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Report No: PAD4378

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A
PROPOSED CREDIT
IN THE AMOUNT OF US$142.0 MILLION

AND A
GRANT
IN THE AMOUNT OF US$8.0 MILLION
FROM THE
GLOBAL PARTNERSHIP FOR SUSTAINABLE AND RESILIENT LANDSCAPES (PROGREEN)

AND A
GRANT
IN THE AMOUT OF US$3 MILLION
FROM THE
KOREA-WORLD BANK PARTNERSHIP FACILITY (KWPF)

TO THE
REPUBLIC OF UZBEKISTAN

FOR A
RESILAND CA+ PROGRAM: UZBEKISTAN RESILIENT LANDSCAPES RESTORATION PROJECT

May 13, 2022

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

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 29, 2022)

Currency Unit =	UZS (Uzbekistan Som)
US$ 1 =	UZS11,197.66

GOVERNMENT OF UZBEKISTAN FISCAL YEAR
January 1 - December 31

Regional Vice President:	Anna Bjerde
Country Director:	Tatiana Proskuryakova
Acting Regional Director:	Christoph Pusch
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Task Team Leaders:	Paola Agostini, Banu Setlur, Robert Wrobel

ABBREVIATIONS AND ACRONYMS

CACIP	Central Asian Climate Information Platform
CAMP4ASB	Climate Adaptation and Mitigation Program for Aral Sea Basin
CAREC	Regional Environmental Centre for Central Asia
CBA	Community Business Agent
CE	Citizen Engagement
CGIAR	Consortium of International Agricultural Research Centres
COM	Community Operations Manual
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
CRI	Corporate Result Indicator
ECA	Europe and Central Asia
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
ESS	Environmental and Social Standard
EX-ACT	Ex-Ante Carbon-Balance Tool
FAO	Food and Agriculture Organization of the United Nations
FCV	Fragility, Conflict, and Violence
FLR	Forest and Landscape Restoration
FM	Financial Management
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GIZ	German Society for International Cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit*)
GoU	Government of Uzbekistan
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
ICARDA	International Center for Agricultural Research in the Dry Areas
ICR	Implementation Completion and Results Report
ICSD	Interstate Commission on Sustainable Development
ICT	Information and Communication Technology
IFR	Interim Financial Report
IPC	International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment
IRI	Intermediate Result Indicator
IRR	Internal Rate of Return
IUCN	International Union for Conservation of Nature
KFS	Korea Forest Services
KWPF	Korea-World Bank Partnership Facility
LDN	Land Degradation Neutrality
M&E	Monitoring and Evaluation
MCA	Mahalla Citizen Assembly

MIS	Monitoring Information System
MoF	Ministry of Finance
MoU	Memorandum of Understanding
NBT	Nature-based Tourism
NDC	Nationally Determined Contribution
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NGO	Non-government Organization
NPV	Net Present Value
NRM	Natural Resource Management
NTFP	Non-timber Forest Products
PA	Protected Area
PAD	Project Appraisal Document
PD	Presidential Decree
PDO	Project Development Objective
PIU	Project Implementation Unit
PPL	Public Procurement Law
PPP	Public Private Partnership/Purchasing Power Parity
PPSD	Project Procurement Strategy for Development
REFCA	Regional Engagement Framework for Central Asia
RESILAND CA+ Program	Central Asia Resilient Landscape Restoration Program
RRRA	Regional Risk and Resilience Assessment
SCEEP	State Committee on Ecology and Environmental Conservation
SCF	State Committee on Forestry
SCF-IRED	State Committee on Forestry-International Relations and Ecotourism Development
SFF	State Forest Fund
SME	Small and Medium Enterprises
SOE	Statement of Expenditure
SOP	Series of Projects
STEP	Systematic Tracking of Exchange in Procurement
TAP	Technical Assistance Partner
TCC	Technical Coordination Council
TSAU	Tashkent State Agrarian University
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe
USFS	United States Forest Service
WBG	World Bank Group

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name
Afghanistan, Kyrgyz Republic, Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan	RESILAND CA+ Program: Uzbekistan Resilient Landscapes Restoration Project

Project ID	Financing Instrument	Environmental and Social Risk Classification
P174135	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
07-Jun-2022	15-Sep-2028

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The objectives of the Project are (i) to increase the area under sustainable landscape management in Selected Locations in Uzbekistan; and (ii) to promote Uzbekistan's collaboration with other Central Asian countries on transboundary landscape restoration.

Components

Component Name	Cost (US$, millions)
Strengthen Institutions and Policies, and Support to Regional Collaboration	15.50
Enhance Resilient Landscapes and Livelihoods	90.00
Enhance Protected Areas and Nature-based Tourism	40.00
Project Management and Coordination	7.50

Organizations

Borrower:	Republic of Uzbekistan
Implementing Agency:	State Committee on Forestry

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	153.00
Total Financing	153.00
of which IBRD/IDA	142.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	142.00
IDA Credit	142.00

Non-World Bank Group Financing

Trust Funds	11.00
Korea WB Partnership Facility	3.00
Global P'ship for Sust. and Resilient Landscapes - PROGREEN	8.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Uzbekistan	142.00	0.00	0.00	142.00
National PBA	47.00	0.00	0.00	47.00
Regional	95.00	0.00	0.00	95.00
Total	**142.00**	**0.00**	**0.00**	**142.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029
Annual	0.00	21.10	47.20	41.25	21.15	8.55	2.00	0.75
Cumulative	0.00	21.10	68.30	109.55	130.70	139.25	141.25	142.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food, Social Sustainability and Inclusion, 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	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial

8. Stakeholders	Moderate
9. Other	Moderate
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.2 of Schedule 2 of the Financing Agreement. The Recipient, through SCF, shall establish and thereafter maintain throughout the Project implementation a Project Implementation Unit (PIU), all with a structure, functions, responsibilities, and adequate staff, as further described in the POM and acceptable to the Association, for the purposes of day-to-day Project management, monitoring, evaluation and supervision at the central and local level.

Sections and Description
Section I.A.3 of Schedule 2 of the Financing Agreement. The Recipient, shall through SCF, establish and thereafter maintain throughout Project implementation, a Technical Coordination Council, with a structure, functions, responsibilities, and adequate staff, as further described in the POM and acceptable to the Association, for the purposes of providing technical guidance to the SCF and ensuring inter-ministerial coordination and cooperation.

Sections and Description
Section I.A.4 of Schedule 2 to the Financing Agreement. To facilitate the carrying out of the Project, the Recipient shall, through the SCF, maintain throughout the implementation of the Project, all such relevant entities or their agencies and affiliates of the SCF to support SCF in the implementation of the Project, all with a structure, functions, responsibilities, and adequate staff, as further described in the POM.
(a) Prior to the carrying out of Part 1.3 of the Project, the Recipient, through SCF, shall enter into an agreement with an entity that is duly qualified to support regional cooperation on sustainable development issues in Central Asia, under terms of reference and conditions satisfactory to the Association, and in such a manner as to protect the interests of the Recipient and the Association and to accomplish the purposes of the Financing.
(b) Except as the Association shall otherwise agree, the Recipient, through SCF shall not assign, amend, abrogate, or waive, or permit to be assigned, amended, abrogated, or waived, the aforementioned, or any provision thereof.

Sections and Description
Section I.A.6 of Schedule 2 to the Financing Agreement. The Recipient, through SCF, shall (b) thereafter throughout the implementation of the Project, carry out the Sub-grants under the Project in accordance with the COM.

Sections and Description
Section I.A.7 of Schedule 2 to the Financing Agreement. The Recipient, through SCF, shall install, not later than three (3) months from the Effective Date, an accounting system for project accounting and reporting purposes satisfactory to the Association.

Sections and Description
Section I.C.1 of Schedule 2 to the Financing Agreement. For the implementation of Part 2.2(b) of the Project, the Recipient, through SCF, shall provide Subgrants to Beneficiaries in accordance with eligibility criteria and procedures acceptable to the Association and set forth in the COM.

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

Sections and Description
Section I.D.7 of Schedule 2 of the Financing Agreement. The Recipient shall, through SCF, not later than thirty (30) days from the Effective Date, (i) hire one environmental specialist, one social risk management specialist, and one gender specialist; and (ii) ensure the grievance mechanism for Project workers is operational.

Conditions

Type	Financing source	Description
Effectiveness	Trust Funds, IBRD/IDA	The Subsidiary Agreement has been entered into by the Recipient and the SCF in form and substance satisfactory to the Association.
Effectiveness	Trust Funds, IBRD/IDA	The Recipient, through the SCF, has (i) established a PIU with composition, terms of reference and resources satisfactory to the Association; and (ii) hired the Project coordinator, procurement specialist and financial management specialist with terms of reference satisfactory to the Association.
Effectiveness	Trust Funds, IBRD/IDA	The Recipient, through the SCF, has adopted the Project Operations Manual (POM) satisfactory to the Association.
Effectiveness	Trust Funds	The PROGREEN Grant Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.
Effectiveness	Trust Funds	The KWPF Grant Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.

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 Central Asia 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 Asia 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 on landscapes, including the forestry and agriculture sectors.** 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 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]

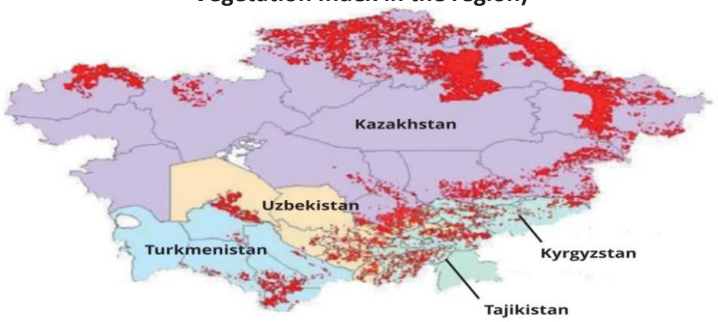
3. **Investing in forest and landscape restoration (FLR) is critical to address the complex nexus of local livelihoods, land degradation and deforestation, climate change, environmental security, biodiversity conservation, and economic growth**. Implementation of interventions as viewed through a landscape lens allows in balancing across a mosaic of interdependent land uses, such as protected areas (PAs), ecological corridors, agroforestry systems, agriculture, and riparian strips, through a wide range of restoration strategies. FLR helps to recover the ecological functionality of the landscape while meeting a variety of 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[6], landscapes are both a source and a sink of greenhouse gases (GHGs) and play a key role in the

[1] Magero. C. 2019. Drylands and Climate Change – Synthesis Paper; 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., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds). *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].
[3] EM-DAT International Disaster Database, Université Catholique de Louvain, D. Guha-Sapir, Brussels, Belgium.
[4] According to World Bank data.
[5] World Bank Group Regional Engagement Framework for Central Asia (REFCA, June 2020).
[6] *https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf*.

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 impacted by climate change. In Uzbekistan, significant areas of land are affected by acute secondary soil salinization. This phenomenon may be hastened by climate change, to the extent that the expected increases in average temperatures may cause increased evapotranspiration and higher water demand for irrigation.[7]

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 Asia countries face similar land management challenges due to a region-wide increase in land degradation related to animal husbandry, irrigated agriculture and salinization, soil erosion, rangeland degradation, encroachment of agriculture into marginal lands, vulnerability to climate change, and high population in rural areas along 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 their ability to conserve biodiversity.[8] Climate change impacts on forests and their vitality are essential for semi-arid environments such as Central Asia, where the mountain regions belong to the globally important biodiversity hotspots. Alterations in specie distribution or drought-induced tree mortality might not only result in a loss of biodiversity but also in a loss of other ecosystem services, as evidenced[9] through impacts on juniper trees in the Zaamin PA.

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 Asia leaders are beginning to form a regional mindset.** A regional vision for FLR and collaborative action by the governments is needed to have 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 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

[7] Nkonya et al. 2016. *Economics of Land Degradation and Improvement – a global assessment for sustainable development*.
[8] UN Environment. 2020. Convention on Migratory Species, February 2020; Report on Transboundary Conservation Hotspots for Central Asia Mammals Initiative.
[9] Seim A, Omurova G, Azisov E, Musuraliev K, Aliev K, Tulyaganov T, et al. 2016. *Climate Change Increases Drought Stress of Juniper Trees in the Mountains of Central Asia*. PLoS ONE 11(4): e0153888.

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 Asia countries with a regional framework to increasing the resilience of regional landscapes in Central Asia through landscape restoration.** This umbrella program finances analytics and advisory on FLR, and supports investment projects in Central Asia countries, one of which is the proposed Uzbekistan Resilient Landscapes Restoration Project. The project is developed alongside RESILAND CA+ Program of projects in Tajikistan and 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) and regional and local dispute resolution mechanisms 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 RESILAND CA+ Program: Tajikistan Resilient Landscape Restoration Project - P171524). 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.[10,11] 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[12], and if trans-national governance arrangements are unable to function effectively due to the change in government in Afghanistan.

[10] 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.
[11] RRRA: Summary of Findings and Recommendations for Tajikistan Partner Policy Consultations. Unpublished PowerPoint Presentation, August 25, 2021.
[12] WBG. 2021. *Central Asia Refugee Needs Assessment: Preliminary Findings*. Washington, D.C.

8. **The 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), 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, namely: (i) improved connectivity and integrity of natural resources across borders, (ii) increased resilience of key regional infrastructure prone to the impacts of land degradation (for example, roads and railways), and (iii) increased resilience of transboundary communities benefiting 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 Uzbekistan (GoU) in a letter to the World Bank in December 2019. Further, Uzbekistan has demonstrated its commitment in FLR and the need for regional cooperation and action through a regional program approach as follows: in July 2018, several Caucasus and Central Asia countries, including Uzbekistan, reaffirmed their commitments to the Bonn Challenge global target of restoring deforested and degraded land, by adopting the Astana Resolution. In 2019, Uzbekistan joined the Europe, Caucasus, and Central Asia ECCA30 regional initiative to accelerate implementation of the global Bonn Challenge.
The operation provides a high level of policy harmonization that has a well-developed and broadly supported regional strategy.	The project will help to establish a regional online database on sustainable landscape management and restoration to enhance the regional dialog and knowledge sharing in support harmonization of relevant policies on, and approaches to transboundary landscape restoration between countries, designed as a sub-component of the project (sub-component 1.3). This and additional regional activities support by RESILAND CA+ project in Tajikistan (meetings and workshops) 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 the designation of transboundary “peace parks”, a protocol for tourism across transboundary PAs, a nature-based solutions protocol for transboundary road protection, and a regional online database on sustainable landscape management.

9. **Each national RESILAND CA+ project will address landscape restoration using specific entry points valid to the country.** For example, Uzbekistan will focus on tree-based systems, PA, and nature-based tourism (NBT, also commonly known as ecotourism), while Tajikistan will focus on climate-smart agriculture, forest, and pasture management.

Country context

10. **Uzbekistan is a lower-middle income, natural resource and mineral-rich, double-landlocked country that borders all other Central Asia countries and Afghanistan.** The country has the largest population in Central Asia—

35 million as of October 2021[13], with an annual growth rate of about 1.8 percent on average in 2016-2020. With a total area of about 44 million hectares[14], approximately 49 percent of the population is concentrated in rural areas.[15]

11. **Over the past decade, Uzbekistan has maintained high and stable economic growth rates (at 6.1 percent on average) and has gradually diversified its economy, and official poverty estimates have declined from 27.5 percent in 2001 to 11 percent in 2019 and 11.54 percent in 2020.**[16] Despite the steady decline in poverty, Uzbekistan still has a high level of poverty, especially among the rural population. The unemployment rate is at 5.9 percent and the groups most vulnerable to poverty remain those with low education levels, households with three or more children, families in rural areas relying on self-employment, women, and the elderly. Rural poverty persists due to distortion of agricultural policies, low agricultural productivity, limited access to productive assets, and the informality of rural labor markets. Uzbekistan's per capita gross national income rose from US$560 in 2001 to US$1,790 in 2019, and it was US$1,670 in 2020[17]; the GDP per capita in 2019 was US$1,784.[18] These gains, however, have relied largely until 2017 on an economic model driven by the State's dominance in major productive sectors, and a small, restricted, small and medium business sector. Since 2017, the new government in Uzbekistan has started to address the legacy of a state-led economic model that achieved high growth but insufficient jobs and incomes. After initial market liberalization reforms in 2017-2019, Uzbekistan's reform agenda has shifted to addressing deeper structural constraints such as weak factor markets[19] and the dominance of public enterprises. These reforms will help create more room for competition and private business growth and help create more jobs and incomes and accelerate Uzbekistan's market transition.

12. **The outbreak of the Coronavirus Disease 2019 (COVID-19) pandemic is seriously impacting Uzbekistan's growth and poverty reduction trajectory.** Despite measures taken by the GoU to mitigate the economic, social, and health consequences of the pandemic, persistent COVID-19 disruptions at the local and international levels have slowed GDP growth to 1.7 percent in 2020 from 5.8 percent in 2019 but could not cloud prospects for a quick recovery in 2021. In the first nine months of 2021, GDP grew by 6.9 percent year-on-year. Uzbekistan's outlook remains positive as reforms continue to shift the economy toward greater resource efficiency, private sector growth, and enhanced collaboration with the region's countries.

13. **Since 2017, a series of social and political reforms have focused on reorienting the public sector to be responsive, citizen-centric, and deliver high-quality public services for all citizens.** In mid-2017, with advisory support from the World Bank Group (WBG), the GoU launched economic reforms and have since enacted notable structural reforms. The reforms have benefited from strong popular support as noted in a World Bank 2020 survey titled *"*Listening to the Citizens of Uzbekistan" (P171949*)*, with about 95 percent of respondents expressing support.

[13] *https://stat.uz/en/58-useful-information/5903-permanent-population.*
[14] Asian Development Bank (ADB). 2020. *Basic statistics 2020.*
[15] *https://stat.uz/ru/ofitsialnaya-statistika/demography.*
[16] In 2020, the national poverty level increased to 11.5 percent of Uzbekistan's population because of the slower income growth due to COVID-19-related lockdowns. The World Bank notes that the methodology for measuring poverty needs to be brought to international standards. The official poverty estimate does not consider non-food items and the use value of assets. World Bank data sources suggest that the poverty rate at the lower-middle income country line was approximately 9 percent in 2020 (US$3.2 a day, purchasing power parity [PPP] 2011 adjusted).
[17] These figures are presented in current US dollars (Atlas method). Uzbekistan's GDP per capital in PPP terms in current international dollars was US$7,335.6 in 2019.
[18] *https://thedocs.worldbank.org/en/doc/d5f32ef28464d01f195827b7e020a3e8-0500022021/related/mpo-uzb.pdf*.
[19] Markets for the inputs of production, such as labor, raw materials, capital, and land, are generally inefficient due to high information asymmetries and excessive transaction costs. Most factor markets are underdeveloped, monopolized, overregulated, and lack free market forces.

14. **Increased regional and international cooperation and integration have become core elements of this new paradigm shift in Uzbekistan, with Central Asia countries being the main priority in its foreign policy**. In the last two years, the intensification of regional integration efforts by Uzbekistan has been unquestionable. For example, border demarcation issues have been overcome, and checkpoints reopened, regional trade has been scaled up, power lines have been reconnected, and regional visas are being considered.

B. Sectoral and Institutional Context

15. **Uzbekistan is a low forest-cover country and adding trees to the landscape is an important strategy for the GoU towards reforestation and landscape restoration.** While the State forest land (known as the 'State Forest Fund' - SFF) covers nearly 26 percent of the total land area of Uzbekistan (approximately 11.5 million hectares[20]), only 7.3 percent of the land area (about 3.2 million hectares) correspond to the country's definition of forests, and only 5.6 percent (2.8 million hectares) are classed as forest according to the United Nations Food and Agriculture Organization (FAO).[21] In addition, there are forests that are located on agricultural land and in PAs that are not part of the SFF. This is comparable to other Central Asia countries where the forest cover is between 4 percent (Tajikistan) and 8.7 percent (Turkmenistan). The largest forest areas (around 3 million hectares) are in cold desert areas and consist mainly of low saxaul forests, which have the characteristics of woodlands rather than forests. Submontane and mountain forests account for more than 300,000 hectares of the total forest area and include broadleaf forests (for example, pistachio, walnut-fruit forests) and juniper (archa) forests. In addition, there are around 95,000 hectares of riverine or riparian forests (called tugai forests) along the larger river belts of the country.[22]

16. **Consequently, the direct economic contribution of the trees and forest sector is relatively small, less than 1 percent of GDP in 2019[23]; however, it makes important contributions to ecosystem services and communities.** Sixty nine percent of the SFF land area has protective role by preserving the productivity of agricultural lands, protecting settlements from water and wind erosion, preventing the occurrence of mudflows, and restricting movement of sand. The remainder area serves to preserve biodiversity, while only 0.2 percent of the area (around 6,900 hectares) is used for timber and wood production.[24] Forests also support livelihoods of rural households, including as an important source of fuel for heating and cooking, and non-timber forest products (NTFPs, for example, berries, nuts, capers, mushrooms, and pasture for grazing and fodder) for subsistence and income. Forests and forest products also increasingly provide opportunities for rural households to establish small businesses, which have seen an increase in the last two years.[25] Simultaneously, the growing urban and suburban populations are increasingly using forests for recreational activities. In 2018, the Ministry of Foreign Affairs counted a total of 15.4 million people taking domestic trips to recreational areas in Uzbekistan.[26] Tourism is important for the national economy and can directly benefit rural populations by integrating them into the NBT sub-sector.

17. **FLR has a strong employment potential.** While it officially employs a relatively low number of people (around 10,000 according to the State Committee on Forestry - SCF) - the majority of whom are public sector employees - this figure is likely to be much higher if employment in NBT, hunting, and associated sectors are

[20] Note that the area of the SFF is different according to the source. Since 1998, the amount of land classified as Forest Fund has grown; hence, official figures differ from year to year.
[21] FAO. 2015. *Global Forest Resources Assessment 2015: Country report Uzbekistan*. Rome, Italy.
[22] Draft World Bank Uzbekistan Forest Policy Note, 2022.
[23] Uzbekistan statistics – national accounts.
[24] Ibid.
[25] For the combined sectors of agriculture, forestry, and fisheries, there were a total of 24,000 small businesses registered in 2019 that remained active. Source: Uzbekistan statistics – economic activity.
[26] Ministry of Foreign Affairs. 2018. New opportunities for tourism, presentation.

considered.[27] Globally, each job in the forest sector is estimated to generate 1.5 to 2.5 additional jobs in the wider economy[28], indicating the multiplier effect and importance that forestry related jobs can have on the overall economy. In terms of land area, the number of employees in forestry is 2.4 per 1,000 hectares of forested land, which is a fair number when compared with a Central European country such as Poland, with an average of 1.7.[29]

18. **Over the past 30 years, the area of forest and other wooded land has reduced due to degradation resulting from competing uses and anthropogenic impacts.** More than 90 percent of the riparian tugai forests that were present in the first half of the 20th century have been lost because of land clearance for agriculture, uncontrolled fuelwood removal and logging, and reduced river flows.[30] Since Uzbekistan's 1991 independence, the limited availability of energy sources in rural areas combined with their increased costs have negatively impacted the forest estates both on SFF land and on land controlled by other agencies. The most prevalent degradation drivers have been uncontrolled animal husbandry, increasing demand for industrial and fuel wood, uncontrolled harvesting of non-forest resources, and expansion of irrigated agriculture into forests. Other degradation factors have been the changing climatic conditions, which could be associated with increased incidence of wildfires[31] and pest and disease outbreaks. Researchers expect that future changes in temperature and precipitation would further negatively affect forest growth and survival.[32]

19. **These degradation trends have important and long-term implications for the country's sustainable development and green growth,** particularly food security, social stability, long term viability of forests and agro-economic land use, and resilience to forecasted climate change. With the economic cost of land degradation estimated in 2016 to be 3 percent of GDP or US$0.83 billion per year[33], continued degradation is expected to further impact the national economy, and food security could be significantly impacted. The loss of crucial forest products, both fuelwood and NTFPs, will worsen rural livelihoods, exacerbate land degradation, and impact vulnerable ecosystems by weakening their climate resilience. The degradation of forests also would impact their role as a global public good, including for biodiversity, climate regulation, and carbon mitigation. In Uzbekistan, forests play a critical role for sequestration, and, hence, FLR presents an opportunity for Uzbekistan to meet climate commitments; for example, between 2001 and 2020, forests in Uzbekistan emitted 14.0ktCO_2e/year and removed -634ktCO_2e/year. This represents a net carbon flux of -620ktCO_2e/year.[34]

20. **Despite actions taken by the GoU, forest management and landscape restoration efforts have been hampered by a lack of current and comprehensive data and research on forests, and approaches that do not consider the broader landscape.** The knowledge base on the current state of forests hampers the development of a long-term forest sector development strategy and restoration programs, as proper inventories of forest land have not been undertaken in 30 years, and most of the available data represents extrapolations of Soviet era figures which only cover the territory of the SFF. There is also no central Information and Communication Technology (ICT) system that can monitor forest cover and forest use trends nor a decision support tool that can effectively and accurately

[27] Draft World Bank Uzbekistan Forest Policy Note, 2022.
[28] C.T.S. Nair and R. Rutt. 2019. *Creating forestry jobs to boost the economy and build a green future*.
[29] UNECE. 2019. Forest sector workforce in the UNECE region. DP-76.pdf.
[30] FAO and UNECE. 2019. *Overview of the State of Forests and Forest Management in Uzbekistan*.
[31] According to Global Forest Watch, between September 2020 and September 2021, 1,089 fire alerts were reported in Uzbekistan's PAs alone – an unusually high number compared to previous years going back to 2012.
[32] Draft World Bank Uzbekistan Forest Policy Note, 2022.
[33] According to Mirzabaev, A., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds). *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].
[34] Global Forest Watch – Dashboard Climate Change for Uzbekistan.

inform decision making on forest-related subjects, including disaster response and preparedness actions. Further, forest research relies on short-term limited funding and insufficient focus on cross-sectoral sustainable management of forests as part of the broader landscape. The country also lacks a formal technical training school to train field foresters and forest workers, or an academic institution that teaches forest management in the context of landscape/watershed management. Long-term planning for forest management is still linked to a modified version of the former Soviet system of economic planning, with defined quantity-based indicators, such as number of trees or hectares planted, which ignore the broader landscape in which the forest exists with its different land uses, the adequacy of species and locations for planting, and the engagement and benefit of rural communities from forests. Various efforts have been undertaken over the past decade to develop a broader forest development program with support from FAO, German Society for International Cooperation (*Deutsche Gesellschaft für Internationale Zusammenarbeit/*GIZ), and Turkey; however, while preparation work has been conducted, the national forest program is still being realized.

21. **Effective forest and landscape management is also constrained by an inconsistent and proliferative legal and regulatory framework.** The main legal document concerning the forest sector in Uzbekistan is the "Law on Forest", enacted on April 15, 1999, and reviewed and approved by the Senate on March 29, 2018. Under the Law, the role of managing, protecting, using, and restoring forests is entrusted to the SCF, and newly envisaged legal mechanisms are described for participation of self-governing bodies of citizens, non-government organizations (NGOs), and citizens, in ensuring protection and use of forests. Another central legislative act is the "Law about Especially Protected Natural Territories" (1993) which identifies recreational and protective zones. The "Law about Protection and Use of Flora" (1997) directs the procedure of logging; while Decree No. 62 (1994) "with Respect to Industrial Wood Plantations" regulates and promotes the creation of industrial plantations to meet the need of the wood processing industry, pulp and paper industry, and for construction purposes. The multiplicity of legislation results in a lack of clarity on the forest sector institutional framework and creates barriers to its sustainable development and management.

22. **FLR in Uzbekistan is managed by the relatively new SCF.** All forests are state-owned and fall under the responsibility of the SCF, which has local offices that carry out forest operations and manage the state forest enterprises (*leskhoz).* The SCF is also responsible for NBT development in SFF lands. The SCF was re-installed by a Presidential Decree (PD) in 2017 to implement forest policies through its 12 local offices (one in each province and one in Karakalpakstan). A self-gap analysis carried out by the SCF in 2019 highlighted some capacity gaps, including in coordination with other government entities managing forests, capacities for FLR and management of national parks and PAs in the SFF, the education curricula it uses to train staff, and dated databases as noted. The 66 *leskhoz* have territorial responsibilities on SFF land, generally at a district level, and the mandate to coordinate and lead the implementation of restoration activities, including in partnership with local communities and private sector actors. However, the current management model, with the SCF overseeing the *leskhoz* through its decentralized offices, limits adaptive management at the forest management unit level. A *leskhoz* reform from a typical top-down forest state-owned enterprise approach to a more bottom-up community forestry model with private participation could open new opportunities for sustainable forest management and FLR, in line with the country's transition to a market economy (see Annex 2 for further details on the *leskhoz*).

23. **In Uzbekistan, NBT had been growing exponentially in the years before COVID-19 in terms of income from visitors to forests and the types of NBT attractions on forest land; however, it is a relatively new sub-sector that is still being developed.**[35] Some of Uzbekistan's most appealing natural attractions are in forests and PAs under the

[35] Income from SCF-managed forests grew from US$25,000 in 2017 to US$200,000 in 2020. Eco-routes grew from 8 to 30, and attractions grew from 120 to 250 between these years. Source: SCF.

authority of the SCF; however, they lack infrastructure and well trained management personnel, and limited benefits to people living in their proximity. It is estimated that further promotion of NBT, including agritourism and hunting tourism in forests, can attract up to 1 million domestic and 1 million foreign tourists, which would translate into income generation in the range of US$0.5 billion to US$4 billion annually.[36] Nonetheless, developing NBT requires careful planning on the use of the natural resources by tourists, developing efficient but low-impact green infrastructure, reducing negative impacts on conservation areas and biodiversity, and involving the local population in decision making. A landscape approach, including better management of PAs and restoration of landscapes, provides rural communities with alternative income sources and improved livelihoods through provision of jobs and a market for traditional products and handicrafts, as well as revenue to the government. NBT can also help empower women and promote gender equality in the country.

