climate change, water management, and sustainable development, combined with capacity development, which can be effectively leveraged for the execution of the subcomponent on regional collaboration. CAREC has implemented projects financed by the World Bank, Asian Development Bank, European Union, GIZ, FAO, UNDP, ICARDA, UNEP, and several others, thereby placing it in a unique position to execute the regional collaboration subcomponent. CAREC may subcontract other entities to execute specific activities. CAREC will be expected to work with the countries to mobilize political commitment and support for activities that provide regional public goods. It will do so by providing technical expertise; supporting analytical work; organizing training, dialogues, and regional workshops; serving as a regional platform for sharing data and promoting common policy and practice; and harmonizing with national data platforms such as SLMTJ. CAREC is also expected to be responsible for aggregating results from the national operations against RESILAND CA+ Program targets.

86. Annex 1 includes more information on implementation arrangements, while the POM includes details on implementation arrangements by activity.

B. Results Monitoring and Evaluation Arrangement

87. **CEP is responsible for the preparation and implementation of the M&E framework.** The M&E plan will allow for ongoing learning and feedback through the planning and implementation stages. The project Results Framework will guide day-to-day M&E, as well as evaluation analysis and reporting at midterm and completion. An integrated monitoring information system (MIS) will be developed and made publicly accessible to communicate results to project stakeholders on the CEP website. Technical assistance will be provided by the project for the design of the MIS and training the implementing agency staff. The results monitoring is based on the agreed Results Framework and targeted annual performance

objectives (annex 1), which will be used to track progress in implementation activities. Smartphone-based field data capture tools will be promoted as part of the monitoring efforts.

88. **The CEP IT will carry out in-depth midterm and completion assessments.** Before the midterm review in Year 3 and at the end of the project, analysis of changes in forest cover and land use patterns will be carried out based on GIS mapping, to monitor the land area where sustainable land management practices have been adopted. The project will also contribute to regional monitoring under the RESILAND CA+. Well-being surveys will be carried out before the midterm review in Year 3 and at the project end. These surveys will also determine changes in monetary or non-monetary benefits from landscape restoration forestry, pasture, and agricultural lands, disaggregated by gender. A final impact evaluation of the landscape restoration activities will be carried out in the final year of implementation.

89. **Project impact on land degradation in the targeted landscapes will be monitored and evaluated using the UNCCD LDN Impact Monitoring Methodology.** The methodology monitors three aspects of degradation: (a) net primary productivity using normalized difference vegetation index (NDVI) with information from satellite imagery (for example, Moderate Resolution Imaging Spectroradiometer); (b) land cover using either a representative area approach with high-resolution imagery, Landsat and Sentinel imagery, or globally produced datasets; and (c) soil organic carbon using field sampling. The UNCCD Secretariat will support the CEP to establish baselines for the above three aspects and repeat the measurements at project midterm and completion.

90. **The M&E system of the project will comprise both performance and impact monitoring.** The project M&E system will include both annual outcome and result targets as well as periodic evaluations of impact on land degradation, using the three LDN indicators, and households' socioeconomic factors that will be compared with baseline evaluations to be carried out by the CEP IT in Years 1 and 2. The project will make particular efforts to integrate participatory monitoring methods, using ongoing advances in digital tools and data collection, thus giving communities the potential for timely decision-making, wider sharing of results, and greater ownership of investments. The project will design and maintain a website for wider dissemination of the results and progress. At a minimum, the following information will be available on the internet: all surveys, all services funded by the project, progress reports, and consultants' and contractors' reports.

C. Sustainability

91. **The project has been designed building on Government's commitment to landscape restoration evident through ECCA30, Bonn Challenge, Forest Sector Strategy, and Pasture Strategy; all of which go beyond the project duration.** The project results and outcomes will feed into objectives and targets of these strategies and policies. Strengthening capacity of both Government agencies and local communities is central to this project and critical to the sustainability of the project's objectives. The project will help build the capacity of national government agencies to support decision-making processes and ensure comprehensive planning and execution of climate-resilient landscape restoration. Collaboration with universities through research grants and fellowships to students will facilitate educating the new cohort of young specialists on landscape restoration challenges and climate change issues for further work, including in public administration. This will positively affect the long-term accommodation of the climate factor while designing and executing national, local, and sectoral strategic plans and programs.

92. **Regional cooperation and dialogues of various stakeholder groups to share experiences and lessons learned on landscape restoration and climate change mitigation and adaptation will multiply restoration outcomes and contribute to climate change adaptation and resilience.** The project will support the systematic assessment and regionwide sharing of lessons from implementing project-supported investments to address common restoration challenges in common transboundary areas across Uzbekistan and Tajikistan and other neighboring countries. These experiences, offering concrete insights on climate-smart landscape restoration technologies and practices, including their costs and results in the field, will contribute to significant cost-savings from learning-by-doing and centralization of this experience for Government agencies overseeing climate-sensitive sectors, academia, civil society, farmers, and communities.

93. **Through the combination of resilient investments, enhanced capacity, evidence-based knowledge sharing, and institutional strengthening, the project will contribute to building long-term climate-resilient and sustainable development pathways and leveraging future investments.** By providing training and financing, the project will encourage farmers to adopt improved climate change adaptation and land management practices. These contribute to enhancing sustainability of rural investments and reducing vulnerability to climate risks. Whether as a village community, FUG, PUU, or WUA, farmers and villagers are key decision-makers on what investments to implement and the distribution of financial resources, thus building ownership, and thereby strengthening sustainability.

94. **Additionally, activities will be coordinated closely with related initiatives within the World Bank's Tajikistan portfolios and with similar activities supported through other donors to ensure a unified and complementary approach, avoid duplication of efforts, and provide synergies where possible.** Some of these activities include CASA1000 Community Support Project (P165313), Tajikistan Socio-Economic Resilience Strengthening Project (P168052), Rural Water and Sanitation Project (P162637), and IFAD's CASP+. In terms of sustaining investments, experience with the now-closed ELMARL Project (P122694) in Tajikistan (which provided similar support to rural communities) is closely followed in CAMP4ASB, and the lessons and experience from CAMP4ASB are being replicated in this project. This is an example that the Government and communities do sustain investments: they mobilize resources for operation and maintenance and are also interested in replicating these investments.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

Technical Analysis

95. The project builds on analytical studies undertaken by the World Bank (for example, landscape restoration opportunity assessment), Government (for example, sectoral analyses to inform NDC revision), and other partners (FAO/IFAD's sub-sector assessment to inform the National Investment Plan). The project design is based on a large portfolio of landscape projects financed by the World Bank (that is, Ethiopia Climate Action through Landscape Management Program for Results, Burundi Landscape Restoration and Resilience Project, and Colombia Mainstreaming Sustainable Cattle Ranching Project), regional programs (that is, CAMP4ASB, regional CASA Projects; and Sahel and West Africa Program in

Support of the Great Green Wall), and experiences in Tajikistan through the projects such as the ELMARL Project and CAMP4ASB, and other World Bank- and donor-funded projects on agriculture, forestry, disaster risk mitigation, rural economy, and tourism development in the country. These studies and the World Bank's prior engagement justify the project's ambition to increase adoption of sustainable land management and access to improved livelihood opportunities for rural communities in selected areas nationally and strengthen collaboration with neighboring countries in key aspects of landscape management regionally. Due to interconnectedness of causes leading to landscape degradation, the project adopts an integrated landscape management approach involving multiple sectors at multiple levels (regional, national, river basin, sub-basin, and local); builds capacities of agencies, local authorities, farmers, and communities; and develops an investment framework for landscape restoration. In keeping with good practices in landscape management planning, the project will implement a participatory planning process to consider inputs from different stakeholder groups. This approach will allow for coordination and integration of solutions among various government agencies and local stakeholders. Using a CDD approach, village- and community-based/resource user groups and organizations will take responsibility for the choice, design, and management of smaller-scale landscape and livelihood investments. At the same time, the project will work across sectors, for example, with the SFA, the PRT of the Ministry of Agriculture, Ministry of Energy and Water Resources, SCLMG, and Ministry of Finance (MoF), as well as local administration and organizations (district and sub-district) to incorporate a landscape approach for investment planning and implementation.

Economic and Financial Analysis

96. **The project's overall cost is US$45 million across five years and is viable with an economic internal rate of return (EIRR) of 18.40 percent.** The project identified direct benefits in line with investments in targeted areas aimed at (a) improved pasture management across 50,000 ha and climate-smart crop production practices across 15,000 Ha; (b) improved forestry management through natural regeneration and afforestation of 8,000 ha and 3,900 ha through JFM; (c) fuelwood plantations across 220 ha; (d) livelihoods diversification activities for over 21,000 people from improved land restoration practices (e) agri-food value chain activities, and (f) strengthening protected area management and resilience of ecosystem services across 102,803 Ha. While a range of benefits were identified, owing to data limitations, only a subset of benefits was quantified. A cost-benefit analysis has been performed based on indicative on-farm and off-farm activities across the following benefits: (a) increased livestock and farm-level production and productivity, (b) higher yields and new production of forest and non-timber forest products, (c) increased employment opportunities for both on-farm and off-farm activities, and (d) financial inclusion. These benefits were quantified using indicative financial models for implementation of (a) sustainable PMPs, (b) sustainable forest management plans; and (c) community-level climate-smart agriculture sub-projects. Based on these subset of benefit streams alone, the result EIRR of the project is estimated at 18.4 percent. The economic net present value (ENPV) of benefits of the project's net benefit stream, discounted at 6 percent, is US$56.3 million. Sensitivity analysis has been provided, details of which are in annex 3. This proves that the project is economically viable and justified from an economic point of view.

97. The project will also result in improved public goods and services in the form of intangible services and indirect benefits (listed in annex 3). A subset of these was quantified including (a) carbon sequestration benefits (avoided social cost of carbon) and (b) indirect benefits from ecosystem services, including avoided costs from environmental degradation, natural disasters, and salinization.

98. **Over and above the project EIRR, considering the indirect benefits from carbon sequestration, the project is viable with an EIRR Carbon at 39.5 percent and 68.1 percent according to lower and higher bound assumptions for social price of carbon.**[69] Using the project EIRR as basis, benefits from carbon sequestration were added because of activities across entire project (all components) to produce an EIRR with Carbon (EIRR Carbon). Global benefits from carbon sequestration accrue from reduced deforestation and degradation from restored landscapes. A GHG analysis carried out based on project interventions using EX-ACT estimated that the net carbon balance over 20 years was –4,954,208 tCO2-eq (approximately 247,710 tCO_2 eq per year). As per the World Bank Shadow Price of Carbon Guidance Note, there are low carbon prices (starting from US$41 and evolving over the years) and high carbon prices (starting from US$82 and evolving over the years). Carbon sequestration benefits when considered with lower bound assumptions result in approximately US$163.5 million in net present value (NPV)[70] and EIRR Carbon of 39.5 percent. The details of the approach and assumptions are provided in annex 3.

99. **The project also adds significant value in the range of US$9.5 million annually in value from social and environmental benefits, which have been quantified for indicative purposes and over and above the estimated EIRR and EIRR Carbon.**[71] The methodology for the economic analysis is detailed in annex 3 and will use benefit transfer according to project indicators with existing studies and evidence in Central Asia as proxies. Valuation using benefit transfer for project area finds avoided costs from environmental degradation valued in the range of US$0.3 million annually, avoided costs from natural disasters as US$8.4 million annually, and avoided costs of salinization estimated at US$0.8 million annually. Indirect benefits related to avoided costs from nutrient loss, sedimentation removal, water and wind erosion, and floods have not yet been included due to lack of data but bring significant qualitative improvements to land productivity and ecosystem resilience. Further intangible but important benefits include, but are not limited to, increased crop diversification, improved access, and security along borders[72] and regional benefits to Central Asia, such as improved connectivity across borders and improved biodiversity through green corridors and ecotourism activities. While the project is viable with and without the abovementioned benefits, activities will contribute to improved provision of ecosystem services and resilience that will accrue savings from avoided cost of degradation are over and above the EIRR presented. See annex 3 for more details.

100. **Sensitivity analysis.** Economic returns were tested against changes in benefits and costs and for various lags in the realization of benefits. In relative terms, the EIRR is equally sensitive to changes in costs and benefits. In absolute terms, these changes do not have a significant impact on the EIRR, and the economic viability is not threatened by a 20 percent decline in benefits or by a 20 percent increase in costs, because the EIRR in both cases remains well above the discount rate. A one-year delay in project benefits reduces the EIRR to 16.3 percent. The NPV is US$92.8 million at a discount rate of 3 percent and US$10.5 million at a discount rate of 14 percent. Details can be found in annex 3.

[69] World Bank. 2017. *Guidelines for Social Price of Carbon*. EIRR Carbon refers to EIRR that includes carbon sequestration benefits.
[70] With lower bound carbon price starting from US$41 in 2021, as per World Bank Social Price of Carbon Guidelines (2017).
[71] Benefits were proxied from $/ha/year values found in World Bank. 2020. *Costs of Environmental Degradation in the Mountains of Tajikistan*. World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/34986.
[72] Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10.

101. **The provision of public sector financing is justified as the project is investing in building back better by supporting an economic transition through sustainable landscape management practices and livelihoods derived thereof.** This will support the provision of global, regional, and national public goods. Support for forest regeneration is usually a function of the state, even in developed market economies. As the need to invest in restoration is high, estimated at US$37 million annually[73] in Central Asia, support for landscape restoration/forestry activities is budgeted at 0.5 percent of the budget[74] as of 2006, the lowest among all ministries. Further, public investments in the agriculture and forestry sector have been dropping consistently. Beyond 2006, the allocation of PIP budget for agriculture, forestry, and fishing has dropped from approximately 20 percent in 2006 to around 8 percent in 2012.[75] Investing in land degradation would be a value for money investment given regionally significant evidence[76] suggesting that every US$1 invested in sustainable landscape restoration practices in Central Asia can yield US$4 of returns over a 30-year period. Reducing land degradation in Tajikistan alone could provide ecosystem services and benefits equivalent to 8.1 percent—13.4 percent of GDP—making for up to 0.3 percent of regional GDP of Central Asia in 2019. While this justifies public investment support, public investment alone is not enough for meeting Tajikistan's LDN targets and climate-related commitments. Public support needs to be leveraged and will be done with private sector involvement to improve and add value to productive activities; create stable revenues with dryland products and tourism services; and introduce sustainable supply chains, as mobilized under the RESILAND CA+ Program and ECCA30 Initiative. The project will also involve banks, including micro-lending institutions and public-private partnerships, to provide financial support to women and small and medium enterprises (SMEs) in carrying out interventions.

102. **World Bank's value addition.** The unique proposition of the World Bank for this project is justified because it builds on extensive World Bank experience in sustainable landscape restoration and management at the national and transboundary levels and is linked to broader regional initiatives—RESILAND CA+ Program**.** The World Bank has a long-standing track record with Tajikistan, especially within the environment sector. Some of these activities include CASA1000 Community Support Project (P165313), Tajikistan Socio-Economic Resilience Strengthening Project (P168052), and Rural Water Supply and Sanitation Project (P162637). In terms of sustaining investments, experience with the now-closed ELMARL Project (P122694) in Tajikistan (which provided similar support to rural communities) is closely followed in CAMP4ASB, and the lessons and experience from CAMP4ASB are being replicated in this project. The World Bank has also been engaged in forest landscape projects in the region, notably the Integrated Forest Ecosystem Management Project (P151102) in the Kyrgyz Republic and the Kazakhstan Resilient Landscapes Restoration Project (P171577). This experience and regional knowledge put the World Bank in an advantageous position to support this project and provide examples of value for money

[73] US$11 billion across a 30-year period according to Mirzabaev, et al. 2016.
[74] World Bank. 2005. *Tajikistan: Public Expenditure and Institutional Review*. Washington, DC. https://openknowledge.worldbank.org/handle/10986/8408.
[75] Figure 13 - Bakanova, Marina, Ilyas Sarsenov, Salman Zaidi, Francisco Galrao Carneiro, Zuhro Qurbonova, and Hassan Aliev. 2014. *Government Expenditures: Size, Composition and Trends (English).* Takijistan Policy Notes on Public Expenditures*.* Policy Note No. 1, Public Expenditure Review (PER) Washington, DC: World Bank Group. http://documents.worldbank.org/curated/en/906971468310761468/Government-expenditures-size-composition-and-trends.
[76] Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10; Source: Quillérou, E., R. J. Thomas, O. Guchgeldiyev, S. Ettling, H. Etter, and N. Stewart. 2016. *Economics of Land Degradation (ELD) Initiative: Broadening Options for Improved Economic Sustainability in Central Asia*. Synthesis report. Report for the ELD Initiative from the Dryland Systems Program of CGIAR c/o ICARDA, Amman, Jordan.

public investments in landscape restoration, which are benefiting communities in a sustainable manner. Tajikistan is also uniquely positioned to benefit from the regional engagement RESILAND CA+ Program with experience and partnerships already established through the ongoing World Bank-financed CAMP4ASB, GIZ,[77] and the Economics of Land Degradation Initiatives, which will strengthen delivery of environmental, social, and economic benefits for Tajikistan. Given the integrated and regional nature of the project, the World Bank can play a key role, through its convening power, to help create and sustain the institutional arrangements for integrated development and foster open communications especially between the implementing agencies and representatives of smaller rural areas supported by the project.

B. Fiduciary

(i) Financial Management

103. The assessment confirmed that Financial Management (FM) arrangements at CEP are adequate to implement the project and meet the minimum requirements of the World Bank's Policy and Directive on Investment Project Financing. To strengthen FM performance and prepare CEP for project implementation, and as part of ECAPDEV preparation grant, the following FM capacity-building actions were implemented by CEP before project effectiveness: (a) the existing 1C accounting software has been updated for project accounting, budgeting, and reporting; the accounting system has inbuilt controls to ensure data security, integrity, and reliability and the functionality of automatic generation of unaudited interim financial reports (IFRs) and statement of expenditures; (b) the FM chapter of the POM has been developed (as part of the POM) to guide staff in daily project FM operations—approval of the POM is an effectiveness condition; and (c) the FM specialist has been hired as part of the project implementation team to provide daily support to the CEP Chief Accountant, who is responsible for all financial aspects of the project. The terms of reference (TOR) for the FM specialist have been approved by the World Bank. In addition, retroactive financing of US$ 500,000 will be provided to support the setting up of CEP Implementation Team and initiation of project activities. Eligible activities for the retroactive financing include consulting services, non-consulting services, goods, works, training and operating costs for the project. Payments for eligible expenditures can be made prior to one year before the Signature Date of the Legal Agreement and as agreed with the Bank.

104. The adoption of a Sub-grant Manual (SGM) acceptable to the World Bank, which will describe the disbursement, flow of funds, and internal control over sub-grants under Subcomponents 2.1, 2.2 and 2.4, will be a disbursement condition for Category 3 of the disbursement table in the Financing Agreement. The Sub-grant Agreement format will be developed and attached to the SGM. A separate Sub-grant Agreement will be signed for each sub-grant. CEP will be responsible for assessing FM capacity and ensuring adequate FM arrangements in place in community groups/organizations that receive grant funds. The approval by CEP of the final SGM, plus adequate accounting and reporting arrangements in target community groups/organizations, will be a minimum requirement to receive funds from CEP. This FM requirement will be documented in the SGM.

105. The payments for sub-grant expenditures will be made by (a) CEP directly from the CEP account using its own funds, which could be then reimbursed and from the grant account; once the advance

[77] GIZ's ILUMA program at https://www.landuse-ca.org/?lang=en#section-iluma, whose second phase is soon to be launched, provides substantial information on land use practices at the landscape level which were piloted and tested in Central Asia countries, including Uzbekistan, for more than 10 years. See https://www.eld-initiative.org/.

method is allowed under the project, payments will be made directly from the project Designated Account (after the 'lapsed loan' is resolved) and (b) community groups/organizations from the designated account. The dedicated accounts will be used exclusively for sub-grant purposes and will be held in a financial institution acceptable to the World Bank. The provision of advances for sub-grant funds will be made by CEP to the dedicated accounts of the beneficiaries in tranches. The initial tranche will be provided to the dedicated account based on beneficiary's request and will be replenished after the beneficiary provides relevant payment supporting documents and reports acceptable to CEP. Further details of the arrangements for the flow of funds and reporting for sub-grants will be described in the SGM, acceptable to the World Bank, the approval of which by CEP is a disbursement condition.

106. **The residual FM risk under the project is currently assessed as Moderate.** The FM risk is rated as such due to experience and capacities gained by CEP during implementation of previous World Bank-funded projects. The strengths that provide a basis for reliance on the project's FM system include (a) the experience of the FM/accounting staff in World Bank-financed projects; (b) overall adequate internal control and filing systems in place; (c) the audits of the World Bank-financed project implemented by CEP through the IT being acceptable to the World Bank; and (d) the IFRs and audit reports of the World Bank-financed project implemented by CEP being received on time and in general found to be acceptable to the World Bank.

107. Regarding the FM covenants to be included in the Disbursement and Financial Information Letter (DFIL), the following should be noted: (a) IFR formats have been agreed with CEP and will be submitted to the World Bank within 45 days after the end of the calendar quarter and (b) the project's audited financial statements are to be submitted to the World Bank within six months after the end of the audit period. The scope of the project audit will be extended to include a sample review of those sub-grant funds that were used through jamoats/community groups/other organizations eligible to sub-grants. The audit TOR will clearly indicate that the auditor shall review a sample of 10 percent of the number of transactions of sub-grants made by CEP to confirm the eligibility of the respective expenditures. The project will receive disbursements from the World Bank through direct payments, reimbursements, and commitments, for example, letters of credit. In application of section 5.2 of the Disbursement Guidelines for Investment Project Financing, the use of a Designated Account is not permitted under this new operation due to the recipient's failure to refund undocumented advances to Designated Accounts within two months after the disbursement deadline date under three recently closed projects. The detailed disbursement arrangements will be provided in the DFIL.

(ii) Procurement

108. Procurement under the project will be governed by the World Bank's Procurement Regulations for IPF Borrowers (November 2020) (Procurement Regulations) and will also be subject to the World Bank's Anti-Corruption Guidelines (dated July 2016). The Project Procurement Strategy for Development (PPSD) is being developed by the borrower with the support of the World Bank's team. Preliminary market analysis has confirmed the availability of relevant and competitive markets for key procurement packages. A Direct Selection with CAREC was proposed by the government for the management of Subcomponent 1.2 including setting up Regional Exchange Platform and delivering MoUs and other products described in sub-Component 1.2, given its unique position and regional mandate in convening Central Asia governments and regional stakeholders in addressing environment, land degradation and climate change related issues common to the region; and experience of exceptional worth to undertake activities under

this sub-component. The PPSD, including the Procurement Plan, has been discussed with the World Bank's team during appraisal and has been agreed during negotiations.

109. **The residual procurement risk under the project is currently assessed as Moderate.** The risk rating is due to the implementing agencies' experience and capacities gained during the implementation of donor-funded projects and project procurement being limited to activities of small scale and typical for the sector. The key issues and risks concerning procurement identified so far include (a) insufficient existing capacity to develop the technical part of procurement documents and provide quality reviews and timely approvals of the procurement decisions, (b) procurement and implementation delays because of the need to coordinate procurement process with multiple project implementation partners, (c) limited procurement capacity at the community level, (d) limited contract monitoring and management skills and tools, and (e) overall high public procurement risk environment. Given the above risks, the following preliminary risk mitigation measures are proposed: (a) strengthening the implementation capacity and devoting additional resources to support the implementing agency, (b) establishing groups of experts to provide technical inputs to procurement documents, (c) putting in place an efficient contract monitoring mechanism, (d) preparing operations and sub-grants operations manuals with detailed descriptions of the procurement processes, and (e) enforcing public disclosure of contract awards and implementation progress information. The analysis of key issues and risks concerning procurement and risk mitigation measures was finalized during the appraisal.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

110. **The project triggers OP/BP 7.50 (Projects on International Waterways).** The project triggers OP/BP 7.50 because it uses water for activities such as afforestation, pasture improvement, and climate-smart agriculture from tributaries of the Amu Darya, which is an international waterway. The proposed interventions will, however, focus on the rehabilitation and improvement of existing schemes and will not involve works or activities that will exceed the original schemes, change their nature, or alter or expand their scope and extent to make them appear new or different. Given the general scope and nature and upstream location of works proposed for financing, the project will not adversely affect water flows to other riparians and will also not be adversely affected by other riparian's water use. The project therefore falls within the exception to the riparian notification requirement under paragraph 7(a) of OP/BP 7.50. The Regional Vice President approved the exception to the notification requirement on November 19, 2021.

D. Environmental and Social

111. Both environmental and social risks individually are assessed as Substantial, making the combined, overall environmental and social risk rating for the project Substantial. The following World Bank ESS are relevant: ESS 1, ESS 2, ESS 3, ESS 4, ESS5, ESS 6, ESS 8, and ESS 10. The project also triggers OP/BP 7.50 (Projects on International Waterways), as some minor works are expected to be held at the tributary of larger rivers that are considered as transboundary.

112. The environmental impact of the project is expected to be largely positive as it will support restoration of degraded landscapes and improve management of pastures, pilot protected areas and forests, and land and water management. The project is also expected to increase the adoption of effective agricultural, land, and water management practices. However, the risks associated with activities related to landscape restoration activities, repair of office buildings in protected areas, establishment of guesthouses and small cafes, agroforestry, and climate-smart agriculture practices are also expected. Such potential environmental risks may include temporary local disturbances to biodiversity and living natural resources; habitat disturbances; soil loss related to planting activities; dust; and temporary construction-related air or water pollution, waste generation, and wastewater.

113. The project is expected to have positive social impacts, as it will support investments in rural livelihood development and landscape management selected through a multi-stakeholder planning process, the bulk of which will be designed and managed primarily by communities, farmers, and resource user groups through the small grant program. Issues of social inclusion, especially vulnerable and disadvantaged groups, and the dependence of their livelihoods from selected resources, are assessed through social and environmental assessment and considered in the project design to ensure that stakeholders have equal access to project benefits. The key project interventions will require extended interface between local communities and government bodies. It is likely that the project will have to address potential conflicts to bring together differing perspectives. This would mean that the project will have to develop appropriate strategies and implementation plans to ensure that the local communities are provided an opportunity to participate in decision-making and derive full benefits. The project will finance resilient infrastructure rehabilitation, including protected areas, roads, agroforestry, and small construction works, which may cause minor economic and resettlement impacts, as well as restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project. The sexual exploitation and abuse/sexual harassment (SEA/SH) risk is rated low based on the SEA/SH Assessment completed during project preparation. The risk of child labor/forced labor is considered to be limited, as based on the national legislation the contractors have to comply with the minimum age of employment and mutually agreed written contracts.

114. To address the environmental and social risks, the following instruments have been prepared: (a) Environmental and Social Management Framework (ESMF), (b) Stakeholder Engagement Plan, (c) Resettlement Policy Framework including Process Framework, (d) Labor Management Procedures, and (e) Environmental and Social Commitment Plan. Once the investments are defined, site-specific Environmental and Social Impact Assessment and Environmental and Social Management Plans/checklists as well as a Biodiversity Management Plan and a Pest Management Plan will be developed during implementation, where necessary. CEP has experience in implementing World Bank-financed projects, but this will be its first project under the Environmental and Social Framework (ESF). Environmental and social specialists will be hired by the CEP Implementation Team (CEP-IT) to support project implementation. In addition, several technical specialists will be recruited by the CEP-IT to support the ESF implementation.

115. **Moreover, to address potential environmental and social risks the project will not finance the following excluded activities.** These include: (a) any of the activities listed, or activities that produce

and/or use materials listed, in the World Bank Group/International Finance Corporation Exclusion List[78] and such other activities and/or materials listed in the POM and which are classified and referred to as part of the negative list in the POM; (b) an investment that is classified as a high risk, in respect to potential environmental and social impacts, in accordance with the provisions of the POM and the ESMF; (c) an investment that: involves large-scale physical and economic displacement as described in Land Acquisition, Restrictions on Land Use, or Involuntary Resettlement (as defined under ESS 5); that adversely impacts sensitive habitats and species as described in Biodiversity Conservation and Sustainable Management of Living Natural Resources (as defined under ESS 6); that adversely impacts Cultural Heritage (as defined under ESS 8); or that involves child or forced labor; (d) an investment that involves the potential use of, or discharge into, any waterways as defined and applicable under World Bank Operational Policy 7.50 (or detailed design and engineering studies of such investment), as such waterways shall have been described more specifically in the POM; and (e) an investment that involves any other exclusions agreed by the Bank and the Borrower as set forth in the POM.

V. GRIEVANCE REDRESS SERVICES

116. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.
For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VI. KEY RISKS

117. **The overall project risk is rated Substantial, taking into account the mitigation measures considered in project design.** Three risk categories are rated Substantial, as described below, macroeconomic risk is rated Low, and the rest are rated Moderate.

118. **The risk for institutional capacity for implementation and sustainability is Substantial due to the fiduciary and technical capacities needed to sustain interventions across scales, stakeholders, and sectors.** Competing interests among ministries and provincial authorities can undermine service delivery, policy development and implementation, and project performance. However, the Government has established an inter-ministerial working group (chaired by CEP) to support project preparation. A similar setup in the form of a Steering Committee is expected to continue into implementation to facilitate coordination across sectors and support an integrated approach. Risks will be further managed at the project level through (a) focused capacity development; (b) implementation and financial mechanisms

[78] See the list here: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist

tested in previous projects; (c) contracted international expertise, (d) focus within agreed landscapes with government and donor agencies; and (e) documenting and promoting of benefits that arise through project M&E, impact assessments, and strategic communication.

119. **Environmental and social risks are assessed as Substantial; thus, the overall rating is Substantial.** The environmental impact of the project is expected to be largely positive; however, some potential environmental risks associated with activities related to landscape restoration activities, office buildings in protected areas, small-scale construction works, agroforestry, and climate-smart agriculture practices are expected. As the project activities are expected within the vicinity of the protected areas and, consequently, biodiversity disturbance, the project will conduct biodiversity assessments and prepare biodiversity management plans and pest management plans based on site-specific Environmental and Social Impact Assessments/Environmental and Social Management Plans, with support from the consultant. The project will also apply a 'List of Do's and Don'ts in Protected Areas', as well as codes of conduct in protected areas for workers and tourists. The ESF documents will be incorporated. Social risks that may affect project implementation and outcomes include (a) accessibility for poor and near-poor people, especially in rural and mountainous areas; (b) equity challenges due to geographic, socioeconomic, and interregional disparities; (c) fragility and conflict situation in some border areas; (d) gender inequity which could affect outreach to women in general and female-headed households, in particular; (e) adequate and appropriate facilities provision and service quality; and (f) regulation and governance, especially with regard to integrating forestry with other livelihood department activities. The key interventions will be in the spheres of protected area and landscape management, and the interface with the local communities will be critical. The project will develop appropriate strategies and implementation plans to ensure that the local communities are provided an opportunity to participate in decision-making and derive full benefits. The project will finance resilient infrastructure rehabilitation, including protected areas, roads, and riverbanks, which may cause minor economic and resettlement impacts, as well as restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project.

120. **Technical design risks are assessed as Substantial.** The Project includes a large number of subcomponents and activities, each being implemented by a different agency. While CEP as the lead implementing agency has successfully implemented previous Bank projects and has built capacity, the technical lead agencies – FA, PRT and SISPNA – are less experienced. Given the complexity of the design and the ability to manage many different lines of activities under one project, the technical design risk is rated Substantial. As part of mitigation measures, the project has included technical capacity building measures for each of the technical lead agencies under subcomponent 1.1; the MOUs will be signed between CEP and FA and CEP and PRT (an MOU is not needed with SISPNA because it is one of the subordinating units under CEP); the MOUs will have close supervision, monitoring and evaluation arrangement by CEP to immediately address any delays and bottlenecks.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Central Asia

RESILAND CA+ Program: Tajikistan Resilient Landscape Restoration Project

Project Development Objectives(s)

The Project Development Objective is to increase the area under sustainable landscape management in selected locations in Tajikistan, and promote Tajikistan's collaboration with Central Asia countries on transboundary landscape restoration.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
to increase the area under sustainable landscape management in selected locations in Tajikistan			
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0.00	180,000.00
People benefiting from landscape management practices (Number)		0.00	336,000.00
People benefitting from landscape management practices - Female (Number)		0.00	134,400.00
to promote TJ's collaboration with Central Asia countries on transboundary landscape restoration			
Transboundary sustainable landscape management policies harmonized (Number) (Number)		0.00	5.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Component 1. Strengthen Institutions and Policies, and Regional Collaboration			
Establishing Land Degradation Neutrality Target for the country (Yes/No)		No	Yes
Number of strategies and action plans formulated (Landscape Restoration Strategy and Action Plan and Protected Area Strategy and Action Plan) (Number)		0.00	2.00
Number of persons trained in central and local government units on integrated landscape management and related subjects (segregate by central, local, women) (Number)		0.00	550.00
Component 2. Enhance Resilient Landscapes and Livelihoods			
National Forestry Inventory completed and publicly disclosed (Yes/No)		No	Yes
Forest area brought under management plans (CRI, Hectare(Ha))		0.00	685,000.00
Area brought under pasture management plans (Hectare(Ha))		0.00	83,000.00
Protected area management plans prepared or updated (Number)		0.00	4.00
Net greenhouse gas (GHG) emissions (CRI, Metric tons/year)		0.00	240,000.00
Share of sub-grants disbursed to women-led or predominantly women groups (Percentage)		0.00	15.00
Percentage of PUUs/FUGs/CIGs that have women members in decision making roles on their councils /boards/committees. (Percentage)		0.00	50.00
Component 3. Project Management and Coordination			
Average percentage of direct beneficiaries who are satisfied with activities (annually, disaggregated) (Percentage)		0.00	90.00
Percentage of feedback/ grievances resolved within the stipulated service standards for response times (Percentage)		0.00	90.00

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Land area under sustainable landscape management practices	The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example,	Annual	Project reports, Project management information systems	A combination of methods – field based and digital mapping, and remote sensing data, project reports and MIS. This indicator is further divided as follows: i) *Sub-component 2.1 Forest Restoration and Sustainable Forest Management: 12,197 ha (8000 ha natural regeneration, 3900 ha afforestation, 220 ha fuelwood plantation, and 77 ha nursery)* ii) *Sub-component 2.2 Integrated Pasture Management and Restoration: 50,000 ha* iii) *Sub-component 2.3 Protected Area*	CEP IT

	agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.			*Management and Biodiversity Conservation: 102,803 ha* iv) *Sub-component 2.4. Landscape Restoration and Livelihoods: 15,000 ha* Note: Not all area under management plan under IRIs in Component 2 is included under this PDO indicator; only the area where intensive management activities have been carried out is considered.	
People benefiting from landscape management practices	This indicator measures the number of people in the project areas that benefit from the range of SLM practices that the project is able to implement. Benefits include monetary (employment, income) and non-monetary (changes in aspects of well-being, and improved condition of	Annual, and at mid-term and completion for non monetary	Project reports, project MIS, Survey reports and data	Periodic well-being surveys and case studies, aggregation of beneficiary data from component 2 M&E, data collection to be supported through digital methods such as Kobo Tool Box, Government statistics	CEP IT

	agricultural and natural resources, etc). Assumption: There are 140,000 households in project districts. CEP estimates that 21,000 households would benefit from subcomponent 2.4 (each household is assumed to receive $350), and 35000, under subcomponent 2.1 and 2.2. So, in total, 56,000 would benefit from one of the project activities on forestry, pasture, protected area, and agriculture crop-based livelihood. Average size of household in Tajikistan is 6. With this, 336,000 people would benefit from the project.				
People benefitting from landscape management practices - Female	This indicator measures the number of female beneficiaries in the project areas that benefit from the range of SLM practices that the project is able to implement. Benefits include monetary (employment, income) and non-monetary (changes in aspects of well-	Annual, and at mid-term and completion for non monetary	Project reports, project MIS, Survey reports and data	Periodic well-being surveys and case studies, aggregation of beneficiary data from component 2 M&E, data collection to be supported through digital methods such as Kobo Tool Box, Government statistics	CEP IT

	being, and improved condition of agricultural and natural resources, etc).				
Transboundary sustainable landscape management policies harmonized (Number)	The policies could be: (i) MoU for restoration of transboundary landscape corridors in Central Asia, (ii) regional methodology for ecosystem classification and inventory, (iii) MoU for the designation of transboundary "peace parks", (iv) protocol for tourism across transboundary protected areas, and (v) nature-based solutions protocol for transboundary road protection.	Annual	CAREC	Minutes of Regional Exchange Platform meetings' minutes, review of protocols and MoUs	CEP IT/CAREC

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Establishing Land Degradation Neutrality Target for the country	This includes determination of LDN targets for the country and getting it approved by the government for submission to UNCCD. The target "Yes" for this indicator means that	Mid-term and completion	CEP, UNCCD Secretariat, universities and research institutions	Review of UNCCD methodology, other country examples and project reports	CEP IT

	the process for setting up LDN in a country, following the set methodology by UNCCD, is completed; a report containing LDN target and associated assessment is published in hard copy, distributed to key stakeholders, and publicly disclosed in the relevant website such as that of CEP; and the government has approved submitting the LDN target to UNCCD.				
Number of strategies and action plans formulated (Landscape Restoration Strategy and Action Plan and Protected Area Strategy and Action Plan)	This indicator includes Landscape Restoration Strategy and Action Plan and Protected Area Strategy and Action Plan	mid-term and final	CEP	Annual reports	CEP IT
Number of persons trained in central and local government units on integrated landscape management and related subjects (segregate by central, local, women)	Number of people who participate in training, short courses, workshops, and seminars (both in-person and virtual) on a range of topics related to building capacities on landscape restoration.	Annual	Project reports, financial reports, training/workshop reports	Review of reports and other documentation, project MIS, surveys	CEP, Forest Agency, Pasture Trust
National Forestry Inventory completed and publicly disclosed	This indicator measures the status of the preparation of the NFI for the country, and whether the report has been published and shared.	mid-term and final	Project reports	The NFI exercise will employ state of the art methodologies for conducting forest inventories, including	Forest Agency and CEP

	The target "Yes" for this indicator means that report (s) containing current status of forest resources in the county is published in hard copy, distributed to key stakeholders, and publicly disclosed in the relevant websites such as those of FA and CEP.			geospatial and earth observation data. The NFI will establish key parameters such as the total areas of forest by forest type and ownership (as needed), total standing volumes by species and size class, regeneration, incidence of pests and disease, and the distribution of key indicator species for biodiversity conservation. Other relevant data will also be collected, e.g., evidence of illegal removals, erosion, forest fires, condition/species of pasture, etc., as required.	
Forest area brought under management plans		Annual	Project reports, project MIS	A combination of methods- review of management plans prepared which will include mapping (field and remote) of areas under management.	CEP IT, Forest Agency, consultants

				Note: Not all area under management plans is included under PDO indicator; only the area where intensive management activities have been carried out is considered.	
Area brought under pasture management plans	This indicator measures the area in hectares that has been brought under management plans for pasture supported by the project. The indicator will aggregate area for PMPs implemented by PUUs. Note: Not all area under management plans is included under PDO indicator; only the area where intensive management activities have been carried out is considered.	Annual	Project Reports, M&E systems of Pasture Trust, PUU and CEP	Field implementation, monitoring and survey reports	Pasture Trust and CEP
Protected area management plans prepared or updated	This indicator measures the number of protected area management plans prepared or updated. The area that has been brought under management plans of	Annual	Project reports, project MIS	A combination of methods- review of management plans prepared which will include mapping (field and remote) of areas	CEP IT, SISPNA, consultants

	protected areas by operations supported by the project is targeted to be 2000000 ha. Note: Not all area under management plans is included under PDO indicator; only the area where intensive management activities have been carried out is considered.			under management.	
Net greenhouse gas (GHG) emissions	Project net greenhouse gas (GHG) emissions are calculated as an annual average of the difference between project gross (absolute) emissions aggregated over the economic lifetime of the project and the emissions of a baseline (counterfactual) scenario aggregated over the same time horizon. They are reported in metric tons of carbon dioxide equivalent per year.	baseline, mid-term and final	Project reports	GHG accounting will be carried out using the FAO EX-ANTE Carbon-Balance Tool (EX-ACT)	CEP IT, consultants
Share of sub-grants disbursed to women-led or predominantly women groups	This indicator measures the proportion of grants disbursed in the project that are received and managed	Semi-annually	Proposals, project reports, project	Review of project documentation, sample surveys, and case studies	CEP (IT specialists, contracted consultants)

	by women-led groups and predominantly women composed groups (more than 50% women members). In the case of PUUs/FUGs/WUAs, women-led would require that the Chair of the group be a woman. In the case of CIGs, the leader is to be a woman. This indicator measures the access that women have to financing from the project which is provided in the form of sub-grants. The reporting will also capture the value of these sub-grants as a percentage of the total disbursed.		database		
Percentage of PUUs/FUGs/CIGs that have women members in decision making roles on their councils /boards/committees.	This indicator measures the minimum percentage of PUUs, FUGs, and CIGs that have women in decision-making roles on the boards or councils of these groups/unions. At least one women needs to be on either the board or council to be included. The reporting will also capture the total number of women in decision-making roles,	Semi-annually	Proposals, project reports, project database	Review of project documentation, sample surveys, and case studies	CEP (IT specialists, contracted consultants)

	and the number of members of all groups receiving financing from the project who are women (Target: At least 50 percent of project supported PUUs/FUGs/CIGs have at least one woman on their board/council)				
Average percentage of direct beneficiaries who are satisfied with activities (annually, disaggregated)	This indicator shows the proportion of direct beneficiaries who express satisfaction with project activities.	Annual	Project reports, MIS	End of activity surveys and feedback, sample surveys	CEP IT
Percentage of feedback/ grievances resolved within the stipulated service standards for response times	This indicator measures the proportion of feedback/grievances that are addressed within the standards as given in the project GRM guidelines.	Annual	GRM logbook,	Review of GRM logbook, project documents, MIS	CEP IT

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Tajikistan
Tajikistan Resilient Landscape Restoration Project

A. Institutional and Implementation Arrangements

1. **Implementing agency.** The project is implemented by CEP, whose mandate is to coordinate policies and investments on sustainable natural resource management, climate change mitigation and adaptation, environmental monitoring, and awareness in collaboration with the Forest Agency, the PRT under the Ministry of Agriculture (Participating Agencies), and the SISPNA, which is not a separate agency but a unit within CEP. CEP comprises 10 departments/divisions at the center, nine substructural organizations (includes SISPNA), two self-financing enterprises, and CEP offices in most districts of the country. In total there are about 2,000 staff, with about 60 at the center, 330 in cities and districts, and the remainder in the substructural organizations. Two partner agencies, SFA and PRT, will be technical leads for Subcomponents 2.1 and 2.2, respectively, with SISPNA (part of CEP) acting as technical lead for Subcomponent 2.3, but all project fiduciary and project implementation responsibilities remain with CEP. An MOU will be signed by CEP with each of the Participating Agencies.