24. **Recognizing these opportunities, the GoU in the past two years has adopted several resolutions aiming to sustainably develop FLR.** On October 6, 2020, the GoU adopted a "Presidential Resolution on the Forest System Development Concept to 2030" (PP-4850), defining the sector's strategic goals, policy priorities, and implementation mechanisms, and prioritizing policy, capacities, forest protection activities, incentives for private sector investments, improved monitoring, and expanded economic activities in the sector. The Concept is aligned with the August 23, 2019 Presidential Resolution on "Additional Measures to Increase the Efficiency of Forest Use in the Republic" (PP-4424), and with the Decision of the Cabinet of Ministers in August 2020 on the "Creation of Industrial Plantations of Fast-growing Trees" (no. 520). To implement the Concept, on January 21, 2021, another Presidential Resolution was adopted on "Measures to Develop Science and Promote Scientific Research in the Forest Sector" (PP-4960),[37] and in 2019, the Uzbekistan "Concept of Development of the Tourism Industry 2025" and a corresponding Action Plan were adopted to develop the tourism sector with a focus on rural areas and the zoning of NBT areas within almost all State reserves.

C. Relevance to Higher Level Objectives

25. **The project is aligned with the World Bank Europe and Central Asia (ECA) Green Transition Priorities (2021), which are derived from the market transition challenge in the ECA region.** These include: (i) "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; (ii) "Natural Disaster and Climate Resilience" by supporting landscape restoration in targeted transboundary corridors towards reducing risk and strengthening communities and resilience of infrastructure to natural disasters and climate change; and (iii) "Just Transitions" by enhancing citizen engagement (CE) in policy discussions and land use planning processes, financing a Green Wager Program as an alternative livelihood program for rural communities, enhancing the skills of community members to develop climate-resilient businesses, and reforming the *leskhoz* model to manage forest land in collaboration with the private sector.

26. **The WBG Regional Engagement Framework for Central Asia (REFCA, June 2020) gives the highest priority to programs that improve the connectivity and sustainability of regional public goods, both of which will be supported by the project.** The REFCA further emphasizes the impact of land degradation on road connectivity and environmental investments. Accordingly, the REFCA recognizes the RESILAND CA+ Program as one of two key WBG

[36] APFNet, *Forest development and best practices of forest management in Uzbekistan*.
[37] Resolution PP-4960 introduces new departments and entities in the SCF's structure responsible for scientific research: a Department for Coordination of Scientific Organizations and Introduction of Innovations, a Scientific Experimental Pistachio Farming Station, a Forest Economy Department, and a Forest Design Institute (*Urmonloyiha*) as a state institution responsible for improving the quality and effectiveness of design and survey work in the forest sector.

programs that address the Climate, Environment, and Disaster Risk Management Priority under Pillar 2 ('Regional Public Goods'). The project will finance tree-based interventions in landscapes within six transboundary corridors traversing Uzbekistan and Tajikistan (focusing on the Uzbek 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 foster regional collaboration on landscape restoration in Central Asia.

27. **The project will implement key strategic actions identified in the WBG Country Partnership Framework (CPF) for fiscal year (FY)16-21** (**Report No. 105771-UZ, discussed at the Board on May 19, 2016).** Under Focus Area 1 of the CPF ('Private Sector Growth'), the project will support microenterprises, entrepreneurship, livelihoods, and a reform to the *leskhoz* model to stimulate innovation, increase value, and generate employment in forest-related agribusiness and NBT. Under Focus Area 2 ('Agricultural Competitiveness'), the project will support the diversification of farm production within targeted landscapes into higher-value, more labor-intensive but less water-intensive crops to reduce the encroachment into forests. The CPF's Cross-Cutting Areas of "Engagement" is integrated in the project design, namely: (i) improvement of data availability and reliability in the forest sector to inform policy dialog and decision; (ii) gender equality by bridging identified gender gaps related to women access to finance, information, and entrepreneurial opportunities in FLR; and (iii) increasing climate resilience through diversification to adaptive tree species, introduction of water saving techniques, collection of better data on climate change and water flows, and mitigation by increasing the forest sector's sink capacity.

28. **The project aligns with the WBG and ECA climate change actions plans**. The project will support the WBG Climate Change Action Plan[38] and related corporate Climate Targets for 2021-2025 of doubling its current investments in countries to take ambitious climate action, boosting support for adaptation, and increasing systemic climate action at the country level. The project's results framework contains an indicator to track progress on Climate Co-benefits, namely "Enabling environment for Land Degradation Neutrality (LDN) and Nationally Determined Contribution (NDC) targets improved" and a Corporate Result Indicator (CRI) at the intermediate level that specifically tracks progress on GHG mitigation, namely "Net greenhouse gas (GHG) emissions". The ECA Climate Change Action Plan (2021-2025) considers food, landscape, and water as key systems transformations that support ECA's Green Transition Priorities, emphasizing that healthy landscapes are critical for the livelihoods of the poorest and efforts to increase adaptation and mitigation results.

29. **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 *leskhoz*, establishment and management of tree plantations, 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 (matching grants) and diversifying income with forest and non-forest-related 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.

30. **The project is aligned with and will support the WBG COVID-19 crisis response efforts.** While not considered a COVID-19 response operation, the project will support the green recovery aspects of the World Bank response strategy as articulated in the June 2020 COVID-19 Crisis Response Approach Paper under Pillar 4

[38] World Bank Group. 2021. *Climate Change Action Plan 2021-2025: Supporting Green, Resilient, and Inclusive Development*. Washington, D.C.

('Strengthening Policies, Institutions, and Investments for Rebuilding Better') during the "Resilient Recovery Stage". It will do so by (i) assisting the GoU to further regulate and implement the 2020 Presidential Resolution, focusing on orchards and plantations, which will contribute to an increase in landscape resilience and create a vibrant Forest Economy; (ii) financing the restoration of degraded lands in select transboundary landscapes through tree-based interventions, including a Green Wager Program; and (iii) financing training on vocational skills for livelihood activities linked to natural resource management and agriculture.

31. **The project will support Uzbekistan's global commitments on LDN and NDC to GHG mitigation.** It will support Uzbekistan's commitment under the 2018 Bonn Challenge to restore 500,000 hectares of degraded land by 2030 and additional 500,000 hectares with the support from the international community[39], and the 2018 Astana Resolution on reinforced cooperation on landscape restoration in Central Asia. In 2019, Uzbekistan 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, Uzbekistan 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 Uzbekistan in reaching its LDN target for 2030[40]; its 2017 NDC target of decreasing GHG emissions of per unit of GDP from the 2010 level by 10 percent by 2030; and continuing its efforts on climate adaptation-related capacity building. The project will also reinforce the UN 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.

32. **The project leverages grant resources from the PROGREEN umbrella trust fund and Korea-World Bank Partnership Facility (KWPF) trust fund and supports their goals.** The PROGREEN Pillar 1 "Management of Terrestrial Ecosystems" seeks to support the strengthening of integrated and sustainable management of natural resources of forests and other terrestrial ecosystems in landscapes and corridors, while Pillar 2 "Management of Land Use Changes from Agriculture" supports the strengthening of sustainable management of key production landscapes where agriculture is a threat to biodiversity, forests, habitat, and ecosystems services. The project will support both pillars 1 and 2, as well as the cross-cutting issues related to engaging communities and vulnerable groups, addressing climate change mitigation and resilience needs, and leveraging and mobilizing finance for development. The project will support the KWPF's objective of assisting World Bank Group developing member countries to achieve inclusive and sustainable economic growth and to foster broader dialogue on economic development issues.

II. PROJECT DESCRIPTION

33. **Project approach.** The project is expected to be implemented within six transboundary corridors - three on the Uzbekistan and Tajikistan border, one on the Uzbekistan, Tajikistan, and Kyrgyz Republic border, and two on the Uzbekistan and Kazakhstan border[41] - with project-financed activities taking place on the Uzbek side of the corridors. On the Tajik side of the border, activities will be financed by the recently approved RESILAND CA+ Program: Tajikistan Resilient Landscape Restoration Project. This follows the RESILAND CA+ Program's stepwise approach of expanding interventions in transboundary corridors as other Central Asia country projects join the Program. Transboundary corridors are defined here as geographical spaces that provide connectivity between landscapes, ecosystems, and natural or modified habitats, ensuring the maintenance of ecosystem services. The corridors connect a mosaic of

[39] *https://www.iucn.org/news/forests/201807/caucasus-and-central-asia-demonstrate-impressive-political-will-restoration-and-bonn-challenge*.
[40] 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".
[41] See Annex 2, Table 2.1 for project supported regions and districts within transboundary corridors of Uzbekistan and Tajikistan.

different land uses - PAs, forests, pastureland, degraded agriculture lands, and irrigated land. On the Uzbek side, adding trees to the landscape is a major strategy to combat land degradation and deforestation; at the regional level, tree-based interventions are seen as a nature-based solution to improving the resilience of roads, railways, and other key regional infrastructure.

34. **Project areas/provinces.** The project corridors span across degraded border areas as follows:

a) Corridor 1 traverses four districts in Surkhandarya province and includes the Bobatag/Key Biodiversity Area and Uzun forest.
b) Corridor 2 traverses one district in Surkhandarya province, two districts in Kashkadarya province, and three districts in Samarkand province, and includes Kitab and Shakhrisabz forests and Zarafshan National Park/PA.
c) Corridor 3 traverses three districts in Jizzakh province, and includes the Zaamin National Park/PA.
d) Corridor 4 traverses one district in Jizzakh province and includes the Arnasay PA/Key Biodiversity Area.
e) Corridor 5 traverses one district in Syrdarya province and includes the Qolqansir Forest.
f) Corridor 6 traverses one district in Namangan province and includes the Pop Forest.

35. These corridors were selected based on the following criteria: (i) status of land degradation, (ii) poverty incidence, (iii) inclusion of SFF lands, (iv) location within a defined transboundary watershed, (v) existence of known key biodiversity areas and PAs, (vi) presence of key transboundary roads and railways that could benefit from landscape restoration to increase their resilience, such as road sections that present instability because of natural hazards such as landslides and flooding, (vii) proximity to water reservoirs that could benefit from landscape restoration to decrease sedimentation, and (viii) proximity to known NBT sites.

36. Figure 2 shows the transboundary corridors traversing provinces and districts of Uzbekistan and Tajikistan.

Figure 2: **Project Transboundary Corridors**

A. Project Development Objective

37. **The project is part of the RESILAND CA+ Program, whose goal 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 RESILAND CA+ Program country projects and monitoring the results of regional activities. Accordingly, the Project Development Objective (PDO) and PDO-level Indicators are harmonized across the RESILAND CA+ Program country projects (see Annex 5 for further details). In a letter dated December 3, 2021, the SCF stated its willingness and commitment to participate in the RESILAND CA+ Program.

PDO Statement

38. **The objectives of the project are (i) to increase the area under sustainable landscape management in Selected Locations in Uzbekistan; and (ii) promote Uzbekistan's collaboration with other Central Asian countries on transboundary landscape restoration**.

39. This PDO is uniform across the RESILAND CA+ Program projects, however, with varied sustainable landscape management practices based on country-specific context. For Uzbekistan, sustainable landscape management refers to tree-based restoration practices on SFF land in landscapes within six defined transboundary corridors. Such practices include agroforestry (intercropping with trees, shelterbelts); improved grazing land management through temporal enclosure and enrichment planting; plantations and reforestation (production-oriented plantations, tree belts for protection of catchments and erosion control); PA management; soil fertility and water harvesting measures to support tree systems (including adopting techniques such as hydrogels); and other relevant sustainable landscape management practices that are tree-based. Sustainable landscape management related interventions will be carried out by the government, *leskhoz*, the private sector, and rural communities, in the targeted locations within the Project corridors.

PDO Level Indicators

40. **The following indicators will measure the achievement of the PDO:**

a) Land area under sustainable landscape management practices (CRI, Ha)
b) People benefiting from landscape management practices (Number, sex disaggregated)
c) Transboundary sustainable landscape management policies harmonized (Number)

B. Project Components

41. **The project will be financed by a US$142 million IDA credit, a US$8 million PROGREEN Trust Fund grant, and a US$3 million KWPF Trust Fund grant.** It will be implemented by the SCF over a six-year period. Project activities are grouped into the following four inter-related components, which are further grouped into sub-components (see Annex 2 for further details).

42. **Component 1: Strengthen Institutions and Policies, and Support to Regional Collaboration (*US$10.50 million from IDA; US$2.00 million from PROGREEN; US$3.00 million from KWPF*).** This component will finance consulting services, goods, training and workshops, and operating costs. Sub-component 1.1 will support the development of an appropriate policy and reform of the legal and institutional framework to restore and sustainably manage forest landscapes in Uzbekistan. It will develop the country's first National Forest Inventory (NFI), which will serve, among other, to enhance planning capacities in support of Uzbekistan's LDN and NDC targets. Sub-component

1.2 will support the development of an ICT Platform for FLR and forest management within the Forest Design Institute (*O'rmonloyikha*) of the SCF, in support of data-based decision making on forest and landscape management planning, including afforestation, reforestation and other FLR investments. Sub-component 1.3 will promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration by setting up a regional online database for sustainable landscape management and restoration to facilitate policy and strategy harmonization, and for addressing new emerging climate threats at the regional level. 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 Asia countries.

43. **Sub-component 1.1: Strengthen Institutions and Policies (*US$7.50 million from IDA; US$1.00 from PROGREEN*).** The sub-component will be implemented at the national level, focusing on SFF lands, PAs of various categories, and forested landscapes under other legal tenure categories/sectors. The targeted provinces will serve as pilots for policies and legislative measures and for implementation of pilot integrated land use plans. The following five groups of activities will be supported: (i) development of a unified policy and institutional reform for forest landscape management, harmonization of the legal framework on forests and landscape management by preparing a comprehensive draft Forest Code that reflects the wider role of forests in landscapes and developing a national strategic plan (a master plan and an action plan) for FLR, forest management, and approaches for collaborative management with communities and user groups to address FLR; (ii) setting up Uzbekistan's first NFI and a National Forest Monitoring System (NFMS) to provide data for decision-making on forest and landscape management and restoration; (iii) strengthening the capacity of the Forest Research Institute and conducting targeted applied field research work; (iv) developing human capacities for monitoring, planning, and implementing FLR and forest management and engaging with rural schools to serve as anchors for community mobilization; and (v) reviewing Uzbekistan's stated LDN targets and refining them based on new information from the NFI/NFMS on the degradation status, including submission of a revised communication document for government approval.[42]

44. In the first two years of implementation, the project will support the forest policy review process; provide support in harmonizing legislative texts; prepare, launch, and implement the first NFI; operationalize the NFMS, develop an applied research agenda tailor-made to the needs of the project; and outline the capacity building program. In the last five years of implementation, the NFI system will be in place; the FLR Strategic Master Plan will be developed; the new draft Forest Code will be prepared; a functional FLR monitoring system will be in place; and necessary capacities will be developed.

45. **Sub-component 1.2: Develop an ICT Platform for Forest Landscape Restoration and Management (*US$2.00 million from IDA; US$3.00 million from KWPF*).** Establishing an ICT Platform for FLR and forest management within the Forest Design Institute as a two-way forest management information system that: monitors afforestation, reforestation, natural regeneration forests, and forest land use changes; a disaster response information platform; forest big data with mobile application; and a decision support tool that produces tailor made recommendations on a set of forest-related subjects for decision making, planning, and monitoring of forest restoration and management operations, and disaster response and preparedness actions. This sub-component will benefit from the technical support of the Korea Forest Services (KFS), which has experience in the development of such ICT platforms. The sub-component will also finance the development of user-friendly guidelines for the Platform, purchase relevant ICT equipment for the SCF Forest Design Institute, and onboarding of SCF and *leskhoz* staff through training, including a specific focus for female staff. The new ICT Platform will also facilitate baseline mapping of NBT sites.

[42] See INDC Uzbekistan 18-04-2017_Eng.pdf (*unfccc.int*).

46. **Sub-component 1.3: Strengthen Regional Collaboration (*US$1.00 million from IDA; US$1.00 million from PROGREEN*).** The objective of this sub-component is to promote Uzbekistan's collaboration with Central Asia 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 sub-component will be designed in support of the RESILAND CA+ Program, and enable better governance and management of 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 shared challenges, and, thus, promote global public goods. Sub-component resources will finance the establishment and management of a regional online database on sustainable landscape management and restoration, attached to the Central Asian Climate Information Platform (CACIP) that is managed by the Regional Environmental Centre for Central Asia (CAREC) under CAMP4ASB.[43] The regional online database will store and publish data and publications on sustainable landscape management and restoration and allow for a two-way dialog and knowledge exchange between various stakeholders on relevant subjects.

47. The sub-component will support the implementation of several key regional activities identified by the ICSD in its 10-year Regional Environmental Program for Sustainable Development, including: (i) supporting the development of an MoU for facilitating border-crossing for NBT in PAs and unique natural sites shared between countries, (ii) development of an MoU for using common modern methods of inventory of flora and fauna diversity, and ecosystem condition among transboundary corridors, (iii) development of 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 PAs from fires, and invasive species, (iv) development of a protocol for using nature-based solutions, including erosion control and tree planting along roads to increase their resilience, and (v) development of 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).[44]

48. **Component 2: Enhance Resilient Landscapes and Livelihoods (*US$84.00 million from IDA; US$6.00 million from PROGREEN*).** This component will finance works, consulting services, non-consulting services, goods, enterprise development matching grants, training and workshops, and operating costs. Sub-component 2.1 will finance the development of a robust forest and tree-based intervention packages to deliver production, service values, and restoration, leading to enhanced and sustainable forest landscapes in the Project corridors. Sub-component 2.2 will finance activities that will incentivize communities within the corridors to engage in landscape restoration and management practices by enhancing resilient livelihoods and improving the incomes of beneficiaries in target areas. It will do so by providing financial and non-financial services to existing and new enterprises. The regional spillovers of this component are related to improved connectivity and integrity of natural resource across borders (including biodiversity), increased resilience of key regional infrastructure such as roads, railways, and increased resilience and reduced fragility of Natural Resource Management (NRM)-based livelihoods of corridor communities.

49. **Sub-component 2.1: Enhance Tree-based Landscape Restoration and Management (*US$84.00 million from IDA*).** The main activities supported under this sub-component will include[45]: (i) ecological site classification: development of a three-tier land electronic Geographic Information System (GIS)-based unit classification system as a decision support tool, including for aligning species with site characteristics that will link with and support

[43] *https://ca-climate.org/eng/cacip.php.*
[44] *https://www.unccd.int/news-events/unccd-ready-welcome-countries-new-peace-forest-initiative*.
[45] Areas of plantations to be supported were selected using the new World Bank Rating System for Project Resilience, based on sites' climate projections, hazard exposures, impacts, and risk mitigation measures. Interventions will be prioritized according to the main drivers of degradation in each area and their relative impact.

integrated land use plans for Project corridors; (ii) production-oriented interventions with protective/restoration benefits; and (iii) ecosystem service-oriented interventions in support of farmer-managed natural regeneration and other forms of rehabilitation, restoration[46] and protection, eco-structures, biodiversity (through agrobiodiversity by planting native species of fruit and nut trees), and a Green Wager Program. Model nurseries, including for wild seed varieties in support of agrobiodiversity, will be supported to ensure supply of quality seedling stock for restoration activities. Given the structural constraints of climate, soils, and topography, all restoration and tree-based interventions will aim to generate both production and service values concurrently, and, where possible, allow flexible management to facilitate responses to future changes in physical growing conditions and/or changing demand for products and services. Involved actors' different levels of access to resources of land, finance, time, and skill levels will inform the type and scale of the interventions.

50. Restoration activities are expected to have a positive impact on water balance in project areas as enhanced tree cover will add to improved water retention capacity of soils. All activities will reflect a strong focus on efficient water usage and harvesting techniques, including rainwater harvesting and use of hydrogels, to minimize surface soil loss, flooding, and siltation. Where possible, riparian tugai forests will also be restored to stabilize water course banks. The choice of species and sites for tree-based interventions will be guided by ecological site classification to ensure optimal water use efficiency. Simple measures to control grazing and fire management will be considered as part of landscape restoration. Emphasis will be placed on engaging women, youth, and other marginalized groups as well as the private sector in activities. The Green Wager Program[47] will be based on participatory integrated land use plans developed for the relevant sites the technical support from the SCF Forest Design Institute. It will be implemented through the engagement of local organizations and communities as daily wagers, or through community assistance programs, in activities that contribute directly or indirectly to restoration of corridor landscapes. See Annex 2 for further details on the Green Wager Program, which will also be elaborated in the POM.

51. The sub-component will be implemented in a phased manner during the six-year project period. In the first 18-24 months of implementation, it will be implemented in select regions, districts, and villages/clusters together with preparatory activities for at scale implementation in years 3 to 6.

52. **Sub-component 2.2: Enhance Resilient Livelihoods and Value Chains (*US$6.00 million from PROGREEN*).** The main activities under this sub-component are formation and strengthening of livelihood groups and enterprises; carrying out market assessments to identify demand-driven livelihood activities; providing business training (including on standards, certification and quality control of natural resource-based products) and supporting business plan development to form the basis of proposals for matching grants provided under this sub-component; and providing downstream business development support, the establishment of linkages and collaboration with commercial banks, private sector associations, and other development programs that provide credit-based financial services and support infrastructure and digitalization for sustainability.

53. The sub-component will be implemented in villages or clusters of villages situated within or adjacent to PAs in the six project corridors following a two-track implementation approach to support: (i) improvements or expansion of existing enterprises wherein the Project Implementation Unit (PIU) will work with the relevant *leskhoz*, regional government agencies, and ongoing enterprise support programs to provide "light touch TA" and (ii) formation of new

[46] Using IUCN's Restoration Opportunities Assessment Methodology (see *https://www.iucn.org/theme/forests/our-work/forest-landscape-restoration/restoration-opportunities-assessment-methodology-roam).*

[47] There is no universal definition of a green wager program. For the purpose of this project, the Green Wager Program will provide livelihood opportunities to communities, especially youth, women and migrant workers, to enhance job creation and community engagement in afforestation, reforestation, and other greening activities for landscape restoration.

group-based enterprises belonging to community members who are poor and vulnerable to impacts of land degradation and climate change. During the first six to eight months of implementation, the PIU will recruit regional-level livelihood specialists, engage Technical Assistance Partners (TAPs) and Community Business Agents (CBAs), organize orientation workshops for local government officials and stakeholders, prepare the implementation plan, conduct a baseline study and a market assessment in target villages, and develop a preliminary Monitoring Information System (MIS) to monitor the component. From month nine onwards, both tracks will be supported by providing robust TA and business development support to both existing and new enterprises. A Community Operations Manual (COM) will be prepared to guide the implementation of the sub-component.

54. **Component 3: Enhance Protected Areas and Nature-based Tourism (*US$40.00 million from IDA*).** This component will finance works, consulting services, non-consulting services, goods, training and workshops, and operating costs. It will finance activities that promote sustainable land and natural resource management practices through improved management of the Zaamin PA and the Central *leskhoz* of Samarkand PA, and sustainable NBT. The regional spillovers of this component will be improved conditions for regional NBT development and biodiversity conservation. These PAs are also significant carbon stores, providing sequestration benefits.

55. **Sub-component 3.1: Improve Protected Area Management (*US$12.00 million from IDA*).** The sub-component will finance improved protection and management of two PAs managed by the SCF - Zaamin PA (Jizzakh) and Central *leskhoz* of Samarkand PA .[48] Management plans of the PA will be updated and improved where needed and new visitor centers will be established to help attract, inspire, engage in dialog, and educate a growing number of tourists in both PAs and communities residing in the vicinity of the PAs, as well as other investments to be defined in accordance with the latest Management Plans. These could include: (i) additional visitor facilities such as new or rehabilitated hiking trails, scenic viewpoints, observation platforms, picnic areas, and campgrounds; (ii) PA management infrastructure such as small park buildings (such as headquarters, ranger outposts, and staff housing) and improved physical demarcation or signage; (iii) equipment that could include vehicles, field equipment, and office equipment; and (iv) incremental recurrent costs for PA management activities specific to project implementation, such as office and field supplies, field rations, fuel, support for park auxiliaries (such as community volunteers) if any, boundary maintenance, and equipment maintenance during the expected six-year project life.

56. **Sub-component 3.2: Enhance Nature-based Tourism (*US$28.00 million from IDA*).** The sub-component will finance activities that promote environmentally sustainable and climate-resilient forms of NBT, targeted both on domestic tourists and a potentially growing number of international visitors. The investments will be made within or adjacent to SFF lands, such as Bobotag and Uzun (Surkhandarya), Pop (Namangan), Qolgansir (Syrdarya), and Kitab and Shakhrisabz (Kashkadarya) and national parks/PAs in Jizzakh, Samarkand, Surkhandarya, Namangan, Syrdarya, and Kashkadarya provinces. Activities will complement the ongoing World Bank-financed Medium-Size Cities Integrated Urban Development Project (MSCIUDP, P162929) by upgrading "gateway settlements"[49] and creating rural-urban tourism corridors to realize increased and sustainable levels of tourist visitation. The types of investments that could be considered include, but are not limited to, improved basic infrastructure, trail systems, picnic and camping areas, and appropriate recreational facilities that promote sustainable natural resource uses, baseline mapping of promising NBT sites, connecting smaller settlements to trails to promote sustainable natural resources,

[48] Within the six-year project timeframe, it is expected that these two PAs will qualify to be added to the IUCN Green List of Protected and Conserved Areas, the first in Central Asia.

[49] For the purposes of project interventions, "gateway settlements" are defined as typical peripheral small towns or villages located in the areas adjacent to natural areas that share similar characteristics (economic, administrative, territorial development, natural resource management, and other). They function as entry points to nature-based touristic sites (natural habitat, forests, mountain trails, lakes/water reservoir-based, and other natural or farm-based recreational areas); often provide accommodation, goods, and services to eco-tourists, and have a significant mutual impact with the surrounding areas. The gateway settlements, as such, are integral parts of NBT value chains.

diversify activities and potential for economic development, in combination with private sector engaging activities under the project. The sub-component will also finance NBT promotion activities focused especially on the planned project corridors, and NBT-related technical studies.

57. Both sub-components will finance training and TA, specifically related to PA management and NBT, for park rangers and other PAs staff and qualified personnel that manage PAs, as well as for forest enterprises in their preparation of NBT-related business plans, *leskhoz*, NGOs/industry associations, private companies, other entities which might establish co-management agreements with SCF for specific land parcels, and community-based providers of NBT services. A specific focus on women will be included in the training and TA. The component will be implemented in a phased manner to allow for on-the-ground investments to be carried out after key planning studies are completed. A green design visitor center for project-supported PAs will be undertaken in the first 18 months of the project. Similarly, new NBT investments in and around SFF land will be based upon recent or updated strategic studies, technical designs, and management planning documents to help ensure their success and sustainability. Training events, courses, and TA consultancies will be specified during Year 1 of project implementation and delivered through the duration of the project.

58. **Component 4: Project Management and Coordination (*US$7.50 million from IDA*).** Component 4 will finance consulting services, non-consulting services, goods, equipment, training, incremental operating costs, and other eligible expenses associated with project implementation. A PIU will be established within the SCF-International Relations and Ecotourism Development (SCF-IRED) to coordinate implementation, project management, coordination, and reporting tasks, including preparation of annual work plans and budgets, procurement activities, financial management (FM) of project funds, hiring of external auditors, knowledge management, development and maintenance of a project communication program, grievance redress mechanism, and Monitoring and Evaluation (M&E) and reporting. The PIU will also be responsible for CE, ensuring project compliance with and monitoring implementation of Environmental and Social Framework-related issues, and that due attention is given to gender aspects as per Project design. A project implementation support consulting firm will be contracted to assist the PIU during at least the first two years of implementation in operational and technical tasks.

Table 2: **Project Costs (US$ million)**

Project Components	IDA	PROGREEN	KWPF	Total Cost
Component 1: Strengthen Institutions and Policies, and Support to Regional Collaboration	**10.50**	**2.00**	**3.00**	**15.50**
1.1: Strengthen Institutions and Policies	7.50	1.00	0.00	8.50
1.2: Develop an ICT Platform for Forest Landscape Restoration and Management	2.00	0.00	3.00	5.00
1.3: Strengthen Regional Collaboration	1.00	1.00	0.00	2.00
Component 2: Enhance Resilient Landscapes and Livelihoods	**84.00**	**6.00**	**0.00**	**90.00**
2.1: Enhance Tree-based Landscape Restoration and Management	84.00	0.00	0.00	84.00
2.2: Enhance Resilient Livelihoods and Value Chains	0.00	6.00	0.00	6.00
Component 3: Enhance Protected Areas and Nature-based Tourism	**40.00**	**0.00**	**0.00**	**40.00**
3.1: Improve Protected Area Management	12.00	0.00	0.00	12.00
3.2: Enhance Nature-based Tourism	28.00	0.00	0.00	28.00
Component 4: Project Management and Coordination	**7.50**	**0.00**	**0.00**	**7.50**
TOTAL Project Costs	**142.00**	**8.00**	**3.00**	**153.00**

59. **Climate Co-benefits.** 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, farmer-managed natural regeneration, agroforestry, pasture management, horticulture, and PA management. Improved landscape management through these activities reduces landscape vulnerability to climate change impacts and enhances resilience. Reduced vulnerability and enhanced resilience would mean improved adaptation of landscapes to expected risks posed by climate change. Project contribution to GHG accounting was carried out using the FAO Ex-Ante Carbon-Balance Tool (EX-ACT).[50] 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. A PDO-level Indicator will measure the land area under sustainable landscape management practices that will result in carbon emission reductions, and an Intermediate Result Indicator (IRI) will measure emission reductions by the project. These reductions will be measured by EX-ACT, which will help monitor the climate co-benefits throughout the project cycle. The Climate Hazards and Resilience Rating Tool will be piloted by the project to integrate climate risk scenarios into the economic analysis for a few selected sites during project implementation. See Annex 4 for a detailed climate co-benefits description and link with activities, components, and climate vulnerability context.