2. **Project Steering and Sub-Grant Committees.** A Project Steering Committee (PSC) will be established no later than three months after the Effectiveness Date and will include representatives of CEP, Forest Agency, Ministry of Agriculture, Ministry of Finance, State Committee for Land Management and Geodesy, State Committee on Investment and State Property Management, and community-based organizations (PUUs and FUGs are represented in a rotation mode). Chaired by the Deputy Prime Minister, the PSC will provide oversight, coordination, and guidance on project management. Details of these arrangements will be provided in the POM. In addition, the government will establish a Sub-Grant Committee (SGC), no later than three months after the Effectiveness Date, involving representatives of relevant ministries, agencies, Chamber of Accounts and local governments. The SGC will have operational functions and review and approval responsibilities related to sub-grants, which will be elaborated in detail in the Sub-Grant Manual.

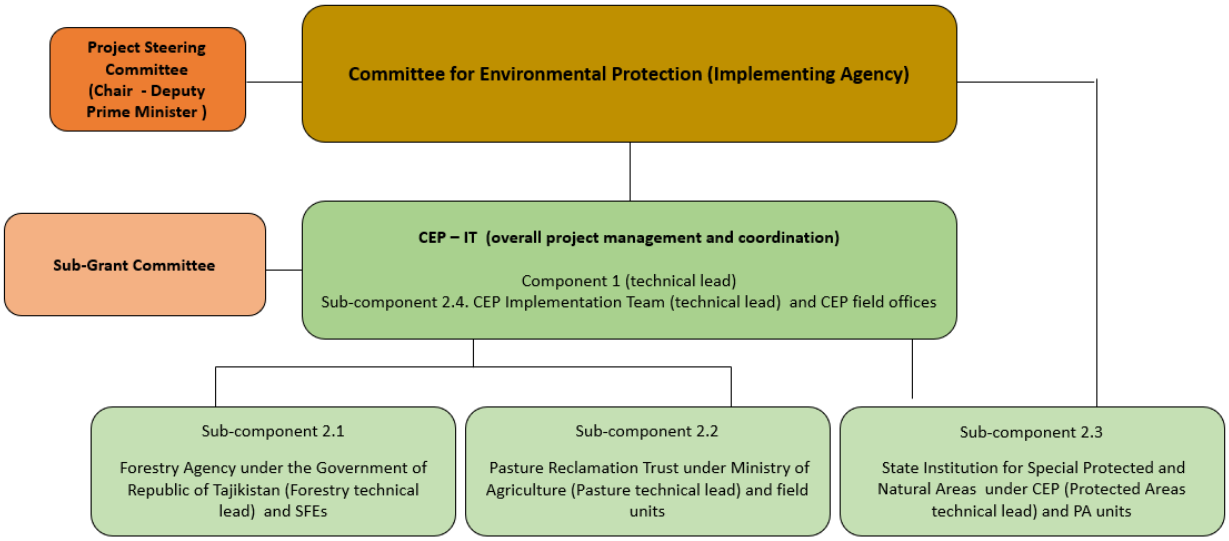
3. **CEP functions in implementation.** The overall responsibility for project management will be with Implementation Team to be set up within the Center for Implementation of Investment Projects in the CEP (CEP IT). The CEP IT will be responsible for project coordination and will act as the lead agency given its mandate on natural resource management, environmental monitoring, and climate change. The CEP IT will be responsible for fiduciary management, environmental and social risk management, contract management, and M&E and supervision of implementation of project activities under Components 1, 2, and 3. CEP will manage the Designated Account (if, when allowed) in a financial institution acceptable to the Association and be responsible for overall project reporting to the World Bank.

4. **CEP central and field support.** At the central unit of the CEP IT, staff will comprise a Project Director (Chair), the IT Coordinator, a project field coordinator, and component coordinators. The project will finance procurement, FM, M&E, technical (for example, forestry, pasture, protected area management, water resources, agriculture), and environmental and social/gender specialists. Implementation will also be supported through project-financed field-based focal points located in 7 of

the 10 project districts. These field-based personnel will provide critical liaison with local government and beneficiaries. The appointed Project Director and the component coordinators will be civil servants who will be supported by local specialists.

5. **Other key project partners.** CEP, as the lead implementing agency for the project, will be supported by and work closely with three key agencies: (a) Forest Agency and relevant SFMEs in the project districts for activities related to NFI, forest management planning, JFM, and natural regeneration; (b) PRT (in the Ministry of Agriculture) for pasture inventory activities and plans and geobotanical surveys; and (c) SISPNA for protected areas' management planning and investments. Cooperation between CEP and the Participating Agencies (the FA and the PRT) will be set out in MoUs that define the roles and responsibilities of each institution. The overall arrangement of committees and implementing units is shown in figure 1.1, along with responsibilities for the implementation and technical oversight for Component 2. The CEP IT will also work closely with the SCLMG, for natural resource inventories and general GIS services.

Figure 1.1.Implementation arrangements



6. CEP, through its IT, is responsible for the implementation of project components and activities according to implementation work plans and budgets. The respective partner agency teams (FA, PRT, and SISPNA) will provide input into the Procurement Plan, draft terms of reference, and oversee the procurement process in line with the respective components described in this document. The CEP IT will be responsible for overseeing the execution of the overall implementation plan and monitoring project results. Table 1.1 summarizes the main project partners and their functions in project implementation.

Table 1.1. Government Partners and Functions in Project Implementation

Government Ministry/Committee/Agency	Division/Department/ Other	Key Functions in Project Implementation
CEP	IT - Center and field focal points	• IT reports to the Chair of CEP who acts as Project Director • Overall project coordination and management • Implementation of Components 1 and 2 • Reporting to WBG on project implementation progress, including technical, fiduciary, environmental and social, and M&E aspects • Preparation and consolidation of workplan and budget
	SISPNA and selected protected area management units	Operates as part of CEP. Technical lead on • Protected area management planning, • Implementation of project-financed protected area investments, and • M&E tasks as allocated by the CEP IT.
Forestry Agency	Forestry Department	Technical lead and oversight as in MoU on • NFI; • Preparation of forest management plans; • Implementation of forest management plans including afforestation, forest nurseries, JFM with FUGs, and other activities as developed; and • Reporting on field implementation and M&E aspects as agreed with the CEP IT.
Ministry of Agriculture	PRT and District Pasture Commissions	Technical lead and oversight as in MoU on • Preparation of PMPs with PUUs, • Implementation of PMPs by PUUs, • Forage seed demonstration plots, and • Reporting on field implementation and M&E aspects as agreed with the CEP IT.

7. **Other agencies involved in coordination.** Other agencies CEP will coordinate with for effective project implementation include the Ministry of Energy and Water Resources, Committee on Emergency Situations and Civil Defense, State Mapping Agency and others as needed and instructed by the PSC.

8. **Community-driven development approaches.** For certain project activities, a CDD approach will be implemented where groups of farmers or other community-based organizations such as PUUs, FUGs, and groups of farmers/land users as well as jamoats will take responsibility for the choice, design, and implementation of investments and resource management plans. Experienced national and international organizations operational in Tajikistan will be hired to facilitate community mobilization, participatory planning, identification of community groups (FUGs, PUUs, and CIGs), investment planning, and implementation. These organizations will also help build the administrative and technical capacities of these groups and associations. Fund flow arrangements to community groups are designed to be transparent with transfer of sub-grant funds from the CEP IT to beneficiary accounts in local banks. District

administration and line agency representatives will be included in a review process of these investment proposals.

9. **POM.** CEP will implement the project based on a POM approved by the World Bank. The POM will include details on institutional and implementation responsibilities, technical aspects of all components and activities, guidance related to M&E of the Results Framework, management of environmental and social risks, disbursements and FM aspects, applicable procurement rules and plans, and supervision and reporting provisions related to the project between CEP and other project partners.

10. The project will also engage with technical service providers as required and appropriate, in accordance with the work plans, in support of training, mobilization, extension, and value chain activities.

11. **For Subcomponent 1.2, CEP is expected to contract CAREC directly, given its regional mandate and capacities.** The contract will cover capacity building, technical-assistance, and convening Central Asian governments and regional stakeholders in addressing environment, land degradation and climate change related issues common to the region to deliver – as described in Subcomponent 1.2 – three MoUs, transboundary management plan, a protocol for using NBS and setting up a Regional Exchange Platform. Established in 2001 by a joint decision of all five Central Asian states, the European Union, and UNDP, CAREC is an independent, nonpolitical, not-for-profit international organization. CAREC is recognized by national, regional, and international partners and has a regional mandate to assist the Central Asian governments and regional and international stakeholders in addressing environmental and sustainability challenges across the region and Afghanistan. With 20 years of experience, CAREC is today a leading regional knowledge hub in the field of environment, climate change, water management, and sustainable development, combined with capacity development, which can be effectively leveraged for the execution of the subcomponent on regional collaboration. CAREC has implemented projects financed by the World Bank, Asian Development Bank, European Union, GIZ, FAO, UNDP, ICARDA, UNEP, and several others, thereby placing it in a unique position to execute the regional collaboration subcomponent. CAREC may subcontract other entities to execute specific activities. CAREC will work with the countries to mobilize political commitment and support for activities that provide regional public goods. It is expected to do so by providing technical expertise; supporting analytical work; organizing training, dialogues, and regional workshops; serving as a regional platform for sharing data and promoting common policy and practice; and harmonizing with national data platforms such as SLMTJ. CAREC is also expected to be responsible for aggregating results from the national operations against RESILAND CA+ Program targets.

Implementation Support Plan

12. **The World Bank will oversee appropriate implementation of the project, in line with World Bank procedures, standards, and requirements.** The World Bank has put in place a task team comprising a diverse skill mix from various Global Practices, including Environment, Natural Resources, and the Blue Economy; Water; Agriculture; and Social, Urban, and Resilience. Skill sets required for continuous effective implementation support include project management, landscape and natural resource management, watershed management, agriculture and agribusiness development, community development, M&E, procurement, FM, communications, citizen engagement, environmental and social risks management, and legal. It is expected that implementation support by the World Bank team will be more intense during the first two years of operation.

13. The Implementation Support Plan aims at (a) providing technical advice to the Government and its implementing agency and bringing international experience and good practices to ensure that the project meets World Bank technical standards; (b) ensuring that the project meets standards and requirements of contract management with regard to supervision of civil works and consulting services; (c) ensuring that the implementing agency measures adequately meet the required fiduciary requirements and ESF standards throughout project implementation; and (d) ensuring that training plans and programs exclusively benefit the main project beneficiaries.

14. **Role of development partners.** The project will collaborate with international donors active in natural resource management, rural development, environment, and climate-change-related sectors. There are strong synergies with IFAD, which is preparing the Community Based Agriculture Support Programme - Phase II (CASP+). With CEP playing a key role in both projects, opportunities will be actively sought to share experiences and good practices. Similarly, there are synergies with GIZ which focuses on the following priority areas in Tajikistan: (a) environment and climate, (b) economic development and employment, and (c) social development. The project is building on the valuable work of GIZ in the natural resource sector (JFM, landscape approaches, and curricula development for forestry) and will continue to engage and coordinate with GIZ. Other agencies active in land resource management and rural development with which the project will coordinate closely include the UNDP, UNECE, FAO, Caritas-Switzerland, World Food Programme, European Union, KfW, Asian Development Bank, IUCN, and UNCCD Secretariat. Additional key partners include WOCAT, CGIAR, Bioversity International, ICBA, and ICARDA.

B. Procurement

15. Procurement activities will be carried out by CEP through its Project IT that will comprise the CEP designated supported by project implementation support personnel. CEP has overall management capabilities, established fiduciary arrangements, and extended experience with implementation of the World Bank and other donor-funded projects over the past years. The implemented projects included the CDD operations through which CEP gained extensive CDD operational experience. However, CEP has no practical experience with the World Bank's Procurement Regulations dated November 2020. Therefore, the IT would need to include a procurement specialist meeting the requirements defined in the terms of reference satisfactory to the World Bank. The specialist will assist CEP in conduct of day-to-day procurement and coordination with technical consultants and technical experts from other agencies concerned.

16. The World Bank's team has been providing support to CEP in preparation of the PPSD to develop the best procurement approach for the project. The PPSD, including Procurement Plan for the entire project duration, and was discussed with the World Bank's team during appraisal and has been agreed during negotiations. The team will continue its support through reviews of any further updates of the PPSD and Procurement Plan. In addition to routine reviews, procurement supervision will be carried out during the regular World Bank implementation support missions. Review of the contracts not subject to World Bank prior review will be conducted once a year and implementation of recommendations of the post review report will be followed up. Procurement implementation support will also include start-up and intensive procurement training for staff of participating agencies, including Tender Committee members, involved in the procurement decision-making process. The World Bank's team will provide technical support and oversight in detailing procurement processes in the POM.

C. Financial Management and Disbursements

17. **The FM arrangements** of CEP were reviewed as part of FM assessment for the project and have been assessed as acceptable for the project's implementation. The project FM assessment undertaken in September 2021 confirmed that (a) the FM/accounting staff at CEP has experience in the World Bank-financed projects, (b) the internal control and filing systems in place are overall adequate, (c) results from the latest annual audit of the World Bank-financed projects implemented by CEP were satisfactory, and (d) the IFRs on the World Bank-financed projects were mostly received on time and in general found to be acceptable to the World Bank. Retroactive financing of US$ 500,000 will be provided to support the setting up of CEP Implementation Team and initiation of project activities. Eligible activities for the retroactive financing include consulting services, non-consulting services, goods, works, training and operating costs for the project. Payments for eligible expenditures can be made prior to one year before the Signature Date of the Legal Agreement and as agreed with the Bank. The adoption of an SGM acceptable to the World Bank which will describe disbursement, flow of funds, and internal control over sub-grants under Subcomponents 2.1, 2.2 and 2.4 will be a disbursement condition for Category 3 of the project. The SGM shall clearly indicate the following: (a) the sub-grant funds transferred to the beneficiary will be recognized upon the use of those funds for the eligible expenditure defined in the SGM; if any advance to the beneficiary is not used for those eligible expenditure, the funds should be refunded to the World Bank immediately after the closing date but no later than the disbursement deadline date; (b) the SGM shall be clear on the eligible expenditure to be financed under the sub-grants as this will be the basis for the reviews and audits; and (c) the fund flow arrangement which will be mentioned in the SGM will be assessed in accordance with the World Bank's fiduciary principles and agreed by the World Bank. The residual FM risk for the proposed project is Moderate.

18. The project will produce a full set of quarterly unaudited IFRs to be submitted to the World Bank within 45 days of the end of each calendar quarter, from the first disbursement and throughout the project life.

19. The audit of the project will be conducted (a) by independent private auditors acceptable to the World Bank, on extended scope of TOR acceptable to the World Bank and (b) according to the International Standards on Auditing (ISA) issued by the International Auditing and Assurance Standards Board (IAASB). The extended scope of audit TOR will also cover the 10 percent of sub-grant transactions. The annual audits of the project financial statements will be provided to the World Bank within six months from the end of each fiscal year and at project closing. The project audit will be conducted under the block audit arrangements managed by the State Investment Committee and paid out of the project funds.

20. The recipient has agreed to disclose the audited financial statements the project within one month of their receipt from the auditors and acceptance by the World Bank, by posting the reports on its official website. Following the World Bank's formal receipt of these reports from the borrower, the World Bank will make them publicly available according to World Bank Policy on Access to Information.

21. **Planning and budgeting.** Under the project, CEP will be responsible for the preparation of the annual budget based on Procurement Plans. CEP is capable of preparing relevant budgets. The project plans and budgets are developed in close collaboration between the Government representatives and project management. The final plans and budgets are approved by the CEP Chair. The annual budget is based on the Procurement Plan, which is regularly updated by the procurement specialist. All changes in the Procurement Plan are reviewed and agreed in advance with the World Bank and only then the changes

are incorporated in the annual budget. Once the project budget is reviewed and endorsed by the MoF, it is included in the State Budget.

22. **Accounting and reporting.** Cash basis will be applied for the project accounting, and International Public Sector Accounting Standards (IPSAS) 'Financial Reporting Under the Cash Basis of Accounting' issued by the International Public Sector Accounting Standards Board (the IPSASB) will be used for the project financial reporting. The accounting policies and procedures are documented in the project FM Chapter (part of POM). The accounting at CEP for the project is automated, using 1C and accounting software, and the system has the capability to produce IFRs in accordance with formats agreed with the World Bank. The system has been upgraded to meet the requirements for accounting and reporting under the project.

23. **Internal controls and audit.** CEP has overall an adequate internal control system in place for implementation of the project, including adequate segregation of duties among the FM/accounting staff. The FM Manual that is part of the POM has been developed to reflect the FM arrangements and controls under the project. For this project, CEP's internal audit function will conduct reviews of the sub-grants' implementation compliance with project requirements as established in the Legal Agreements, Project Appraisal Document, and POM, including the review of those funds that were used via Jamoat and other organizations at the local level. CEP has experience in sub-grant utilization in the previous World Bank-funded project. CEP will need to establish a strong internal audit function, which will assume a greater role and involvement in the monitoring of the project's internal control system. There are overall adequate auditing arrangements at CEP: no pending audits for the active projects implemented by CEP and the auditors issued unmodified (clean) opinions on the projects' financial statements, which are received timely, with no critical recommendations in the management letters.

24. **FM supervision** will be carried out annually as part of the project supervision plan, and support will be provided on a timely basis to respond to client needs. The World Bank will conduct risk-based FM implementation support and supervision within 12 months of the project effectiveness date and then at appropriate intervals, as part of its project implementation and supervision missions. During project implementation, the World Bank will supervise the project's FM arrangements in the following ways: (a) it will review the project's quarterly IFRs and annual audited project financial statements and the auditor's management letters and remedial actions recommended in the auditor's management letters' and (b) during the World Bank's on-site missions, it will review the following key areas: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) disbursement arrangements and financial flows, including counterpart funds, as applicable; and (iv) any incidences of corrupt practices involving project resources.

121. **Disbursement.** The FM/accounting staff of CEP are fully aware of the World Bank disbursement policies and procedures. However, in application of section 5.2 of the Disbursement Guidelines for IPF, the use of a Designated Account is not permitted under this new operation due to the recipient's failure to refund undocumented advances to Designated Accounts within two months after the disbursement deadline date under three recently closed projects. Disbursements from the financing grant account will be made in accordance with the Disbursement Guidelines for Investment Project Financing (dated May 2017) and will use two disbursement methods: direct payments and reimbursement. Applications for reimbursements will be supported with statements of expenditures, while direct payments will be supported with records. The detailed disbursement arrangements will be provided in the DFIL.

D. Environmental and Social (including management of risks)

25. The environmental impact of the project is expected to be largely positive as it will support restoration of degraded landscapes and improve management of pastures and pilot protected areas and forests, land, and water management. The project is also expected to increase the adoption of effective agricultural, land, and water management practices. However, risks are also expected associated with activities related to landscape restoration; improvement of resilience of infrastructure (roads, rivers); repair of office buildings in protected areas; and agroforestry, climate-smart agriculture practices. Such potential environmental risks may include temporary local disturbances to biodiversity and living natural resources, habitat disturbances, soil loss related to planting activities, dust, and temporary construction-related air or water pollution. Landscape restoration, sub-basin level integrated landscape management plans, protected area management plans, and biodiversity management plans will be developed with consideration to avoid or mitigate identified and potential environmental risks.

26. The social impact of the project is also expected to be largely positive, as the project will support investments in rural livelihood development and landscape management selected through a multi-stakeholder planning process, the bulk of which will be designed and managed primarily by communities, farmers, and resource user groups through the small grant program. Issues of social inclusion, especially vulnerable and disadvantaged groups, and the dependence of their livelihoods from selected resources are assessed through social and environmental assessment and considered in the project design to ensure that stakeholders have equal access to project benefits. The key project interventions will require extended interface between local communities and government bodies. It is likely that the project will have to address potential conflicts to bring together differing perspectives. This would mean that the project will have to develop appropriate strategies and implementation plans to ensure that the local communities are provided an opportunity to participate in decision-making and derive full benefits. The project does not envisage involuntary acquisition of lands; however, it may cause restriction on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project. The SEA/SH risk is rated low based on the SEA/SH Assessment completed during project preparation. Risk of child/forced labor is considered low.

ANNEX 2: Detailed Project Description

COUNTRY: Tajikistan
Tajikistan Resilient Landscapes Restoration Project

1. **Project approach.** The US$45 million IDA project will be implemented over a five-year period under the leadership of CEP. Land degradation in Tajikistan, as outlined in earlier sections, is broad-based, covering multiple land uses and sectors. The approach to landscape management in the project recognizes multiple drivers of degradation but also acknowledges that any approach needs to be pragmatic and consider the challenges and constraints of the Tajik context. Thus, while the project will support sustainable land management in a number of sectors, these have been chosen for strategic reasons. The project has chosen to support (a) forestry and protected areas since these are relatively under-resourced and (b) pasture management and climate-smart agriculture as opportunities to promote sustainable landscape management in key land uses. Furthermore, support for JFM and pasture management by PUUs will help promote the country's efforts in more devolved resource management.

2. Other areas, namely water resource management particularly for irrigation, livestock husbandry, and commercial agriculture, have not been chosen for support since there are donors, including the World Bank, IFAD, and others, active in these sectors.

3. Regionally, the project aims to strengthen collaboration with neighboring countries in key aspects of landscape management. To achieve these objectives, the project will adopt an integrated landscape management approach at the basin scale (at national and more broadly at regional scales); build capacities of agencies, local authorities, farmers, and communities; and develop an investment framework for landscape restoration The project seeks to have institutions prepared and support in place for future landscape restoration efforts, for example, ability to supply planting stock for afforestation, national forest monitoring, adapted forage seeds, piloting of ecological fiscal transfer mechanisms, and so on. In addition, the project will also seek to make use of the WBG climate resilience assessment approach that provides climate change risk exposure assessment for World Bank funded landscape restoration projects.

4. The project's overall approach to landscape management features the following:

(a) **Working with multiple stakeholders given the predominantly mosaic nature of the landscape in the project locations which in turn requires coordination and active communication.** Regular communication at national and district levels between various stakeholders will be critical to ensuring that interventions are coordinated within and outside the project. Throughout, there will be active efforts to coordinate with RBOs, and associated plans, which to varying degrees reference and highlight activities such as those in this project that are supporting landscape resilience.

(b) **Working across multiple scales to provide system-scale perspectives, as well as practical units for interventions which are aligned with land tenure arrangements.** Diagnostics conducted during preparation and early in implementation across project districts will identify patterns and types of degradation, as well as boundaries for catchment plans, and place proposed sectoral interventions, such as forest and protected area management plans, within the selected landscapes in project districts.

(c) **A CDD will feature strongly in the project, enabling village and community-based/resource user groups and organizations to take responsibility for the choice, design, and management of smaller-scale landscape and livelihood investments.** This feature supports Government approaches such as PUUs, WUAs, and JFM and will build on the experience of World Bank projects such as CAWMP, ELMARL, and CAMP4ASB, as well as past and ongoing projects/programs of other donors, for example, World Food Programme, UK-Aid, Foreign, Commonwealth & Development Office (FCDO), KfW Development Bank, IFAD, and the European Union.

(d) **Working within institutional responsibilities and authority given that land is managed by various agencies, for example, SFMEs and protected area units, and there is certain amount of devolved land management also under way, namely pasture management by community based PUUs.** Clarifying and agreeing on institutional arrangements and jurisdictions will be a critical part of project preparation so that interventions can be coordinated and implemented effectively and on a timely basis.

(e) **Working in an incremental way with a set of agreed steps and short- and medium- term objectives with project partners.** As an approach implemented on a large scale, landscape restoration that requires a coordination approach across sectors is relatively new for Tajikistan.

5. **Project phasing.** Project activities will be phased to better manage implementation and to build upon lessons learned in earlier stages. Each grant recipient will have up to three years to complete implementation depending on the nature of the sub-project.

6. **Project areas/districts** have been selected in consultation with Government and other stakeholders based on a combination of criteria: poverty incidence, potential for integrated landscape restoration (incorporating pasture, agriculture, water, forestry, and biodiversity), regional and transboundary corridors, and complementarity with Government and donor-funded initiatives. When overlaid on the current arrangements of river basins, project sites fall in the following river basins: (a) Zarafshon basin covering three districts—Ayni, Panjekent, and K. Mastchoh (in Sughd oblast, bordering Uzbekistan and the Kyrgyz Republic); (b) Upper Panj covering four districts—Vanj, Rushon, Shughnon, and Murghab (in GBAO, bordering the Kyrgyz Republic and Afghanistan); and (c) Lower Kofarnihon covering three districts—Shahrituz, Nosir Khosrov, Qubodiyon (in Khatlon oblast, bordering Uzbekistan and Afghanistan). These sites include sub-basins and tributaries of regionally important rivers, as well as protected and forest areas, and KBAs that share boundaries with the above countries. Resources of national and regional significance in these sites include riparian forests (tugai), threatened fauna (snow leopard), and transport infrastructure.

Table 2.1. Alignment of Project Districts within the Transboundary Corridors with the Uzbekistan Project under the RESILAND CA+ Program

UZ		TJ	
REGION	District	District	REGION
SURKHANDARYA	Qumqo'rg'on	Shahrituz	KHATLON
	Sho'rchi		
	Uzun		
	Sariosiyo	Ayni	SUGHD
		Panjakent	
KASHKADARYA	Shahrisabz		
	Kitob		
SAMARKAND	Urgut		
	Jomboy		
	Bulung'ur	Panjakent	SUGHD
JIZZAKH	Baxmal		
	Zomin		
		Ayni	
		Shariston	
	Jizzax		
	Forish		
SIRDARYO	Sirdaryo		
NAMANGAN	Pop		

7. **Project beneficiaries.** Primary project beneficiaries will be rural communities, private farmers and farmer groups, villages and village communities, and resource user groups (for example, for pasture, forestry) interested in adopting landscape restoration practices. These communities will benefit from technical and financial support to implement technologies and approaches that improve their livelihoods and increase their resilience while also contributing to the restoration of ecosystem functions. Government agencies are expected to benefit from support for integrated landscape planning in ways that attempt to reconcile different land uses at national and regional scales. Government agencies will also benefit from financing for restoration activities in forest and protected areas.

8. **Project components and costs.** The project will be implemented over a period of 5 years and its activities will be grouped into three inter-related components. Component 1 will support the development of an enabling policy, legal, and institutional environment to restore and sustainably manage key landscapes in Tajikistan, in support of the country's LDN targets. The component will promote collaboration among Central Asia countries on transboundary landscape restoration by setting up a Regional Landscape Restoration Platform for policy and strategy harmonization and for addressing emerging climate threats. The component will also support inter-governmental efforts to strengthen regional biodiversity conservation through promoting transboundary protected areas. Component 2 will support investments in landscape restoration by government institutions and rural communities. Institutional interventions include critical assistance for landscape management plans, monitoring systems, capacity building, and large-scale investments such as plantations and forest nurseries, to support long-term restoration goals. At the community level, the component will support landscape restoration through interventions in key areas of pasture management, JFM, livelihoods through climate-smart agriculture and nature-based tourism, and small-scale green infrastructure at sub-district levels. Component 3 will support project management at the national and local levels by financing the operating costs of an IT within CEP, a national inter-ministerial working group, and oblast-level PIUs and field staff.

Project Components

Component 1. Strengthen Institutions and Policies, and Regional Collaboration (US$6.5 million)

9. This component will finance consulting services, goods and equipment to support the strengthening of national institutional policies and legal frameworks, developing of knowledge and skills of government, communities and other stakeholders for landscape management, and improving the capacities of government partners to operate effectively. Under this component, financing will be provided for activities to support regional collaboration efforts, to contribute to landscape restoration that benefits both Tajikistan and the wider Central Asia region with which the country shares and contributes critical resources and infrastructure.

Subcomponent 1.1. Strengthen Institutions and Policies (US$4.5 million)

10. The objective of this subcomponent is to develop an adequate policy and legal environment to restore and sustainably manage target landscapes in Tajikistan. The subcomponent will have a national focus, looking at frameworks governing forest, pasture, and protected areas. The primary beneficiaries of the subcomponent will be national, province, and district-level government institutions. Additional beneficiaries include state and other research and academic institutions, farmer/community groups, livestock owners and herders, marginal groups, civil society, and the private sector, which is expected to gain from project activities in research and knowledge management.

11. **Strengthening policy, legal, and implementation frameworks.** The project will finance analysis, revisions, and adoption of existing policy, legal, and implementation frameworks for forests, pastures, and protected areas to help align these with national and international obligations. Areas for potential revision that would support new and innovative approaches to integrated landscape management will also be explored, for example, for expanding the areas in which JFM can be implemented. The project will support CEP and partner agencies such as the mapping agency FAZO and SCLMG in their continuing role of environmental monitoring and reporting on environmental status, including LDN, Sustainable Development Goals, and so on. This will include a review of Tajikistan's stated LDN targets, which will be refined based on new information from inventories on the degradation status of the country, including submission of a revised communication document for government approval.

12. The country lacks key strategies and action plans to support integrated landscape restoration.

(a) **Landscape restoration strategy and action plan.** The project will finance preparation of a national landscape restoration strategy and action plan. This activity will build on the results of ROAM.[79] This assessment process, which is part of project preparation and is funded by NDC partnership, fully integrates climate mitigation priority areas into the restoration action plan and includes a system to monitor, track, and verify contributions of the land and forestry sector toward achieving NDC targets. Other important inputs to the strategy will include the national forest program, water sector reforms, and the protected area program, which are also to be developed under this project, as well as the experiences of conducting sub-basin diagnostics and catchment-level community action plans. The strategy will seek to

[79] ROAM provides analytical outputs on (a) land degradation and deforestation geospatial/ biophysical aspects and (b) economic modeling within a framework that assesses the social, political, and institutional readiness to implement large-scale restoration.

incorporate key principles of a landscape approach including addressing multiples scales, clarification of rights and responsibilities, and strengthened stakeholder capacity.[80] Planned activities include (a) a review of existing policy and institutional frameworks to identify and establish suitable mechanisms for institutional coordination and collaboration; (b) a diagnostic assessment to identify priority areas and a framework for prioritization for near-future investments; (c) strategic environmental and social assessments for a selected number of priority basins or sub-basins; and d) technical guidelines for the preparation of landscape management plans. This strategy and action plan seeks to complement river basin planning while still using the basin as an organizing principle.

(b) **Protected area strategy and action plan.** There is no overall national protected area strategy and action plan to guide development and management of the protected area system. Similar in scope to the National Forest Strategy and Action Plan, the strategy will define the intentions, priorities, and measures for the reform and key development of the country's protected area system for the next 15–20 years.

13. **Institutional capacity building.** The project will finance a range of important and necessary capacity-building activities to improve and increase knowledge and skills of staff, as well as equip central and field units with essential equipment, materials, vehicles, and investment to improve working conditions. The following are indicative approaches and topics.

(a) **On-the-job training of operational and technical staff on landscape restoration.** The project will finance short courses, workshops, and seminars (both in-person and virtual) on a range of topics to build capacities to engage in landscape restoration. Topics include landscape assessment, biodiversity monitoring, digital tools for planning and monitoring, legal roles and responsibilities, protected area management, participatory planning for pasture, forest and biodiversity conservation, use of GIS and associated mapping methods, climate resilience and so on. A more detailed training plan has been developed during preparation, and this will be reviewed and updated annually to address needs and opportunities as they arise.

(b) **Post-graduate studies.** Support will be provided/considered for scholarships for students qualifying for post-graduate studies in the region, or elsewhere, in key topics of forest conservation and protection, forest surveys, and inventories including, for example, GHG accounting or similar topics. Similarly, there is demand for post-graduate capacity in pasture management and fodder production.

(c) **Curricula development for universities.** Working with leading national and international academic institutions, teachers and students will receive formal training in forest and landscape assessment/Earth Observation Systems (EOS), field survey, and data analysis. Basic landscape assessment tools and practices will be included in forest colleges/practical foresters' schools, and forestry students will be invited to participate in the development of the NFI to gain experience in field data collection. Implementation of (b) and (c) activities will be coordinated with the Ministry of Education and Sciences.

[80] Sayer et al. 2013. "Ten Principles for a Landscape Approach to Reconciling Agriculture, Conservation and Other Competing Land Uses." *PNAS* 110 (21): 8349–8356.

14. **Rehabilitation of field buildings and offices and provision of equipment, vehicles, and small machinery.** In the project districts, financing will be provided for rehabilitation of SFME offices and selected special protected area units. The project will also finance the purchase and installation of office equipment including computers, tablets, furniture, and so on, as well as field equipment such as binoculars, cameras, drones, field mapping equipment, uniforms, and sleeping bags. Providing mobility to field staff will be critical for their abilities to function effectively. Financing will be provided for a range of suitable vehicles, for example, motorbikes and small all-terrain vehicles, as agreed with the respective government agencies. For select offices, the project will finance the purchase of machinery such as tractors for field operations, as well the construction of living quarters for field staff. Estimates of requirements from the various government agencies have been prepared, reviewed, and budgeted.

15. **Strengthening research and knowledge management.** The project will support a range of analytical and data generation activities to strengthen the country's research base and knowledge management for landscape management approaches.

(a) **Research and analytical studies.** In partnership with research institutions such as the Tajik Academy of Sciences and national and regional universities, the project will support analytical studies on relevant topics such as assessment of drivers of land degradation, climate risk assessment, carbon balance accounting, well-being assessments of beneficiaries, market development and access, baseline and impact evaluations, payment for environmental services assessment and piloting, and ecological fiscal transfers. As part of project preparation, an assessment of the ELMARL (completed in 2018) sub-project will be conducted to capture and incorporate key lessons. Additional issues to be considered include frameworks governing fuelwood supply and demand and measures to incentivize production and adoption of improved cookstoves.

(b) **Knowledge management.** The project will support knowledge platforms such as SLMTJ, to assist land users to access and share good practice on landscape restoration. Dissemination will be supported through a focus on exchange and learning between project sites and similar initiatives, including exchanges between project beneficiaries, plus sharing results and lessons learned with national stakeholders. As in previous projects, information will be shared through knowledge systems such as WOCAT, which operates a global database on conservation approaches and technologies. Annual review meetings will be held to share results with a range of stakeholders.

(c) **Study tours and exchanges.** Funding will be provided for a range of study tours within the country, with neighboring countries, and further afield to other countries. The project will build on the WBG's presence in the region and globally, as well as other projects and initiatives to find opportunities for community members, government staff, practitioners, and others to learn from exchanging experiences with others working on similar projects and programs.

Subcomponent 1.2. Strengthen Regional Collaboration (US$2 million)

16. The objective of this subcomponent is to promote Tajikistan's collaboration with Central Asia countries on transboundary landscape management and restoration, given the critical need to address emerging threats at the regional level, such as impacts of climate change. Changing climate patterns – warming temperatures, shifting rainfall patterns, and droughts are increasingly occurring at a regional

scale, along with biodiversity loss. This subcomponent will help, among other things, to manage shared resources, exploit economies of scale related to regional NBT, and facilitate collective action to address these and other common goals. It will allow countries to come together to address challenges, find regional solutions for challenges faced by multiple countries, and thus promote global public goods.

17. This subcomponent will finance the implementation of several key regional activities identified by the five countries in the 2020 10-year Regional Environmental Program for Sustainable Development (endorsed under the auspices of the ICSD), including development of (a) an MoU for facilitating border crossing for tourists in protected areas and unique natural sites shared between the countries; (b) an MoU for using common modern methods of inventory of flora and fauna diversity and ecosystem conditions among transboundary corridors; (c) a joint transboundary management plan for ecological corridors for migratory animals and transboundary cooperation agreements for addressing issues of protection of key species and habitats, including protected areas from fires, invasive species, and so on; (d) a protocol for using NBS, including erosion control and tree planting along roads, to increase climate resilience of infrastructure; and (e) an MoU for the designation of a 'Peace Park' between countries. To deliver these, the project will also finance a Regional Exchange Platform, which will allow countries to come together to address challenges, find regional solutions for shared challenges faced by multiple countries, and thus promote global public goods. The Platform will host (a) semiannual meetings of RESILAND CA+ implementing entities to discuss program progress; (b) annual forums for ministries responsible for forests, landscape restoration, and environment to discuss landscape management and restoration trends and actions; and (c) annual forums for the broader cross-section groups of stakeholders engaged in landscape restoration, including nongovernmental entities, prominent regional organizations, private sector, and development partners. The platform will allow for a two-way dialog between the Government and nongovernmental actors in Central Asia on technologies and approaches to landscape restoration, including knowledge exchange.

18. Uzbekistan Resilient Landscape Restoration Project also has a regional component which will allow active participation of Uzbek and other Central Asian stakeholders to jointly deliver the outputs listed above. In addition, Uzbekistan Resilient Landscape Restoration Project will finance a regional online database, in which Tajik stakeholders will actively participate and benefit from. The database, to be financed under Uzbekistan Project, will be established and hosted in CAREC to store, host, and publish data and publications on sustainable landscape management and restoration.

19. CAREC will execute this subcomponent under a direct contract with CEP, given its regional mandate and capacities. CAREC will also manage a regional-level M&E system for the RESILAND CA+ Program to monitor, evaluate, and report on the program's regional impact using the set indicators. The implementation of this subcomponent will be phased by focusing the first eight months of the project on the establishment of an overarching governance structure composed of the implementing entities of the projects under RESILAND CA+ Program and then begin to implement the subcomponent work plan.

Component 2. Enhance Resilient Landscapes and Livelihoods (US$35.5 million)

20. Overall, this component will finance works, consulting services, non-consulting services, goods, and grants. Both government institutions and communities will implement a range of landscape restoration investments. To support the selection of investments, assistance will be provided for landscape restoration planning. All planning will encourage women's leadership, will follow citizen engagement mechanisms, and will be based on good practice principles for a landscape approach when

reconciling different and often competing land uses. CEP and Tajik organizations have considerable experience in participatory planning with both the WBG's and other donor-supported projects. The participatory planning processes will build on lessons learned from the range of past and current projects and programs in rural development, as well as from natural resource management and climate resilience projects. CDD is an important feature in this component with land users/villagers working together as PUUs, FUGs, WUAs, and CIGs and taking responsibility for the choice, design, and management of investments and resource management plans. Funds for the implementation of community-based activities will provided through the CEP IT directly to community groups/organizations as defined in sub-grant agreements based on the approved proposals and the achievement of agreed milestones.

21. To provide support at the operational level, locally based international agencies and NGOs, as well as national NGOs and companies with a track record in similar activities, will be contracted to facilitate participatory planning with PUUs, FUGs, groups of farmers, and jamoats (municipalities) in the preparation, implementation, and monitoring of landscape investments and to build the technical and administrative capacities of these groups. Training of project beneficiaries and partners, including local community organizations, in group operations and technical aspects of landscape restoration investments will be an important element of planning and technical assistance. Topics will include a range of environmental, organizational, social, FM, procurement, appraisals, and technical issues, such as mapping, relevant to community planning and implementation. Organizations will help in the local appraisal of 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, including collaborating projects, to provide these services as needed. Guidelines and manuals for the Tajik context exist for providing facilitation and technical support to PUUs, and FUGs. These tools have been revised as needed for the project and are in line with WBG requirements.

Subcomponent 2.1. Forest Restoration and Sustainable Forest Management (US$15.5 million)

22. The FA will lead on the technical aspects of this subcomponent, while the financial and procurement management responsibilities will remain with CEP. This subcomponent includes the following key activities.