60. **Biodiversity.** Project investments in improved management of two PAs, sustainable NBT, and landscape restoration including reforestation with native species, are expected to help conserve globally and regionally significant biodiversity.[51] The project corridors encompass a diverse range of elevation zones and natural habitats, including high mountains above tree-line; montane juniper forests; hill forests with walnut, pistachio, and other native tree species; extensive desert shrub-steppe at lower elevations; and riparian tugai forests along large rivers and other waterways. Among the wildlife of national and global conservation interest which occur within the project areas are large mammals, including Snow Leopard (*Panthera uncia*), Burkhara (Central Asian Red) Deer (*Cervus hangul bactrianus*), and Urial (mountain sheep, *Ovis vignei*); threatened birds, including Saker Falcon (*Falco cherrug*), several rare vulture and eagle species, Asian Houbara Bustard (*Chlamydotis macqueenii*), and Yellow-eyed Pigeon (*Columba eversmanni*); along with numerous freshwater fish species.

61. **Gender.** In 2020, the SCF developed a comprehensive Gender Strategy and a Roadmap for 2021-2022, which prescribed actions and targets for addressing key gender gaps in the forest sector.[52] The Strategy identified gender gaps that are related to (i) women's access to finance to develop forest and non-forest -related businesses: women-owned medium and small enterprises represent only 23 percent of all businesses in Uzbekistan and face an estimated financing gap of US$2.7 million.[53] This is because women have more limited access to local financial services from commercial banks, private sector associations, and development programs that provide credit-based financial services, as well as forest and non-forest-related job opportunities, including NBT; (ii) women's access to information on effective sustainable landscape management and restoration practices and on land use planning; and

[50] EX-ACT is a land-based appraisal tool for assessing a project's net carbon balance – the net balance of tons of CO_2 equivalent (tCO_2eq) of GHGs that were emitted, or carbon sequestered as a result of project interventions – compared to a "without project" scenario.
[51] Uzbekistan is a party to the Convention on the Conservation of Migratory Species of Wild Animals (see *https://www.cms.int/*) and a Range State of the Central Asia Mammals Initiative (see *https://www.cms.int/cami/en*). Snow Leopard and Urial are Asia Mammals Initiative priority species.
[52] Adoption of this strategy is also necessitated by national legislation: Constitution and laws of the Republic of Uzbekistan "On Guarantees of Equal Rights and Opportunities for Women and Men" (ZRU No. 562 dated September 2, 2019) and "On Protection of Women from Harassment and Abuse" (ZRU No. 562 dated September 2, 2019) in accordance with the Decree of the Prime Minister of the Republic of Uzbekistan No.07/2-107 dated 20.04.2020 and with the Article 12 of the Law of the Republic of Uzbekistan "On Guarantees of Equal Rights and Opportunities for Women and Men".
[53] *https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26101*.

(iii) women's business development skills: abilities to develop business development plans, register and manage businesses, and make links with the private sector, including wholesalers and retailers.

62. These gaps are addressed in the project design, particularly under components 1 and 2 and the results of these actions will be monitored by assigned indicators as part of the results framework. The gender gaps in the sector, corresponding project actions, and indicators used to measure progress are summarized in Table 3. The PIU will comprise a gender specialist who will help to further mainstream gender considerations during implementation. This will help the SCF meet and strengthen its gender strategy targets in alignment with the WBG Gender Strategy. The project will also ensure that Grievance Redress Mechanisms (GRM) are easily accessible to women to ensure women's participation in project planning and implementation.

Table 3: Summary of Gender Gaps, Actions, and Indicators

Gender Gap	Gender Action	Gender Indicator
Inadequate access to finance to develop forest and non-forest -related businesses	Sub-component 2.2: • Providing women with access to local financial services (matching grants) and diversifying income with forest and non-forest-related job opportunities. • Supporting the establishment and registration process of women nature-based businesses. • Supporting women-owned businesses establish linkages with commercial banks, private sector associations, and other development programs that provide credit-based financial services.	• Land users adopting landscape restoration practices -female (Number) (IRI) • Beneficiaries of job-focused interventions – female (Number) (IRI)
Insufficient access to information on effective sustainable landscape management and restoration practices and on land use planning	Sub-component 1.3: • Developing a regional online database on sustainable landscape management and restoration available to female government and non-government audiences Sub-component 2.1: • Equally engaging women in land use planning for greening activities and in project-supported landscape management activities	• People benefiting from landscape management practices - female (Number) (PDO level Indicator) • Beneficiaries who report that the Project has established effective engagement processes through the regional online database – female (Percent) (IRI) • Beneficiaries of job-focused interventions - female (Number) (IRI)
Insufficient business development skills, including market linkages	Sub-component 2.2: • Supporting women entrepreneurs to register their businesses and provide them with business boosting development packages that include support for business development plans, registration processes, leadership skills, mentorship support, and more. Carrying out market assessments to identify demand-driven livelihood activities, providing business training, and supporting business plan development for women businesses.	• New or existing natural resource-based enterprises owned by women that receive financing (Number) (IRI) • Beneficiaries of job-focused interventions - female (Number) (IRI)

63. **Citizen Engagement.** CE will underpin the implementation of the project and will be a key factor in its ability to achieve the PDO and influence sustainable processes. At the regional level, the Regional Landscape Restoration Platform will connect NGOs and civil society organizations from across Central Asia with governments, regional and academic organizations, and the private sector and encourage two-way dialog processes on landscape restoration

within countries and the region. The Platform will also generate networks and provide the needed technical and scientific advice to civil society organizations and NGOs to sustainably collaborate with governments on transboundary landscape restoration. At the national level, the project will carry out meaningful stakeholder consultations with citizens through focus groups to inform the development and/or revision of policies and regulations governing the forest sector. At the local/landscape level, CE will be a crucial element of the integrated land use planning process that will inform the restoration of degraded forest lands through more and better landscape restoration practices, and in the identification of, and participation in climate smart livelihood opportunities and training. For livelihoods related activities, the entry point for CE at the local community level will be the Mahalla Citizen Assemblies (MCAs), with support from contracted TA providers. CE will support the project results chain, and its implementation will be monitored by the results framework and surveys of beneficiaries' satisfaction with interventions (including livelihood-related activities and the effectiveness of the engagement processes provided by the Regional Exchange Platform on FLR), and the extent to which the project responds to their views. CE costs were included in component allocations. The project GRM will be made available to citizens not later than 30 days from the Effectiveness Date for filing grievances and unrestricted feedback, recording them, and managing them in a transparent manner.

64. **Maximizing Finance for Development (Private Capital Mobilization).** The GoU seeks to increase the share of the private sector in the country's economic output and include more private investments in its economy. An objective of the 2020 Presidential Resolution on the Forest System Development Concept is to introduce rules and procedures for public-private partnerships (PPPs) based on market economy principles to ensure the protection, conservation, restoration, cultivation, and rational use of forests, while generating stable socio-economic benefits. The Concept also expects to transfer some forest production functions to the private sector by involving business entities in forestry production without adversely affecting protection and cultivation activities, for example, by creating and expanding plantations and NBT. Using an integrated landscape approach under components 2 and 3, the project will support an integrated set of investments that will enable the private sector to engage more effectively in sustainable production of timber and NTFPs, and in forest-based services such as NBT. Support to sustainable and climate-smart investments in forest lands will provide opportunities for private co-investments with farmers, farmer associations, and microenterprises, to generate income opportunities and diversify production, while restoring degraded lands and reducing the pressure on forests and rangelands in the identified corridors. Private sector engagement will also be key in the revision and development of new policies under Component 1. The private sector will also be invited to participate in the Regional Exchange Platform and generate partnerships with governments and non-government entities from the region.

C. Project Beneficiaries

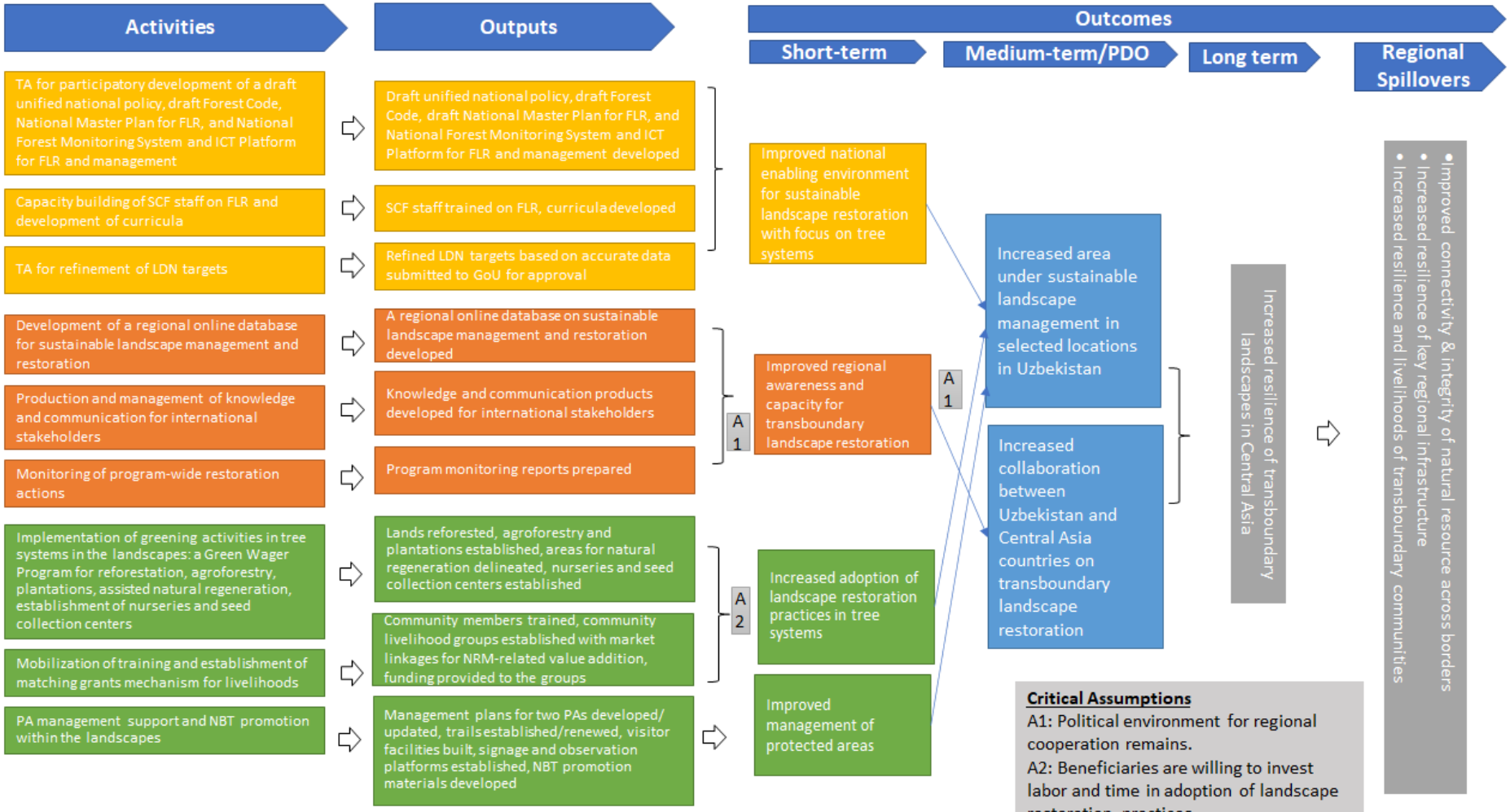
65. **The main project beneficiaries are rural communities in the targeted areas,** namely low-income rural family enterprises, farmer/community groups, and small rural entrepreneurs. Within these communities, the project will target, among other things, low-income households, livestock owners and herders, and the most vulnerable groups, including women and youth, who will benefit from new and improved landscape restoration practices that will provide them with jobs and income, and new and improved forest and non-forest livelihood opportunities with a value-added focus. Activities supported under Component 1 will target central and decentralized State authorities managing forests and forest landscapes, particularly the SCF, as well as *leskhoz*, whose staff will benefit from increased technical and operational capacity to carry out their mandates, improved equipment, and infrastructure, and improved and more accessible data to support the timely and informed decision making related to landscapes and forests. Rural elementary, middle, and high school students in at least one province will benefit from increased awareness of, and engagement in FLR and PA conservation as their schools will become anchors for community

mobilization. At the regional level, the main beneficiaries are governments of the five Central Asia countries, who 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.

D. Results Chain

66. **Theory of Change.** The project seeks to achieve two outcomes: (i) to increase the area under sustainable landscape management in Selected Locations in Uzbekistan; and (ii) to promote Uzbekistan's collaboration with other Central Asian countries on transboundary landscape restoration. *To achieve the first outcome*, the project will: (a) improve the national enabling environment for the forest sector by developing a unified national policy, a draft Forest Code, a National Strategic Plan, and an NFMS and ICT Platform for FLR and forest management; training SCF staff on FLR and developing FLR curricula on landscape management for educating current and new forest practitioners; and refining Uzbekistan's LDN targets based on accurate data for submission for GoU approval; (b) increase the adoption of landscape restoration practices by implementing tree-based interventions in the targeted corridors' landscapes; and establishing rural livelihood groups with markets linkages for forest and non-forest value addition with matching grants mechanisms and livelihood-related training; and (c) improve the management of two PAs in the corridors by developing or updating their Management Plans, establishing and renewing tourism facilities, and developing NBT promotion materials. *To achieve the second outcome*, the project will improve the regional awareness of Central Asia countries and their capacity for transboundary landscape restoration by developing a regional online database for sustainable landscape management and restoration, developing knowledge and communication products for international stakeholders, and preparing RESILAND CA+ Program monitoring reports. In the long-term, the two outcomes are expected to result in increased resilience of transboundary landscapes in Central Asia with several regional spillovers, the key ones being improved connectivity and integrity of natural resources across borders, increased resilience of key regional infrastructure, and increased resilience and livelihoods of transboundary communities. The theory of change assumes a continued conducive political environment for regional cooperation, and willingness of beneficiaries to invest labor and time in the adoption of landscape restoration practices.

Figure 3: Project Theory of Change



Note: TA: Technical Assistance; ICT: Information and Communication Technology; SCF: State Committee on Forestry; FLR: Forest Landscape Restoration; LDN: Land Degradation Neutrality; NBT: Nature-based Tourism; PA: Protected Area; GoU: Government of Uzbekistan; NRM: Natural Resource Management

E. Rationale for Bank Involvement and Role of Partners

67. **Rationale for Bank Involvement.** The WBG financial, TA, and analytical support to Uzbekistan has grown substantially since 2017, bolstering the GoU's efforts to implement a comprehensive program of reforms for a transition to a market economy. Today, the World Bank country program in Uzbekistan is the second largest in the ECA region after Turkey. The World Bank has a long history of collaboration with Uzbekistan's natural resource sector, mainly in water and land[54] and it has also been engaged in forest landscape projects in the region, notably the Integrated Forest Ecosystem Management Project in Kyrgyz Republic (P151102), and the Resilient Landscapes Restoration Project in Kazakhstan (P171577). This experience and regional knowledge put the World Bank in an advantageous position to support this project. The World Bank also brings relevant landscape restoration experience and best practices from other regions such as Africa[55], crowding in both public and private finance to build back better through COVID-19 recovery actions. Implementation of the project alongside other RESILAND CA+ Program projects provides a unique opportunity to tackle land degradation as a regional challenge in a coherent manner. The World Bank is also well positioned to convene regional collaboration in the Central Asia context through the RESILAND CA+ Program with experience and partnerships already established through the ongoing World Bank-financed CAMP4ASB, GIZ[56], and the Economics of Land Degradation Initiative.

68. **Role of Partners.** The project will be implemented in close partnership with several development partners that are engaged in landscape restoration in Central Asia. The main ones are the United Nations Development Program (UNDP), the United Nations Economic Commission for Europe (UNECE)/FAO Forest and Timber Section, International Union for Conservation of Nature (IUCN), UNCCD Secretariat, the Government of Korea, GIZ, and the United States Forest Service (USFS). Additional key partners include the World Overview of Conservation Approaches and Technologies (WOCAT), the Consortium of International Agricultural Research Centres (CGIAR), Bioversity International, International Center for Biosaline Agriculture, and International Center for Agricultural Research in the Dry Areas (ICARDA). See Annex 1 for information on collaboration with the different partners.

F. Lessons Learned and Reflected in the Project Design

69. **The project design reflects important lessons from World Bank-financed portfolio of landscape projects across the globe and in Uzbekistan, and from similar regional platforms**.[57] These include:

a) **Political economy and national interests are dominant drivers of regional programs.** 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 sub-component in the design of the project and in other RESILAND CA+ Program

[54] For example, CAMP4ASB, the Second Ferghana Valley Water Resource Management Project (P149610), Livestock Sector Development Project (P153613), Agricultural Modernization Project (P158372), and Horticultural Development Project (P133703).
[55] For example, the Ethiopia Climate Action through Landscape Management Program-for-Results (P170384).
[56] 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 in which were piloted and tested in Central Asia countries, including Uzbekistan, for more than 10 years.
[57] As discussed in (i) World Bank 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 (2009–19); (ii) Independent Evaluation Group. 2019. Two to Tango: An Evaluation of the WBG Support to Fostering Regional Integration; (iii) Implementation Completion and Results Report (ICR) of Uzbekistan Sustainable Agriculture and Climate Change Mitigation Project (P127486, Report No. ICR00004523); (iv) ICR of Building Resilience through Innovation, Communication and Knowledge Services (P130888, Report No. ICR00004839); and (v) ICR of the First Phase of the Central Asia Road Links Program (CARS-I) (P132270, Report No. ICR00004743).

projects, and having it executed by CAREC, a widely endorsed and recognized regional organization. Alternative options for a similarly endorsed entity will be evaluated if the contract with CAREC does not materialize.

b) **Key lessons for effective regional platforms include**: (i) the importance of joint advocacy efforts to mobilize resources at scale and galvanize action up to senior policy levels to achieve impact; (ii) including both the regional component 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 intervention-related biophysical changes at the regional level to evaluate impact; (iv) the critical need for well-funded and effective communication in NRM 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 the core structure of 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 Uzbekistan and other national RESILAND CA+ Program projects to ensure availability of funding, and one of its core functions would be to monitor the impact of the RESILAND CA+ Program at the regional level. A large portion of the sub-component's budget is allocated to communication activities, and the housing Central Asia's online database on landscape restoration with links to such databases outside the region.

c) **Projects that support physical interventions in transboundary areas are most effective when:** (i) they also support economic and social activities that create opportunities for the population in the region; (ii) regional issues are addressed through national projects with regional dimensions (as opposed to regional projects); (iii) transboundary issues are part of the project design; and (iv) there is evidence of transboundary collaboration and dialog among the countries. The project incorporates these aspects in the design of components 1, 2, and 3.

d) **The importance of addressing the underlying factors to natural resource degradation in addition to physical restoration-related activities.** Accordingly, the project supports the enabling environment for forest landscape restoration and management, including the governing policy and regulations, national strategy, capacities, and data availability, as well as securing the buy-in and stake of local communities and relevant stakeholders in the design and implementation of restoration activities.

e) **The importance of balancing between resource recovery and meeting the needs of vulnerable resource users** by using a mix of resource management practices and financial incentives that are appropriate for the relevant socioecological systems. Economic and social benefit flows to resource users should be significant and timely to incentivize them to maintain sustainable resource management practices. The project contains this mixture of greening and livelihood support programs, and any livelihood support will be backed by market assessments, business development support, and assisted linkages with the private sector to ensure significant and timely benefit flows.

f) **The value of measuring attributable resource-related evidence of reduction of natural resource degradation or the vulnerability of resource users.** Beyond measuring improvements of natural resource management practices, projects should monitor attributable evidence that its interventions led to a reduction of natural resource degradation to demonstrate development impact. The project will use the three UNCCD LDN indicators to measure degradation changes in the targeted landscapes to provide evidence of project impact.

g) **Choice of matching grants model to support resilient livelihoods and value chain addition.** International evidence indicates that when transfers of cash or capital are made to poor and vulnerable people and are combined with non-financial services in the form of community outreach, skills training, business mentoring, coaching, and follow up advisory services, the positive outcomes go beyond the creation of income generating activities, and bring sustainable impacts on business practices and earnings.[58] Programs that support microentrepreneurs and microenterprises in Uzbekistan provide financial support in the form of concessional loans and credits with limited non-financial services, which are not accessible or suited to the needs of low-income households, women, and youth. The project will thus provide a comprehensive package of financial services in the form of matching grants and non-financial services, the latter geared towards enabling entrepreneurs and microenterprises to "graduate" to more advanced forms of credit-based financial services and business development services offered in Uzbekistan.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

70. **Implementing Agency.** The Implementing Agency of the project is the SCF-IRED, which will host a PIU composed of a project coordinator, and specialists in M&E, accounting, FM, communication, procurement, social and environmental specialists, and gender; as well as technical specialists in forestry, landscapes, NBT, ICT, policy, livelihoods, and other relevant fields of expertise.

71. **Technical Coordination Council.** Project oversight responsibilities will rest with the SCF, and a Technical Coordination Council (TCC) will be established to provide technical guidance and ensure inter-ministerial coordination and cooperation. The TCC will be composed of representatives from relevant ministries, state committees, project provinces, and other relevant stakeholders, and will meet two to three times per year. The implementation arrangements of the sub-components are summarized below; see Annex 1 for further details:

a) Sub-component 1.1 (Strengthen Institutions and Policies) will be implemented by the SCF with guidance from experts on forest policy, legal issues, NFMS/ICT, training, and education. Based on its long-standing involvement in forest policy advice and forest development in Uzbekistan, UNECE/FAO will be a key technical adviser. Advisory services will be provided by the national forest policy/multi-sectorial dialog process/platform, initiated by the SCF jointly with UNECE/FAO Forestry and Timber Section, FAO, and the KFS on technologies for forest management, and other relevant development partners as needed, including UNCCD, International Commission on Poplars and Other Fast-Growing Trees Sustaining People and the Environment (IPC)[59], the KFS/Asian Forest Cooperation Organization, the European Union Delegation, GIZ, FAO/Turkey Partnership Programme, M. Succow Foundation and UNDP. These partnerships will be formalized through contracts or other operating agreements. Rural schools will be mobilized by a hired local NGO in collaboration with relevant PA management staff of the SCF.

[58] For example, see De Mel, Mckenzie and Woodruff. 2012. *One-Time Transfers of Cash or Capital have Long-Lasting Effects on Micro-enterprises in Sri Lanka*. Science, vol. 335, February 24, 2012 and Abhijit Banerjee, Esther Duflo, Nathanael Goldberg, Dean Karlan, Robert Osei, William Pariente, Jeremy Shapiro, Bram Thuysbaert, and Christopher Udry. 2015. *A multifaceted program causes lasting progress for the very poor: Evidence from six countries*. Science, vol. 348, Issue 6236.

[59] IPC is a global treaty with substantive work in Central Asia, to which Uzbekistan is an observer. The Treaty's Secretariat is FAO.

b) Sub-component 1.2 (Develop an ICT Platform for Forest Landscape Restoration and Management) will be implemented by the SCF with support and guidance from its Forest Design Institute.
c) Sub-component 1.3 (Strengthen Regional Collaboration) will be executed by CAREC through a direct contract with the SCF. CAREC will subcontract other entities as needed to execute specific activities. The projects in Uzbekistan and Tajikistan will coordinate the hiring of CAREC to ensure synergies and avoid duplications while facilitating discussions between the governments on transboundary corridors. Alternative options will be evaluated if the contract with CAREC does not materialize.
d) Sub-component 2.1 (Enhance Tree-based Landscape Restoration and Management) will be implemented by the SCF. The SCF will work with its Forestry Research Institute on the ecological site classification and with its Forest Design Institute on integrated land use plans—both activities will be developed in a participatory manner with local communities. The implementation of productive and restorative activities on SFF Land will be the responsibility of the SCF, which will contract the *leskhoz* either through direct contracting or through a competitive selection (fiduciary responsibilities will remain with the SCF), and benefit from technical expertise, extension, and outreach provided by the Forest Research Institute. The *leskhoz* will also support the Green Wager Program under similar arrangements. Advance payment of up to 15 percent will be made available for selected *leskhoz.*
e) Sub-component 2.2 (Enhance Resilient Livelihoods and Value Chains) will be implemented by the SCF in consultation with the provincial and district levels government (*khokimiyat*)[60] and *leskhoz* (*leskhoz* will be contracted by the SCF through direct contracting or through a competitive selection. Fiduciary responsibilities will remain with the SCF). At the community level, activities will be executed by contracted MCAs with support from TAPs and CBAs.
f) Component 3 (Enhance Protected Areas and Nature-based Tourism) will be implemented by the SCF in collaboration the Ministry of Tourism and Sports and its territorial and specialized departments/agencies. Where needed, specialized NGOs and private companies will be contracted to implement specific activities.

B. Results Monitoring and Evaluation Arrangements

72. **Project M&E will be the responsibility of the PIU under SCF with support from dedicated M&E staff.** The PIU will coordinate M&E activities with the province-based staff of the PIU and support from the implementation support consulting firm. Province-based staff will collect data on activities taking place in their respective provinces using the PDO and results indicators specified in the results framework (see Section VII). Province-level information specific to the transboundary corridors will be aggregated by the PIU, evaluated against the annual targets, and reported semi-annually to the SCF and the World Bank using agreed formats specified in the POM. The reports will be used by the SCF and the World Bank in decision making on corrective measures, work plans, budgets, and monitoring of the impact of the RESILAND CA+ Program. The PIU will carry out in-depth mid-term and completion assessments where the achievement of outcomes and other project impacts will be assessed, including annual beneficiary satisfaction surveys and environmental and social impacts. The mid-term review will also assess the overall implementation progress and identify and propose solutions for any key issues affecting implementation. A final evaluation will be carried out at the end of the project as an input to the World Bank ICR to evaluate end results, assess overall performance, and capture key lessons.

73. **The M&E system of the project will comprise both performance and impact monitoring.** The M&E system will include both annual outcome and result targets as well as periodical evaluations of project impact on land degradation using the three LDN indicators and household socio-economic factors that will be compared with

[60] Which include regional and district departments of the Ministry of Mahalla and Family Affairs, SCEEP, the Ministry of Economic Development and Poverty Reduction, State Committee for Tourism Development, and other relevant agencies.

baseline evaluations to be carried out by the PIU in Year 1. An integrated MIS will be developed and made publicly accessible to communicate results to project stakeholders on the SCF website. Participatory monitoring methods will be used where possible to create awareness among local communities by involving them in the installation, data collection, and interpretation and dissemination of results. The incremental costs for Project M&E arrangements will be covered under Component 4. From a broader M&E perspective, the project will provide the GoU with important tools to monitor and evaluate trends in forests and forest land through the NFMS under Component 1.

74. **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: (i) net primary productivity (NPP) using NDVI with information from satellite imagery (for example, Moderate Resolution Imaging Spectroradiometer), (ii) land cover using either a representative area approach with high-resolution imagery, Landsat and Sentinel imagery, or globally produced datasets; and (iii) soil organic carbon (SOC) using field sampling. The UNCCD secretariat will support the SCF to establish baselines for the above three aspects and repeating the measurements at project mid-term and completion. Socio-economic impact on participating households will be assessed using a baseline, compared with surveys conducted at mid-term and completion.

75. **The project results framework will measure PROGREEN outcomes.** The following PROGREEN indicators are reflected in the results framework: (i) Area under sustainable forest management (ha), responding to PDO-level Indicator 1 on land area under sustainable landscape management practices; (ii) Countries with policy and institutional framework improved (Number), responding to the IRI on enabling environment for LDN and NDC targets; and (iii) Land-users adopting new practices in targeted landscapes (number), responding to the IRI on land-users adopting landscape restoration practices; and (iv) Land area under restoration (ha), responding to the IRI for PA under improved management. The results framework explains the pro-rata contribution of PROGREEN resources to the expected results.

C. Sustainability

76. **The project will lay the foundation for future scale-up of transboundary landscape restoration programs that follow an integrated landscape management approach.** The project will support the development of a policy, regulation, strategy, and monitoring tools required for landscape restoration in Uzbekistan and regionally and build government capacity to utilize these enhanced tools. Estimation on budget requirement for the annual updating and maintenance of the NFI and ICT Platform will be developed and GoU endorsement will be sought. The Regional Exchange Platform will be integrated into CAREC's regional knowledge management functions, and, during the project implementation, CAREC and participating countries will agree on mechanisms for continued funding for the Platform (a draft sustainability roadmap is currently being developed by CAREC). At the community level, mobilized groups and small and medium enterprises (SMEs) are expected to generate revenue from their businesses, to allow for sustained functioning beyond the project. Targeted PAs will benefit from improved revenue due to enhanced facilities and management capabilities for sustainable operation and maintenance. Participatory mechanisms for stakeholder engagement applied during the project will be used as models for future consultations and in joint decision making.

77. **Regional cooperation and dialogs of various stakeholder groups to share experiences and lessons learned on landscape restoration, 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 region-wide 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 on the ground, 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.

78. **Greening activities will follow integrated land use plans that will be developed using a multi-sectorial approach,** including representatives of key stakeholder groups at the relevant sites. Macro level planning will be undertaken in the transboundary corridors, devolving into local level land use planning in consultation with local communities to ensure buy-in and commitment from local stakeholders. Choice of sites and tree and shrub species will be informed by the World Bank Rating System for Project Resilience to ensure their adaptability to local soil and water conditions, and to current and future climate conditions, and the value they bring to communities in terms of resilience to climate changes, income, food, and protection from natural disasters. Moreover, all planted species: (i) will be native to Uzbekistan and the specific planting zone, or (ii) if non-native, they will be carefully screened to ensure that they do not become invasive and displace native species. Beneficiaries will contribute some co-financing for livelihood activities, further enhancing ownership from local stakeholders, and thereby ensuring sustainability of project interventions at the local level.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

Technical Analysis

79. The project builds on analytical studies undertaken by the World Bank (for example, a draft Forest Policy Note for Uzbekistan [2022]), the GoU (for example, a capacity gaps analysis for the SCF and the Gender Strategy and Roadmap for 2021-2022), or other partners (IUCN's approach to the establishment of "peace parks"). The project design is based on a large portfolio of landscape projects of the Environment, Natural Resources and Blue Economy Global Practice and Agriculture Global Practice (Ethiopia Climate Action through Landscape Management Program for Results [P170384], Burundi Landscape Restoration and Resilience Project [P160613], and Colombia Mainstreaming Sustainable Cattle Ranching Project [P104687]), Regional Programs (CAMP4ASB; Regional Central Asia South Asia projects[61]; Sahel and West Africa Program in Support of the Great Green Wall[62]), and experiences in Uzbekistan through projects such as the Rural Infrastructure Development Project (P168233) and Enhancing Economic Opportunities for Rural Women Project (P171760). These 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 to strengthen Uzbekistan's 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 several level (regional, national, and local), builds capacities of agencies, farmers, and communities, and develops an investment framework for landscape restoration. In keeping with good practice in landscape management planning, the project will be implemented in a participatory manner to consider inputs from different stakeholder groups. This approach will allow for coordination and integration of solutions among various government agencies and local stakeholders.

[61] 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).
[62] With projects in Benin, Burkina Faso, Chad, Ethiopia, Ghana, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan, and Togo.

Economic and Financial Analysis

80. **The project cost of US$153 million across six years is viable with an Economic Internal Rate of Return (EIRR) of 24 percent**. While a range of benefits was identified, owing to data limitations, the project quantified the following subset of identified direct benefits: (i) timber revenues, NTFP, and agroforestry revenues, including seedlings and beekeeping; (ii) benefits from improved grazing of land; and (iii) revenue from greening shelterbelts next to roads. A cost-benefit analysis was conducted to quantify these direct benefits, using per hectare models of improved practices for the following activities under sub-component 2.1: fuelwood, pistachio plantation, agroforestry, shelterbelt tree plantation, and improved grazing land. A financial analysis found these per hectare models to be viable. The economic analysis was conducted using a financial analysis as the basis, with discounted benefits, including incremental improvements in revenue from ecosystem service benefits in terms of watershed and soil protection, biodiversity conservation, and NBT for each of the five models and discounted costs for the entire project. The economic analysis found that the Net Present Value (NPV) was US$266.4 million, and the EIRR was 24 percent at a base discount rate of 6 percent. Based on the quantified benefits, which accrue from sub-component 2.1 alone, the project is viable and justified from an economic point of view.

81. **The project will also result in improved public goods and services in the form of intangible services and indirect benefits** (a detailed list is provided in Annex 3); however, a subset was quantified, including (i) carbon sequestration benefits (avoided social cost of carbon); (ii) indirect benefits from ecosystem services, including avoided costs from land degradation, loss of agricultural and land productivity, health impacts, salinization, and loss of infrastructure to natural disasters, landslides, and mudslides; and social benefits related to income from NBT activities.

82. **Over and above project EIRR, considering the indirect benefits from carbon sequestration, the project is viable with an EIRR Carbon[63] of 36 percent and 50.8 percent as per lower and higher bound assumptions for the social price of carbon, respectively**. Using the project EIRR as a basis, benefits from carbon sequestration were added resulting from activities across the entire project (components 1-3) to produce an EIRR Carbon. A GHG analysis carried out based on project interventions using EX-ACT estimated that the net carbon balance over a period of 30 years was -11,216,782 tCO2-eq (approximately 373,893 tCO2-eq/year). Carbon sequestration benefits when considered with lower bound assumptions resulted in approximately US$494.4 million in NPV[64] and an EIRR of 59.3 percent.

83. **The project also adds significant value in the range of US$12 million annually from social and environmental benefits, which were quantified for indicative purposes over and above the estimated EIRR and EIRR Carbon.** Economic benefits were valued in the order of approximately US$9 million annually in environmental benefits from ecosystem services, including avoided costs from land degradation, loss of agriculture and land productivity, health impacts, salinization, loss of infrastructure to natural disasters, landslides, and mudslides; and approximately US$3 million annually in social benefits in terms of income from NBT activities in Zaamin PA and Central *leskhoz* of Samarkand PA. These benefits were quantified using a benefit transfer approach, details of which are available in Annex 3. This is an underestimation of benefits as one cannot quantify all direct and indirect benefits. These benefits include an increase in government revenue because of policies and project interventions. Indirect benefits are related to avoided costs from nutrient loss, sedimentation removal, and water and wind erosion. Further

[63] World Bank. 2017. EIRR Carbon refers to EIRR that includes carbon sequestration benefits.
[64] With lower bound carbon price starting from US$4 in 2021, as per World Bank Social Price of Carbon Guidelines, 2017.

intangible but important benefits include increased crop diversification, improved access, security along borders[65], and regional benefits to Central Asia, such as improved connectivity across borders and improved biodiversity through green corridors and NBT activities.

84. **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 both a 20 percent decline in benefits and 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 20 percent. NPV is US$442.1 million at a discount rate of 3 percent and US$64.9 million at a discount rate of 14 percent. See Annex 3 for a detailed economic and financial analysis, including details of the approach and assumptions used in the analysis.

85. **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[66], the support for FLR activities budgeted at UZS 11,550,811,000 (US$7 million)[67] as of 2015 is inadequate. Further, the SCF budget was US$10 million in 2015, most of which allocated to staff salaries. This has only increased by 1.7 percent in the past six years, with the 2021 allocated budget being US$11.77 million (UZS 125,352.21 billion).[68] While this justifies public investment support, public investment alone is not enough for meeting Uzbekistan's LDN targets and land restoration-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 the ECCA30 Initiative. The project will also involve banks, including micro-lending institutions and PPPs, to provide financial support to women and SMEs in carrying out interventions.

B. Fiduciary

(a) Financial Management

86. **The PIU to be established under the SCF will be responsible for FM and disbursement aspects during project implementation, including planning, budgeting, accounting, financial reporting, funds flow, internal controls, and auditing**. The SCF does not have prior experience in the implementation of the World Bank-financed projects and projects financed by other international financial institutions. The FM arrangements in the SCF will meet the minimum World Bank FM requirements once capacity building activities are implemented. Considering these, project FM risk is "Substantial".

87. The following activities should be implemented by the SCF as part of capacity building, to meet the minimum World Bank FM requirements:

[65] Mirzabaev, A., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds), *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].
[66] US$11 billion across a 30-year period as per Mirzabaev et al., 2016.
[67] Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, 2015.
[68] As per data received from SCF, 2021.

a) Develop the FM chapter of the POM to reflect project-related internal control, budgeting, external auditing, financial reporting, and accounting policies and procedures (before project effectiveness). Funds for the Green Wager Program will start disbursing once the POM is updated to reflect FM/funds flow arrangements for the Green Wager Program.
b) Recruit the FM staff (FM specialist) with relevant experience for the PIU under the SCF (before project effectiveness). The PIU, shall there be need, may hire a grants management specialist during project implementation.
c) Develop the COM, to include a section defining the FM and funds flow arrangements for the matching grants under sub-component 2.2, in accordance with World Bank fiduciary principles (before funds are disbursed for matching grants).
d) Acquire and install accounting system for project accounting and reporting purposes. The accounting system shall have functionality of automatic generation of Statement of Expenditures (SOEs), interim financial reports (IFRs) for the project and have the functionality for dual-currency accounting, and with inbuilt controls to ensure data security, integrity, and reliability (within 90 days after project effectiveness).

88. **Co-financing**. The project will be co-financed by a PROGREEN Trust Fund grant and a KWPF Trust Fund grant. Therefore, co-financing ratios will be strictly followed for each payment conducted under certain activities within sub-components co-financed by the PROGREEN and KWPF.

89. **The PIU will submit quarterly unaudited IFRs to the World Bank**. The PIU will produce a full set of IFRs every calendar quarter and submit to the World Bank within 45 days after the end of each calendar quarter.

90. **The annual audited project financial statements together with the auditor's opinion and the management letter will be provided to the World Bank within six months after the end of each fiscal year** and at the closing of the project. The audit of the project financial statements prepared by the PIU will be conducted (a) by independent private auditor acceptable to the World Bank in accordance with terms of reference acceptable to the World Bank, and (b) according to the International Standards on Auditing issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The SCF will publicly disclose the audit reports on its website within one month after receiving them from the auditor. After formally receiving the audit reports from the SCF, the World Bank will make publicly available audited project financial statements in accordance with the World Bank's Policy on Access to Information.

91. **Disbursement arrangements.** The disbursement arrangements will follow a traditional disbursement mechanism, including direct payments, replenishments of the designated account, and reimbursement. The minimum application size and designated account ceiling will be specified in the Credit disbursement letter. The SCF will open a designated account in USD and a transit account in UZS in a financial institution acceptable to the World Bank. Both accounts will be used exclusively for the inflow of the Credit funds and payment of eligible expenditures. The SCF will receive access to ClientConnection to perform disbursement functions. Withdrawal Applications will be prepared by the FM specialist.

(b) Procurement

92. **The GoU has introduced several measures aimed at improving transparency of procurement processes at government entities and SOEs.** One such measure is the adoption of the 2021 Public Procurement Law (PPL), which introduced key procurement principles and includes a list of permitted procurement methods and their practical application procedures. Currently, all government institutions are required to use the exarid.uzex.uz platform to

announce small-value tenders, receive tender proposals, carry out tender evaluations and publish public procurement results. The introduction of exarid.uzex.uz has significantly improved the transparency in public procurement processes. However, widespread exceptions to PPL requirements and weak enforcement capacity of the GoU undermine its efforts to make public procurement processes more transparent. Nevertheless, the GoU is taking additional measures to introduce the integrated public procurement web portal (a full-fledged single-window e-procurement system), which will comprise e-planning, e-procurement, e-contracting, e-implementation, and e-payment covering a full procurement cycle.

93. **Procurement functions will be implemented by SCF with the assistance of technical consultants and staff of other relevant units**. The SCF has implemented several projects funded by international organizations such as GIZ, FAO, and the EU. However, all projects are donor executed and the SCF has not been involved in the procurement aspects of project implementation. Therefore, SCF staff have had limited exposure to procurement rules and procedures of international donor organizations. Due to the limited procurement capacity of the SCF, the PIU will include a local qualified procurement consultant to handle all procurement related matters of project implementation.

94. **Risks identified in the World Bank August 2020 procurement assessment of the SCF** include: (i) issues with enforcement of the PPL and other relevant legislative requirements in practice; (ii) potential to influence procurement decisions by influential government officials; (iii) difficulties in hiring qualified procurement consultants due to low salary levels and low attractiveness of civil servant jobs among qualified staff; and (iv) procurement delays. Mitigation measures have been identified by the World Bank and are detailed in Annex 1.

95. **Retroactive financing** will be considered under the project IDA financing up to US$1 million. The Borrower undertakes such advance procurement at its own risk and any concurrence by the World Bank on the procedures, documentation, or proposal for award of contract does not commit the World Bank to finance the project. Expenditures incurred until the date of signing the Credit Agreement may be eligible for retroactive financing, provided that the procurement procedures and other World Bank policies are complied with.

C. Legal Operational Policies

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

96. OP 7.50 is applicable to this project because the project will finance activities that may draw on water from the Amu Darya and Syr Darya Rivers and/or their tributaries, which are considered international waterways. The exception to the riparian notification requirement according to paragraph 7(a) of the Policy applies because activities are limited to use of water from existing schemes and will appreciably impact quality or quantity of water flows to other riparians. The exception to the notification requirement was approved by the RVP on November 20, 2021.

D. Environmental and Social

97. The environmental and social risks are Substantial and are covered by the following World Bank Environmental and Social Standards (ESSs): ESS 1, ESS 2, ESS 3, ESS 4, ESS5, ESS 6, ESS 8, and ESS 10. The main social and environmental risks and mitigation measures will result from activities of components 2 and 3, which will support

landscape restoration, reforestation, slope stabilization, roadside tree planting, sylvicultural and enrichment planting measures, pasture improvement, and introduction of food production systems (horticulture, agroforestry) including some financial and market facilitation assistance to the economic development of local communities. The project also has a transboundary dimension through promoting regional activities in landscape restoration along project corridors connecting with Tajikistan.

98. Main environmental risks are risks of new conversion or the loss of natural habitats and biodiversity from tree planting, possible risks from changes to landscapes, potential spread of invasive tree or shrub species, risks related to potential overharvesting of NTFPs, and environmental and occupational hazard risks related to small scale renovation and construction works (visitor buildings, eco-trails, viewing platform, and other NBT related interventions). There is also a need to ensure that the SCF will maintain policies and practices that adequately conserve wildlife species and biodiversity areas that the project corridors encompass, especially around the Zaamin PA and the Central *leskhoz* of Samarkand PA.

99. Main social risks are potential changes of land-use practices and restriction of access to pastures and forest land, and forest products traditionally used by local communities of targeted landscapes as a result of the development and implementation of integrated land use plans and implementation of management plans of PAs. Contextual risks include the competing interests and demands of different land and water users, and the need to consider tradeoffs between different stakeholder interests, avoid elite capture and social exclusion. On the social exclusion risk, there are concerns about ensuring vulnerable and disadvantaged groups primarily from low-income households including family enterprises, farmer/community groups, small entrepreneurs, and vulnerable members of communities, including women, youth, and persons with disabilities in villages will benefit from the project, specifically from Component 2. Thus, the project will need to ensure in-depth stakeholder involvement during subproject design, planning, and implementation. The project will apply appropriate stakeholder engagement strategies to ensure that the local communities are provided with an opportunity to participate in decision-making and derive full benefits.

100. The project does not anticipate land acquisition and involuntary resettlement due to direct project construction works. The project interventions will be implemented in representative sites within the project areas, predominantly on SFF. Other lands may be used where interventions are required, provided there are no outstanding issues such as disputed tenure or other rights. The project sub-components and activities which would involve any land acquisition and involuntary resettlement impacts will not be eligible for financing. There is a possibility of livelihood impacts in and around the two project-supported PAs (Central *leskhoz* of Samarkand and Zaamin), which relate to potential future restrictions on livestock grazing within one or both of these parks. There might also be increased restrictions on the collection of fuelwood or other non-timber forest products. A Process Framework that was drafted focuses on addressing the potential livelihood impacts of these restrictions within the two PAs. Outside these two PAs, the project would support much-needed tree and shrub planting on degraded SFF lands. To enable the tree and shrub seedlings to grow successfully, it is likely that livestock grazing (especially by goats) will also need to be somewhat restricted, at least during the first few years following tree/shrub planting. The potential project-related impacts on livelihoods would be the same whether the project activity is within a PA or outside on SFF Land.

101. Towards addressing the risks, the following instruments have been drafted, consulted on by the SCF, and disclosed: (i) Environmental and Social Management Framework; (ii) Stakeholder Engagement Plan; (iii) Labor

Management Procedures; and (iv) Environment and Social Commitment Plan.[69] Final versions of the instruments will be cleared for disclosure by the Implementing Agency and World Bank prior to project effectiveness. A Process Framework/Resettlement Policy Framework (PF/RPF) was prepared and disclosed to address potential livelihood impacts from project-supported restrictions on natural resource use, whether inside or outside of PAs[70], and a final version will be consulted upon with stakeholders and affected communities, and re-disclosed three months after project effectiveness.

102. Although ESS4 on Community Health and Safety is relevant to this project, its dam safety requirements are not. While certain project interventions, such as tree nurseries, shelterbelts, agroforestry, orchards (using drought-tolerant and native species), wood plantations, and native forest restoration will involve small-scale water use, effective functioning of the project will not depend on the continued functioning of any dam in Uzbekistan. Moreover, the project will implement efficient water usage and harvesting techniques, including, for example, rainwater harvesting and use of hydrogels.[71]

V. GRIEVANCE REDRESS SERVICES

103. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank'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 World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank 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 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

104. **The overall project risk is rated Substantial.** The key risks to the achievement of the PDO and their corresponding mitigation measures are:

105. **Institutional Capacity for Implementation and Sustainability: Substantial.** The SCF does not have prior experience in implementing World Bank-funded projects, and the experience of the SCF, *leskhoz*, and other stakeholders in integrated landscape management is rather weak. Capacity risks will be mitigated by contracting a project implementation support consulting firm to assist the PIU during at least the first two years of implementation as its capacity builds up. In addition, activities to be financed under Component 1 will address capacity weaknesses through a capacity building program based on a thorough gap analysis of institutional and technical capacities. It is also noted that the SCF has some forest restoration experience having partnered with GIZ, FAO and other

[69] The draft Environmental and Social Management Framework was disclosed in-country on March 28, 2022 and in the World Bank on March 29, 2022; the draft Stakeholders Management Plan was disclosed in-country on March 28, 2022 and in the World Bank on November 21, 2021; the draft Labor Management Procedures were disclosed in-country on March 28, 2022 and in the World Bank on March 29, 2022; and the draft Environmental and Social Commitment Plan was disclosed in-country on March 28, 2022 and in the World Bank on December 22, 202.
[70] The PF/RPF was disclosed in-country on March 28, 2022 and in the World Bank on January 14, 2022.
[71] See ESS4, Annex 1 on Safety of Dams for the kinds of projects that would require some type of dam safety analysis.

development partners in such activities. The residual risk remains Substantial since the increase of capacities is expected to take time, which may delay the implementation of activities under components 2 and 3.

106. **Fiduciary: Substantial.** The FM and procurement risks are mainly related to the capacities within the SCF and its lack of prior experience in implementing World Bank-financed projects. While specific FM and procurement risk mitigation measures will be built into the design of the project, including the hiring of qualified specialists with prior World Bank experience as part of the PIU, and providing targeted capacity building to the SCF staff and hired specialists, including the implementation support consulting firm, the residual risk is Substantial because it may take time for the SCF staff to accept and implement the World Bank guidelines and procedures and to gain experience in implementing them. Further, the capacity of the hired specialists may not be sufficient to timely bridge the knowledge gap that exists in the SCF.

107. **Environmental and Social: Substantial.** The SCF does not have prior experience in the World Bank Environmental and Social framework (ESF) and its capacity to manage environmental and social risks is limited. To enhance these capacities, the PIU will comprise environment, social development, and gender specialists, with a possibility to add more ESF-focused specialists as needed. The SCF's capacity to manage E&S risks will be continuously assessed during project implementation to determine capacity gaps, and project-specific, targeted training will be provided on the ESF and other environmental and social management aspects on an ongoing basis. Specific PIU capacity building measures such as training needs are identified and listed in the Environment and Social Commitment Plan .

108. Political and governance, sector strategies and policies, technical design of project or program, stakeholders, and COVID-19 (under the 'Other' category) are assessed as posing Moderate risks to the achievement of the PDO, while the macroeconomic risks is assessed as Low.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Central Asia

RESILAND CA+ Program: Uzbekistan Resilient Landscapes Restoration Project

Project Development Objectives(s)

The objectives of the Project are (i) to increase the area under sustainable landscape management in Selected Locations in Uzbekistan; and (ii) to promote Uzbekistan's collaboration with other Central Asian countries on transboundary landscape restoration.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Increase the area under sustainable landscape management in Selected Locations in Uzbekistan								
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0.00	0.00	50,000.00	150,000.00	200,000.00	250,000.00	280,000.00
People benefiting from landscape management practices (Number)		0.00	0.00	0.00	100,000.00	250,000.00	400,000.00	500,000.00
People benefiting from landscape management practices - Female (Number)		0.00	0.00	0.00	30,000.00	75,000.00	120,000.00	150,000.00
Promote UZ's collaboration with other Central Asian countries on transboundary landscape restoration								
Transboundary sustainable landscape management		0.00	1.00	2.00	3.00	4.00	4.00	5.00

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
policies harmonized (Number)								

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Strengthen Institutions and Policies, and Support to Regional Collaboration								
Enabling environment for Land Degradation Neutrality and Nationally Determined Contribution targets improved (Yes/No)		No	No	No	No	No	No	Yes
A technology-based National Forest Inventory developed and operational (Text)		No NFI in place	No NFI in place	No NFI in place	No NFI in place	First cycle NFI in place	First cycle NFI in place	First cycle NFI in place
A National ICT Platform for Forest Landscape Restoration and Management developed and operational (Text)		No ICT platform in place	No ICT platform in place	No ICT platform in place	ICT Platform in place and operational	ICT Platform in place and operational	ICT Platform in place and operational	ICT Platform in place and operational
Regional online database established and operational (Text)		A thematic portal on energy, water, climate, agriculture, and health (CACIP)	A thematic portal on energy, water, climate, agriculture, and health (CACIP)	A thematic portal on energy, water, climate, agriculture, and health (CACIP)	A regional online database on sustainable landscape restoration and management attached to CACIP	A regional online database on sustainable landscape restoration and management attached to CACIP	A regional online database on sustainable landscape restoration and management attached to CACIP	A regional online database on sustainable landscape restoration and management attached to CACIP
Beneficiaries reporting effective engagement		0.00			80.00			80.00

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
processes through the regional online database (Percentage)								
Beneficiaries reporting effective engagement processes through the regional online database - female (Percentage)		0.00			80.00			80.00
Enhance Resilient Landscapes and Livelihoods								
Land area under improved agroforestry systems, plantation, reforestation, and/or grazing management (Hectare(Ha))		0.00	0.00	45,000.00	90,000.00	130,000.00	200,000.00	253,464.00
Land-users adopting landscape restoration practices (Number)		0.00	0.00	0.00	5,000.00	15,000.00	20,000.00	25,000.00
Land-users adopting landscape restoration practices - female (Number)		0.00	0.00	0.00	1,500.00	4,500.00	6,000.00	7,500.00
New or existing natural resource-based enterprises that receive financing (Number)		0.00	0.00	0.00	50.00	150.00	200.00	250.00
New or existing natural resource-based enterprises owned by women that receive financing (Number)		0.00	0.00	0.00	25.00	75.00	100.00	125.00
Beneficiaries of job-focused interventions (CRI, Number)		0.00	0.00	0.00	1,700.00	5,100.00	7,500.00	8,500.00
Beneficiaries of job-		0.00	0.00	0.00	610.00	1,830.00	2,250.00	3,050.00

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
focused interventions - Female (CRI, Number)								
Beneficiaries satisfied with project-supported services (Percentage)		0.00			80.00			80.00
Beneficiaries satisfied with project-supported services- Female (Percentage)		0.00	0.00	0.00	80.00	0.00	0.00	80.00
Net greenhouse gas (GHG) emissions (CRI, Metric tons/year)		0.00			28,000.00			373,893.00
Enhance Protected Areas and Nature-based Tourism								
Protected area under improved management (Hectare(Ha))		0.00	0.00	0.00	13,000.00	17,000.00	21,000.00	26,536.00
Increase in Protected Areas Management Effectiveness Tracking Tool (METT) score (Percentage)		0.00			5.00			10.00
Nature-based tourism infrastructure established or upgraded in Protected Areas and State Forest Fund Land (Number)		0.00	0.00	2.00	8.00	12.00	16.00	20.00
Project Management and Coordination								
Feedback/grievances resolved within the stipulated service standards for response time (Percentage)		0.00	80.00	80.00	80.00	80.00	80.00	80.00

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, agronomic, vegetative,	Annual	Province-based staff of the PIU	For Uzbekistan, SLM refers to practices within tree systems, including agroforestry (intercropping with trees, shelterbelts); improved grazing land management through farmer-based natural regeneration and enrichment planting; plantations and reforestation (production-oriented plantations, tree belts for protection of catchments and erosion control); protected area management; soil fertility and water harvesting measures to support tree systems; and other relevant sustainable landscape management practices.	SCF-IRED

	structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.			The target reflects 77,700 hectares of tree-based production oriented interventions and ecosystem service-oriented interventions, 26,536 hectares of managed PAs (the total area of Zaamin PA and 10 percent of the Central leskhoz of Samarkand PA), and 175,764 hectares of farmer-based natural regeneration. The target represents 70% of the SFF land within the six project corridors (396,685 ha according to the SCF). The methodology for data collection would rely on the results measured by the IRIs "Land area under improved agroforestry systems, plantation, reforestation, and/or grazing management" and "Protected area under improved management". This indicator	

				corresponds with the PROGREEN indicator for pillar 1 "Area under sustainable forest management". Direct PROGREEN contribution: 14,000 ha.	
People benefiting from landscape management practices	The target reflects the population that resides within the Uzbekistan side of the 6 Project corridors, including 25,000 direct beneficiaries (lands users under sub-component 2.1 and 2.2). Indirect beneficiaries are expected to benefit from landscape management practices through environmental services and NBT activities.	Annual	Review of progress reports for the direct beneficiaries and World Bank Group Spatial Agent for indirect beneficiaries within the corridor.	Aggregation of beneficiary numbers by sex in each corridor on the Uzbekistan side and beneficiaries of project activities.	SCF-IRED
People benefiting from landscape management practices - Female	The target reflects around 30% of the population that resides within the Uzbekistan side of the 6 Project corridors (according to World Bank Group Spatial Agent with 2018 data), including 7,500 female direct beneficiaries (female lands users under sub-component 2.1 and 2.2).	Annual	Review of progress reports for the direct female beneficiaries and World Bank Group Spatial Agent for indirect female	Aggregation of female beneficiary numbers in each corridor on the Uzbekistan side.	SCF-IRED

	Indirect female beneficiaries are expected to benefit from landscape management practices through environmental services and NBT activities.		beneficiaries.		
Transboundary sustainable landscape management policies harmonized	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. When results are aggregated at the RESILAND CA+ level, this result will not be double-counted.	Annual	CAREC	Minutes of Regional Exchange Platform meetings' minutes, review of protocols and MoUs	SCF-IRED

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Enabling environment for Land Degradation Neutrality and Nationally Determined Contribution targets improved	The improved enabling environment will include: (i) revised LDN targets, (ii) a draft unified policy for forest landscape management, (iii) a draft comprehensive Forest Code, (iv) a draft national master plan for FLR and management, and (v) official incorporation of educational curricula on forest landscape restoration into the TSAU. Approaches for collaborative management with communities and user groups to user groups will be explored. This indicator corresponds with the PROGREEN indicator for pillars 1+2 "Countries with policy and institutional framework improved".	Completion	SCF-IRED, UNCCD Secretariat, and TSAU	Review of legislation/plan/LDN targets, review of TSAU curricula on forest landscape restoration.	SCF-IRED
A technology-based National Forest Inventory developed and operational	The NFI (first cycle) will be presented within an NFMS - a data platform that is capable of producing reports that inform forest and relevant policies and	Annual	SCF Forest Design Institute, NFMS Unit	Review of features and testing of the NFI and NFMS	SCF-IRED

	forest landscape planning, allows the periodical updating of data, and the production of periodical relevant reports. The NFI will cover the entire country and present data collected through field and remote sensing surveys.				
A National ICT Platform for Forest Landscape Restoration and Management developed and operational	The ICT Platform would be a state-of-the-art two-way forest management information system that monitors afforestation, reforestation, natural regeneration forests, and forest land use changes, and features a disaster response information platform, forest big data with mobile application, and a decision support tool that produces tailor-made recommendations on a set of forest-related subjects for decision making, planning, and monitoring. "Operational" is defined as follows: • ICT Platform software and other ICT equipment installed in the SCF offices and leskhozes (5	Annual	SCF Forest Design Institute, SCF offices	Testing of ICT Platform's features and functions	SCF-IRED

	in total) • ICT platform software in use in the SCF offices and leskhozes (5 in total) • 16 training sessions on software use, operation, and maintenance provided to SCF and leskhoz staff • 75% of trained SCF and leskhoz staff score a minimum of 80 in a knowledge test • Software user friendly guidelines available in English and Uzbek • 8 Joint meetings/missions between KFS experts and CF and leskhoz officials				
Regional online database established and operational	CAREC houses a Central Asia online database that stores, hosts, and publishes data and publications on sustainable landscape management and restoration with links to similar landscape restoration platforms outside the region. When results are aggregated at the RESILAND CA+ level, this result will not be double-	Annual	CAREC	Review of the online database	SCF-IRED

	counted.				
Beneficiaries reporting effective engagement processes through the regional online database	Beneficiaries are users of the regional online database supported under sub-component 1.3 and managed and hosted by CAREC.	Mid-term and completion	Results of user surveys conducted at mid-term and completion for the entire program	Averaging of male and female user satisfaction surveys results	CAREC
Beneficiaries reporting effective engagement processes through the regional online database - female	Female beneficiaries are female users of the regional online database supported under sub-component 1.3 and managed and hosted by CAREC.	Mid-term and completion	Sex disaggregated results of user surveys conducted at mid-term and completion	Averaging of female user satisfaction surveys results	CAREC
Land area under improved agroforestry systems, plantation, reforestation, and/or grazing management	The target reflects 77,700 hectares of tree-based production oriented interventions and ecosystem service-oriented interventions and 175,764 hectares of farmer-based natural regeneration.	Annual	SCF-IRED and Province-based staff of the PIU	Aggregation of data from all targeted provinces	SCF-IRED
Land-users adopting landscape restoration practices	Individuals and their household members engaging in project-funded landscape restoration practices supported under	Annual	Province-based staff of the PIU, engaged NGOs	Aggregation of land user numbers by sex in each targeted province	SCF-IRED

	sub-component 2.1, and community members/groups' members/SME members engaging in project-financed new or improved livelihoods in sustainable livelihoods under sub-component 2.2. This indicator corresponds with the PROGREEN indicator for pillar 1 "Land-users adopting new practices in targeted landscapes". Direct PROGREEN contribution: 1,250 people, 375 of whom women.				
Land-users adopting landscape restoration practices - female	Female individuals/household members engaging in project-funded landscape restoration practices supported under sub-component 2.1, and female community members/groups' members/SME members engaging in project-financed new or improved livelihoods in sustainable livelihoods under sub-component 2.2.	Annual	Province-based staff of the PIU, engaged NGOs	Aggregation of sex disaggregated date from targeted provinces	SCF-IRED
New or existing natural resource-based enterprises that receive financing	Enterprises could be of three types as laid out in	Annual	Province-based staff of	Review of business registration records	SCF-IRED