23. **NFI.** Better information is required at the national level, for strategic planning and monitoring, and locally, for integrated landscape management planning. For over 30 years, Tajikistan has been without national-level data on its forests. During these decades, there have been significant quantitative and qualitative changes in forest ecosystems. The project will finance a national-level systematic NFI using a low sampling density. The NFI exercise will employ state-of-the-art methodologies for conducting forest inventories, including geospatial data. The NFI process will begin with a national land cover classification project that will (a) guide the selection of field locations for sample plot inventory and (b) classify the entire national land cover according to nationally agreed categories. The NFI will establish key parameters such as the total areas of forest by type and ownership (as needed), total standing volumes by species and size class, regeneration, incidence of pests and disease, and the distribution of key indicator species for biodiversity conservation. Other relevant data will also be collected, for example, evidence of illegal removals, erosion, forest fires, condition/species of pasture, and so on, as required.

24. **Forest management plans.** The project will finance the preparation and implementation of sustainable forest management plans for eight SFMEs in the project sites. Preparation of the plans will

build upon experience of earlier methods.[81] Preparation of the plans entails conducting a land cover assessment and an inventory with permanent sample plots and random stand sampling. Unlike the low sample approach used for the national inventory, forest resource assessments for management plans will be more extensive and build on the experience of management planning conducted in Khovaling district. Stakeholder engagement is a critical component for development of these plans, providing a more bottom-up and participatory dimension. Based on these activities, 10-year plans will be elaborated, with measures and costs identified for sustainable forest management (including JFM plans) and corresponding maps developed. Development of plans at this scale for forestry will be coordinated with the PUU PMPs, since it will be critical to ensure that any proposed activities are not adversely affected by livestock encroachment into forest plantations. Sustainable forest management plans will be operationalized through the SFMEs' annual plans.

25. **Implementation of sustainable forest management plans.** Key activities in the forest management plans will include restoration/afforestation encompassing pistachio forests, plantations of poplar and fruits, and saxaul planting and fruit plantations; natural regeneration; assisted natural regeneration (including enrichment planting of native species, fencing, soil improvement measures, and so on); forest protection from cutting, grazing, and fire and management for disease and pests; improved forest management through silvicultural treatments such as thinning, stand management, and fire management; improved pasture productivity and fodder production within the SFF; and erosion and landslide control through soil bioengineering and small retention structures such as live palisades.[82] Fire management may be supported in Sharituz district, bordering Uzbekistan's Babatag KBA (this can be coordinated and collaborated with Uzbekistan). Activities to be supported directly with project financing are detailed in the following paragraphs.

26. **Afforestation and fuelwood plantations**. SFMEs will carry out afforestation in approximately 2,950 ha (including 200 ha of fuelwood plantation) through JFM. This essentially involves leasing forest land to local people over the long term. The tenants rehabilitate and use their forest plots according to management plans, with SFMEs advising on forest rehabilitation. Based on experience,[83] SFMEs will look to develop contracts primarily with FUGs rather than individual households. FUGs will sign contracts for the land use rights with the SFMEs for a period of at least 20 years. A suitably qualified organization will be contracted to mobilize participants and groups, develop plans, and provide support to FUGs. Plans will be developed jointly by the SFMEs with the FUGs for a consolidated area. Assessments and plans will be prepared of proposed locations, species to be planted, and risks and mitigation measures. Sub-grants will be provided to FUGs to carry out the afforestation works including for fuelwood plantations which will use fast-growing native species planted on both SFF and non-SFF lands, to supply the growing demand of fuelwood.

27. **JFM.** The JFM approach in Tajikistan focuses strongly on the participation of local communities in forest management. This participatory forest management approach enables the local population—either individuals or groups—to become involved in forest management and support the rehabilitation of degraded natural forests over the long term. Earlier JFM approaches in the country focused on contracts with individual households. However, based on experience, the project will look to develop contracts

[81] Under the KfW-supported project "Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan," a methodology for the preparation of participatory forest management plans for SFMEs has been developed. At present only Khovaling SFME has such a plan.
[82] FUNDP. 2018. *Flood Disaster Risk Reduction Manual for Tajikistan, Part III: Best Management Practice Examples*.
[83] KfW supported project "Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan."

primarily with FUGs that are overseen by local mahalla committees. The size of FUGs will depend on the location and area suitable for JFM, but it is unlikely to exceed 25 households. FUGs will sign contracts for the land use rights with the SFMEs for a period of 20 years, with the possibility of extension. This arrangement will seek to encourage the FUG members to sustainably manage and rehabilitate their forest plot of usually 1–2 ha. It is anticipated that between 150 and 170 FUGs will be supported across the project districts. In addition to the contract, management and annual plans will serve as tools for forest management planning and monitoring of activities and results. Plans will be developed jointly by the SFMEs and the respective tenant for each individual plot or with the FUG for a consolidated area. Typical tasks to be specified in the annual plan include measures to protect the plot from livestock overgrazing, planting of trees, harvesting, and pruning. Furthermore, the annual plan specifies the harvest shares of the SFMEs and the forest tenant according to a fair sharing principle defined in the contract.

28. Facilitation and technical support will be critical to the success of JFM, particularly for the initial stages, but will still be needed for ongoing support once contracts are in place. There are limited SFME capacities to support JFM, with SFME staff needing training themselves. Therefore, technical assistance will be required for the duration of the project and will be provided through a combination of IT specialists and contracted organizations/firms. An important component of this facilitation support will be to mobilize and organize land users into FUGs to design and manage JFM. Currently, it is estimated that approximately 3,900 ha in the project sites have potential for JFM. Forest management plans will elaborate the detailed arrangements for JFM in each SFME. For example, suitable sites require at least 30 percent tree canopy and these will be identified during the planning process. Species selection will also be further elaborated during planning, but initially forest types are similar to those for direct afforestation by SFMEs. However, JFM species selection will need to take into account opportunities for benefit-sharing and thus economically valuable species and varieties such as nut trees.

29. **Fuelwood plantations.** There is scope to promote fuelwood plantations of fast-growing species on SFF land. The project will support the establishment of about 220 ha of fuelwood plantation through JFM. Fast-growing species such as poplar will be planted to contribute to meeting fuelwood demand.

30. **Natural/assisted regeneration.** SFMEs will improve a further 8,000 ha on SFF land through natural/assisted regeneration. SFMEs will carry out activities which will include measures such as fencing to protect regenerating areas, soil improvement, and enrichment planting to increase the quality and number of trees and/or species diversity.

31. **Forest nurseries.** The project will support two types of forest nurseries—those operated by SFMEs and smaller ones at the household level. The project will finance semi-modernization measures for the eight SFMEs in the project areas. This approach is preferred to a smaller number of hub nurseries, given the dispersed geographical coverage of the project and more location-specific ecological requirements of each SFME. Building on the experience of JFM in the country, the project will also promote the development of private backyard nurseries to bolster seedling supply for JFM and afforestation and as an income generation activity for rural households. Funding will support nursery establishment with the purchase of initial inputs, for example, seeds, fencing, and small equipment. Nursery operators will be connected through a specific seedlings supply contract to boost motivation and ensure specific tree species seedlings. SFMEs will monitor household-based nurseries. About 50 nurseries are expected to be established in the project sites.

Subcomponent 2.2. Integrated Pasture Management and Restoration (US$10 million)

32. The PRT under the Ministry of Agriculture will lead on technical aspects of this subcomponent, while the financial and procurement management responsibilities will remain with CEP. This subcomponent includes the following key activities.

33. **Geobotanical surveys and pasture inventories.** The SCLMG has responsibility for monitoring pasture areas under the authority of the PRT. In the past, geobotanical surveys have been conducted and maps produced. Since 1995, 20 districts have been surveyed and mapped, but project districts have not been covered. The project will finance cadastral assessment of pasture resources and geobotanical surveys in the project districts, with data digitized for planning and monitoring purposes. Within this activity, the project will pilot the use of 'smart inventories' based on updated methods and statistical analysis. Staff at the SCLMG and PRT will conduct the assessments. The resulting inventories and maps will be used for the overall monitoring system for pasture in the country and in the preparation of PMPs that are mandated by the Pasture Law.

34. **Forage seed demonstration plots.** Establishment of seed demonstration plots for native forage species in two project locations, each covering 200 ha. These plots will be under the management of the PRT and serve to demonstrate the production of better-quality forage seeds, as well as to supply suitable seeds for forage production by PUUs and others.

35. **Pasture/Livestock Management Plans.** To help reduce land degradation processes, the project will support sustainable pasture/fodder-based livestock production systems in selected areas. The focus of support will be PUUs, whether these are to be created or existing unions are to be strengthened. Where PUUs are to be created, these will be primarily at the village and jamoat levels (and at district level, if needed, depending on resource use regimes). In the project districts, sub-grants will be provided to PUUs for the implementation of PMPs in line with the requirements of the Pasture Law. Financing will differ depending on if a PUU has been created or if an existing PUU is to be supported. About 64 PMPs will be financed. The PUUs will be responsible for implementing the plans and will be formed (or strengthened if already existing) at the level considered appropriate for the resource use regime. Under the Pasture Law, a PMP has a five-year duration and normally comprises the following: (a) a pasture map, (b) a carrying capacity and stocking rate calculation, (c) a plan for rehabilitation of infrastructures, and (d) a pasture rotation plan. Within specified budget limits, the plans supported by the project will also identify (a) measures to improve pasture productivity and sustainability, such as protection of areas for regeneration, pasture rehabilitation, improving of access to remote pastures, and needs for supplementary fodder production; (b) grazing utilization levels; (c) animal health requirements and breed improvement measures; (d) financing needs; and (e) implementation responsibilities, targets, and indicators.

36. Activities to be implemented in PMPs and financed by sub-grants could include (a) infrastructure to access and use remote pastures, such as spot road improvements, stock watering points, shelters and stock-pens, and milk cooling equipment; (b) small machinery to produce and harvest fodder; (c) rehabilitation measures for degraded areas such as fencing, weed and shrub control, and re-seeding; (d) inputs for supplementary fodder production such as seeds; (e) vaccinations and parasite control; and (f) artificial insemination. Grant funds could also be used for training and provision of office equipment and furnishings for PUUs. 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 if necessary. PUUs will be required to coordinate PMP preparation and implementation,

closely with JFM planning and implementation to ensure that measures are in place to protect forest areas from livestock encroachment.

37. As with JFM, facilitation and technical support will be critical to the success of pasture management by PUUs, particularly for the initial stages of PUU establishment, resource assessment, and management planning, but will be still needed for ongoing support once implementation of plans is underway. The PRT and local government have limited capacity to support PUUs, with staff of both PRT and local government needing training themselves. Therefore, technical assistance will be provided through a combination of CEP IT specialists and contracted organizations/firms.

Subcomponent 2.3. Protected Area Management and Biodiversity Conservation (US$2million)

38. This subcomponent will be technically led by SISPNA, as part of CEP. Given limited SISPNA management capacities, investments are generally smaller scale and thus modest compared to those in other subcomponents. Although modest, investments will still generally reflect a departure from business-as-usual in the Tajik context, with a focus on stakeholder engagement, especially of local communities, and the integration of livelihood support.

39. **Priority protected area management plans.** Management plans will be updated and prepared for selected protected areas in the project's selected landscapes. Protected areas include TNP (bordering the Kyrgyz Republic), Zorkul Special Reserve in GBAO (which borders Afghanistan), Yagnob National Park in the Zarafshon sub-basin (bordering Uzbekistan), and State Natural Reserve Tigrovaya Balka in Khatlon (bordering Afghanistan). Management plans are not in place for all protected areas, and if they exist, they are outdated. These plans are critical investments for protected areas to be managed effectively for the benefit of the country and region. Plans will comprise standard elements: management arrangements, conservation and restoration measures, protection and enforcement, monitoring, education and awareness, stakeholder engagement, ecotourism and recreation, prioritized actions, and associated costs. Planning activities will involve boundary surveys, spatial planning, economic and financial analysis, and stakeholder consultations.

40. **Implementation of protected area management plans.** Once the management plans have been prepared, SISPNA and respective authorities of the individual protected areas will be responsible for implementation. The project will support selected priority activities in the four protected areas which may include (a) establishment of monitoring systems and protocols including remote and field-based monitoring, with community participation, for example, camera, traps, drones, wildlife censuses, surveys, and so on; (b) small-scale interpretation of protected area assets and attractions, for example, visitor signage, information centers and hubs, onsite audio-visual materials, trail development, and so on; (c) restoration of degraded natural land-based habitats through small-scale afforestation and natural regeneration; patrolling of key habitats for species, for example, Tibetan snowcock, Indian goose; conservation of wildlife grazing areas for key species, for example, Bukhara deer, Marco Polo sheep, ibex; and cultivation of key wild flora, for example, in the Yagnob valley; (d) pilot measures to resolve human-wildlife conflicts in TNP, for example, participatory design and construction of pens to protect livestock from predators such as snow leopards; and (e) preparation of protected area management tools such digital resource and digital thematic maps, a rare species conservation and management plan for the four protected areas.

Subcomponent 2.4. Landscape Restoration and Livelihoods (US$8 million)

41. The project will provide sub-grants to villagers/farmers organized as CIGs to implement small-scale livelihood investments based on existing Village Development Plans and actions. Suitably qualified organizations will be contracted to facilitate formation of CIGs. CEP will transfer sub-grants directly to bank accounts of CIGs. The CEP IT will provide the technical lead for this subcomponent and oversee the management of sub-grants to beneficiaries.

42. Under this subcomponent, the project will support crop land-based livelihoods—climate-smart crop production practices and technologies—through sub-grants for sub-projects to groups of farmers that form CIGs. They will be eligible for grants to address degradation issues such as on-farm salination, erosion, and low productivity in ways that can increase income for members and reduce degradation impacts and increase climate adaptation. The focus will be the adoption of practices such as (a) diversification of agricultural/horticultural crops; (b) improved crop varieties and biotechnology that reduce emissions; (c) water-efficient crops and varieties and cultivation methods; (d) erosion control measures such as increasing vegetative cover along the sides of linear infrastructure such as roads and planting of shelterbelts; (e) harvesting and processing of different crops, including cooling and storage; (f) reduced tillage intensity and cover crops, crop rotation, perennial cropping systems, cultivation of deep rooting species; (g) higher inputs of organic matter to soil and processing and application of manure; and (h) small-scale community-based tourism activities around protected areas. Project-financed sub-grants to CIGs will not exceed US$10,000 and will require a match of 5 percent if provided in cash, or 10 percent if provided in-kind as beneficiary contributions.

43. **Budgets and beneficiary contributions.** Allocation parameters for community-level investments in cropping systems support have been developed. The project will use formula-based fixed budgets for investments for each participating village based on the number of households as a whole. Provisionally, these have been set at US$350 /household. Project-financed grants will not exceed US$10,000 for a single investment. This approach to fund allocation has been used successfully in previous World Bank projects in Tajikistan. Some type of beneficiary contribution is considered important to generate ownership and thus the sustainability of investments. Beneficiary contributions in ELMARL were set at 25 percent in-cash or in-kind of the value of the grant received. However, in the current context with the impacts of the pandemic on the population, this requirement is considered unreasonable. At present, it has been agreed that beneficiaries will contribute a minimum of 5 percent of the total cost of an investment/PUU/JFM plan if in cash and 10 percent if in-kind. As in previous operations, these in-kind contributions can be labor and/or materials.

Component 3. Project Management and Coordination (US$3 million)

44. This component will finance the operating costs of management functions for the project of the IT within CEP Center for Implementation of Investment Projects. Key functions include procurement, FM, coordination, reporting, and M&E. The CEP IT will also be responsible for ensuring project compliance with the ESS, attention to gender aspects, and citizen engagement for their respective components. The central CEP IT will be supported by project-financed province-level technical units with core staff in key areas such as pasture management, forestry, and biodiversity conservation, as needed.

45. Financing will be provided for fixed and or short-term specialists in procurement, FM, M&E, and technical assistance in environmental management, social development, and in other areas in line with

approved work and procurement plans. 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: Project Economic Analysis

COUNTRY: Tajikistan
Tajikistan Resilient Landscapes Restoration Project

1. The **PDO** is to increase the area under sustainable landscape management in selected locations in Tajikistan and promote Tajikistan's collaboration with Central Asia countries on transboundary landscape restoration. To achieve the PDO, the project has chosen to support (a) forestry and protected areas since these are relatively under-resourced, (b) pasture management and climate-smart agriculture as opportunities to promote sustainable landscape management in key land uses, and (c) NBS. Furthermore, support for JFM and pasture management by PUUs will help promote the country's efforts in more devolved resource management. To define the potential of livelihoods diversification and enhanced agri-food value chain activities, a sub-criterion in the form of presence and proximity to peri-urban and urban areas, relevant to ensure market access for smallholder producers is also applied. The project will intervene in key hot spots of target areas with investments aimed to (a) improved pasture management across 50,000 ha and climate-smart crop production practices across 15,000 ha; (b) improved forestry management through natural re-/afforestation of 8,000 ha and 3,900 ha through JFM; (c) fuelwood plantations across 220 ha (d) and (e) agri-food value chain activities (f) strengthening protected area management and resilience of ecosystem services across 102,803 ha detailed in annex 2.

2. **Scope of financial and economic analysis.** Expected project benefits which were identified include both direct benefits, which are tangible and contribute toward financial returns, and indirect benefits, which are public goods, intangible, and contribute to economic returns. Direct benefits have been identified on the basis of indicative on-farm and off-farm activities across the following benefits: (a) increased livestock and farm-level production and productivity, (b) higher yields and new production of forest and non-timber forest products, (c) increased employment opportunities for both on-farm and off-farm activities, and (d) financial inclusion. The analysis draws a link between the indirect and direct benefits of investments that assume direct interactions between natural resources management, improved forests and non-timber produce, biodiversity, diversified livelihood activities and poverty reduction. Hence this project results in improved public goods and services in the form of intangible services including (a) carbon benefits; (b) avoided costs from environmental degradation; (c) avoided costs from natural disasters; (d) avoided costs of salinization; (e) avoided costs from nutrient loss, sedimentation removal, water and wind erosion, and floods.

3. **Methodology and approach.** A cost-benefit analysis was conducted to quantify direct benefits, using indicative financial models for (a) implementation of sustainable PMPs, (b) implementation of sustainable forest management plans, (c) implementation of community-level climate-smart agriculture sub-projects, (d) implementation of community-level Green and Grey Infrastructure. The economic analysis was conducted using the financial analysis as the basis, with discounted benefits including indirect benefits of electricity savings, improvements due to controlled grazing, and so on. The benefits across these models and cumulative costs for the project were discounted to produce the economic analysis to obtain NPV and EIRR. Using the project EIRR as basis, benefits from carbon sequestration were added as a result of activities across entire project (all components) to produce an EIRR with Carbon (EIRR Carbon). Project EIRR is presented with and without carbon sequestration benefits calculated on the basis of EX-ACT tool and methodology. Since the project already presents viable EIRR and EIRR Carbon, further

environmental benefits were quantified and summarized as indicative benefits over and above the EIRR using benefit transfer approach from similar studies in Tajikistan and/or the Central Asia region.

4. **Summary of annex presentation**. This annex presents the economic and financial analysis for the Tajikistan Resilient Landscapes Restoration Project. To justify the benefits of the project, the annex is structured around three key sections on (a) the project's development impact, (b) public provisioning of finances, and (c) the World Bank's value addition. Within the project's development impact results, assumptions and approach of the economic analysis are presented on the basis of indicative on-farm and off-farm activities across the following benefits: (a) increased livestock and farm-level production and productivity, (b) higher yields and new production of forest and non-timber forest products, (c) increased employment opportunities for both on-farm and off-farm activities, and (d) financial inclusion. Since the EIRR (was found to be viable, EIRR with carbon sequestration benefits (EIRR Carbon) is presented separately. In addition, other environmental and social benefits are quantified and presented as values over and above the project EIRR, with accompanying assumptions. The annex then presents summaries of public provisioning of finances and the World Bank's value addition.

Project Development Impact

Financial Analysis

5. A financial analysis was conducted to quantify benefits from indicative on-farm and off-farm activities across the following benefits: (a) increased livestock and farm-level production and productivity, (b) higher yields and new production of forest and non-timber forest products, (c) increased employment opportunities for both on-farm and off-farm activities, and (d) financial inclusion**.** The indicative financial models can be divided into four main groups: (a) implementation of sustainable PMPs, (b) implementation of sustainable forest management plans, (c) implementation of community-level climate-smart agriculture sub-projects, and (d) implementation of community-level Green and Grey Infrastructure. The financial viability of these models estimated IRR of 34.93 percent for pasture management investment, IRR of 15.36 percent for natural reforestation, IRR of 14.95 percent for afforestation by JFM, IRR of 21.86 percent for fuelwood plantations, climate-smart agriculture greenhouse model with IRR of 25.13 percent, and green infrastructure with solar panels with IRR of 18.71 percent. This demonstrates their financial viability with estimated NPVs for the mentioned credit models in the range of US$170–288,973. The indicated four groups of activities were assessed for financial viability using the following indicative models (see table 3.1).