	Law N 69-II, enacted on 25 May 2000 and amended on 2 May 2012: individual entrepreneurs, microfirms, and small enterprises.		the PIU and engaged NGOs/other community mobilization organizations		
New or existing natural resource-based enterprises owned by women that receive financing	Registered enterprises are three types of enterprises as laid out in Law N 69-II, enacted on 25 May 2000 and amended on 2 May 2012, namely individual entrepreneurs, microfirms, and small enterprises. As per Article VI, individual entrepreneurs do not need to form a legal entity, but they register their activity with government. Enterprises are registered with the Single Window Services offices at the district level, which are operated by the Public Services Agency. Female registered enterprises are those enterprises registered by a women or women.	Annual	Province-based staff of the PIU and engaged NGOs/other community mobilization organizations	Review of registration records and membership	SCF-IRED
Beneficiaries of job-focused interventions		Annual	SCF-IRED, Province-based staff of the PIU,	Aggregation of data from provinces on the number of people reached by	SCF-IRED

			TAPs, and CBAs	interventions that generate income (monetary/in-kind) through more/better/inclusive jobs. Beneficiaries are individual, workers, farmers, SME members, other target group members, and their household members. The target includes 2,500 people benefiting from the matching grants program and 6,000 people benefiting from the Green Wager Program (1,000 per corridor for about three months).	
Beneficiaries of job-focused interventions - Female		Annual	SCF-IRED, Province-based staff of the PIU, TAPs, and CBAs	Aggregation of data from provinces on the number of people reached by interventions that generate income (monetary/in-kind) through more/better/inclusive jobs. Beneficiaries are individual, workers, farmers, SME members,	SCF-IRED

				other target group members, and their household members. The target includes 1,250 females benefiting from the matching grants program and 1,800 females benefiting from the Green Wager Program (around 300 per corridor for about three months).	
Beneficiaries satisfied with project-supported services	Rate of satisfaction of beneficiaries provided with project-financed short, medium, or long-term livelihood opportunities and jobs, job-oriented training, and/or micro-finance. Livelihoods are defined as activities that generate income, monetary or in kind. Beneficiaries are community members, farmers and farmer group members, SME members, and other target groups that benefit from the project.	Mid-term and completion	Third party survey results	Satisfaction surveys conducted by a third party at mid-term and completion. The satisfaction rate will be based on the combined rate of Satisfied and Highly Satisfied respondents.	SCF-IRED
Beneficiaries satisfied with project-supported services- Female	Rate of satisfaction of female beneficiaries provided with project-	Mid-term and completion	Third party survey results	Satisfaction surveys conducted by a third party at mid-term and	SCF-IRED

	financed short, medium, or long-term livelihood opportunities and jobs, job-oriented training, and/or micro-finance. Livelihoods are defined as activities that generate income, monetary or in kind. Beneficiaries are female community members, farmers and farmer group members, SME members, and other target groups that benefit from the project.			completion. The satisfaction rate will be based on the combined rate of Satisfied and Highly Satisfied respondents.	
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.	Mid-term and completion	EX-ACT Tool calculations. The target represents emission mitigation (reduction) results.	GHG accounting will be carried out using the EX-ACT Tool	SCF-IRED
Protected area under improved management	The target reflects the area of Zaamin PA (24,110 ha) and 10 percent of the area of the Central leskhoz of	Annual	SCF-IRED	Aggregation of data from supported protected areas	SCF-IRED

	Samarkand PA (2,426 ha). This indicator corresponds with the PROGREEN indicator for Pillar 1: Land area under reforestation (direct contribution: 1,326 ha)				
Increase in Protected Areas Management Effectiveness Tracking Tool (METT) score	METT tracks and monitors progress towards worldwide protected area management effectiveness. The methodology is a rapid assessment based on a scorecard questionnaire. The scorecard includes all six elements of management identified in the IUCN World Commission on Protected Area (context, planning, inputs, process, outputs, and outcomes). Baseline to be established in Year 1.	Mid-term and completion	METT scorecards' results generated by SCF-IRED for both protected areas	METT Scorecard	SCF-IRED
Nature-based tourism infrastructure established or upgraded in Protected Areas and State Forest Fund Land	The NBT basic infrastructure will include visitor centers in Zaamin PA and in Central leskhoz of Samarkand PA, as well as any of the following: observation points, roads, trails, parking areas, guest accommodation facilities, camping and picnic areas, zipline facilities, safe water	Annual	SCF, PAs' management offices	Counting of infrastructures constructed and established. For the visitor centers: comparison of management plans' description/specifications of the visitor center with actual features.	SCF-IRED

	facilities, food service areas, restrooms, waste disposal facilities, or other infrastructure that supports NBT in PAs and SFF land around the PAs.				
Feedback/grievances resolved within the stipulated service standards for response time	This indicator measures that proportion of feedback/grievances that are addressed within set standards as stipulated in the Project's GRM guidelines.	Annual	GRM logbook, project reports	Comparison of the time between the receipt of a grievance and its satisfactory resolution - with that stipulated in the GRM guidelines	SCF-IRED

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Uzbekistan
Uzbekistan Resilient Landscapes Restoration Project

Institutional and Implementation Arrangements

1. **Borrower.** The Borrower of the IDA Credit and recipient of the IDA and PROGREEN and KWPF grants is the Republic of Uzbekistan, represented by the Ministry of Finance (MoF).

2. **Implementing Agency.** Project Implementing Agency is SCF, which will have the overall responsibility for project management and coordination. The SCF will implement the Project in consultation with the local government at provincial and district levels, and with the *leskhoz*. The SCF was created in 2017 through PD "On creation of the State Committee of Uzbekistan on forestry" to implement forest policies, ensure full and rational use of forestry in Uzbekistan, improve the forestry management system, ensure efficient use of the SFF, develop NBT, and additional forest-related responsibilities. The SCF employs about 9,000 staff members in 12 decentralized/local offices – one in each province and in Karakalpakstan. The 2019 Presidential Resolution on "Additional Measures to Increase the Efficiency of Forest Use in the Republic" (PP-4424), 2020 Presidential Resolution on "the Forest System Development Concept to 2030" (PP-4850), and 2021 Presidential Resolution on "measures to develop science and promote scientific research in the forest Sector" (PP-4960) further defined its structure, responsibilities, and targets. The SCF will manage the project Designated Account in the Central Bank of Uzbekistan and will be responsible for overall project reporting to the World Bank.

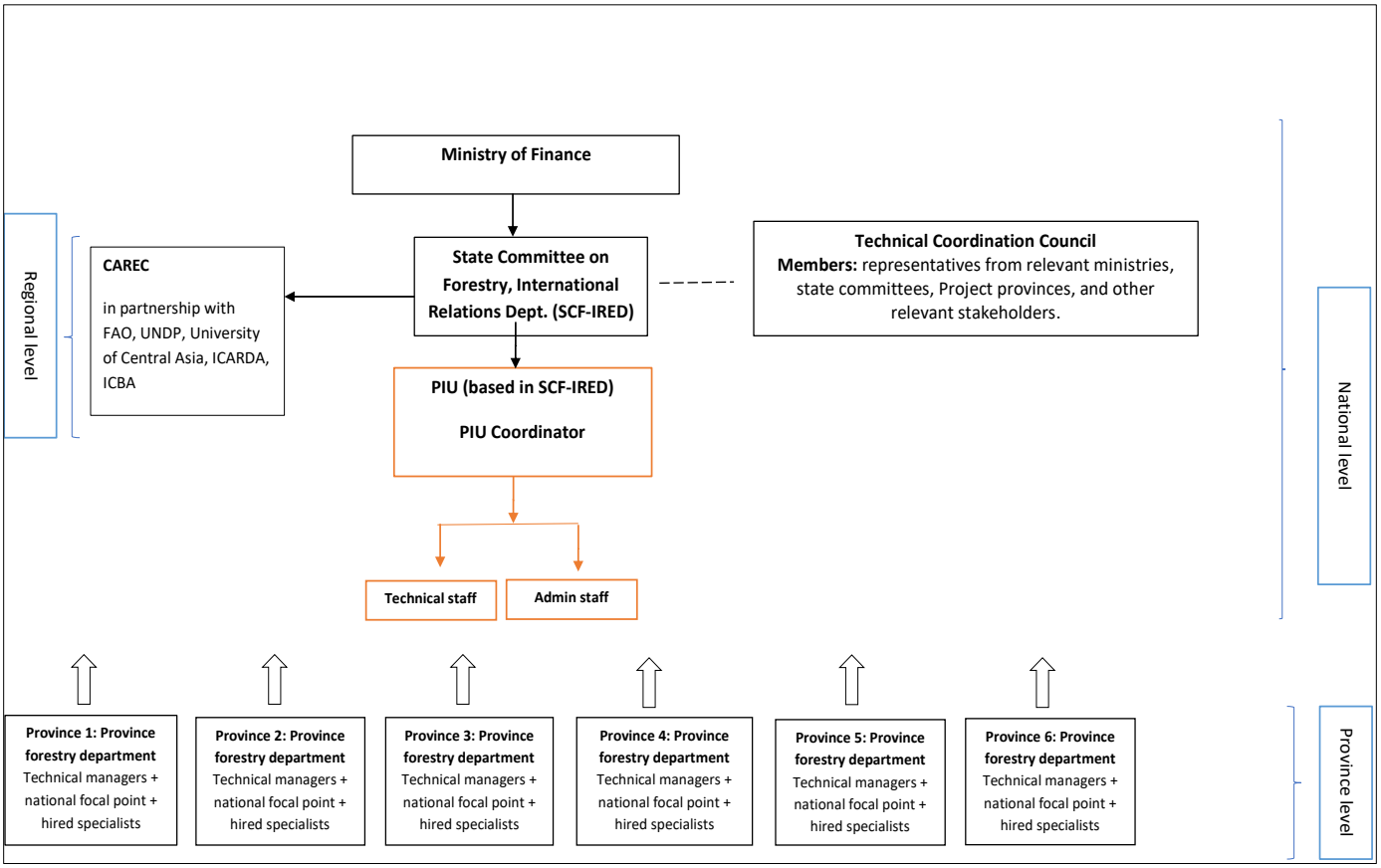
3. **Technical Coordination Council.** While project oversight responsibilities will rest with the SCF, a TCC will be established to provide technical guidance and ensure inter-ministerial coordination and cooperation. The TCC will be composed of representatives from relevant ministries, state committees, project provinces, and other relevant stakeholders, and will meet 2-3 times per year.

4. **Central Project Implementation Unit.** At the national level, the SCF-IRED will host a PIU composed of, at a minimum, a project coordinator, and specialists in M&E, accounting, FM, communication, procurement, social, livelihoods and environmental specialists, and gender; as well as technical specialists in forestry, landscapes, NBT, community-based forest- and natural resource-based livelihoods, ICT, and policy. The PIU will carry out project management and coordination tasks, including preparation of annual work plans and budgets, procurement activities, FM of project funds, hiring of auditors, development and maintenance of a project communication program and grievance redress mechanism, M&E, and reporting. The PIU will also be responsible for ensuring project compliance with environmental and social standards, attention to gender aspects, and CE. It will provide secretariat services to the TCC.

5. **Local Technical Support.** Additional technical staff will be hired at the local level, working within the SCF departments of project provinces, comprising at a minimum a technical manager, a national focal point, and technical specialists, including livelihoods specialists for each department. Local-level staff of the PIU will coordinate province-level activities and report on their progress to the central PIU.

6. **Regional activities will be executed by CAREC through a contract with the GoU/SCF.** CAREC will execute sub-component 1.3, and, as needed, will subcontract other entities for execution of specific activities. Alternative options will be evaluated if the contract with CAREC does not materialize.

Figure 1.1 : Project Institutional Arrrangements



7. **Project Operations Manual.** The SCF at the central and local levels will implement the project guided by a POM, developed by the GoU and approved by the World Bank. The POM will include details on institutional and implementation responsibilities, technical aspects of all components and activities, guidance on M&E of project results and outcomes, environmental and social risk mitigation measures, disbursements and FM aspects, applicable procurement rules and plans, and project supervision and reporting provisions. A COM will be developed to guide the use of the matching grants mechanism under sub-component 2.2. In implementing the project, the SCF will be responsible for ensuring compliance with the World Bank ESS requirements.

8. **Implementation modalities for sub-component 1.1 (Strengthen Institutions and Policies):** The SCF will be responsible for implementation of this sub-component. The SCF's Forest Design Institute NFMS Unit will lead the development and management of the NFI and the NFMS, in tandem with the respective units at the SCF headquarters. The Forest Design Institute will require significant support in terms of technical facilities and survey equipment, followed by training of new employees. The National Center for Geodesy and Cartography will provide digital maps (GIS layers) for the NFMS; the Tashkent State Agrarian University (TSAU), as the only institution providing higher forest and landscape education, will allocate students to participate and gain experience in the development of the NFI; and the Tashkent Institute of Irrigation and Melioration will provide expertise or additional

training on Remote Sensing and GIS tools through its EcoGIS Center. Rural schools will be mobilized by a hired local NGO in collaboration with relevant PA management staff of the SCF.

9. **Implementation modalities for sub-component 1.2 (Develop an ICT Platform for Forest Landscape Restoration and Management):** The ICT Platform will be developed by the SCF. The SCF will work with a qualified company that will be anchored in and managed by the Forest Design Institute. Technical support will also be provided to the Forest Design Institute by the KFS, FAO-Uzbekistan, and relevant consultants with strong knowledge and experience in the setting up of such ICT platforms.

10. **Implementation modalities for sub-component 1.3 (Strengthen Regional Collaboration):** CAREC will execute this sub-component under a direct contract with the GoU given its regional mandate and capacities. CAREC will sub-contract other entities as needed to execute specific activities. Alternative options will be evaluated if the contract with CAREC does not materialize.

11. **Implementation modalities for sub-component 2.1 (Enhance Tree-based Landscape Restoration and Management):** This sub-component will be implemented by the SCF. The SCF will work with its Forestry Research Institute on the ecological site classification and with its Forest Design Institute on integrated land use plans—both activities will be developed in a participatory manner with local communities. The implementation of productive and restorative activities on SFF Land will be the responsibility of the SCF, which will contract the *leskhoz* either through direct contracting or through a competitive selection (fiduciary responsibilities will remain with the SCF), and benefit from technical expertise, extension, and outreach provided by the Forest Research Institute. The *leskhoz* will also support the Green Wager Program under similar arrangements.

12. **Implementation modalities for sub-component 2.2 (Enhance Resilient Livelihoods and Value Chains):** Sub-component 2.2 will be implemented by the SCF[72] in consultation with the provincial and district levels government (*khokimiyat*), and *leskhoz* (*leskhoz* will be contracted by the SCF through direct contracting or through a competitive selection. Fiduciary responsibilities will remain with the SCF). At the community level, activities will be executed by contracted MCAs with support from TAPs and CBAs. The PIU team, which includes regional livelihood specialists, will provide support in coordination, oversight, monitoring, outsourcing, and management of TAPs, and management of the disbursement of the matching grants, and oversee and monitor the matching grant mechanism and the performance of enterprises. The *leskhoz* with the SCF will play a central role in coordinating the review and approval of proposals that require the lease of SFF land.[73] TAPs and CBAs will provide technical assistance for business development. MCAs will introduce the project to communities and existing community level enterprises and engage them in activities and assist in identifying the CBAs (CBAs will be paid by the project through the TAPs and the TAPs will provide training and support to CBAs throughout project implementation).

[72] GoU Resolution (PKM-530) from July 19, 2017 defines the main tasks of the SCF as including expansion and development of associated economic activities in forestry, implementation of measures for the production of seedlings, collection of medicinal herbs, organization of production and deep processing of agricultural products, beekeeping products, fish farming, animal husbandry, production of consumer goods. The SCF has a department that is responsible for consumer goods, agriculture products, including those implemented with the involvement of local communities, which will serve as the focal point for sub-component 2.2 activities.

[73] The decision on land allocation for lease rests ultimately with the SCF. The SCF issues competitive tenders for the allocation of land for lease for enterprise activities, typically for large plots. Individuals and groups can submit proposals directly to lease small plots. Under such a scenario, *leskhoz* staff review proposals to determine whether the land is suitable for the proposed economic activity. If the *leskhoz* concludes that the land is suitable, it informs the SCF, which, in turn, issues a tender for the lease. For small-scale activities, one bidder is sufficient for the purposes of the tender. Lease agreements are tripartite and signed by the SCF, *leskhoz*, and enterprise. The proposal review and land lease tender processes will be described in the COM.

13. TAPs will support market assessments, livelihoods menu preparation, business training, planning and business plan development, establishing of the matching grant mechanisms, and providing business support. They will establish partnerships with commercial banks to provide additional financing to successful enterprises to expand business activities; with other development programs to support infrastructure and digitalization related to the selected livelihoods; and with private sector associations and companies to establish market linkages and promote value addition and value chain development. CBAs will support the social mobilization and participatory processes to identify community groups/beneficiaries, provide support in the enterprise selection process, work with the TAPs to support the business plan preparation process, collect data on each of the groups and their business enterprises, prepare monthly performance reports, and provide handholding and follow up support to community-level enterprises.

14. **Implementation modalities for Component 3 (Enhance Protected Areas and Nature-based Tourism):** The SCF is responsible for implementation of the component. The SCF will collaborate with other entities where needed, for example, with the State Committee on Ecology and Environmental Conservation (SCEEP) for matters concerning PAs outside SFF land, and for technical support; and with the Ministry of Tourism and Sports for technical support and coordination of NBT-related interventions. IUCN is expected to provide useful technical advice on biodiversity, PA management, and trans-boundary conservation issues.

Procurement

15. **Applicable Procurement Framework**. All procurement of contracts will be conducted through the procedures as specified in the World Bank's Procurement Regulations for IPF Recipients – Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, dated July 2016, revised November 2017, August 2018, and November 2020. The Guidelines on Preventing and Combating Fraud and Corruption in projects financed by IBRD loans and IDA credits and Grants, dated October 15, 2006, and revised January 2011 and as of July 1, 2016, shall apply to this project. The procurement and contract management processes will be tracked through the Systematic Tracking of Exchange in Procurement (STEP) system.

16. **Procurement Environment.** The GoU has introduced several measures aimed at improving transparency of procurement processes at government entities and SOEs. One such measure is the adoption of the 2021 PPL, which introduced key procurement principles and includes a list of permitted procurement methods and their practical application procedures. Another example is the introduction of exarid.uzex.uz, the electronic portal for public procurement tender processes. Currently, all government institutions are required to use the exarid.uzex.uz platform to announce small-value tenders (with a contract value not more that twenty-five thousand times of the basic calculation value), receive tender proposals, carry out tender evaluations and publish public procurement results.

17. **Institutional and Implementation Arrangements.** The project, including procurement, will be implemented by SCF-IRED with the assistance of technical consultants and staff of other relevant units of the SCF. A procurement consultant will be recruited for handling day to day procurement activities. The technical staff of the relevant units of the SCF will be responsible for working with external consultants and monitoring their work. In addition, they will be responsible for accepting and approving outputs prepared by selected consultants. The SCF has implemented several projects funded by international organizations such as GIZ, FAO, and the EU. However, all projects are donor executed and the SCF has not been involved in the procurement aspects of project implementation. Therefore, the SCF staff have had very limited exposure to procurement rules and procedures of international donor organizations.

Due to the limited procurement capacity of the SCF will need to hire a local qualified procurement consultant to handle all procurement related matters of project implementation.

18. **Sub-component 1.3 will be executed CAREC** under a direct contract with the SCF, and CAREC may subcontract other entities for execution of specific activities as needed. CAREC is an independent, non-political, non-for-profit international organization, established in 2001 by all five Central Asia countries, the European Union and UNDP. It is headquartered in Almaty, Kazakhstan, with country offices in all Central Asia capitals. CAREC is recognized by national, regional, and international partners, and has a regional mandate to assist governments as well as regional and international stakeholders in addressing environmental and sustainability challenges across the Central Asia 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 sub-component on regional collaboration. CAREC has implemented projects financed by the World Bank, Asian Development Bank, EU, GIZ, FAO, UNDP, ICARDA, UNEP, Organization for Security and Cooperation in Europe, and several others, thereby placing it in a unique position to execute the regional collaboration sub-component. Alternative options will be evaluated if the contract with CAREC does not materialize.

19. **Risk Analysis.** Risks identified in the World Bank August 2020 procurement assessment of the SCF include: (i) issues with the enforcement of the PPL and other relevant legislative requirements in practice; (ii) possibility of an attempt of influence by influential government officials on procurement decisions; (iii) difficulties in hiring qualified procurement consultants due to the low salary levels and low attractiveness of civil servant jobs among qualified staff; and (iv) procurement delays. Taking this into account, in particular the overall procurement environment in the country, the overall project risk for procurement is assessed as High before mitigation and Substantial after mitigation (residual risk). To mitigate these risks, the following actions are recommended:

a) All procurement activities will be carried out following World Bank procurement procedures, including the related prior- or ex-post reviews.

b) The World Bank team will support the SCF staff and the procurement consultant to be hired on all procurement matters to ensure that procurement processes are carried out in line with relevant World Bank policies and procedures.

c) The SCF will ensure that a qualified procurement consultant is hired to be responsible for the day-to-day procurement activities.

d) The World Bank good governance and anticorruption safeguards, particularly the transparency and disclosure provisions of the IBRD Guidelines, will be promoted and enforced.

e) The Project Procurement Strategy for Development (PPSD) includes a section reflecting the roles and responsibilities, including roles of consultant/experts, for development of good quality TORs and Technical specifications. In addition, the role of the SCF and other involved agencies in designing technical specifications and TORs will be clarified.

f) The POM should have clear deadlines and timelines for each step in the procurement processes for both consultant selection and goods/technical services procurement to avoid unnecessary delays during the implementation.

20. The World Bank will require the application of, and compliance with, the World Bank Anti-Corruption Guidelines, including without limitation, the World Bank's right to sanction and the World Bank's inspection and

audit rights. This requirement will be included in the Financing Agreement. Furthermore, the SCF and the World Bank will pay particular attention to the composition of the evaluation committees, which should include members of highly qualified technical experts from relevant departments of the SCF and external experts as needed, and without conflict of interest. Procurement training for the potential members of the evaluation committees will be organized by the World Bank procurement team. In addition, the SCF will need to undertake the following measures to ensure that the Credit proceeds are used economically and for the purposes intended:

a) Require each staff involved in procurement, including each member of a tender or evaluation committee, to certify in writing that his or her involvement does not create any conflict of interest, namely relationship with a supplier or consultant, and other conflicts.

b) Put in place the necessary mechanisms to ensure that suppliers and consultants are paid according to their contract terms without any delays.

c) Bring to the World Bank notice on all complaints received from any supplier or consultant relating to the procurement process, and record and address these complaints promptly and diligently.

d) Maintain up-to-date procurement records in STEP.

21. **Procurement Supervision Plan and Ex-post Review.** A World Bank procurement specialist will be a member of the project team throughout the project cycle. During implementation, the accredited procurement specialist (APS) will join the regular World Bank implementation support missions. The frequency of procurement supervision will be twice a year, but concrete decision would be made based on project needs. Contracts not subject to World Bank prior review, if any, will be post reviewed by World Bank implementation support missions and/or during regular ex-post reviews on a sampling basis, one out of every five contracts.

22. **Project Procurement Strategy for Development**. Under the World Bank Procurement Framework, the project is required to complete a PPSD, which was prepared by the GoU and includes the following key deliverables: (i) a summary of packages to be put to market; (ii) a summary of risks and opportunities to be managed; (iii) a pre-market engagement strategy (for example, supplier briefings, probity, expressions of interest); (iv) options for contracting approaches; (v) a separate section on procurement arrangements for the sub-component to be implemented by CAREC; and (vi) a Procurement Plan. The SCF prepared the PPSD and Procurement Plan (PP) with guidance from the World Bank team.

23. **Use of National Procurement Procedures.** All contracts for goods, works, and consultancy services following national market approach shall use the procedures set out in the PPL. The provisions of the PPL are consistent with the World Bank Procurement Regulations Section V – Para 5.4 National Procurement Procedures subject to a few conditions specified in the PPSD. To promote transparency, efficiency, and value for money under the new country public procurement system, the draft PPL provides for a gradual introduction of e-procurement system. The new e-procurement system will be assessed by the World Bank procurement team. If found acceptable, the project may use it for procurement of simple goods and small works.

Financial Management

24. The SCF does not have prior experience in implementing World Bank-funded projects and it lacks the required internal capacity.

25. **Staffing**. The SCF has in total 11 staff in its Finance and Accounting Department, including a Chief Accountant. However, due to the current workload of staff in the Finance and Accounting Department and their lack of experience in implementing projects financed by international financial institutions, it is recommended to hire an FM specialist to help the SCF with project implementation from an FM perspective.

26. **Budgeting and Flow of Funds**. The SCF will prepare an annual work plan and budget and submit it to MoF for approval. Once approved, the MoF will transfer funds to the Treasury. Based on an agreed budget, the SCF is entitled to use funds from an account kept in Treasury, in Uzbekistan Som. In addition, the SCF has foreign currency current accounts (USD) in a commercial bank – the Open Joint Stock Xalk Bank. Payments are conducted through the Treasury account upon submission of a payment request via the accounting system, the UzASPO, developed by the MoF for budget organizations. State Treasury has no capacity presently to process payments in foreign currencies.

27. **Accounting and Reporting**. The SCF maintains its accounting records in the UzASPO online accounting system. A server for the accounting system is kept at the MoF, and the SCF has access to it via login, password, and remote key issued by the MoF. A regular set of financial statements and reports (balance sheet, income statement, list of debtors and creditors, and actual versus budgeted comparison) are prepared on a quarterly basis in accordance with the requirements of the national legislation and submitted to the MoF. In addition, annual financial statements are prepared and submitted to the MoF. The accounting data needed for reports are generally generated from the UzASPO. Depending on the format of the reports, Microsoft Office applications such as Excel and Word are used to prepare the reports.

28. **Internal Controls.** The SCF must comply with the Budget Code and policies and procedures developed by the MoF for budget organizations from internal controls and operations perspectives. There is no internal audit department nor function at the SCF as it is not required by Uzbekistan's laws and regulations. During implementation, the SCF will have in place a working group consisting of a wide range of specialists. The working group will be responsible for assessing reports issued by consultants and results delivered under the project. Based on clearance obtained from the working group, the accounting department will sign acts of acceptance and conduct payments.

29. **Auditing**. Financial statements and operations of the SCF are subject to audit by the Control and Revision Department of the MoF. Planned and ad hoc reviews by the Chamber of Accounts, and, in the case of complaints – by the Citizens Prosecution Office, may also be involved in the inspection of activities and the performance of the SCF. Financial statements are not audited by independent external auditors.

30. **FM Arrangements.** The SCF (through its PIU) will be responsible for FM and disbursement aspects during project implementation, including planning, budgeting, accounting, financial reporting, funds flow, internal controls, and auditing. The FM arrangements in SCF will meet minimum World Bank FM requirements once capacity building activities are implemented.

31. The following activities should be implemented by the SCF as capacity building actions, to meet minimum World Bank FM requirements:

a) Develop the FM chapter of the POM to reflect project-related internal control, budgeting, external auditing, financial reporting, and accounting policies and procedures (before project effectiveness). Funds for the Green Wager Program will start disbursing once the POM is updated to reflect FM/funds flow arrangements for the Green Wager Program.

b) Recruit the FM staff (FM specialist) with relevant experience for the PIU under the SCF (before project effectiveness). The PIU, shall there be need, may hire a grants management specialist during project implementation.

c) Develop the COM to include a section defining the FM and funds flow arrangements for the matching grants under sub-component 2.2, in accordance with World Bank fiduciary principles (before disbursing the matching grants).

d) Acquire and install an accounting system for Project accounting and reporting purposes. The accounting system shall have functionality of automatic generation of SOEs and IFRs for the project and have a functionality for dual-currency accounting, and with inbuilt controls to ensure data security, integrity, and reliability (within 90 days after project effectiveness).

32. The PIU will submit quarterly unaudited IFRs to the World Bank. The PIU will produce a full set of IFRs every calendar quarter and submit to the World Bank within 45 days after the end of each calendar quarter.

33. The annual audited project financial statements together with the auditor's opinion and the management letter will be provided to the World Bank within six months after the end of each fiscal year and at the closing of the project. The audit of the project financial statements prepared by the PIU will be conducted (a) by an independent private auditor acceptable to the World Bank in accordance with terms of reference acceptable to the World Bank, and (b) according to the International Standards on Auditing issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The SCF will publicly disclose the audit reports on its website within one month after receiving them from the auditor. After formally receiving the audit reports from the SCF, the World Bank will make publicly available audited project financial statements in accordance with the World Bank's Policy on Access to Information. Table 1.1 identifies the required audit reports with due dates, to be submitted by the SCF:

Table 1.1: Required Audit Reports

Audit Report	Due Date
The Project Financial Statements include Project Sources and Uses of Funds, Uses of Funds by Project Activities, SOE Withdrawal Schedule, DA Statement, Notes to the Financial Statements, and Reconciliation Statement.	Within 6 months of the end of each fiscal year and at the closing of the project.

34. **FM Supervision** will be carried out semi-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 six 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 IFR 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. As required, a World Bank accredited FM Specialist will participate in the implementation support and supervision process.

35. **Disbursement Arrangements.** The disbursement arrangements will follow a traditional disbursement mechanism, including direct payments, replenishments of the designated account, and reimbursement. The

minimum application size and designated account ceiling will be specified in the Credit disbursement letter. The SCF will open a designated account in USD and a transit account in UZS in a financial institution acceptable to the World Bank. Both accounts will be used exclusively for the inflow of the Credit funds and payment of eligible expenditures. The SCF will receive access to ClientConnection to perform disbursement functions. Withdrawal Applications will be prepared by the FM consultant.

Implementation Support Plan

36. **The World Bank will provide implementation support to the SCF and oversee the implementation of the project, in line with World Bank procedures, standards, and requirements**. The World Bank has put in place a task team comprising of a diverse skill mix from various Global Practices, including Environment, Natural Resources and Blue Economy; Water; Agriculture and Food; Social Sustainability and Inclusion; and Urban, Disaster Risk Management, Resilience and Land, among others. Skill sets required for continuous effective implementation support include, among others, policy development, forestry and landscape restoration, PA and natural resource management, agriculture, NBT development, community development, disruptive technologies, climate resilience, project management M&E, procurement, FM, gender, communications, CE, 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 project operation and rely heavily on remote supervision technologies in collaboration with key partners. Project reports will be reviewed periodically by the World Bank as part of project implementation support missions to be carried out at least twice a year.

Role of Partners

37. UNDP has been at the forefront of the environment dialog in Uzbekistan with several ongoing and past projects on community resilience in the Aral Sea region, Ferghana, and drought prone parts of the country; green urban development in Tashkent; technical support for sustainable water resources management in rural areas in Uzbekistan; and sustainable natural resource and forest management with globally significant biodiversity mountainous areas. The World Bank will contribute to this dialog by collaborating with the UNDP and jointly pursuing the sustainability agenda with the GoU.

38. UNECE/FAO Forest and Timber Section has been supporting broader policy, analytical, and preparatory work on forest and landscape restoration in Central Asia, including the regional Astana Resolution since 2018. It has also begun discussions on a new draft Forestry Code and supported the formulation of several forest-related PDs and policies over the past several years. In 2017, FAO, in the framework of its Technical Cooperation Program, conducted a resource assessment in several parts of the country with follow up feasibility studies in 2018. FAO is currently implementing the Global Environment Facility (GEF) 2018-2023 project on “Sustainable management of forests in mountain and valley areas in Uzbekistan”. The outcome of the work of UNECE/FAO will form a good basis for the proposed policy revisions and the NFI under sub-component 1.1. The project will scale up this effort in partnership with FAO, as well as capacity building of professionals in the sector. UNECE is also supporting the preparation of a regional land restoration strategy, which will inform the preparation of the national strategic plan for FLR under sub-component 1.1.

39. IUCN, as a leading global environmental organization on FLR, PAs, and transboundary conservation, has been active in Central Asia since 1995. In partnership with CAREC, it has worked since 2015 on fostering regional dialog and institutional strengthening for the water, energy, and food nexus in Central Asia. In its role as the regional coordinator of the Convention on Biological Diversity-led Global Partnership on Aichi Target 11, IUCN helped

Uzbekistan to update its country profile in the World Database of PAs after 23 years. As a result of its work on the World Heritage Thematic Study for Central Asia, IUCN identified key biodiversity areas with potential for World Heritage nomination, including three transboundary sites in Uzbekistan. With its core expertise in FLR, PA designation and management, and transboundary conservation, IUCN will contribute to specific activities under sub-components 1.1 and, 2.1 and Component 3, and will also support regional cooperation mechanisms, transboundary governance, capacity development, and education curricula.

40. UNCCD Secretariat: Central Asia is a high priority region for the UNCCD as it links China's Great Green Wall with the Sahel Great Green Wall programs. UNCCD provides methodological and financial assistance in setting national voluntary LDN targets (which Uzbekistan completed), mapping of land degradation in countries, and the prepararion of High Level Governmental Notes on LDN Commitment. It also helps countries to design gender-responsive projects and programs to achieve LDN targets and it manages the Peace Forest Initiative in collabrotion with the KFS. UNCCD is presently conducting studies on actions to mitigate drought and sand dust storms and on the nexus of climate change, land degradation, and migration. With the project being a key mechanism to achieving Uzbekistan's LDN targets, UNCCD provided and will continue to provide technical support to measuring degradation trends using the UNCCD LDN indicators, increasing the government's capacity for LDN reporting, and supporting the development of an MoU for the designation of a "Peace Park".

41. The Government of Korea contributed resource and expertise to the preparation of the project through the Korea Green Growth Trust Fund with a focus on ICT products. The KFS and its affiliates will contribute expertise on the development of project ICT aspects, including the National ICT Platform, reforestation, and NBT-related technologies, and as a key partner contributing knowledge to the Regional Exchange Platform. Its input will be part of the Collaboration on Forestry Statement of Intent between the Government of Korea and the World Bank.

42. GIZ has been implementing several regional programs on sustainable land use with a focus on forest and pasture management in the five Central Asia countries over the last decade, and in Uzbekistan since 2012. The current Regional Program, Integrative and Climate-sensitive Land Use in Central Asia started in March 2021, and since 2016, GIZ has financed joint forest management and FLR pilots with *leskhoz* and local communities in Kashkadarya, Samarkand, and Surkadarya. At the national level, GIZ has supported monitoring systems and national forest policy development. The German government is the core PROGREEN donor and given its experience, GIZ will be a partner in the design and implementation of plantation activities and a key participant in the Regional Exchange Platform. With expertise in FLR-related activities, including forest and FLR policy development, pilot planting, NBT development in PAs, regional cooperation, review of LDN targets and training and FLR curricula development, GIZ can contribute to specific activities under sub-components 1.1, 1.3, and 2.1, and Component 3.

43. The USFS has been supporting sustainable natural resources management and NBT in Uzbekistan since 2015. It currently finances small-scale NBT programs in partnership with the SCF with the support of a local NGO. USFS also supports community engagement for recreation and in minimizing adverse impact on local communities, training for rangeland management, and policy setting in countries to integrate economic and conservation objectives. The project will collaborate with the USFS on development of NBT inside and outside PAs.

44. Additional key partners include WOCAT on technologies for restoration of degraded land; CGIAR on seed development; Bioversity International on introduction of agro-biodiversity; International Center for Biosaline Agriculture on drought-resistant crops; and ICARDA on dryland agriculture practices as part of greening activities.

ANNEX 2: Detailed Component Description

COUNTRY: Uzbekistan
Uzbekistan Resilient Landscapes Restoration Project

1. **Project approach.** The Uzbekistan Resilient Landscapes Restoration Project is a key instrument for the implementation of the 2020 PD No. 4850, that brings the GoU's sustainability agenda into action. Landscape restoration will bring significant economic value in support of the GoU economic development agenda from direct, indirect, and global benefits, for example, income from forest and non-forest products and NBT; food from agroforestry and horticulture; revenues from concessions, taxes, and permit fees; livelihoods and farm and non-farm jobs; avoided losses and reduced maintenance costs of infrastructure; reduced health costs due to reduced air pollution; and global benefits from reduced carbon missions and biodiversity conservation. NBT is a high priority for the GoU, with ambitious plans for further development of the sector for economic development in the provinces. The project will strongly support these aspirations as part of the interventions in PAs and as livelihood options outside PAs. The project will also provide an opportunity for the GoU to reinforce its status as a leader in Central Asia on the green agenda.

2. **Targeted area.** The geographic focus of the project is six transboundary corridors, three on the Uzbekistan and Tajikistan border, one on the Uzbekistan, Tajikistan, and Kyrgyz Republic border, and two on the Uzbekistan and Kazakhstan border. The project-financed activities will take place on the Uzbekistan side of the corridor. See Figure 2.1 for an illustration of the corridor concept. The six corridors span across degraded border areas within provinces in Uzbekistan as follows:

a) Corridor 1 traverses four districts in Surkhandarya province and includes the Bobatag/Key Biodiversity Area and Uzun Forest.
b) Corridor 2 traverses one district in Surkhandarya province, two districts in Kashkadarya province, and three districts in Samarkand province, and includes Kitab and Shakhrisabz forests and Zarafshan National Park/PA.
c) Corridor 3 traverses three districts in Jizzakh province, and includes the Zaamin National Park/PA.
d) Corridor 4 traverses one district in Jizzakh province and includes the Arnasay PA/Key Biodiversity Area.
e) Corridor 5 traverses one district in Syrdarya province and includes the Qolqansir Forest.
f) Corridor 6 traverses one district in Namangan province and includes the Pop Forest.

Table 2.1: **Alignment of Project Districts within the Transboundary Corridors with RESILAND CA+ Program Tajikistan Project**

Corridor	Province	District	Corridor Area in Uzbekistan (ha)	Bordering Country	Corridor Area, including in traversing/ bordering countries (ha)	Area of 25km buffer from corridor border into Uzbekistan (ha)
1	Surkandarya	Qumqo'rgon, Sho'rchi, Uzun	150,000	Tajikistan	204,124	409,000
2	Samarkand Kashkadarya Surkandarya	Surkandarya (1) Sariosiyo Kashkadarya (2) Shahrisabz, Kitob	267,000	Tajikistan	690,385	1,041,000

		Samarkand (3) Urgut, Jomboy, Bulung'ur				
3	Jizzakh	Baxmal, Zaamin, Jizzakh	243,000	Tajikistan	659,746	631,100
4	Jizzakh	Forish	449,000	Kazakhstan	628,491	981,000
5	Syrdarya	Syrdarya	8,661	Kazakhstan	13,526	164,000
6	Namangan, Tashkent	Namangan (1) Pop Tashkent (2) Ohangaron, Bo'stonliq	522,000	Tajikistan and Kyrgyz Republic	694,813	1,227,000

Figure 2.1: Illustration of the Corridor Concept

Source: IUCN

3. **Project components and costs.** The project will be implemented over a period of six years and will be financed by a US$142 million IDA credit, a US$8 million PROGEEN grant, and a US$3 million KWPF grant. Financed activities will be grouped into the four inter-related components and sub-components. Component 1 will support the development of an adequate policy, legal, and institutional environment to restore and sustainably manage forest landscapes in Uzbekistan, in support of Uzbekistan's LDN and NDC targets, and promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration by setting up a regional online database on sustainable landscape management and restoration to inform policy and strategy harmonization and for addressing emerging climate threats. Component 2 will support landscape restoration by rural communities through interventions in production, service values, and restoration and generate climate-smart livelihoods opportunities that protect and restore targeted areas while enhancing resilient livelihoods and improving the incomes of beneficiaries. Component 3 will promote sustainable land and natural resource management practices in PAs. Component 4 will support project management at the central and local levels by financing the operating costs and training costs of a PIU within SCF-IRED and local offices in participating provinces, the TCC, and local-level staff, and the hiring of a project implementation support consulting firm.

Component 1: Strengthen Institutions and Policies, and Support to Regional Collaboration (*US$10.50 million from IDA; US$2.00 million from PROGREEN; US$3 million from KWPF*)

4. Component 1 will finance consulting services, goods, training and workshops, and operating costs. Sub-component 1.1 will support the development of an adequate policy, legal, and institutional environment at national, regional, and forest management unit (*leskhoz* level) to restore and sustainably monitor and manage forest landscapes in Uzbekistan, in support of Uzbekistan's LDN and NDC targets. A core element will be the realization of an NFI. Sub-component 1.2 will develop the tools and data sources for informed and evidence-based policy processes and the sustainable management of forest landscapes. Sub-component 1.3 will promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration by setting up a regional online database on sustainable landscape restoration to inform policy and strategy harmonization and for addressing new emerging climate threats at the regional level, such as warming temperatures, shifting rainfall patterns, and increased droughts, along with biodiversity loss.

Sub-component 1.1: Strengthen Institutions and Policies (US$7.50 million from IDA; US$1.00 million from PROGREEN)

5. The objective of this sub-component is to develop an adequate policy, regulatory, and institutional environment to restore and sustainably manage forest landscapes in Uzbekistan. The sub-component will have a national focus, looking in particular at SFF lands, PAs (under different categories), and forested landscapes under other legal tenure categories/sectors. The selected provinces for the implementation of components 2 and 3 of the project will serve as pilots for policies and legislative measures, including *leskhoz* reform. The beneficiaries of the sub-component will be national, regional, and local State authorities that work in forests and forest landscapes, particularly the SCF and its subsidiaries. Additional beneficiaries include other stakeholders from the public and private sectors, local students, and civil society, including farmer/community groups, livestock owners and herders, communities' most vulnerable members, including women and youth, SMEs investing in forest assets, local students, and urban users of products and services generated from resilient forest landscapes.

6. Activity 1: Enabling policies and legal framework for forest landscape restoration and forest management. In support of PD 4850, October 2020, §4a: "Development of the state forest policy and improvement of forest legislation" and subsiding paragraphs, this activity will address the issues identified in a gap analysis undertaken in 2019 by the SCF, which identified overlapping policies, laws, and regulations; weaknesses in enforcement in forest and landscape management, availability of data, revenue management, transboundary communication, and collaboration; and weaknesses in capacities for FLR. It will result in improved knowledge of modern forest landscape management, including fire management technologies and natural resource dynamics and management, as well as increased capacity for cost effective and results-oriented public expenditure to restore resilient landscapes. The following groups of sub-activities will be supported:

a) **A unified policy for sustainable forest landscape management.** The project will support the development of a unified policy for forest landscape management (forests, trees in landscapes, rangeland management) and its submission to the GoU for approval by identifying and resolving policy gaps or conflicts between current and updated policies that could limit or restrict activities in FLR; conducting a strategic environmental assessment (currently being designed by the GoU) in forest landscape management; creating a forward-looking concession allocation policy to enhance private sector and community engagement in FLR (payment for environmental services, NBT, carbon tax, concession schemes; defining, categorizing, and valuing forest Pas; and developing harmonized transboundary landscape management schemes and policies.
b) **A harmonized draft Forest Code.** A preparatory legal framework on forests and landscape management will be harmonized through the drafting of a comprehensive draft Forest Code, reflecting the wider role of forests in landscapes, such as policy and legal issues related to SFF and other land categories with forests. Presently

used laws and regulations will be reviewed and overlaps in policies, laws, PDs, and regulations and their enforcement will be addressed.

c) **A National FLR Master Plan.** The project will support the development of a National FLR Master Plan and an action plan as the strategic plan for FLR and forest management and its submission for GoU approval. The Master Plan will build upon PD No. PP-4850 of October 6, 2020, "Concept for the development of the forest sector in the Republic of Uzbekistan until 2030" and include wider principles, including, among other things, transboundary landscape management, NBT, and other direct and indirect benefits, including carbon sequestration benefits. The Plan will integrate a comprehensive expansion of forests and rational use of forest resources based on best practices from pilot regions and other programs and projects.

7. The activity will result in a draft national forest policy and strategy to promote FLR and sustainable forest management. The plan will be complemented by a thorough technical review and updating of operating standards, guidelines, and regulations for forest landscape restoration in the field.

8. Activity 2: Planning and implementing the first NFI. Uzbekistan's first NFI will provide reliable information on the status of forests and forest land in Uzbekistan for informed and evidence-based decision-making on FLR and forest management. The NFI will be preceded by field and remote sensing (for example, Collect Earth) survey with the aim of having high precision and unbiased data, to be then compiled into the NFI. In addition, an NFMS will be developed as a data platform on which the NFI would be presented, along with measurement, reporting, and verification functions that produce high-quality, reliable data on forests, including Forest Resources Assessments, GHG/Land Use, and Land Use Changes and Forestry Inventories relevant for climate commitments, and other internationally required reports/assessments. Activities will build on prior work done by FAO on Integrated Forest Land and Tree Resources Assessment in 2017 and follow-up feasibility studies in 2018 on the planning and implementation of an NFI. The NFI will address present weaknesses in forest data (inconsistency and unreliability), unavailability of data on forestry-related issues in agricultural and reserve land, outdated methodologies, technologies, and equipment needed to implement a nationwide assessment, and a lack of reliable data for international reporting on forest and tree resources. Some follow-up activities are integrated in the ongoing GEF project GCP/UZB/004/GF: Sustainable Management of Forests in Mountain and Valley Areas in Uzbekistan, 2019-2023, Component 1: Information management systems for sustainable forest management. The two projects will maintain close coordination to ensure synergies and complementarities.

9. The activity will result in a first NFI for Uzbekistan, an NFMS, and a specialized NFMS Unit within the SCF Forest Design Institute that will independently manage the NFI and the NFMS.

10. Activity 3: Strengthening the scientific research base in FLR. This activity focuses on applied research, serving the outcomes of sub-components 2.1 and 2.2 and Component 3 based on a needs assessment. The Forest Research Institute will be strengthened by creating the necessary capacities to conduct applied field research work by establishing regional and international cooperation in targeted research work. The activity will result in evidence-based recommendations for investments in FLR and for policy making in forest and landscape management.

11. Activity 4: Creating human capacities for monitoring, planning, and implementing FLR and forest management. This activity will address a fundamental lack of qualified personnel in the SCF and subsidiary bodies. The project will help to improve staff knowledge and skills, organizational effectiveness in forest policy and public expenditure analysis, information facilities, organizational management, public consultation mechanisms, inventory and field data management, monitoring, and planning through "best practices" and continuous skill development. The following groups of sub-activities will be supported:

a) **On-the-job training of technical and operational staff on landscape restoration.** The project will support institutional and technical capacity building of the SCF staff at central and decentralized offices (*leskhoz*), including the SCF and other entities engaged in forest and wildlife management and hunting. It will finance vocational training and field workshops on the assessment of sustainable land management and adapted silvicultural methods in the targeted project provinces. A particular emphasis in training will be given to applying new operating guidelines. Training will be provided to female SCF staff to become strong candidates for managerial positions at the central and *leskhoz* levels.

b) **Development of educational curricula on FLR.** Teachers and students will receive formal training in forest and landscape management and forest landscape assessment/Earth Observation Systems, field surveys, and data analysis.[74] Students of rural elementary, secondary, and high schools in at least one province will be sensitized and educated on FLR and PA conservation to become anchors for community mobilization with the support of a hired local NGO. New tools and approaches for FLR will be introduced into the formal education curricula of TSAU, which is the only institution in Uzbekistan that provides forestry bachelor and master education. Practical training in FLR will be introduced in forest technical schools, such as the ones created by the GEF project. This includes the integration of basic landscape assessment tools and practices in forest colleges/practical foresters' schools (for example, the IUCN ROAM methodology), links between climate change and forestry, and forestry students will be invited to participate in the development and field work of the NFI to gain experience in field and Collect Earth data collection.

12. The activity will result in necessary future human capacities to implement FLR in the field and skills for planning, monitoring, and reporting on integrated forest management countrywide.

13. Activity 5: Refining national LDN targets. Reviewing Uzbekistan's stated LDN targets and refining them based on new information on the degradation status of the country, including submission of a revised communication document for government approval. The activity will result in refined LDN targets based on more accurate data from the NFI. The NFI will deliver additional and country-wide information on the status of forests and landscapes and thus inform the national communication to the UNCCD Secretariat.

14. Sub-component 1.1 will be overseen by the project coordinator and receive technical support from national and international experts on forest policy and strategy development and specialists in ICT/NFMS, training, and education. Based on its long-standing involvement in forest policy advice and forest development in Uzbekistan, FAO and UNECE will be key technical partners. Advisory services will be provided by the national forest policy/multi-sectorial dialog process/platform, initiated by the SCF jointly with UNECE/FAO Forestry and Timber Section, FAO, and the KFS on technologies for forest management[75], and other relevant development partners, such as IPC, KFS/ Asian Forest Cooperation Organization, the EU Delegation, GIZ, FAO/Turkey Partnership Programme, M. Succow Foundation, UNDP, UNCCD, and others.

15. This sub-component will be implemented in a phased manner during the six-year project period. In phase 1 (first 18-24 months of implementation), it will focus on the resource assessment, including the preparation and

[74] Based on PD 4850, Oct 2020, §2d "Raising to the new profound level staff training at the Department of forest management and landscape design at the TSAU; gradual transition of curricula of educational areas and specializations at the above department to the credit and modular education system based on the best international practices; opening new educational areas and specializations based on the needs of the sector and production".
[75] Financed by a World Bank-executed Korean Green Growth Trust Fund grant.

implementation of the NFI and the building up of the NFMS. It will support the initiation of a forest policy review process and launch a process to harmonize forest-related legislative texts. Furthermore, it will develop and initiate an applied research agenda to support the implementation of Component 2 and outline the process of capacity building and curricula development for forest and landscape education. In phase 2 (the next four years), the project will be implemented in all the target areas. The NFI system will be put fully in place for repetitive monitoring, the forest policy process will be concluded with a draft FLR Strategic Master Plan in place, the new draft Forest Code will be drafted, the NFMS will be fully operational, and new curricula for forest education will be developed.

16. The phase 1 initial key steps are outlined in Table 2.2 below. The core elements from an investment perspective will be activity 2, particularly the NFI and the creation of a functional NFMS at the institutional level.

Table 2.2: Key Steps and Activities in Sub-component 1.1 for the First 18 Months

Key Steps	Timing (project months)	Needs
(1) Enabling policies and legal framework for FLR and forest management • Launch national forest policy working group laying out the elements for draft national SFM policy, and the draft Forest Code. • Conduct baseline studies as defined by the forest policy working group. • Conduct a baseline study on all legal text relating to forests.	3-9	Consultancy (national and international) Investment needs of SCF
(2) Planning and beginning of implementation of the first NFI, coordinated by a specialized unit within the Forest Design Institute • Completion of the design of the national forest landscape inventory, integrate LDN targets. • Preparation of the Operational Manual for the NFI and NFMS. • Purchasing of necessary equipment/vehicles and infrastructure, train field assessment teams. • Recruitment of an international agency to technically support the NFI/NFMS. • Creation of necessary capacity in SCF and Forest Design Institute to manage the NFI/NFMS. • Creation of the legal base of the NFI process, communication on its implementation and launching of the NFI.	0-18 0-12	Investment: Infrastructure, equipment, vehicles Consultancy (national and international)
(3) Strengthening the scientific research base in FLR • Conducting targeted applied research (silviculture, socio-economic) informed by the needs of components 2 and 3. • Strengthening the scientific research base of the Forest Research Institute	0-18	National consultants and staff of Forest Research Institute
(4) Creating human capacities for monitoring, planning, and implementing FLR and forest management • Definition of needs through project sub-components 2.1 and 2.2 and Component 3. • Development and conducting of tailor-made capacity building in the project area. • Conducting a workshop in TSAU and outlining curricula and proposals for integration.	6-15	National consultants and development partners (FAO, GIZ) Workshops
(5) Refining national LDN targets	12-18	As defined by the SCF and UNCCD

Component 1.1 phase 1 review and lessons learned to feed into the preparation of phase 2 (next four years)	20-23	SCF, World Bank, Consultants, and development partners

Sub-component 1.2: Develop an ICT Platform for Forest Landscape Restoration and Management (US$2.00 million from IDA; US$3.00 million from KWPF)

17. This sub-component will address the lack of updated and consistent data on forest status (including integrity of forests and threats, for example, landscape fire), afforestation and forest restoration programs and restoration potential, which has resulted in weak capacities for forest landscape monitoring, management, and restoration. With innovations in remote sensing and cloud computing having made high-resolution global data available in user-friendly formats and at low cost, it is now easier than ever to understand the status of FLR and make informed decisions over forest use and management. The establishment of a national, state-of-the-art ICT Platform anchored in- and managed by the Forest Design Institute will ensure advanced forest monitoring and data management to provide the necessary information and data for informed policy making relating to forests and landscapes.

18. The ICT Platform will feature remote sensing technologies for forest and forest land management planning at regional and *leskhoz* level, including monitoring of risks to the integrity of forests, such as wildfire, pest and diseases, and floods. and responses to them. For this purpose, the SCF will sign a contract with a reputable company to develop the ICT Platform's software, whose features will likely include a two-way forest management information system that monitors afforestation, reforestation, natural regeneration forests, and forest land use changes, a disaster response information platform, forest big data with mobile application, and a decision support tool that produces tailor-made recommendations on a set of forest-related subjects for decision making, planning, and monitoring of forest restoration and management operations, disaster response and preparedness actions, and baseline mapping of NBT sites. The contract, which will be developed with the support of the KFS, will also include the development of software user friendly guidelines in English and Uzbek, the responsibility to install the software in the Forest Design Institute, onboarding of staff through training, and four years of operation and maintenance of the Platform. In addition, the SCF main office in Tashkent, two SCF offices in the project provinces and two *leskhoz* offices in these provinces will be supplied with ICT equipment and software to facilitate the installation, use, operation, and maintenance of the ICT Platform. This may include reliable internet, server, computers, tablets, GIS, GPS, drones, tracking chips, GIS-based mobile digital survey forms, online cameras, biometric identification devices, remote sensing software and licenses, radios, pass cards, smart pens, map printers, and other hardware and software as recommended by the KFS.

19. The sub-component will result in a functional ICT Platform hosted, anchored in- and managed by the SCF Forest Design Institute that provides all necessary information and data for forest and landscapes management and monitoring. The information generated by the ICT Platform and the ecological site classification under sub-component 2.1 will support the development of land use plans for greening activities within project corridors.

Table 2.3: Key Steps and Activities in Sub-component 1.2 for the First 18 Months

Key Steps	Timing (project months)	Needs
Establishing an ICT Platform for FLR and forest management planning • Organization of the Forest Design Institute reviewed and workplan approved.	0-6 2-6	Agreement between the SCF, WB, and KFS on the mandate and function of

• ICT: complementary technical equipment purchased and provided based on the KFS pre-study and staff trained in the use of new tools and instruments. • Forest management planning procedures reviewed at central and forest management unit levels.	6-18	the Forest Design institute

***Sub-component 1.3: Strengthen Regional Collaboration (US$1.00 million from IDA; US$1.00 million from PROGREEN*)**

20. The objective of this sub-component is to promote Uzbekistan's collaboration with Central Asia 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 sub-component will be designed in support of the RESILAND CA+ Program, and enable better governance and management of 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 shared challenges faced by multiple countries, and thus promote global public goods. Sub-component resources will finance the establishment and management of a regional online database on sustainable landscape management and restoration, attached to the CACIP that is managed by CAREC under CAMP4ASB. CAREC will execute this sub-component under a contract with the GoU 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.

21. The implementation of this sub-component will be phased by focusing the first 8 months of the project on the establishment of an overarching governance structure composed of the implementing entities of the RESILAND CA+ Program projects, and then begin to implement the sub-component work plan.

Component 2: Enhance Resilient Landscapes and Livelihoods (*US$84.00 million from IDA; US$6.00 million from PROGREEN*)

22. The component will finance works, consulting services, non-consulting services, goods, training and workshops, and operating costs. Sub-component 2.1 will finance the development of robust forest and tree-based intervention packages to deliver production, service values, and restoration, leading to enhanced and sustainable forest landscapes in the selected areas. Sub-component 2.2 will finance activities that will incentivize communities within the corridors to engage in landscape restoration and management practices by enhancing resilient livelihoods and improving the incomes of beneficiaries in target areas. It will do so by providing financial and non-financial services to existing and new enterprises.

Sub-component 2.1: Enhance Tree-based Landscape Restoration and Management (US$84.00 million from IDA)

23. The objective of sub-component 2.1 is to develop robust tree-based intervention packages to deliver production, service values, and restoration for enhanced and sustainable forest landscapes in the country (IUCN's Restoration Opportunities Assessment Methodology/ROAM will be applied). The climate, soils, and topography of the project area mean that there will be very few sites where closed forests can be established even on a small scale and likely none where extensive closed forests could be established. Only 28 percent of the SFF meets the national definition of forest cover and only 24 percent meets the UN FAO definition, meaning that most of the land is largely treeless or has only woody shrub cover at best. The interventions will bring trees into the existing, often degraded,

landscapes with the aim of reducing degradation through soil loss by wind and/or water, overgrazing, uncontrolled fire, salinization, or flooding. Farmer-managed natural regeneration will be supported in a participatory manner.