Table 3.1. Summary of Financial Analysis

Republic of Tajikistan: TRLRP											
FIN. ANALYSIS	CATEGORY	Estimated Investment Costs (US$)			Annual Net Benefits (US$)			Annual Inc. net benefits per 1US$ of Inv.	IRR (%)	NPV (US$)	Benefit-to-cost ratio
		TRLRP	Beneficiary Contrib.	Total	Without Project	W. Project -Full Dvt	Incremental				
	Pasture Management Investment (typical village)	133,000	7,000	140,000	125,942	1,087,044	961,101	6.87	34.93%	288,973	1.97
	Natural Reforestation by LH (1ha)	479	25	504	0	195	195	0.39	15.36%	170	1.28
	Af-/Reforestation by JFM (1ha)	1,900	100	2,000	0	294	294	0.15	14.95%	247	1.12
	Fuelwood plantation by JFM (1ha)	1,726	91	1,817	0	366	366	0.20	21.86%	2,457	2.16
	CSA Greenhouse model (0.09ha)	7,566	398	7,965	0	1,803	1,803	0.23	25.13%	4,521	1.50
	Green infrastructure (solar panels)	19,000	1,000	20,000	0	3,867	3,867	0.19	18.71%	7,934	1.40
PROJECT COSTS AND INDICATORS FOR LOGFRAME											
TOTAL Costs		45.00	m US$								
Beneficiaries (direct)		940,000									
Cost per beneficiary		$ 47.87									

Key Assumptions

6. The parameters for the models are based on information gathered during the design mission: interviews with farmers and entrepreneurs and information from the donor agencies operating in Tajikistan.

7. **Prices.** Prices for commodities/inputs reflect annual average and those actually paid/received by the farmer/entrepreneur and imply potential risks.

8. **Exchange rate.** The exchange rate used in the financial and economic analysis is fixed at US$1 = TJS 11.3,[84] with a strong assumption that future inflation of inputs will be outweighed by increase in output prices. However, in project costing, to avoid underestimation of inflation in the country, the average exchange rate for the whole project lifetime is taken as US$1 = TJS 17.5.[85]

9. **Internal rate of return.** The refinancing rate (according to the National Bank of Tajikistan) of 12.0 percent[86] has been used as financial discount rate (FDR) for the financial analysis to assess the viability and robustness of the investments at farm level. The selection criterion for the IRR is to accept all projects for which the IRR is above the opportunity cost of capital. For the social opportunity costs of capital or social discount rate (SDR), the analysis has adopted a rate of 6.0 percent,[87] which is a suggested social discount rate for developing countries by the World Bank.

10. **Labor.** Family labor has been valued in economic analysis as opportunity cost of labor. It has been assumed that both family labor and hired unskilled labor market price is TJS 40.0 per day in financial terms, which has been adjusted by local unemployment rates to calculate its economic value.

11. **The shadow exchange rate (SER)** has been calculated at US$1 = TJS 12.8. Overall conversion factors for inputs and outputs vary between 0.85 and 1.05. The conversion factors have been estimated for the main outputs: wheat (conversion factor is 0.97), meat (conversion factor is 0.98), urea (conversion factor is 1.05), and TSP (CF is 0.81).

Summary of Indicative Financial Models

(a) **Implementation of sustainable PMPs.** These investments could be spent on, but not limited to, (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

[84] As of September 2021. National Bank of Tajikistan, https://www.nbt.tj/en/.
[85] Expert estimations based on historical data from the National Bank of Tajikistan and forecasts done by Economist Intelligence Unit Country report on Tajikistan (3rd and 4th quarters).
[86] Re-financing rate in Tajikistan from April 28, 2021. National Bank of Tajikistan, https://www.nbt.tj/en/.
[87] The social discount rate used for the economic analysis is based on World Bank's estimations, proposed by a standardized methodology. See Discounting Costs and Benefits in Economic Analysis of World Bank Projects, OPSPQ. May 9, 2016. "Where no country-specific growth projections are available, we suggest using 3 percent as a rough estimate for expected long-term growth rate in developing countries. Given reasonable parameters for the other parameters for the other variables in the standard Ramsey formula linking discount rates to growth rates, this yields a discount rate of 6 percent." The discount rate is also in line with the discount rate in recently endorsed Strengthening Resilience of the Agriculture Sector Project In Tajikistan (P175952), ANNEX 4: Economic and Financial Analysis and Greenhouse Gas Accounting.
The joint World Bank/ IMF Debt Sustainability Analysis (DSA, May 2020) projects an average growth rate of 3.8 percent in the coming decade.

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. The potential benefits in this indicative model are represented by increased productivity of milk and meat and increased savings in household budget due to improved productivity of pastures near the villages and access to remote pastures with controlling the livestock inventories.

(b) **Implementation of sustainable forest management plans.** Once the plans have been prepared, SFMEs will implement the plans. This will include carrying out silvicultural treatments such as assisted natural regeneration, grazing management, thinning, stand management, fire management, forest protection, and so on. The main activities will be (i) Natural reforestation by leskhozes, (ii) Afforestation and reforestation using JFM approach, and (iii) Fuelwood plantations using JFM approach. The direct quantifiable financial benefits would accrue from sales of timber, fuelwood, nuts, fruits, and berries collected on plantation depending on model type.

(c) **Implementation of community-level climate-smart agriculture sub-projects.** The focus will be to encourage CIGs to adopt practices such as diversification of agricultural/horticultural crops, adoption of water-efficient crops and varieties, environmental measures such as increasing vegetative cover on irrigation channels and planting of shelterbelts. Investments could include (i) provision land-leveling; (ii) provision of seedlings for planting shelter belts, protecting canals, and as an intercrop; (iii) materials for conservation agriculture, crop rotation; and (iv) seeds of improved drought, pest, disease, and salt-tolerant varieties.

(d) **Implementation of community-level climate-resilient green infrastructure sub-projects**. The project will provide grants to jamoats authorities for small-scale climate-resilient green infrastructure to address problems such as small-scale erosion, landslide, and land degradation. Based on catchment assessments and priority issues, jamoats will select appropriate interventions to address these issues. Options for investments include small structures such as stone and concrete ditches, V-shaped and trapezoidal channels, and other transverse structures to be installed to trap sediment, and safely control runoff downstream.

Project Economic Analysis Results (EIRR)
ENPV = US$56.3 million; EIRR = 18.4 percent

12. A cost-benefit analysis was performed based on indicative on-farm and off-farm activities, which are designed to achieve the PDO. These were quantified based on indicative financial models for (a) implementation of sustainable PMPs, (b) implementation of sustainable forest management plans, (c) implementation of community-level climate-smart agriculture sub-projects, and (d) implementation of community-level Green and Grey Infrastructure. Based on the subset of benefit streams alone, the resulting EIRR of the project is estimated at 18.4 percent. The ENPV of benefits of the project's net benefit stream, discounted at 6 percent, is US$56.3 million. This proves that the project is economically viable and justified and recommended for financing from economic point of view.

Approach

13. The analysis builds upon the precautionary principle, accounting for project benefits in a realistic and conservative manner. A financial analysis is carried out to present the scenarios with and without project interventions. The key indicators used to carry out the analysis are the NPVs and EIRR.

14. During the design process, a set of indicative economic activities, which may be supported by the project, were identified. The models show only incremental revenues and costs generated by the new investment. Incremental benefits are estimated by comparison of the without-project (WOP) and the with-project (WP) benefits. In each case, the result of the investment translates into additional demand for produce from primary producers and new permanent jobs.

15. The period of economic analysis is 20 years to account for the phasing and gestation period of the proposed interventions, especially taking into account the nature of benefits accruing from forestry investment. The conservative scenario is presented in the analysis and it is indicative and demonstrates the scope of profitability originating from the conditions prevailing at the time of the preparation.

16. Financial prices of locally traded outputs and inputs are converted into economic prices by deducting direct subsidies, taxes, and duties and using the conversion factors. The economic cost of the project is estimated by removing price contingencies and all taxes and duties from the financial cost, which is generated automatically from the COSTAB application.

17. The illustrative models described above have been used for the calculation of the overall benefit stream, on the basis of economic prices. The overall benefit stream has been generated based on the phasing of implementation and has included only benefits from carbon sequestration. Benefits from avoided costs of degradation and salinization are acknowledged as over and above the EIRR presented in the project, which is still an underestimate, as there are benefits accruing from biodiversity loss, improved collaboration on regional transboundary areas which have not been quantified for the purpose of the analysis. Methodology and summary of the same are provided under the 'other environmental benefits' section below.

18. It was assumed that at least 80 percent of the investments would achieve the estimated returns, that is, an 80 percent success rate was applied to the models. Financing flows have not been undertaken in the calculations as they are already reflected in the project costs or represent transfer payments (duties and taxes).

Economic Analysis with Carbon Sequestration Benefits (EIRR Carbon)

19. Since the project already presented a viable EIRR, an economic analysis with carbon sequestration benefits was presented in table 3.2. Over and above project EIRR, considering the economic benefits from carbon sequestration, the project is viable with an EIRR Carbon at 40.3 percent and 70.7 percent as per lower and higher bound assumptions for social price of carbon (World Bank 2017). The World Bank Shadow Price of Carbon Guidance Note was used to value the economic effect of carbon sequestration on the project. As per the Guidance Note, there are low carbon prices (starting from US$41 and evolving over the years) and high carbon prices (starting from US$82 and evolving over the years).

Table 3.2. Project Economic Indicators with Carbon Externalities

	All Direct Benefits with No Carbon Price (EIRR)	All Direct Benefits with Social Cost of Carbon (EIRR Carbon, lower bound)	All Direct Benefits with Social Cost of Carbon (EIRR Carbon, higher bound)
ENPV (US$ millions @6% discount rate)	**56.3**	**163.5**	**270.6**
EIRR	**18.4%**	**39.5% (EIRR Carbon = low)**	**68.1% (EIRR Carbon = high)**

Approach for Calculation of Carbon Sequestration Benefits

20. The project EIRR and economic analysis were used as the basis. The economic analysis includes global benefit from carbon sequestration from reduced deforestation and degradation from restored landscapes. Such benefits have been assessed using the EX-ACT Carbon Balance Tool developed by FAO through reforestation and improved sustainable landscape management practices based on project site interventions. Carbon benefits were estimated as net carbon balance over a period of 20 years and are estimated to be –4,945,208 tCO_2-eq (approximately 247,710 tCO_2-eq per year). The World Bank Shadow Price of Carbon Guidance Note was used to value the economic effect of carbon sequestration on the project. As per the Guidance Note, there are low carbon prices (starting from US$41 and evolving over the years) and high carbon prices (starting from US$82 and evolving over the years). Carbon sequestration benefits when considered with lower bound assumptions result in approximately US$163.5 million in NPV[88] and EIRR of 39.5 percent. Details of approach and assumptions are given in annex 4 on climate co-benefits.

Sensitivity Analysis

21. Economic returns were tested against changes in benefits and costs and for various lags in the realization of benefits. In relative terms, the EIRR is equally sensitive to changes in costs and benefits. In absolute terms, these changes do not have a significant impact on the EIRR, and the economic viability is not threatened by a 20 percent decline in benefits nor by a 20 percent increase in costs, since the EIRR in both cases remains well above the discount rate. A one-year delay in project benefits reduces the EIRR to 16.3 percent. NPV is US$92.8 million at discount rate of 3 percent and US$10.5 million at discount rate of 14 percent. The results are presented in table 3.3.

Table 3.3. Sensitivity Analysis

Sensitivity Analysis (20-year period)	EIRR	Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits		Discount Rate	
		+10 %	+20 %	+50 %	+10 %	+20 %	−10 %	−20 %	−30 %	1 year	2 years	3%	14 %
EIRR (%)	**18.4**	17.1	15.9	12.9	19.8	21.1	16.9	15.3	13.8	16.3	14.6	18.1	18.1
ENPV (US$, millions)	**56.3**	52.9	49.5	39.3	65.4	74.4	47.3	38.3	29.8	51.2	46.4	92.8	10.5

[88] With lower bound carbon price starting from US$41 in 2021, as per World Bank Social Price of Carbon Guidelines (2017)

Summary of indicative benefits over and above EIRR (Environmental and unquantifiable)

22. The project also adds significant value in the range of US$9.54 million annually from social and environmental benefits, which have been quantified for indicative purposes and over and above estimated EIRR and EIRR Carbon.[89] Valuation using benefit transfer for project area finds avoided costs from environmental degradation valued in the range of US$0.3 million annually, avoided costs from natural disasters as US$8.4 million annually and avoided costs of salinization estimated at US$0.8 million annually. While the project is viable with and without the abovementioned benefits, activities will contribute to improved provision of ecosystem services and resilience which will accrue savings from avoided cost of degradation are over and above the EIRR presented.

(a) Environmental Benefits over and above EIRR

23. Valuation using benefit transfer for project area finds avoided costs from environmental degradation valued in the range of US$0.3 million annually, avoided costs from natural disasters as US$8.4 million annually, and avoided costs of salinization estimated at US$0.8 million annually.

24. A study conducted by the World Bank in 2020 has estimated the minimum total economic cost of land degradation in Tajikistan in 2019 to be between US$539 million and US$950 million, which are equivalent to 8.1 percent and 13.4 percent of GDP, respectively. These estimates are conservative, however, even the conservative estimates are high enough to call the attention of all national and international stakeholders. The major economic cost is related to yield (crop and crop residue) loss in crop lands including those abandoned or fallowed to regenerate (equivalent to 7.5 percent of GDP), followed by the cost of land degradation-induced health problems (equivalent to 2.5 percent of GDP), and biomass loss in natural pastures (equivalent to 1.7 percent of GDP). Costs related to land degradation-induced damages on infrastructure, loss of woody biomass, and natural disasters constitute costs equivalent to 0.8 percent, 0.6 percent, and 0.4 percent of GDP, respectively. For the purpose of this project, we have used these values in US dollars per hectare (ha) per year estimates and matched them to relevant project intervention coverage in hectares to estimate the proxy value of avoided costs from environmental degradation valued in the range of US$0.3 million annually, avoided costs from natural disasters as US$8.4 million annually, and avoided costs of salinization estimated at US$0.8 million annually. If these benefits were to be incorporated in the economic analysis, it would further increase the EIRR.

Table 3.4. Summary of Environmental Benefit Assumptions

Benefit	Total Relevant Hectares Considered under Project	Per Ha/Year	Total Value and Benefits for This Project in US$, millions/Year	Source and Assumptions
Avoided costs - environmental degradation in natural forests	102,803 ha (improved forest management, 36,800 ha annually)	3	0.060	World Bank 2020[90]
Avoided costs -	15,000 ha (3,000 ha	9	0.030	World Bank 2020

[89] Benefits were proxied from $/ha/year values found in "World Bank. 2020. Costs of Environmental Degradation in the Mountains of Tajikistan. World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/34986.
[90] World Bank. 2020. *Costs of Environmental Degradation in the Mountains of Tajikistan*. World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/34986.

Benefit	Total Relevant Hectares Considered under Project	Per Ha/Year	Total Value and Benefits for This Project in US$, millions/Year	Source and Assumptions
environmental degradation in abandoned crop lands	annually)			
Avoided costs - environmental degradation in natural croplands	50,000 grasslands and livestock (pasture management, 10,000 ha annually)	19	0.190	World Bank 2020
Avoided costs - health impacts	177,120 ha (total all project interventions, 35,424 ha annually)	3	0.110	World Bank 2020
Avoided costs - infrastructure loss (landslide, mudflows)	11900 ha (afforestation, 2,380 ha annually)	6	0.014	World Bank 2020
Avoided costs - natural disasters	111,900 ha (afforestation and improved forest management, 22,380 ha annually)	375	8.390	Economic impacts of disasters among key corridors (Tajikistan, World Bank 2021)[91] found loss of 75 million per year across 200,000 ha of roads in Tajikistan across disasters, landslides, economic losses from damage, loss of income, and so on.
Avoided costs - salinization	15,000 ha (total all project interventions in croplands, 3,000 ha annually)	250	0.750	Avoided costs related to salinization are proxied at US$250 per hectare, and from loss to yield as degradation can lead to a decline in pasture productivity of up to 1.5 percent annually.[92]

(b) Unquantifiable Benefits

25. Indirect benefits related to avoided costs from nutrient loss, sedimentation removal, water and wind erosion, and floods have not yet been included due to lack of data but bring significant qualitative improvements to land productivity and ecosystem resilience. Further intangible but important benefits include, but are not limited to, increased crop diversification, improved access, security along borders,[93]

[91] https://documents1.worldbank.org/curated/en/545481624287902413/pdf/Assessment-of-Economic-Impacts-from-Disasters-Along-Key-Corridors.pdf.
[92] Source: CAMP4ASB.
[93] Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10.

and regional benefits to Central Asia, such as improved connectivity across borders as well as improved biodiversity through green corridors and ecotourism activities. In the future, benefits from avoided sedimentation, soil salinization, reduced water and wind erosion, water extraction, and floods are expected to be significant and will be updated as per an ongoing Advisory Services and Analytics (ASA) in Tajikistan,[94] which is estimating the value of landscape restoration to reduce sedimentation in hydropower dams and the cost of natural disasters.

26. **The provision of public sector financing is justified** as the project is investing in building back better by supporting an economic transition through sustainable landscape management practices and livelihoods derived thereof. This will support the provision of global, regional, and national public goods. Support for forest regeneration is usually a function of the State, even in developed market economies. As the need to invest in restoration is high, estimated at US$37 million annually[95] in Central Asia, the support for landscape restoration/forestry activities budgeted at 0.5 percent of the budget,[96] as of 2006, is the lowest among all ministries. Further, public investment in the agriculture and forestry sector has been dropping consistently. Beyond 2006, the allocation of PIP budget for Agriculture, Forestry and Fishing has dropped from approximately 20 percent in 2006 to around 8 percent in 2012.[97] Investing in land degradation would be a value for money investment given regionally significant evidence,[98] suggesting that every dollar invested in sustainable landscape restoration practices in Central Asia can yield 4 dollars of returns over a 30-year period. Reducing land degradation in Tajikistan[99] alone could provide ecosystem services and benefits equivalent to 8.1–13.4 percent of GDP, making for up to 0.3 percent of regional GDP of Central Asia in 2019. While this justifies public investment support, public investment alone is not enough for meeting Tajikistan's LDN targets and climate-related commitments. Public support needs to be leveraged and will be done with private sector involvement to improve and add value to productive activities, create stable revenues with dryland products and tourism services, and introduce sustainable supply chains, as mobilized under the RESILAND CA+ Program and ECCA30 Initiative. The project will also involve banks, including micro-lending institutions and public-private partnerships, to provide financial support to women and SMEs in carrying out interventions.

27. **World Bank's value addition.** The unique proposition of the World Bank for this project is justified because it builds on extensive World Bank experience in sustainable landscape restoration and management at national and transboundary levels and is linked to the broader regional initiative—RESILAND CA+ Program**.** The World Bank has a long-standing track record with Tajikistan, especially within

[94] World Bank. 2021 (in draft). *Mapping and Valuing Ecosystems Services, and Prioritizing Investments in Select Watersheds in Tajikistan to support Sustainable Hydropower*. Washington DC.
[95] US$11 billion across a 30-year period as per Mirzabaev et al. (2016).
[96] World Bank. 2005. *Tajikistan: Public Expenditure and Institutional Review*. Washington, DC. https://openknowledge.worldbank.org/handle/10986/8408.
[97] Figure 13 - Bakanova, Marina, Ilyas Sarsenov, Salman Zaidi, Francisco Galrao Carneiro, Zuhro Qurbonova, and Hassan Aliev. "Government Expenditures: Size, Composition and Trends (English)." Takijistan policy notes on public expenditures; policy note no. 1, Public Expenditure Review (PER) Washington, DC: World Bank Group. http://documents.worldbank.org/curated/en/906971468310761468/Government-expenditures-size-composition-and-trends.
[98] Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10.
Source: Quillérou, E., R. J. Thomas, O. Guchgeldiyev, S. Ettling, H. Etter, and N. Stewart. 2016. *Economics of Land Degradation (ELD) Initiative: Broadening Options for Improved Economic Sustainability in Central Asia*. Synthesis report. Report for the ELD Initiative from the Dryland Systems Program of CGIAR c/o ICARDA, Amman, Jordan.

the sector. Some of these activities include CASA1000 Community Support Project for Tajikistan (P165313), Tajikistan Socio-Economic Resilience Strengthening Project (P168052), and Rural Water Supply and Sanitation Project (P162637). In terms of sustaining investments, experience with the now-closed ELMARL Project (P122694) in Tajikistan (which provided similar support to rural communities) is closely followed in CAMP4ASB, and the lessons and experience from CAMP4ASB are being replicated in this project. The World Bank has also been engaged in forest landscape projects in the region, notably the Integrated Forest Ecosystem Management (P151102) Project in the Kyrgyz Republic and the Kazakhstan Resilient Landscapes Restoration Project (P171577). This experience and regional knowledge put the World Bank in an advantageous position to support this project and provide examples of value for money public investments in landscape restoration which are benefiting communities in a sustainable manner. Tajikistan is also uniquely positioned to benefit from the regional engagement RESILAND CA+ Program with experience and partnerships already established through the ongoing World Bank-financed CAMP4ASB, GIZ,[100] and the Economics of Land Degradation Initiatives which will strengthen delivery of environmental, social, and economic benefits for Tajikistan. Given the integrated and regional nature of the project, the World Bank can play a key role, through its convening power, to help create and sustain the institutional arrangements for integrated development and foster open communications especially between the implementing agencies and representatives of smaller rural areas supported by the project.