24. Uzbekistan experiences water deficit of varying severity across its ecoregions, where the constraint of limited rainfall is compounded by loss of ground cover in the upper catchments, reducing infiltration and increasing surface flow. This results in soil erosion, leading to downstream flooding and siltation and scouring of feeder watercourses (leading to bank erosion). Consequently, project technical interventions will be designed and implemented with optimal consideration of the impact on ecohydrology, both at specific sites where activities take place and on downstream/wider areas. Moreover, the choice of species and sites for tree intervention models will be guided by ecological site classification that also ensures water use efficiency in project areas. Where feasible, drought tolerant native species will be planted, and plantation timing will be chosen to coincide with the rainy season to help the seedlings get established. Limited water resources and climate change impacts will be considered when locating new tree nurseries to ensure adequate water availability at the time of maximum demand in the nursey cycle. Drip irrigation will be considered to aid initial establishment of young saplings in the initial two years of high value crop planting, only to be used following a detailed financial cost benefit analysis and hydrological cost benefit analysis to ensure optimal use of both finance and water. The project will not finance the installation of irrigation systems that use water of international waterways.

25. The project will use the most appropriate techniques, depending on site characteristics such as slope, level of soil degradation, and the choice of species planted. Restorative interventions will include tree planting techniques combined with measures that control soil erosion and improve water harvesting in restored and revegetated areas, while maximizing infiltration and groundwater recharge and minimizing soil loss. Any residual risks related to water constraints and soil erosion will be mitigated by using a wide range of mechanical and biological techniques available for land preparation, tree planting, and water harvesting.

26. The project will finance optimal landscape restoration activities as feasible considering budget and time frame. Accordingly, while landscape restoration over vast areas cannot be undertaken, the project will finance the piloting of a mix of intensive and extensive approaches to provide models that can be subsequently adapted and scaled up. Tree planting activities proposed include fruit and nut horticulture using improved varieties and potentially with underplanted medicinal plants; agroforestry systems such as fodder banks and boundary and shade trees using multi-purpose shade trees where possible; shelterbelts associated with infrastructure such as roads, railways, and canals, as well as within extensive landscapes where wind erosion is a problem; restoration of woody cover along watercourses and in catchments; and protection and rehabilitation of relict forest patches. More intensive plantations for timber, poles, and posts will be accommodated in locations with adequate land quality.

Box 2.1. Techniques to optimize water harvesting minimize wastage
Slope stabilization will utilize a combination of mechanical means such as narrow Gradoni contour terraces together with biological measures, including planting of perennial grasses and shrubs/trees. Interventions at each site will be designed to tackle the specific causes of degradation at the site while also accommodating delivery of relevant productive and service values. To complement terracing, techniques such as revetments, bunds and staggered spacing will be used on moderate slopes, with shallow “saucers” on gentle slopes. Additional techniques to aid establishment, such as water holding gels in pot soil, will be used as relevant.

27. In addition to tree planting, activities will include farmer-managed natural regeneration and pasture improvement through control of grazing and fire, possibly combined with re-seeding, as well as assisted natural regeneration around forest patches with control of fire and grazing and planting of framework species through

participatory approaches. The project will seek solutions to fire and grazing from restoration sites with the engagement of local communities to ensure interventions' success.

28. Interventions will be applied by the full range of relevant actors and stakeholders, taking account of current and future environmental, social, and economic conditions and lessons from past experiences. Given the structural constraints of climate, soils, and topography, all forest and tree-based interventions will aim to generate both production and service values concurrently, and, wherever possible, be designed for flexible management to facilitate responses to future changes in physical growing conditions and/or changing demand for products and services. Interventions will accommodate the range of actors involved, recognizing their different levels of access to resources of land, finance, time, and skill levels. The sub-component will be implemented in representative sites within the project areas, predominantly on SFF. Other land may be used where interventions are required, provided there are no outstanding issues, such as disputed tenure or other rights.

29. The primary beneficiaries will be farmers, livestock owners, and herders individually and as community groups who will benefit directly from improved forestry and agroforestry production on land they own or lease and through increased employment opportunities. Secondary beneficiaries will be SMEs engaged in processing of the increased products made available as well as their customers. As importantly, will be society at all levels, who will benefit from carbon sequestration, improved ecological service values, including soil, water, and biodiversity conservation, delivered from sustainably managed forest landscapes. At the same time, national, regional, and local forestry institutions will benefit from an enhanced resource base under their stewardship with new opportunities for research, education, and training.

30. Activity 1: Ecological site classification. The project will help to create a three-tier land unit classification system built up from: (a) broad geographic landscape units (such as the transboundary corridors) based on large scale parameters such as altitude, aspect, temperature regime, topography, and geology; (b) subdivision of these on the basis of hydro-climate, in particular soil moisture regime and potential deficit; and (c) differentiation of these on the basis of critical soil parameters, focused on depth, fertility, and soil/water parameters to create a series of site types from which results can be transferred elsewhere and which will identify potential land uses, including tree-based ones. The Forestry Research Institute has been piloting through an ongoing GEF project the site suitability for species. It is important that large scale restoration efforts have a sound basis for planning of interventions to be aligned with systems of site classification/participatory integrated land use planning. Initial integrated land use plans will be developed for project provinces in parallel with the ecological site classification, with input from the SCF Forest Design Institute as per its mandate. The NFI will be valuable in providing a framework into which current knowledge of tree growth will be inputted. For the ecological site classification, the aim would be to develop an electronic GIS-based system similar conceptually to the United State Department of Agriculture Soil Taxonomy or United Kingdom Forestry Commission Ecological Site Classification. Much of the relevant information should already be available but it needs to be translated as decision support tools for use by forest management practitioners in the field. The project will support the Forest Research Institute to build this site classification system as a technical support tool.

31. The ecological site classification will support selection of species, silviculture, and management, including planted, semi-natural and natural types. The project will draw together and analyze existing information, fill knowledge gaps where necessary, undertake a meta-analysis of formal field experiments and growth records, prepare guidance material, and identify targeted research priorities. This will enable sound decision making that identifies the best options to meet the specific objectives for key categories of sites for production and ecological service values while taking account of the skills and capacity of different potential actors. The guidance material is

envisaged as one that undergoes regular updating to make sure that the latest knowledge is made available widely and utilized to the extent possible. In most cases, the availability of water will be the dominant factor in the application of the guidance material to decision making. All recommendations will need to be adequately climate proofed. The site classification will be developed in parallel with the integrated land use planning for project provinces.

32. Activity 2: Production-oriented interventions with protective/restoration benefits. Activity 1 will bring together existing information on site types and experience of forestry and agroforestry to aid the design and implementation of field interventions that will increase and/or enhance landscape restoration and production of goods and services using trees and shrubs, guided by the integrated land use plans. For each intervention, species/provenances/improved varieties will be specified, as would the details of inputs required to establish and manage them, the delivered product and service values, and interventions' financial and economic costs and benefits for the full range of users. Interventions will encompass a wide range of products, for example, timber, poles, posts, and industrial wood. At the same time, there will be a range of spatial arrangements used to optimize parallel protective/restoration/biodiversity conservation benefits and meet the needs of different actors.

a) **Timber, pole, and similar products with parallel protective/restoration benefits.** This will be achieved through largescale linear shelterbelts along road and canal sides, block planting for timber production and catchment protection around water bodies and similar vulnerable features and small-scale boundary planting around fields for timber and shelter as well as possibly non-wood products such as fodder, fruits, and nuts. Under this result, the primary aim is production of tangible goods with an important secondary aim of optimizing in parallel protective/restoration benefits. The species, spatial layout, and management systems are expected to vary according to the actors engaged in the specific sites. While planting is likely to be the main method for establishment, natural or semi-natural regeneration can also be used where possible.

b) **Agrobiodiversity, nuts, fruits, and similar non-wood forest products**. The priority will be non-wood products, such as nuts and fruits. At the same time, tree management will yield benefits such as fuel from pruned branches and, depending on the species, possibly timber and posts. The result will encompass large- and small-scale activities. Commercial orchards are likely to focus on the primary products, but these may also be managed at wider spacing with an under-crop such as improved pasture, hay and fodder, or medicinal plants. An improved pasture ground layer may be particularly valuable on steeper slopes for erosion control. There will also be small scale individual orchard opportunities included in the overall range of applications. In support of agrobiodiversity, nurseries and tree plantings will include native species of fruit and nut trees, such as including apple (*Malus spp*.), pear (*Pyrus spp.*), plum (*Prunus spp.*), almond (*Amygdalus spp.*), pomegranate (*Punica granatum*), pistachio (*Pistacia vera*), almond (*Prunus amygdalus*), fig (*Ficus carica*), peach (*Prunus persica*), and grape (*Vitis sp.*).

c) **Agroforestry.** This result is separated to include interventions where the tree and non-tree elements are more strongly balanced. As livestock is both an important livelihood component and can also be a major cause of land degradation, agroforestry has considerable potential to benefit both these items. The result will support fodder banks, which can be based on trees and shrubs. The fodder provides an alternative to extensive grazing, the removal of which greatly facilitates natural and/or artificial landscape restoration. Where crops are grown, intercropping systems can help maintain soil fertility and structure and, as will trees and shrubs in fodder banks, provide woody material for domestic use. If larger wood material is required, then wood pasture, which has widely spaced trees in pastureland, can be valuable in that the pasture can be improved while the trees may yield nuts, fruits, or timber. The wood pasture system requires that individual trees be protected from browsing

until their height well exceeds browse height.

33. Activity 3: Ecosystem service-oriented interventions. This group of activities aims at improving landscape resilience through slope stabilization in the mountainous regions, soil and water conservation, and other measures. The main damaging influences are uncontrolled grazing and fires, which result in loss of woody biomass and ultimately ground vegetation. Within wider areas, there are isolated remnant forest patches that without protection and control of damaging influences will ultimately disappear. The approach is to link protected patches with corridors of connectivity, and through reducing damaging influences allow vegetation to thrive and regenerate, which will result in reduced soil loss, less sedimentation, and improved water infiltration and quality. Approaches to be followed by the project will include optimized use of effective and low-cost measures. For example, control of grazing can be achieved by seeking solutions through engagement with local communities to garner their support; and fire protection can be achieved through basic firebreaks that use natural features where available and include wide burned-off strips between scarified lines to control burns. As most semi-arid ecosystems have naturally aggressive regeneration potential, simply excluding fire and grazing will often allow natural regeneration to regrow at a low unit cost per hectare. Rapid restoration through natural means is effective in encouraging community support for fire and grazing control. These influences must be effectively controlled for any restoration activities to succeed.

a) **Farmer-managed natural regeneration and protection of isolated natural forest patches**. The aim of this result is to reduce damage from fire and uncontrolled grazing by offering alternative livestock food through improved pastures, fodder banks, and fodder trees as well as fire-risk reduction mainly through static means such as firebreaks and controlled early burning to keep fires well away. At the same time, careful firebreak design can create space in which the forest patches can be expanded through natural and/or artificial means.

b) **Water balance analysis.** Water balance analysis in selected sites will be undertaken to determine baseline values (projections for 2030 and 2040) for the water stress and water depletion to understand high to extremely high-risk areas. This will be in alignment with, and complement interventions designed towards water conservation and selection of sites and species of trees/shrubs targeted for water scarce areas.

c) **Watercourses and feeder stream stabilization and flood control through a mix of mechanical and biological means.** This result will lead to two benefits: the stabilization of the water courses and feed streams, and the provision of connectivity to aid geneflow for biodiversity. The approach used will depend on the current state of the watercourses. Where there is high erosion of banks and little vegetation, mechanical means such as weirs and bank stabilization may be necessary. This can be followed by planting and enhancing vegetation such as perennial grasses, legumes, shrubs, and trees. Native species with high biodiversity connectivity value will be used, including in degraded tugai forests. It will be important to manage access of livestock to water during stabilization, and provision for alternative drinking troughs and fencing can support this.

d) **Slope stabilization measures will be applied, including for soil erosion control on hillsides, plains, and where wind or water driven erosion is a problem, and to enhance water capture and infiltration by including mixed mechanical and biological measures.** This result focuses on extensive areas, which may carry varying density of trees and shrubs as well as ground vegetation, and best practices of terracing to manage risks in areas prone to mudflows, for example in Ferghana region. The aim is to enhance eco-structures, biodiversity, and ecohydrological connectivity as well as supporting geneflow across the area. The main interventions will again be control of grazing and fires to allow revegetation through a mix of assisted and natural regeneration processes.

e) **Roadside tree planting.**[76] Road development changes the hydrology of entire areas, alternates subsurface flows, and often generates higher run-off flows with higher velocity. In this way, roads cause problems such as erosion, gully formation, waterlogging, and washing away of fertile soil. This target area will focus on planting trees and other types of vegetation along road sites in the targeted landscapes to mitigate the adverse impacts of road infrastructure development.

Box 2.2 Nature-Based Solutions for Road Infrastructure Resilience
Nature-Based Solutions (NBS) are innovative approaches that harness natural capital to increase the resilience of communities and ecosystems while providing environmental, social, and economic benefits. This includes restoring and leveraging natural vegetation and other natural resources to mitigate and adapt to climate impacts. Compared to traditional infrastructure, NBS deliver more jobs per dollar, higher economic returns, and are faster to implement and more sustainable in the long run. NBS such as slope stabilization through vegetation and road protection through roadside tree planting are cost-efficient ways to reduce the risk of flooding, erosion, and landslide impacts on roads while restoring natural eco-systems and creating local jobs.

34. Activities supporting restoration-related interventions will place specific emphasis on engaging women to increase and diversify their income opportunities. This will include designing relevant activities that take account of women's skills, capacity, and lifestyle constraints, including, for example, childcare and homemaking. Tree nurseries are particularly suitable in this regard. The private sector, including micro, small, and medium enterprises, will be encouraged to engage in the plantation of trees for commercial/productive purposes. The sub-component will include a strong focus on the use of both traditional and innovative technologies for restoration activities.

35. Delivery of field activities will be the responsibility of the SCF, working through its province structures and in collaboration with other agencies when required for land outside its control. Research activities will be led by the Forestry Research Institute together with TSAU and other national research, training, and advisory service providers as well as expertise from Bioversity International, one of the CGIAR centers, and other relevant regional and international institutions. Regular and recursive review of results and inclusion of new data on growth, productivity, negative influences such as pest or diseases will assist in identification of knowledge gaps that can inform a prioritized research program on specific issues, guided by the need to resolve gaps that are relevant and can be applied to either large areas, or will benefit large numbers of people, or will prevent loss of highly vulnerable ecological features. Participatory GIS mapping will help to promote visualization of current and future landscape scenarios, and assist with planning, implementation, and monitoring activities.

36. Activity 4: Green Wager Program. The implementation of the activities will incorporate a green wager approach that: (i) provides for engagement of local organizations and communities including migrant workers, to participate as daily wagers, or through community assistance programs for activities that contribute directly or indirectly to restoration of landscapes; and (ii) synergizes, strengthens, and expands opportunities for institutionalizing sustainable management of landscapes, and conservation work programs. The participatory integrated land use plans will inform the Green Wager Program for establishment of model nurseries, restoration of degraded forest lands that serve productive and protective purposes through assisted natural regeneration, silvicultural measures, enrichment planting, afforestation and regreening, establishment of agrosilvopastoral systems on degraded pasture lands, and introduction of food production systems, namely horticulture and

[76] To ensure the best use of inputs made in tree planting, all tree reproductive material should be of known origin, true to type, of sound genetic quality, essentially free of pests and diseases and, for seed, with an accurate figure for germination capacity based on recent field germination test results accompanying each seed lot. The project will support as required the existing tree reproductive material supply chain so that this aim is fully achieved.

agroforestry/commercial plantations of fast growing nut/fruit/silk producing trees in the walnut-fruit forest belt and in agricultural zones (shelterbelts). A methodology for the Green Wager Program will be developed using regional and global good practice examples and included in the POM.

37. Model nurseries to ensure supply of quality climate-resilient seedling stock for restoration activities will be supported under the sub-component. Scale and location (centralized and decentralized) of model nurseries will be guided by: (i) access of sufficient propagation material and seeds; (ii) availability of water; (iii) proximity to sites selected for restoration; and (iv) long-term viability and opportunity for local employment. Community involvement is regarded as essential, particularly when there are significant human pressures on natural resources and is a key means of awareness generation and community engagement in natural resource management. Quality assurance procedures for seed collection and management of seed banks will also be supported.

38. The SCF will be the implementing agency and will work with its Forestry Research Institute (for activity 1). The SCF will work in collaboration with the *leskhoz* for implementation of productive and restorative activities (2 and 3) on the Forest Fund Land. Besides the 64 *leskhoz*, there are several differentiated enterprises, including 13 specialized *leskhoz* producing medicinal plants, 10 specialized forest enterprises/stations, 10 state forest hunting facilities, and others, dealing, for example, with PA management. The *leskhoz* have the mandate and the necessary technical expertise to coordinate and lead the implementation of restoration activities, including in partnership with local communities and the private sector actors. The SCF will undertake consultations with the *leskhoz* in all relevant districts to gauge the level of interest, capacity needs, and potential for specific activities in the districts and their strategic relevance to the broader objective of corridor management. The SCF will work with the Forest Research Institute to support the *leskhoz* with additional technical expertise, extension, and outreach to ensure community participation in restorative activities in a technically sound manner. Preliminary discussions with the SCF indicate that it can contract specific *leskhoz* through a single source contract or through competitive selection, and funds can be transferred. *Leskhoz* will also support the implementation of the Green Wager Program under similar arrangements. Details will be outlined in the POM.

39. The component will be implemented in a phased manner during the six-year project period. In phase 1 (first 0-24 months of implementation), the project will focus on preparatory activities, including setting up a system for site classification - matching species to sites per microclimatic conditions, and implementation of restoration and productive activities in select regions and districts of the project. This is with a view to test the state of readiness of the stakeholders and implementing partners, and to address the gaps to undertake activities at scale in phase 2. In addition, phase 1 will focus on pre-preparatory activities, such as nursery raising, community sensitization for participatory restoration, and dialog with key private sector actors. In phase 2 (the next four years), the project will be implemented in all the target areas. In both phases, advance planning will be undertaken to ensure that inputs (such as training, seedlings, annual planting, and operations manual) for all activities are ready to be launched according to the planting season. Project-financed activities in each of the target provinces will be coherent with and contribute to achievement of the area targets laid down in the 2020 PD No. 4850. The scale of contribution to these targets in each province will be of the order of 15 to 25 percent of the overall provincial target areas laid down in the Decree.

Table 2.4: **Sub-component 2.1 Key Steps and Activities for Phase 1 (Months 0 to 24)**

	Phase 1	**Timeline**
Step 1	**Activity 1 - Ecological Site Classification**	Months 0 to 6

	• Confirm pilot locations for implementation of activities 2 and 3 for Phase 1 (focusing on restoration/ production activities that have been successfully tested such as pistachio and/or almonds, shelterbelts, and slope stabilization) • Specify structure for GIS-based ecological site classification system for site/species selection that utilizes currently available data optimally, can be easily updated and is coherent with related models. • Review, analyze, and codify already available information for pilot areas. • Test ecological site classification system on making species recommendation for specific sites. • Identify locations which include a wide range of different site types to accommodate range of production oriented and ecosystem service-oriented interventions in a close to contiguous mosaic within each target location. • Utilize information collected to prepare initial integrated land use plans within the target provinces in cooperation with the Forest Design Institute.	
Step 2	• Continuously update information base and expand identification of sites beyond pilot areas to include other sites/ project interventions prioritized by their start-up date for scale up in Phase 2. • Maintain close link with the NFI and include results from that as they are validated. • Refine and update integrated land use plans for project provinces.	Months 7 to 24
Step 3	**Activity 2 - Production Oriented Interventions** • Engage with potential actors at identified pilot sites to determine interests, skills and needs for skills-building and other support. • Design and implement support packages including trainings for different actors/ stakeholders. • Determine planting program by area to be planted each year by different actors ensuring coherence with integrated land use plans. • Initiate site preparation for pilot locations/ activities as needed. • Identify sources of planting material, availability, and quality, and identify gaps. • Confirm sites for nursery establishment (identified during project preparation) for key species to support activities 2 and 3; complete relevant procurement. • Take steps to improve the nursery network as required and ensure that adequate quantities of planting material will be available when required.	Months 0 to 12
Step 4	• Roll out planting program consistent with the integrated land use plan. • Monitor progress and success and undertake revision and refinement or remedial action as required. • Capture key lessons to inform next stage.	Months 13 to 24
Step 1	**Activity 3 - Ecosystem Service Oriented Interventions** • Engage with potential actors at identified pilot sites to determine interests, skills, and needs for skills-building and other support. • Identify and prioritize key locations for slope stabilization and restoration to reduce soil erosion and protection of water courses, including headwaters and feeder streams, guided by the integrated land use plans. • Design and implement support packages for different stakeholders. • Identify areas for enhanced fire protection interventions.	Months 0 to 6
Step 2	• Identify critical infrastructure where tree planting is required most urgently.	Months 7 to 12

	• Check adequacy of tree nursery locations and plant production and establish new ones to optimize ready availability of planting material.	
Step 3	• Identify isolated natural forest patches. • Design and implement fire-protection measures and regeneration support activities to stabilize and enhance isolated patches. • Implement initial activities for slope stabilization, protection of water courses with initial mechanical measures followed up by biological ones, with priorities derived from the integrated land use plans. • Implement landscape restoration planting of trees, shrubs, and ground cover through protection of natural regeneration, direct seeding, and planting, in coherence with the integrated land use plans. • Select species and design for infrastructure protection and initiate planting activities.	Months 7 to 24

Box 2.4. Uzbekistan's *leskhoz* (State forest enterprises)

About 89 percent of Uzbekistan's forests are managed by more than 100 business entities[77], including 66 state forest enterprises (*leskhoz*). *Leskhoz* have territorial responsibilities on SFF land, generally at a district level.[78] The SCF oversees the *leskhoz* through its 12 regional/province-level forestry departments. The Chairman of the SCF in Tashkent, jointly with the heads of regional forestry departments and in agreement with the *Khokims* of the respective regions (*khokimiyat* – district local government) can establish or dissolve a *leskhoz* and appoint its directors. The SCF approves the annual plans of the *leskhoz* and monitors performance.

Each *leskhoz* is equipped with technical staff and responsible for a full range of forestry activities: protection, managing and harvesting of wood and NTFPs, reforestation, afforestation, prevention of fires, pests, and diseases, hunting and preservation of nature-reserve areas, and infrastructural development, including road construction. Some also have processing units (for example, for NFTPs) and some produce fuelwood and service timber. There is no "typical" *leskhoz* in the country, as the size of managed forests and the type of economic activities are very distinct. The jurisdictional area of the *leskhoz* is changing relatively frequently and varies hugely according to the specific location, with the smallest *leskhoz* managing about 800 hectares of SFF and the largest more than 250,000 hectares. A *leskhoz* employs its own staff in various numbers; it also takes care of pensions for retirees. *Leskhoz* finance their activities mostly from "own revenues", for example, revenue from NTFPs, firewood, timber and renting out ('ticketing') land for various economic activities, including, for example, wood harvesting and grazing. The enterprise sets prices for works, services, and products independently. Plots of SFF can be provided for use by legal entities and individuals that can be permanent or temporary and are subject to a fee.

The income generated by the *leskhoz* is shared with the SCF. Currently, 50 percent of the revenue of land are rented out for pastures and are used at *leskhoz* level and 50 percent go to the SCF. The same share is applied for revenues from fines and from income generated from NTFP, such as medicinal plants. Fees for land that is leased out for forest-based development goes to the SCF. This goes to cover all forest related expenses, as well as all non-profit activities and investments. Data on the earning of individual *leskhoz* is not available, but it can be presumed that there is wide variation with respect to economic performance, linked to the kind of business at a *leskhoz* disposal and the environmental conditions prevalent in the specific ecoregions. There is also financing flow from the State Budget to the *leskhoz* through several special programs for the development of forestry, protection, protection, reproduction and restoration of flora and fauna on the lands of the forest fund.

The GoU considers *leskhoz* as a key tool for implementing its forest policy objectives. Any reform will need to be gradual, considering the countries' legal, socio-political, and cultural realities. The project will work in collaboration with local communities—seeking support from *leskhoz* on FLR in territories of communal or state land.

[77] The exact number varies according to the sources and is between 101 and 109.
[78] See details in the Resolution of the President of the Republic of Uzbekistan dated May 11, 2017. No. PP-2966.

Sub-component 2.2: Enhance Resilient Livelihoods and Value Chains (US$6.00 million from PROGREEN)

40. The objective of this sub-component is to incentivize communities within the corridors to engage in landscape restoration and management practices by enhancing climate-smart resilient livelihoods and improving the incomes of beneficiaries in target areas. It will do so by providing financial and non-financial services to existing and new enterprises. The sub-component will target beneficiaries primarily from low-income households and will include family enterprises, farmer/community groups, small entrepreneurs, and vulnerable members of communities, including women, youth, and persons with disabilities in villages. By supporting environment friendly economic activities in PAs to generate income, engaging women and youth from low-income households, and building strong community institutions, this sub-component will promote green, inclusive, and resilient local economic development in target areas that link to and build on sub-components 2.1 and Component 3 investments, such as those in model nurseries, forest restoration, and NBT. New and existing enterprises eligible for support under this component include both those that operate on SFF land administered by *leskhoz* (for example, small plots for agriculture/horticulture-related activities) and outside SFF land (for example, small processing facilities for agriculture/horticulture produces and handicrafts produced through home-based enterprises targeting tourists).

41. The sub-component will be implemented in collaboration with regional and district *khokimiyat*, which include regional and district departments of the Ministry of Mahalla and Family Affairs, SCEEP, the Ministry of Economic Development and Poverty Reduction, State Committee for Tourism Development, *leskhoz*, and other relevant agencies, and will build on the experience of similar community development projects in Uzbekistan, including the World Bank-financed Rural Infrastructure Development Project (P168233), Enhancing Economic Opportunities for Rural Women Project (P171760) - the latter utilizing a matching grants approach to support community-level livelihoods activities. The sub-component will also leverage and complement ongoing World Bank operations in the targeted regions, including the Ferghana Valley Rural Enterprise Development Project (P166305). It also builds on the experience and lessons from relevant GoU programs, including the “Every Family is an Entrepreneur” (EFAEP) and the “Youth is Our Future” programs, that aim to boost self-employment and micro-entrepreneurship among women, vulnerable groups, and youth. The sub-component will comprise of the following two activities:

42. Activity 1: Community-led Resilient Livelihoods and Value Chains. This sub-component will support formation and strengthening of livelihood groups and enterprises; market assessments to identify demand-driven livelihood activities; business training and business plan development support that will form the basis of proposals for matching grants provided under Activity 2; and the establishment of linkages and collaboration with commercial banks, private sector associations, and other development programs that provide credit-based financial services, and support infrastructure and digitalization for sustainability. Technical assistance and capacity building support will focus on three categories of livelihoods: (i) enhancing existing natural resource-based or linked livelihood activities: climate-smart forest livelihood activities, namely farm and non-farm income-earning activities; (ii) new types of livelihood activities: livelihood diversification for target villages to directly enhance the livelihood security for poor forest community members living in or adjacent to PAs and reduce the pressure on forest and rangeland upon which these communities traditionally depend; and (iii) NBT livelihoods and local economic development activities. The COM will present a list of potential livelihood activities under each of the above categories based on a market assessment. Priority will be given to value addition of forestry and natural resource-related activities and promoting value chain development. The Activity will support the costs of TAPs, which will consist of two types of service providers: (a) NGOs to support community mobilization and group-based enterprise formation, and (b) specialized firms to provide market assessments and downstream support to community level enterprises, including support to build public-private platforms for collaboration and partnerships; and CBAs. The following sub-activities will be supported:

a) **Livelihood group formation and strengthening.** This will involve the identification of existing or new community-level livelihood groups. The groups will receive various training, including group management, conflict resolution, empowerment, gender, group core principles, and record keeping. This will be followed by the formation of group management structures, including the selection of group leadership, management committee, and formation of by-laws. After the training, the groups will follow a set of core principles, including regular meetings, savings, and record keeping.

b) **Market assessment and livelihood activity selection.** Development of a market assessment of climate-smart tree-based livelihood activities, NBT, and livelihood diversification options that reduce pressure on forests and rangelands, and preparation of a menu of viable livelihood options, which the project could support in terms of profitability and sustainability. The market assessment will identify quick-maturing livelihood activities that can be produced in a short time. Community groups will be empowered through orientation on the market assessment results and training to make informed decisions in selecting a livelihood activity.

c) **Business training, planning, and business plan development.** The community groups will receive training and support to prepare business plans. This training will also focus on environmental issues and climate-smart practices and technologies, and resilient landscape-related entrepreneurship. The preparation of business plans will involve an environmental review process, wherein the sustainability of natural resources will be factored in. Activities will be evaluated, reviewed, and approved by a committee formed under the SCF.

d) **Business development support and promoting linkages with markets/private sector.** The groups will manage their livelihood activities as per the approved business plans. The project, through the TAP and community business agents, will finance ongoing technical and follow-up support to community groups. The follow-up support will focus on technical assistance for their chosen livelihood activity and business development and mentoring support, including through establishing linkages and partnerships with the private sector. Such support may include creating linkages with producers or commodity processors and relevant wholesalers and retailers. The project will also finance support to groups to prepare medium-term plans for reinvestment and diversification of their livelihoods.