[100] GIZ's ILUMA program at https://www.landuse-ca.org/?lang=en#section-iluma, whose second phase is soon to be launched, provides substantial information on land use practices at the landscape level which were piloted and tested in Central Asia countries, including Uzbekistan, for more than 10 years. See https://www.eld-initiative.org/.

ANNEX 4: Climate Change Co-Benefits

COUNTRY: Tajikistan
Tajikistan Resilient Landscapes Restoration Project

1. **Tajikistan is one of the most vulnerable countries to climate change.** Tajikistan had the lowest level of GHG emissions in Central Asia with agriculture as the primary source.[101] However, Tajikistan is the most vulnerable to climate change mainly due to its low adaptive capacity. In the Notre Dame-Global Adaptation Index for 2019[102] Tajikistan ranks 100 out of 128 countries with a score of 46.8—Vulnerability 0.39 and Readiness 0.32. Relative to other countries, its current vulnerabilities are manageable but improvements in readiness will help it better adapt to future challenges. Tajikistan was the 72nd least vulnerable country and the 52nd least ready country in 2019. Climate change affects all types of interventions: agriculture, forest, land restoration—in pasture and protected areas—through drought; erratic precipitation pattern; poor growth of vegetation; and increased incidence of fire, disaster risks, loss of biodiversity and pest and disease outbreak.

2. **Climate change is expected to increase the intensity and frequency of extreme climate events, leaving Tajikistan's economy and people increasingly vulnerable.** In terms of disaster risk, Tajikistan faces relatively high disaster risk, ranked 64 out of 191 countries in the INFORM 2019 Index for Risk Management.[103] This risk is driven most significantly by exposure to drought, for which Tajikistan ranks 8th in the world. Risk is also enhanced by moderate levels of flood exposure and relatively low levels of coping capacity. The implications of climate change for exposure to natural hazards are costly to the economy and its people, for example, average annual losses to all types of flood are estimated at US$48 million.[104] Tajikistan also faces significant risks from flash floods and notably glacier lake outburst floods. These events can also happen as a result of, or cause, landslides and dangerous mudflows.[105]

3. **Climate change has also had a detrimental impact on vegetation health in Tajikistan, now identified as a hotspot of potential dryland expansion,[106] desertification, and shifts in species leading to biodiversity loss.** Over 1992–2011, rising air temperatures were associated with significant loss of 'greenness'.[107] These losses have been linked to increased water deficits driven primarily by greater evapotranspiration, resulting in stunted plant growth and desiccation. Tajikistan contained most of the land that is immediately vulnerable to desertification[108] with sustainability challenges, soil health, and

[101] The Government of The Republic of Tajikistan. 2014. *The Third National Communication under UNFCCC*
[102] https://gain.nd.edu/our-work/country-index/.
[103] Climate Change Risk Profile, World Bank, 2021 - https://climateknowledgeportal.worldbank.org/sites/default/files/2021-09/15919-WB_Tajikistan%20Country%20Profile-WEB.pdf.
[104] UNISDR (2014). Prevention Web: Basic Country Statistics and Indicators (accessed August 14, 2018), https://www.preventionweb.net/countries.
[105] GFDRR. 2017. *Disaster Risk Profile: Tajikistan*. https://www.gfdrr.org/sites/default/files/Tajikistan.pdf.
[106] Huang, J., H. Yu, X. Guan, G. Wang, and R. Guo. 2016. "Accelerated Dryland Expansion under Climate Change." *Nature Climate Change* 6 (2): 166–171. https://www.nature.com/articles/nclimate2837.
[107] Zhou, Y., L. Zhang, R. Fensholt, K. Wang, I. Vitkovskaya, and F. Tian. 2015. "Climate Contributions to Vegetation Variations in Central Asian Drylands: Pre- and Post-USSR Collapse." *Remote Sensing* 7 (3): 2449–2470. https://doi.org/10.3390/rs70302449.
[108] Zhang, G., C. M. Biradar, X. Xiao, J. Dong, Y. Zhou, Y. Qin, . . . R. J. Thomas. 2018. "Exacerbated Grassland Degradation and Desertification in Central Asia during 2000–2014." *Ecological Applications* 28 (2): 442–456.

forest fires, which are likely to be exacerbated by climate change.[109] Issues such as the projected increase in the erosive capacity of rain—and its impact on soil quality—will increase the pressure on key ecosystem functions.[110] These changes, in combination with issues such as glacial melt and drought, will likely result in significant shifts in species' viable ranges (both in natural ecosystems and for agricultural purposes).[111] Modeling is increasingly reinforcing the likely 'upslope' (movement to higher altitudes) and northward shifts ranges and the resulting declines in viable ranges this will bring for many species in Central Asia,[112] particularly in Tajikistan[113] in the context of climate change impact on the Bukhara and turan tigers. Hence, there is a strong need for local land management and development practices such as conservation of protected areas, land restoration, and strengthening of ecosystem resilience to prevent biodiversity loss.

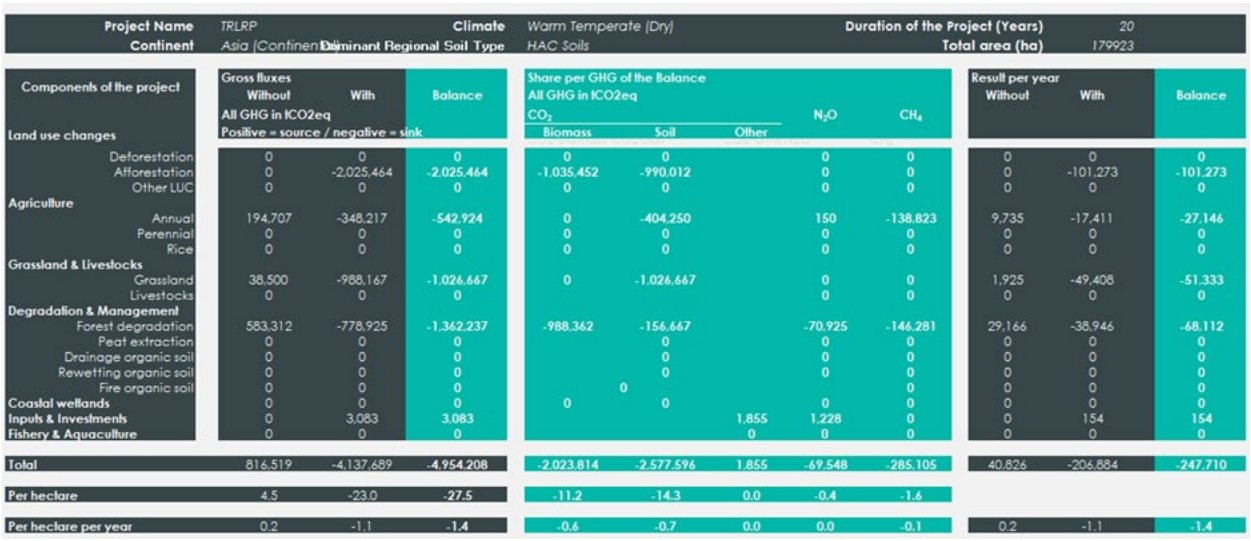
4. **The project aims to support climate action by addressing the identified vulnerabilities and supporting activities in forestry and agricultural sector required for Tajikistan's international climate agreements—**to make clear that these activities have been added/developed specifically to support climate action, that they are additional and not a business-as-usual approach for this type of intervention. The project will generate significant climate co-benefits by contributing to both climate change mitigation and adaptation. Carbon sequestration will be enhanced through project activities such as reforestation, assisted natural regeneration, agroforestry, pasture management, climate-smart agriculture, and protected area management. Improved landscape management through these activities reduces landscape vulnerability to climate change impacts and enhances resilience through NBS, protection and preservation of protected areas (boosting ecosystem resilience), eco-tourism, climate-resilient infrastructure, and climate-resilient livelihoods. Reduced vulnerability and enhanced resilience would mean improved adaptation of landscapes and biodiversity to expected risks posed by climate change. A PDO indicator that will measure progress toward achievement includes land area under sustainable landscape management practices which will yield carbon emission reductions through the EX-ACT model. An intermediate results indicator includes 'Net greenhouse gas (GHG) emissions (CRI, Metric tons/year)'. These will help monitor the climate co-benefits throughout the project cycle.

5. **Mitigation co-benefits.** In terms of mitigation co-benefits, this project outlines the NDC commitments and context in paragraphs 18 and 23 outlining how the project will support Tajikistan's commitments on 1.8 million tons of CO_2 sequestered by forests by 2030 as per the updated NDC to GHG mitigation through investments in the forestry and agriculture sectors. The project's contribution to GHG accounting has been carried out using the FAO's EX-ACT. According to EX-ACT, specific settings were selected for the project, considering climate, moisture conditions, and the dominant soil type in the region across a period of 20 years. Emission reduction estimates come from (a) a wide range of reforestation activities across 8,000 ha of target area leskhozes, while another 3,900 ha would be covered by JFM approach, also for afforestation and reforestation; (b) 220 ha of land on which fuelwood plantations would

[109] Loboda, T. V, L. Giglio, L. Boschetti, and C. O. Justice. 2012. "Regional Fire Monitoring and Characterization Using Global NASA MODIS Fire Products in Dry Lands of Central Asia." *Frontiers of Earth Science* 6 (2): 196–205. https://link.springer.com/article/10.1007/s11707-012-0313-3.
[110] Duulatov, E., X. Chen, A. C. Amanambu, F. U. Ochege, R. Orozbaev, G. Issanova, and G. Omurakunova. 2019. "Projected Rainfall Erosivity over Central Asia Based on CMIP5 Climate Models." *Water* 11 (5): 897. https://doi.org/10.3390/w11050897.
[111] Luo, Y. et al. 2018. "Contrasting Streamflow Regime Induced by Melting Glaciers across the Tien Shan – Pamir – North Karakoram." *Nature - Scientific Reports* 8:16470. https://www.nature.com/articles/s41598-018-34829-2.
[112] Ashraf, U., A. T. Peterson, M. N. Chaudhry, I. Ashraf, Z. Saqib, S. Rashid Ahmad, and H. Ali. 2017. "Ecological Niche Model Comparison under Different Climate Scenarios: A Case Study of *Olea* spp. in Asia." *Ecosphere* 8 (5): e01825. https://doi.org/10.1002/ecs2.1825.
[113] Idrisova, A. 2012. *Climate Change Impact on Biodiversity: And its Implication for Protected Areas Management in Tajikistan.* https://www.amazon.com/Climate-change-impact-biodiversity-implication/dp/3848444755.

be grown using the JFM approach; and (c) grassland management across 83,069 ha of pastures in the target areas of the project with assumption of 85 percent being degraded. It finds a total of approximately 247,710 tCO_2-eq per year which are 'substantial' emission reductions of more than 25,000 tCO_2-eq per year; specifically Subcomponents 2.1 and 2.2 have more than 100 percent reductions over and above baseline, as shown in table 4.1.

Figure 4.1. **EX-ACT Analysis Results**



Project Name	TRLRP	Climate	Warm Temperate (Dry)	Duration of the Project (Years)	20
Continent	Asia (Continen	Dominant Regional Soil Type	HAC Soils	Total area (ha)	179923

Components of the project	Gross fluxes Without	With	Balance	Share per GHG of the Balance All GHG in tCO2eq CO_2 Biomass	Soil	Other	N_2O	CH_4	Result per year Without	With	Balance
	All GHG in tCO2eq Positive = source / negative = sink										
Land use changes											
Deforestation	0	0	0	0	0		0	0	0	0	0
Afforestation	0	-2,025,464	-2,025,464	-1,035,452	-990,012		0	0	0	-101,273	-101,273
Other LUC	0	0	0	0	0		0	0	0	0	0
Agriculture											
Annual	194,707	-348,217	-542,924	0	-404,250		150	-138,823	9,735	-17,411	-27,146
Perennial	0	0	0	0	0		0	0	0	0	0
Rice	0	0	0	0	0		0	0	0	0	0
Grassland & Livestocks											
Grassland	38,500	-988,167	-1,026,667	0	-1,026,667		0	0	1,925	-49,408	-51,333
Livestocks	0	0	0				0	0	0	0	0
Degradation & Management											
Forest degradation	583,312	-778,925	-1,362,237	-988,362	-156,667		-70,925	-146,281	29,166	-38,946	-68,112
Peat extraction	0	0	0		0		0	0	0	0	0
Drainage organic soil	0	0	0		0		0	0	0	0	0
Rewetting organic soil	0	0	0		0		0	0	0	0	0
Fire organic soil	0	0	0	0				0	0	0	0
Coastal wetlands	0	0	0	0	0		0	0	0	0	0
Inputs & Investments	0	3,083	3,083			1,855	1,228	0	0	154	154
Fishery & Aquaculture	0	0	0			0	0	0	0	0	0
Total	816,519	-4,137,689	-4,954,208	-2,023,814	-2,577,596	1,855	-69,548	-285,105	40,826	-206,884	-247,710
Per hectare	4.5	-23.0	-27.5	-11.2	-14.3	0.0	-0.4	-1.6			
Per hectare per year	0.2	-1.1	-1.4	-0.6	-0.7	0.0	0.0	-0.1	0.2	-1.1	-1.4

Table 4.1. Summary of EX-ACT Analysis Results by Component

Components	Projected Net Emission Reductions per Year with Project (tCO_2-eq)	Baseline Emissions (tCO_2-eq)	Percentage of Projected Emission Reductions per Year of Baseline Emissions
2.1	101,273	0	>100
2.2	51,333	38,500	133
2.3	68,112	583,312	12
2.4	27,146	194,707	14
Total	247,710[114]	816,519	30

6. The total GHG emission reduction benefits have been estimated through the project's life considering the estimated shadow price of carbon that will evolve from year to year according to the World Bank Shadow Price of Carbon Guidance Note (2017) and find a benefit stream of US$157.5 million with lower bound estimates and an economic rate of return (ERR) of 40.3 percent (details in annex 3).

7. **Adaptation co-benefits.** The project has been screened for climate and disaster risk by using the Climate and Disaster Risk Screening Tool. For identified risks, appropriate resilience measures have been included in the project design as climate change resilient practices. Climate vulnerability context has been outlined starting from para 1 and highlights the main areas of vulnerability in para 10 under country context and then specifies links of climate vulnerabilities in the context of drylands (para 1), disasters

[114] The sum of four subcomponents would be 247, 864 tCO2-eq per year, but the difference is due to project inputs related emission.

(para 15), land degradation (para 4, 16), forestry (para no 3, 16), and pasture and agriculture (para 14, 17). Para 19 outlines how the activities are aligned and will help Tajikistan meet its climate change resilience-related targets in the midterm development program and the national action plan for adaptation to climate change.

8. Links of identified climate risks and vulnerabilities as well as climate commitments at components and activity level:

- **Subcomponent 1.1**: **Strengthen Institutions and Policies** will support the development of a policy and a legal and institutional framework to meet, among other global commitments, NDC targets for Tajikistan. It includes relevant adaptation and mitigation policy activities, including climate resilience risk assessment of forestry plantations as part of the Landscape Restoration Strategy and Action Plan as well as strengthening of monitoring and reporting requirements in the context of the agriculture forestry and land use (AFOLU) sector, forming the basis of monitoring and reporting against NDCs, for example. It will also provide on-the-job training for pasture management and landscape management, which were identified as critical areas of risk in terms of water, biodiversity, flooding, and so on, in paragraphs 15–17 in the context of climate change in Tajikistan.
- **Subcomponent 1.2: Strengthen Regional Collaboration** will promote collaboration on areas such as the impacts of climate change through, for example, supporting regional conferences on climate change which are relevant policy-based co-benefit activities for climate change. Regional context on climate change with Central Asia references is included in paragraphs 15–17.
- **Subcomponent 2.1. Forest Restoration and Sustainable Forest Management** includes activities such as development of the country's first NFI and enhances the capacities of key stakeholders in support of Tajikistan's LDN. Meeting NDC targets without a monitoring system would not be possible for the AFOLU sector; hence, this activity is additional and relevant for meeting climate change commitments. In addition, this subcomponent invests in afforestation activities through forest management plans, natural regeneration, nurseries, and so on, which yield substantial emission reductions as per EX-ACT (101,273tCO_2-eq per year), which are 100 percent over the baseline (0 tCO_2 in this case), qualifying for mitigation co-benefits. Hence, this component is designed for supporting activities in the forestry sector required for Tajikistan's international climate agreements as detailed in para 18 and 22 and are additional in nature.
- **Subcomponent 2.2. Integrated Pasture Management and Restoration.** This component includes activities such as forest seed demonstration and PMPs which strengthen measures to increase soil carbon stocks and sustainability through, for example, protecting of areas for regeneration, pasture rehabilitation, weed removal, seasonal closure, nitrification-inhibiting practices in pastures, improving access to remote pastures, and needs for supplementary fodder production as well as establishment of small productive and climate-resilient facilities such as shelters, shading canopies, feeding stalls, salt licks, scratching posts, drinking water troughs, sheep baths, and fences to enhance animal welfare and improve the productivity and resilience of livestock systems. These were identified in the context of the need for local land management and development practices to improve resilience (para 17) toward climate change impacts and meeting climate commitments

through the agriculture sector (para 14). These activities yield substantial emission reductions as per EX-ACT (in the range of 51,333 tCO_2-eq per year), which are 133 percent over baseline, qualifying for mitigation co-benefits.

- **Subcomponent 2.3. Protected Area Management and Biodiversity Conservation.** Climate change impacts will accelerate glacial melt and drought, resulting in significant shifts in species' viable ranges (both in natural ecosystems and for agricultural purposes).[115] Modelling is increasingly reinforcing the likely 'upslope' (movement to higher altitudes) and northward shifts ranges and the resulting declines in viable ranges this will bring for many species in Central Asia.[116] Besides shifts in biodiversity and losses, rising air temperatures were associated with significant loss of 'greenness'[117] in Tajikistan. These losses have been linked to increased water deficits driven primarily by greater evapotranspiration resulting in stunted plant growth and desiccation. (paragraphs 15–17 outline the details of climate vulnerabilities). Given this is a critical climate vulnerability, this project intends to strengthen climate resilience through restoration of degraded natural land-based habitats through afforestation and human-assisted natural regeneration and habitat conservation for key species such as snow leopard, Bukhara deer, Marco Polo sheep, ibex, Tibetan snowcock, Indian goose (identified as affected by upward and downward slope movements due to climate change[118] and particularly in Tajikistan[119] in the context of climate change impact on the Bukhara and turan tigers). Besides adaptation and resilience co-benefits, these activities yield substantial emission reductions as per EX-ACT in the range of 68,112 tCO_2-eq per year, qualifying for mitigation co-benefits.
- **Subcomponent 2.4: Landscape Restoration and Livelihoods** includes adaptation co-benefits building resilience through climate-smart agriculture-based livelihoods. This is in response to climate vulnerabilities and risks identified in the agriculture sector (para 14, 17) and disaster risks (para 15). This subcomponent also includes grants to address problems such as small-scale erosion, landslide, and land degradation, to strengthen climate resilience of small-scale infrastructure, which helps respond to climate risks which were identified in para 15 for Tajikistan. Besides adaptation and resilience co-benefits, these activities yield substantial emission reductions as per EX-ACT in the range of 27,146 tCO_2-eq per year, qualifying for mitigation co-benefits.

[115] Luo, Y. et al. 2018. "Contrasting Streamflow Regime Induced by Melting Glaciers across the Tien Shan – Pamir – North Karakoram." *Nature - Scientific Reports* 8:16470. https://www.nature.com/articles/s41598-018-34829-2.
[116] Ashraf, U., A. T. Peterson, M. N. Chaudhry, I. Ashraf, Z. Saqib, S. Rashid Ahmad, and H. Ali. 2017. "Ecological Niche Model Comparison under Different Climate Scenarios: A Case Study of *Olea* spp. in Asia." *Ecosphere* 8 (5): e01825. https://doi.org/10.1002/ecs2.1825.
[117] Zhou, Y., L. Zhang, R. Fensholt, K. Wang, I. Vitkovskaya, and F. Tian. 2015. "Climate Contributions to Vegetation Variations in Central Asian Drylands: Pre- and Post-USSR Collapse." *Remote Sensing* 7 (3): 2449–2470. https://doi.org/10.3390/rs70302449.
[118] Ashraf, U., A. T. Peterson, M. N. Chaudhry, I. Ashraf, Z. Saqib, S. Rashid Ahmad, and H. Ali. 2017. "Ecological Niche Model Comparison under Different Climate Scenarios: A Case Study of *Olea* spp. in Asia." *Ecosphere* 8 (5): e01825. https://doi.org/10.1002/ecs2.1825.
[119] Idrisova, A. 2012. *Climate Change Impact on Biodiversity: And its Implication for Protected Areas Management in Tajikistan.* https://www.amazon.com/Climate-change-impact-biodiversity-implication/dp/3848444755.

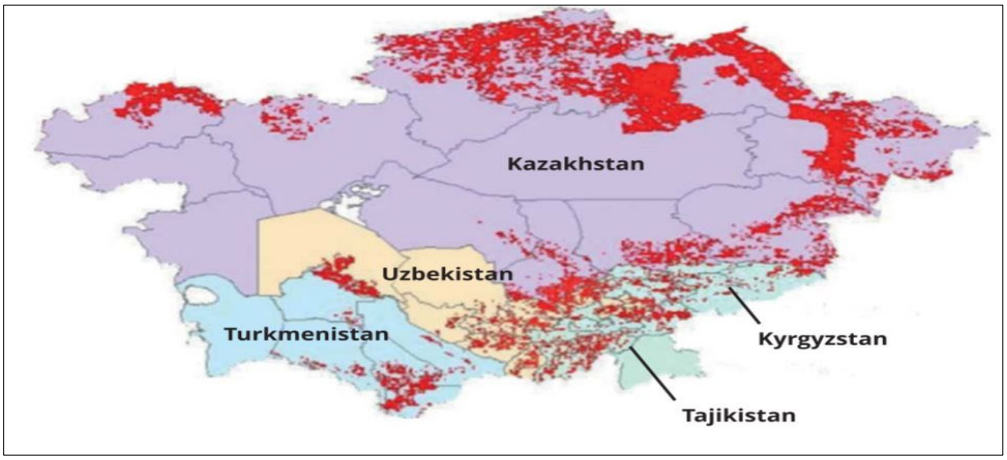
ANNEX 5: Central Asia+ Resilient Landscapes Restoration (RESILAND CA+) Program

COUNTRY: Tajikistan
Tajikistan Resilient Landscapes Restoration Project

1. **Drylands in Central Asia are one of the most rapidly degrading and climate vulnerable areas in the world.** A mix of natural arid conditions and increasing anthropogenic pressures, such as converting land to intensified commercial agriculture, logging, and pasturing, have led to land degradation, erosion, and loss of vegetation cover. This, in turn, has affected the productivity of agriculture, the resilience of transport/infrastructure, and the potential for tourism development while increasing the fragility of the region. The region is increasingly exposed to intense weather events and natural disasters, which further degrade the landscapes, the living conditions, and the economic opportunities of people. Climate change impacts are expected to worsen the condition of countries' natural resources and the overall resilience of their populations and ecosystems.

2. **Land degradation is particularly prevalent in border areas,[120] causing acute regional externalities.** Figure 5.1 shows that much of the degradation, marked in red dots, is found along countries' borders. Consequently, these areas demonstrate low land productivity, high poverty, and unemployment. They also experience degradation-related natural disasters, such as landslides and floods, that affect key infrastructure in the region and possible tourism development along the Silk Route. Given the importance of Central Asia's transboundary corridors for biodiversity, some critically endangered; transport; watersheds; and trade, a joint vision and collaborative action are needed by the region's governments to increase the resilience of shared landscapes.

Figure 5.1. Hotspots of Land Degradation in Central Asia (as determined by changes in NDVI in the region)



Source: Nkonya, E., et al., eds. 2016. *Economics of Land Degradation and Improvement - a Global Assessment for Sustainable Development*.

[120] This could be explained, among other things, by the slowdown of transboundary pastoralism after the breakdown of the Soviet Union, which has restricted the mobility of livestock between pastures to this day. This restriction of seasonal pastures results in overuse of pasture resources along the borders. Source: Quillérou, E., R. J. Thomas, O. Guchgeldiyev, S. Ettling, H. Etter, and N. Stewart. 2016. *Economics of Land Degradation (ELD) Initiative: Broadening Options for Improved Economic Sustainability in Central Asia*. Synthesis report. Report for the ELD Initiative from the Dryland Systems Program of CGIAR c/o ICARDA, Amman, Jordan. www.eld-initiative.org.

3. **Land degradation has vast economic costs for the region.** Land degradation costs, on average, 6 percent of the countries' GDP with the cost of inaction being six times higher than the cost of action[121] due to a strong dependency of the forestry and agriculture sectors on landscapes' condition. Since 1990, degradation-related disasters have affected the lives of over 10 million people in Central Asia and caused damages worth around US$2.5 billion.[122] One key example is the degraded Aral Seabed that produces massive sand and salt storms with tragic impacts on communities' livelihoods and health in Kazakhstan and Uzbekistan. Another example is the increased frequency of landslides and mudflows in Tajikistan and the Kyrgyz Republic that has led to an economic cost of about US$750 million to Tajikistan alone in the last decades.[123] The increase in annual temperature is already triggering more rapid glacier melting, while droughts, floods, and heat and cold waves could occur more frequently. The degradation of land has generally diminished the region's GHG emission mitigation capacity although there has been a marked increase in CO_2 removals from 2008 onward due to intensive afforestation in the dried bed of the Aral Sea.[124]

4. **Land degradation and its impacts have not been addressed thus far due to historical lack of collaboration between governments.** Upon achieving independence from the Soviet Union in 1992, governments prioritized the building of national sovereignty over regional cooperation. Several attempts at constructing regional institutional mechanisms in the 1990s and early 2000s failed (for example, the Economic Cooperation Organization and the Central Asian Cooperation Organization), as did Kazakh President Nazarbayev's call for a Central Asian Union in 2007. Increasing domestic stress that followed due to the fall in oil prices in 2014–16 and the consequent pressures on weak fiscal resources and the banking sector further impeded efforts toward transboundary cooperation in previous years.[125]

5. **After decades of fragmentation and national focus, Central Asia leaders are beginning to form a regional mindset.** The most significant political change in recent years has been the opening of Uzbekistan by President Mirziyoyev to international integration. Recent years also have witnessed governments' recognition of the region's environmental and climate challenges with the joint signing of the 2018 Astana Resolution on reinforced cooperation on landscape restoration. In 2019, the countries joined the ECCA30 Initiative to support these efforts in partnership with European states and prominent development partners. In 2020, the countries endorsed a 10-year Regional Environmental Program for Sustainable Development under the auspices of the ICSD and signed a Joint Declaration of Intent to cooperate in the field of climate and security within the framework of Green Central Asia. Recent years have also seen the formation of regional institutions around joint causes. An example is the Executive Committee of International Fund for Saving the Aral Sea, established in 1997 by the five Central Asia governments as a working body of the International Fund for Saving the Aral Sea, an international organization, and CAREC, established in 2001 by a joint decision of all five Central Asia states to assist the Central Asia governments and regional and international stakeholders in addressing environmental and sustainability challenges across the region.

[121] Mirzabaev, A., J. Goedecke, O. Dubovyk, U. Djanibekov, B. L. Quang, and A. Aw-Hassan. 2016. "Economics of Land Degradation in Central Asia." In *Economics of Land Degradation and Improvement - A Global Assessment for Sustainable Development*, edited by E. Nkonya, et al. Springer. DOI:10.1007/978-3-319-19168-3_10.
[122] EM-DAT International Disaster Database, *Université Catholique de Louvain* (UCL)–CRED, D. Guha-Sapir, Brussels, Belgium. https://www.emdat.be/.
[123] According to the World Bank data.
[124] UNECE. 2020. *Environmental Performance Reviews for Uzbekistan - Third Review*. Geneva, Switzerland.
[125] World Bank 2017; Reuters December 15, 2017.

6. **Investing in landscape restoration is critical to address the complex nexus of local livelihoods, land degradation, climate change, environmental security, and economic growth.** As noted in the 2019 Special Report on Climate Change and Land of the Inter-governmental Panel on Climate Change, restoring degraded landscape is key to mitigating and adapting to climate change. The RESILAND CA+ Program is offered as a mechanism for tackling these issues and, thus, increasing the resilience of landscapes and people in the region.

7. **The World Bank is well positioned to support these renewed regional efforts.** The REFCA gives the highest priority to programs that improve connectivity and sustainability of regional public goods (Pillar 2). Developed on the basis of the 2018 World Bank Systematic Diagnostic for Central Asia, it recognizes that arresting the degradation of regional public goods will improve the livelihoods of the poor and increase the global interest in the region's natural resource endowment. The World Bank has been supporting regional projects in Central Asia such as CAMP4ASB, the Central Asia South Asia Digital Series of Projects (SOP) (P156894/P160230), the Central Asia South Asia Electricity Transmission and Trade Project (P145054), and the Central Asia Regional Links Program SOP (P132270/P145634/P159220/P166820). The experience from these projects provides a solid foundation on which the World Bank can deliver regional support on the restoration of degraded land.

8. **A regional program is considered the most effective approach to making a difference in the region.** Since border areas are hotspots for land degradation and poverty and restoring land can provide a dual benefit of increased productivity and improved livelihoods and address risks to communities and infrastructure, regional cooperation is needed to harmonize approaches and harness the ecological and economic benefits across shared corridors. In this context, national approaches would not be as effective in affecting landscape restoration. A regional program is also aligned with countries' changed vision of addressing the degradation of regional public goods by coming together as one region.

9. **The goal of the RESILAND CA+ Program is to increase the resilience of regional landscapes in Central Asia.** The program comprises analytics and advisory (funded by Bank Budget and Bank-executed Trust Funds, including PROGREEN), IDA and Trust Fund-financed Investment Project Financings and a GEF-financed IPF. Over time, financing from other development partners will be explored. The program is expected to include projects in at least three IDA countries (Uzbekistan, Tajikistan, and the Kyrgyz Republic) that support activities with regional spillovers: (a) improved connectivity and integrity of natural resources across borders, (b) increased resilience of key regional infrastructure prone to the impacts of land degradation (for example, roads and railways), (c) increased resilience of transboundary communities benefitting from more productive landscapes and livelihood opportunities, and (d) increased GHG mitigation due to restored landscapes. The program will also support a Regional Exchange Platform for high-level dialog to support harmonization of policies and approaches between countries on landscape restoration, designed as a component of the projects and executed by CAREC.

10. **The indicators that will be used to measure the program's impact are**

(a) Land area under sustainable landscape management practices (CRI, ha);

(b) Transboundary sustainable landscape management policies harmonized (Number);

(c) Beneficiaries adopting landscape restoration practices (Number, sex disaggregated);

(d) Regional online database established and operational (Yes/No); and

(e) Regional institutions supported through capacity strengthening activities (Number).

11. All future RESILAND CA+ operations in other countries will share these key indicators and will together contribute to regional spillovers (see section II. D, Results Chain) which would then be integrated to measure impact at the program level.

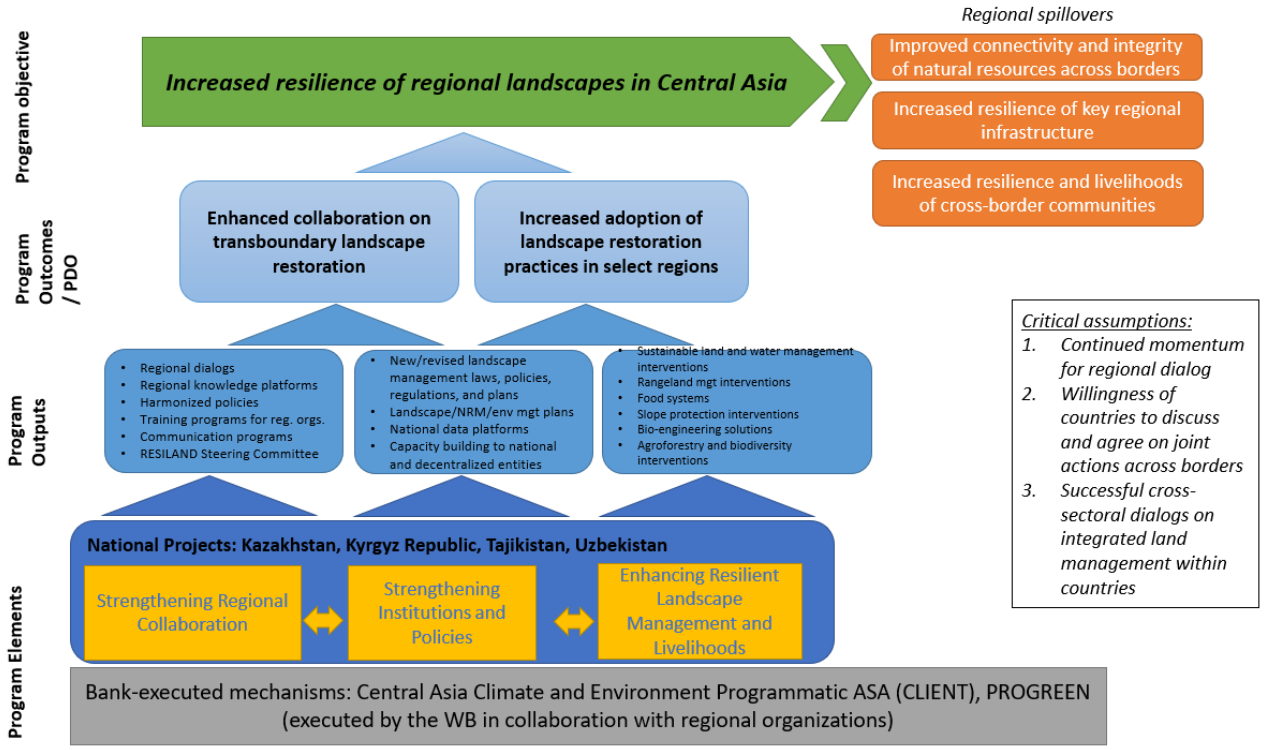
12. **The projects will contribute to achieving the objective of the RESILAND CA+ Program by strengthening regional collaboration, strengthening institutions and policies, and enhancing resilient landscape management and livelihoods.** Land degradation issues will be addressed by the projects at two levels. First, at the country level, through landscape management and livelihoods restoration activities focused on strengthening transboundary corridors for biodiversity, transport, watershed, and trade and improving connectivity. Second, at the regional level, through support to the harmonization of national policies and approaches to landscape restoration, dissemination of relevant country and regional knowledge, facilitation of multicountry dialog, and establishment of a regional steering committee on landscape restoration. The program will also support a RESILAND CA+ Program web portal within CAREC's Central Asia Climate Information Platform (supported by CAMP4ASB) that will include landscape restoration data and virtual discussion platforms, regional communication programs and coordination events (including meetings of the ECCA30 Partnership and the UNCCD Peace Forest Initiative), development and dissemination of relevant analytical work, and monitoring of global restoration trends.

13. While CAMP4ABS will support the adoption of climate-smart agriculture in Tajikistan and Uzbekistan in the Aral Sea Basin, the projects will add a much-needed emphasis on reversing land degradation, increasing landscape restoration and reforestation in border landscapes of these and other countries. As noted, the projects will build on the information platform of CAREC, which was developed with the support of CAMP4ASB by adding thematic activities related to landscape restoration, reforestation, and land degradation.

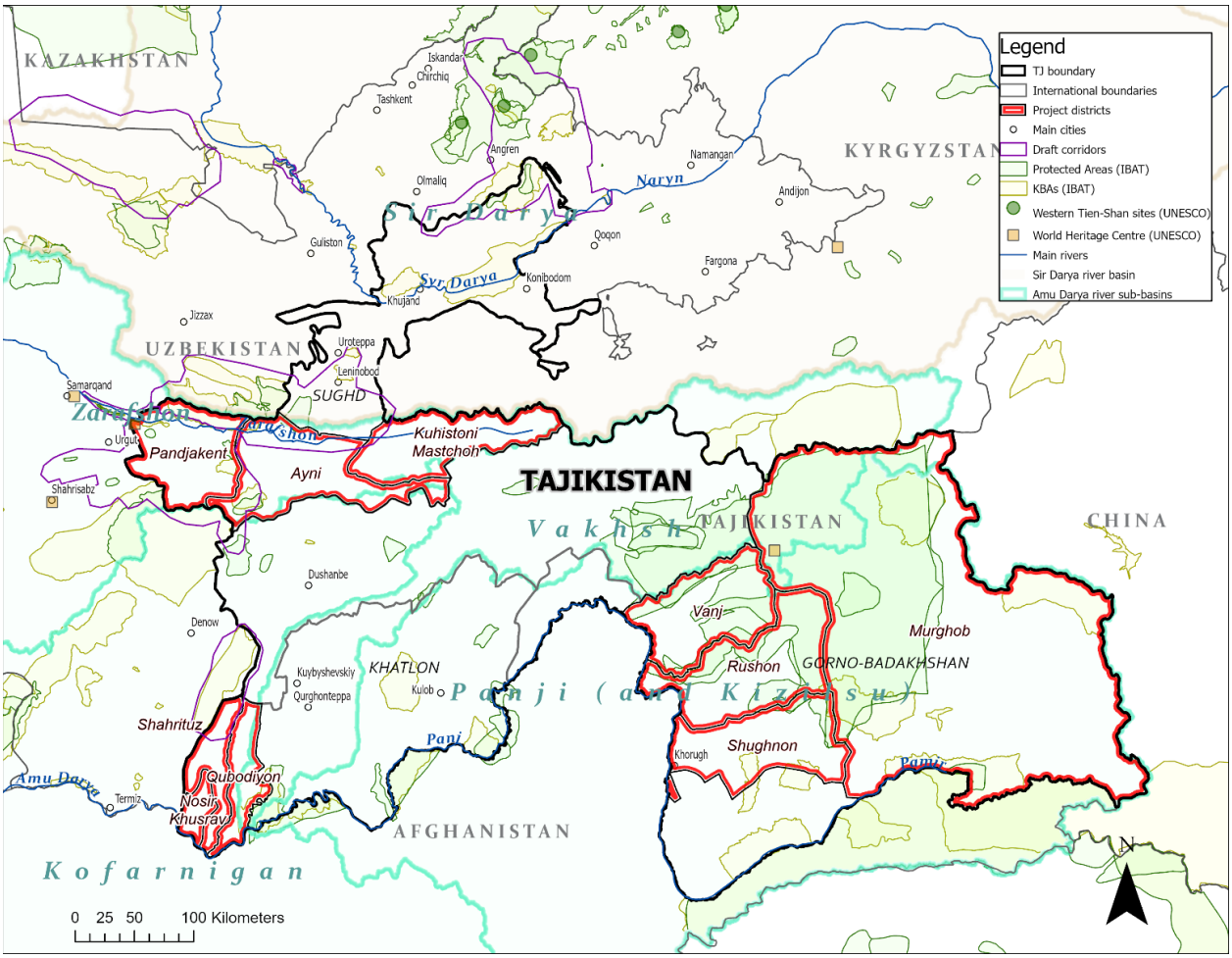
14. **The projects will support the WBG COVID-19 crisis, fragility, and disaster response efforts.** They will support the implementation of the World Bank's response strategy as articulated in the June 2020 COVID-19 Crisis Response Approach Paper by strengthening policies, institutions, and investments for rebuilding better (Pillar 4) during the Resilient Recovery Stage. It will also support the World Bank 2020–25 Strategy for Fragility, Conflict, and Violence, which recognizes the importance of collaboration over shared resources in mitigating fragility and security risks.[126]

[126] An ongoing Central Asia/ Afghanistan RRRA will deliver results on drivers of risk and resilience and areas to improve this for the Ferghana Valley and border areas between Afghanistan, Tajikistan, and Uzbekistan. This assessment will complement and provide input to the project.

Figure 5.2. RESILAND CA+ Program: Theory of Change



ANNEX 6: Project Map



Note: Map cleared by Bank's Cartography Unit on January 20, 2022