43. Activity 2: Matching Grants for Enterprise Development. This Activity will establish a system of enterprise development matching grants to provide working capital needed to start-up or expand the livelihoods activities as identified in the business plans of community-level business enterprises, both individual and group-based. Matching grants will be awarded to approximately 200 small enterprises. The size of the matching grants for individual and group enterprises will be specified in the COM and agreed with the World Bank. It will depend on the size and type of the proposed enterprise, the quality and viability of the business plan, and matching contributions made. Matching grants proposals will be evaluated, reviewed, and approved by a committee formed under the SCF. Approved matching grants will be provided in tranches. The TAP will help set up and manage the matching grant mechanism in close coordination with the PIU, community, and local level stakeholders. Implementation of activities will be followed by business development support and promotion of linkages between community enterprises and markets/private sector, and support value addition and value chain development supported by Activity 1. The Activity will benefit from experience gained from several World Bank-funded projects in Uzbekistan that have established similar matching grant mechanisms to support small business activities, including the Enhancing Economic Opportunities for Rural Women Project.

44. The component will be managed by the SCF in consultation with the provincial and district levels government (*khokimiyat*), *leskhoz* in the PAs, and at the community level - by MCAs with support from TAPs and CBAs. The PIU team, which includes regional livelihood specialists, will provide support in coordination, oversight, monitoring, outsourcing, and management of TAPs, and management of the disbursement of the matching grants, and oversee and monitor the matching grant mechanism and the performance of enterprises. The PIU will also facilitate the preparation of a COM and the hiring of TAPs and CBAs.

45. The *leskhoz* will play a central role in coordinating the review and approval of proposals that require the allocation of SFF land for lease for the expansion of existing or creation of new enterprises that operate on SFF land with the SCF. The decision on land allocation for lease rests ultimately with the SCF. The SCF issues competitive tenders for the allocation of land for lease for enterprise activities, typically for large plots. Individuals and groups can submit proposals directly to lease small plots. Under such a scenario, *leskhoz* staff review proposals to determine whether the land is suitable for the proposed economic activity. If the *leskhoz* concludes that the land is suitable, it informs the SCF, which, in turn, issues a tender for the lease. For small-scale activities, one bidder is sufficient for the purposes of the tender. Lease agreements are tripartite and signed by the SCF, *leskhoz*, and enterprise. The proposal review and land lease tender processes will be described in the COM. It is not envisaged that the *leskhoz* will provide technical assistance for business development. TAPs and CBAs will provide this technical assistance, including on how to develop lease arrangements.

46. MCAs will serve as the entry point through which the project (for example, the PIU livelihoods specialist initially, and, later, the TAP once procured) will be introduced at the village level and community members and existing community level enterprises will be engage. The MCA will assist in identifying the CBAs, which are expected to have experience in entrepreneurship and are known and trusted by the community. CBAs will be paid by the project through the TAPs.

47. The TAPs will provide rigorous training and support to CBAs throughout project implementation so that they can provide business development support to beneficiaries on a sustainable basis and function as assets for other/future community-level livelihoods projects. They will support market assessments, livelihoods menu preparation, business training, planning and business plan development, establishment of the matching grant mechanisms, and provision of business support. The TAPs will establish partnerships with commercial banks to provide additional financing to successful enterprises to expand business activities; with other development programs to support infrastructure and digitalization related to the selected livelihoods; and with private sector associations and companies to establish market linkages and promote value addition and value chain development.

48. CBAs, whose capacity initially will be built by the project, will support the social mobilization and participatory processes to identify community groups/beneficiaries, provide support in the enterprise selection process, work with the TAPs to support the business plan preparation process, collect data on each of the groups and their business enterprises, prepare monthly performance reports, and provide handholding and follow up support to community-level enterprises.

49. The sub-component will be implemented in villages/clusters of villages situated within or adjacent to PAs in the six project provinces. The COM will set forth the criteria for allocating resources to project districts. Criteria will consider the demographics of villages situated within or adjacent to the transboundary corridors, including population size, number of low-income households, number of economically inactive women and youth (drawing from *mahalla* passport data); number of entrepreneurs; and an analysis of ongoing enterprise activities (provided by *leskhoz* and the SCF). In Jizzakh Province, there will be overlap with existing World Bank-financed projects,

including the RIDP and the Enhancing Economic Opportunities for Rural Women Project, which provides opportunities to leverage the community-level presence of these projects to facilitate rapid implementation of the track 1 approach described below. There is also overlap with the RIDP in Pop District, Namangan Province.

50. The sub-component will support the first track by identifying and supporting existing enterprises that do not require long start-up periods, wherein the PIU will work with the relevant *leskhoz*, regional government agencies, and ongoing enterprise support programs to provide "light touch TA" to support existing enterprises from the start of implementation. Existing enterprises will be identified based on criteria that include relevance of enterprise's activities to forest and landscape restoration practices and value addition, gender balance in enterprise ownership or employee composition, and others to be agreed and set forth in the COM. In parallel, during the first 6-8 months of implementation, the PIU will recruit regional-level livelihood specialists, engage TAPs, CBAs, organize orientation workshops for local government officials and stakeholders, prepare the implementation plan, conduct a baseline study/market assessment in target villages, and develop a preliminary MIS to monitor the component. From month 9 onwards, the component will support both tracks by providing robust TA and business development support to both existing and new enterprises. The COM will be prepared to guide the implementation of the component, including component design, the two-track approach, implementation modalities, and matching grants mechanisms. The key steps in the first 18-24 months are outlined in Table 2.5:

Table 2.5: Sub-component 2.2 Key Steps and Activities (First 18-24 Months)

	Phase 1	**Timeline**
Step 1	**Track 1: Supporting existing enterprises from the start of the project** • Completion of the COM • Orientation workshops for local government officials and stakeholders • Preparation of the phase 1 implementation plan • PIU will work with the RIDP and Enhancing Economic Opportunities for Rural Women Project stakeholders to identify existing enterprises to support where there is geographic overlap. • PIU regional livelihood specialists will work with relevant *leskhoz*, regional agencies, and ongoing enterprise support programs to provide light touch TA to existing enterprises from the start of implementation. **Preparatory activities:** • Recruitment of the regional livelihood specialists • Hiring of TAPs • Community mobilization and sensitization in target villages /communities • Selection of CBAs • Conducting a baseline study • Developing a preliminary MIS for component monitoring	Months 0 to 8
Step 2	**Implementation of track 1 and 2 activities in select districts/villages in targeted provinces** • Livelihood group/enterprise formation and strengthening • Market assessment and livelihood activity selection • Business training, planning, and business plan development • Establishing matching grants mechanism to support the business plans. • Business development support and promoting linkages with markets/private sector, supporting value addition and value chain development. • Partnerships with commercial banks and other development programs	Months 9 to 24

Component 3: Enhance Protected Areas and Nature-based Tourism (US$40.00 million from IDA)

51. Component 3 will promote sustainable land and natural resource management practices, specifically by improving the protection and management of PAs and increasing NBT that is environmentally and socially sustainable. The design incorporates lessons learned from similar types of natural resource management projects in Central Asia and around the world, including:

a) **Synergy of multiple investments.** On-the-ground project investments will be focused on a limited number of specific sites, to provide for locally visible impacts that will facilitate replication elsewhere.
b) **Sustainable livelihoods support.** Sustainable natural resource management—both within and outside PAs—often involves limiting (or even prohibiting) the harvest of specific forest products or other natural resources to ensure their long-term sustainability. In some cases, such limits on natural resource use can adversely affect the livelihoods of local communities. Sub-component 2.2 will prioritize assistance to those communities where livelihoods could be affected by new restrictions on natural resource uses (such as grazing or wood-cutting), or even by the improved enforcement of existing restrictions - both within and outside of PAs. Accordingly, the investments under Component 3 for improving PA management will be closely paired where needed with those of sub-component 2.2 to help ensure that communities facing new natural resource use restrictions would receive support for developing alternative and sustainable climate-smart livelihoods.
c) **Environmentally sustainable and climate smart nature-based tourism.** A large proportion of the tourism in Uzbekistan and worldwide depends on nature in some form. Well-managed and locally driven NBT helps protect biodiversity and other natural resources by providing sustainable local livelihoods and a compelling economic rationale for conservation. For such NBT to prosper over the long term, the natural resources which underpin it need to be adequately protected and sustainably managed. Accordingly, all NBT investments under the project will be screened and selected to ensure they are environmentally sustainable and resilient to climate impacts. Assessments of climate change impacts on forests and their vitality are essential for semi-arid environments such as Central Asia, where the mountain regions belong to the globally important biodiversity hotspots. Alterations in specie distribution or drought-induced tree mortality might not only result in a loss of biodiversity but also in a loss of other ecosystem services.

52. The project will support on-the-ground investments in multiple selected sites. Two of these sites comprise existing PAs managed by SCF: (i) Zaamin PA in Jizzakh Province, immediately bordering Tajikistan, and (ii) Central *leskhoz* of Samarkand PA near the Tajikistan border. The other planned project sites involve SFF lands that are currently outside Uzbekistan's PA system, and project-supported activities here will include NBT investments. These are the Bobotag and Uzun State Forests in Surkhandarya Province, bordering Tajikistan; Pop State Forest in Namangan Province, bordering Kyrgyz Republic; Qolgansir State Forest in Syrdarya Province, bordering Kazakhstan; and the Kitab and Shakhrisabz State Forests in Kashkadarya Province, bordering Turkmenistan. Certain other investments under this component will be carried out at a national (rather than site-specific or provincial) level. These investments will include NBT promotion, training, and TA activities. This component will complement MSCIUDP by creating rural-urban NBT corridors.

53. Component 3 is expected to produce benefits through the achievement of: (i) improved PA management and (ii) enhanced NBT that is well-managed and environmentally sustainable. The main beneficiary groups include NBT-related businesses, including many community-level providers of tourism services such as accommodations, prepared foods, local shops, handicrafts, and tourist guides (for visitors with general as well as specialized tourism interests); Uzbek and international tourists, along with any other visitors to PAs who use their natural resources legally and sustainably; and PA staff (mainly from within the SCF) and other personnel who assist with PA

management, such as volunteers from local communities and NGOs. Also, since biodiversity is a global public good, its improved conservation - through enhanced PA management and sustainable NBT - will be a benefit to the international community (including future generations), as well as nationally and locally. As a result of this component, important biodiversity areas will be linked to restored degraded lands outside the PAs and create multi-functional "green corridors" that boost economic, social, and environmental connectivity. Learnings from PA management and transboundary conservation can be replicated in other transboundary sites in Uzbekistan and Central Asia.

Sub-component 3.1: Improve Protected Area Management (US$12.00 million from IDA)

54. Sub-component 3.1 will invest in strengthening the protection and management of the Zaamin PA and Central *leskhoz* of Samarkand PA to better enable these PAs to achieve their management objectives, including (i) the long-term conservation of their biodiversity, ecosystem services, natural beauty, and other important natural resources, and (ii) enhanced NBT and other sustainable park uses. Investing in these two PAs is needed to ensure their long-term viability, improve their management effectiveness, and sustainably increase the number of visitors and associated economic activity in nearby communities. The project will update and improve where needed the Management Plans for the Zaamin and Central *leskhoz* of Samarkand PAs, considering the proposed expansion of NBT-related facilities, while ensuring that tourism and other human activities within these PAs would be environmentally sustainable and climate smart. Since the Zaamin PA immediately borders Tajikistan, the Management Plan for this park will consider the existing and desired management practices on the Tajikistan side of the border. Interest is ongoing within both countries for an international "Peace Park" designation[79] to encompass both sides of the border in this area.

55. The project will support the construction of visitor centers in the Zaamin and Central *leskhoz* of Samarkand PAs during the first 18 months of the project, compatible with these PAs' management objectives and environmental requirements. The new visitor centers are expected to help attract, inspire, engage in dialog, and educate a growing number of tourists in both PAs and the communities that reside in the vicinity of the PAs. Other project investments in the Zaamin and Central *leskhoz* of Samarkand PAs will be defined in accordance with the latest Management Plans and are expected to include: (i) additional visitor facilities such as the new or rehabilitated hiking trails, scenic viewpoints, observation platforms, picnic areas, campgrounds, other environmentally compatible recreation facilities (such as ziplines), and parking areas where needed; (ii) PA management infrastructure such as the construction or improvement of small park buildings (such as headquarters, ranger outposts, and staff housing), solid waste management facilities, and improved physical demarcation or signage; (iii) equipment that could include vehicles; various field, office, and communication equipment, and (for Zaamin PA) equipment for monitoring and control of human-caused wildfires; and (iv) incremental recurrent costs for PA management activities specific to project implementation, such as office and field supplies, field rations, fuel, support for park auxiliaries (such as community volunteers) if any, boundary maintenance, and equipment maintenance during the expected six-year project life. However, PA staff salaries will remain the financial responsibility of the SCF.

Sub-component 3.2: Enhance Nature-based Tourism (US$28.00 million from IDA)

56. The project will promote environmentally sustainable climate-smart forms of NBT, targeted both to domestic tourists and a potentially growing number of international visitors. These investments will take place within or adjacent to the above-mentioned SFF lands and national parks/PA in Jizzakh, Samarkand, Surkhandarya, Namangan, Syrdarya, and Kashkadarya provinces. This activity will complement the ongoing MSCIUDP by upgrading the

[79] IUCN Transboundary Conservation: a systematic and integrated approach.

"gateway" settlements and creating rural-urban tourism corridors to realize increased and sustainable levels of tourist visitation. For the purposes of project interventions, the "gateway" settlements are defined as typical peripheral small towns or villages located in the areas adjacent to natural areas that share similar characteristics (economic, administrative, territorial development, natural resource management, and other). They function as entry points to nature-based touristic sites (natural habitat, forests, mountain trails, lakes/water reservoir-based and other natural or farm-based recreational areas); often provide accommodation, other goods and services to eco-tourists, and have a significant mutual impact with the surrounding areas. The gateway settlements, as such, are integral parts of NBT value chains.

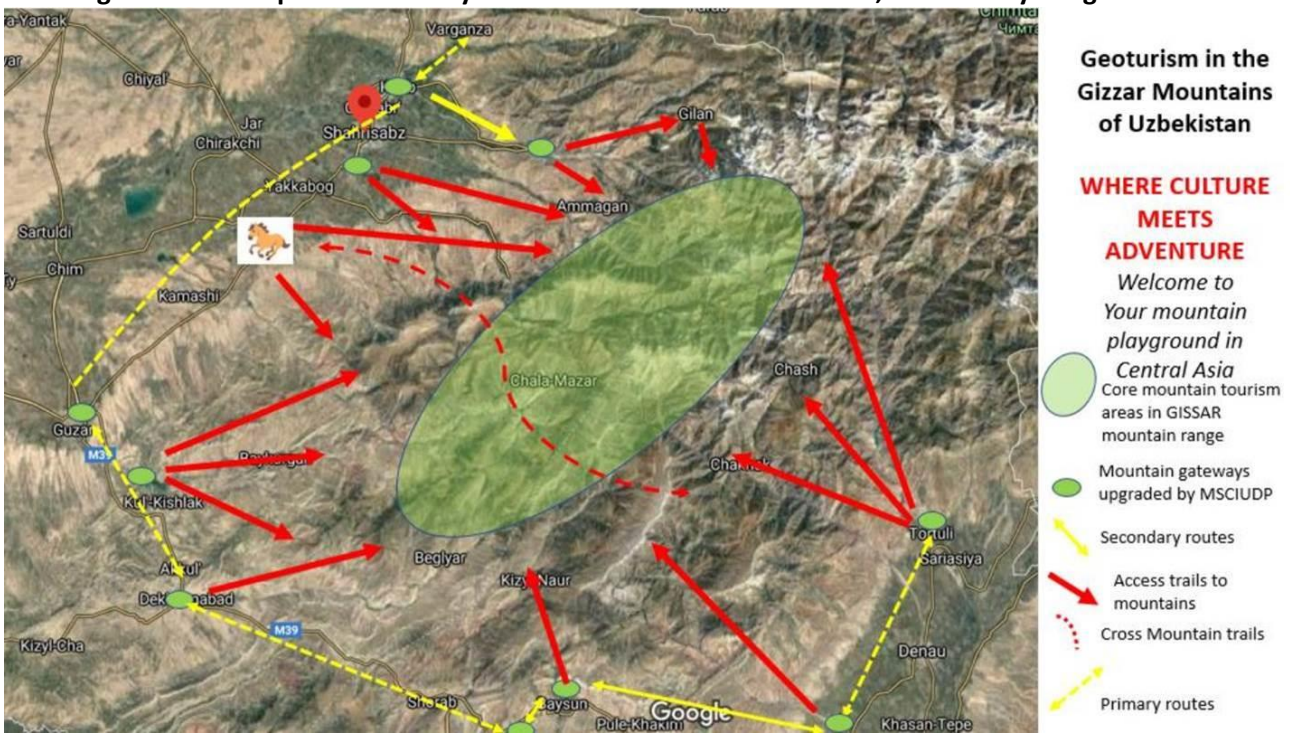
57. Lessons learned from the MSCIUDP indicate that gateway settlements combine natural resource management and urban development issues that need to be addressed through an integrated approach. Although many of such settlements benefit from the *Obod Qishloq* (Prosperous Village) and *Obod Makhalla* (Prosperous Neighborhood) programs, funded by the GoU, they are often in acute need of upgrading, comprehensive planning, and design. Moreover, such towns and villages are characterized with low level of basic infrastructure and services, fail to take advantage of economic opportunities, and, hence, are not attractive for tourists and the local population. This results in uncoordinated development of such gateway towns leading to negative impact on natural landscapes, accumulation of garbage, traffic, lack of parking, and a range of other development issues. Thus, the project will collaborate with the MSCIUDP to fill the gap as described above to deliver better quality NBT products and services and enhance competitiveness of the nature-based destinations and attractions. The project will complement the MSCIUDP activities in Namangan, Surkhandarya, and Kashkadarya provinces by upgrading NBT sites and surrounding gateway villages/settlements and integrating them into the "green corridors". Examples of specific joint activities include connecting Eco-Trail that is being constructed in Chartak city, Namangan province, into a nature-based touristic circuit; upgrading Boysun, Surkhandarya province, and/or Kitab-Miroqi, Kashkadarya province - improving access to parks and waterfalls and connecting Karabair horse breeding centers to tourist mountain trails. Figure 2.1 below depicts the gateway villages and settlements in Surkhandarya and Kashkadarya provinces to be upgraded as part of the World Bank projects to deliver nature-based touristic circuits in the Gissar mountains.

58. The types of investments that could be considered under this sub-component include, but are not limited to:

a) Improved gateway settlement basic services for NBT- such as power supply connection, internet connectivity, waste disposal equipment and linkages to a waste disposal service, gastronomy, and tourism circuit development, and marketing.
b) Upgrading or construction of visitor facilities, such as hiking, bicycle and trail systems, visitor centers, picnic and camping areas, and other environmentally compatible recreational facilities. These investments would improve trail connectivity with smaller settlements and promote sustainable natural resource uses, diversified activities, and improved potential for economic development in combination with private sector.
c) Baseline mapping of promising NBT sites within the six project corridors. The user-friendly digital and hard copy maps produced will facilitate increased and more sustainable NBT to these sites by highlighting key characteristics such as interesting natural and cultural features, waterways, observation areas, roads and trails, parking areas, hotels and guest houses, campgrounds, day use facilities, safe water sources, food service areas, restrooms, and legal waste disposal facilities. Expected users of these maps include tourists, tourist guides, local residents, natural resource managers, and tourism planners.
d) NBT-related technical studies and planning efforts related to sustainably increasing NBT around the project areas. Depending on the perceived needs and gaps, such planning studies could include the development/update of a national or sub-national overall NBT strategy and/or one or more strategies for specialized types of NBT. An example of the latter includes a planned wildlife inventory for certain species

of conservation or special management interest, including those which could support sustainable hunting tourism. In cases where a suitable strategy already exists, the project would support the preparation of specific investment plans.

Figure 2.2: Examples of Gateway Settlements in Gissar Mountains, Kashkadarya Region



59. The selection of gateway settlements and specific investments[80] will ensure, among other objectives, maximum synergies between the project and the MSCIUDP.

60. The ICT Platform will help generate baseline mapping of promising NBT sites within the six project corridors. The user-friendly digital and hard copy maps produced will facilitate increased and more sustainable tourism to these sites by highlighting key characteristics such as interesting natural and cultural features, waterways, observation areas, roads and trails, parking areas, hotels and guest houses, campgrounds, day use facilities, safe water sources, food service areas, restrooms, and legal waste disposal facilities. Expected users of these maps include tourists, tourist guides, local residents, natural resource managers, and tourism planners.

61. For effective implementation of Component 3, the project will finance training and technical assistance, specifically related to the management of PAs and NBT. The training events and courses, along with the specific technical assistance consultancies to be provided, will be specified during Year 1 of project implementation, and delivered through the duration of the project. Any training of park rangers and other PAs staff would be open to

[80] The MSCIUDP currently has an ongoing consultancy that will inform the development of new sustainable tourism destinations in Uzbekistan. Among other tasks that are relevant to the project, the study will undertake a comprehensive situational analysis; formulate a vision and outline strategies to develop these new destinations in an integrated manner; and identify a priority investment program and action plan to implement the vision and strategy. This is timely as the Project provinces of Surkhandarya and Kashkadarya are also included in the study. Findings and recommendations will inform the project during the early implementation stages and strengthen further collaboration between the two projects towards a sustainable NBT sector in Uzbekistan.

qualified personnel from all of Uzbekistan's agencies that manage PAs, including SCF but also the SCEEP, the Ministry of Tourism and Sports and its territorial and specialized departments/agencies, and (to a limited extent) the State Committee for Geology and Mineral Resources and Uzbekistan Railways Company O'zbekiston Temir Yo'llari. Besides the SCF and other government agencies, Component 3 will finance training or TA to entities such as (i) forest enterprises in their preparation of NBT-related business plans; (ii) forest enterprises, NGOs/industry associations, private companies, or other entities which might establish co-management agreements with SCF for specific land parcels; and (iii) community-based providers of tourism services such as guest houses and other accommodations, prepared foods, local shops, handicrafts, and tourist guide services.

62. The SCF is the lead GoU agency for this component and will undertake activities where needed, in collaboration with NGOs, *leskhoz*, SCEEP, the Ministry of Tourism and Sports and its territorial and specialized departments/agencies, community associations, and private companies. Component 3 activities will be phased to allow on-the-ground investments to be carried out after key planning studies have been completed. New civil works under the project-supported PAs will need to be consistent with the latest Management Plans for those sites. In parallel, the work on visitor centers in each of the two PAs will commence after approval of designs and environmental and social management plans. Similarly, new NBT investments in and around SFF lands will be based upon recent or updated strategic studies, technical designs, and management planning documents to help ensure their success and sustainability. Table 2.6 provides an indicative (partial) list of project activities that are expected to be carried out during (i) the first 18 months (consistent with the project's first Procurement Plan) and (ii) the subsequent years of project implementation.

Table 2.6: **Component 3 Key Steps and Activities**

Phase 1	Timeline
Activity 1 - Protected Area Management and Visitor Facilities • Design and construction of visitor centers for Central *leskhoz* of Samarkand PA. • Updating of Management Plans for Central *leskhoz* of Samarkand PA. • Selection and design of trails, observation platforms, and other NBT facilities in Zaamin and Central *leskhoz* of Samarkand PAs. • Selection and design of priority management infrastructure for Zaamin and Central *leskhoz* of Samarkand PAs where needed (for example, headquarters, ranger outposts, staff housing, physical demarcation). • Initial provision of vehicles and field and office equipment for PA management.	First 18 months
Activity 2 – Enhance Nature-based Tourism • Baseline mapping of selected, promising NBT sites within the 6 project corridors. • Selection and design of NBT facilities (such as trails and observation areas) in and around SFF lands. • Selection and design of infrastructure, service improvements in "tourism gateway settlements" in or near SFF or PA lands. • Baseline mapping of selected, promising NBT sites within the 6 project corridors. • NBT-related planning efforts and design of detailed technical studies (for example, wildlife inventory). • Design of NBT promotion activities around the project corridors. • Continued baseline mapping of additional NBT sites within the 6 project Corridors.	First 18 months
Activity 3 - Training and Technical Assistance • Updating of Management Plan for Zaamin PA.	First 18 months

• Capacity needs assessment, design and pilot implementation of training courses and capacity-building events (for SCF and other government staff, NGOs, and NBT-related businesses and service providers).	
Phase 2	**Timeline**
Activity 1 - Protected Area Management and Visitor Facilities • Construction of trails and other NBT facilities (except visitor centers) in Zaamin and Central *leskhoz* of Samarkand PAs. • Construction of priority management infrastructure for Zaamin and Central *leskhoz* of Samarkand PAs. • Further provision of vehicles and field and office equipment for PA management.	Years 2-6
Activity 2 – Enhance Nature-based Tourism • Construction of NBT facilities (for example, trails) in and around SFF lands. • Construction of basic infrastructure and service improvements in "tourism gateway settlements" in or near SFF or PA lands. • Continued baseline mapping of additional NBT sites within the 6 project Corridors. • Implementation of detailed technical studies. • Implementation of NBT promotion activities around the project corridors	Years 2-6
Activity 3 - Training and Technical Assistance • Full implementation of training courses and capacity-building events; knowledge institutionalization.	Years 2-6

Component 4: Project Management and Coordination (*US$7.50 million from IDA*)

63. Component 4 will finance consulting services, non-consulting services, goods, training and workshops, and operating costs. It will provide incremental operating costs and training to a PIU within SCF-IRED, as well as the operating costs of the TCC and province-based staff of the PIU. The PIU will carry out project management and coordination tasks, including preparation of annual work plans and budgets, procurement activities, FM of project funds, hiring of external auditors, development and maintenance of a project communication program and grievance redress mechanism, M&E, and reporting. The PIU will also be responsible for ensuring project compliance with environmental and social standards, attention to gender aspects, and CE. The component will also finance the contracting of a project implementation support consulting firm to assist the PIU during at least the first two years of implementation. The firm will provide project management support, including development of detailed design and bidding documents for investments in the project areas; procurement and contract management; technical tasks; implementation of the World Bank's fiduciary and environmental and social risk management policies; reporting; and training. The firm will also support the supervision of activities' implementation and act as project manager/supervising engineer using best international practices for contract management to ensure that the materials, works, goods, and services are procured efficiently and economically.

ANNEX 3: Project Economic Analysis

COUNTRY: Uzbekistan
Uzbekistan Resilient Landscapes Restoration Project

1. **Scope of financial and economic analysis.** While a range of benefits were identified, owing to data limitations, the project quantified the following subset of identified direct benefits: (i) timber revenues, NTFP, and agroforestry revenues, including seedlings and beekeeping; (ii) benefits from improved grazing of land; and (iii) revenue from greening shelterbelts next to roads. The analysis draws a link between the indirect and direct benefits of investments that assumed direct interactions between NRM, improved forests and non-timber products, biodiversity, diversified livelihood activities, and poverty reduction. Hence, this project also results in improved public goods and services in the form of intangible services and indirect benefits. A subset of these were quantified, including: (a) carbon sequestration benefits (avoided social cost of carbon); (b) indirect benefits from ecosystem services, including avoided costs from land degradation, loss of agricultural and land productivity, health impacts, salinization, loss of infrastructure to natural disasters, landslides, mudslides; and (c) social benefits related to income from NBT activities. An exhaustive list of benefits identified for the project but not quantified is available in this annex under “unquantifiable benefits”.

2. **Methodology and approach.** A cost-benefit analysis was conducted to quantify direct benefits, using per hectare models of improved practices for the following activities under sub-component 2.1: fuelwood, pistachio plantation, agroforestry, shelterbelt tree plantation, and improved grazing land. A financial analysis found these per hectare models to be viable. The economic analysis was conducted using the financial analysis as a basis, with discounted benefits, including incremental improvements in revenue from ecosystem service benefits from improvements in watershed and soil protection (10 percent), biodiversity conservation (5 percent), and NBT (10 percent) for each of the five models. The benefits from sub-component 2.1 and cumulative costs for the project were discounted to produce the economic analysis and to obtain the NPV and EIRR. Using the project EIRR as a basis, benefits from carbon sequestration were added resulting from activities across components 1-3 to produce an EIRR with Carbon (EIRR Carbon). Project EIRR is presented with and without carbon sequestration benefits calculated based on EX-ACT. Since the project already presented viable EIRR and EIRR Carbon, further environmental benefits were quantified and summarized as indicative benefits over and above the EIRR using a benefit transfer approach from similar studies in Uzbekistan and/or the Central Asia region.

3. **Summary of annex presentation**. This annex presents the economic and financial analysis of the Uzbekistan Resilient Landscapes Restoration Project. To justify the benefits of the project, the annex is structured around three key sections that discuss: (i) the project’s development impact; (ii) public provisioning of finances; and (iii) the World Bank’s value addition. Within the development impact results, assumptions and approach of the economic analysis are presented based on five per hectare models from the following interventions: fuelwood, pistachio plantation, agroforestry, shelterbelt tree plantation, and improved grazing land under sub-component 2.1, with inclusion of ecosystem services. 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 were quantified and presented as values over and above the Project EIRR, with accompanying assumptions.

Financial Analysis

4. A financial analysis was conducted to quantify benefits of improved practices developed from per hectare models for the following interventions: fuelwood, pistachio plantation, agroforestry, shelterbelt tree plantation,

and improved grazing land under sub-component 2.1. These represent the main interventions of the loan with US$84.00 million from IDA investments to support enhancement of tree-based landscape restoration and management. The financial viability of these models was estimated at an Internal Rate of Return (IRR) of 25.87 percent for pistachio plantations, an IRR of 23.23 percent for shelterbelt trees, an IRR of 19.56 percent for agroforestry initiatives, an IRR of 16.55 percent for fuelwood plantations, and improved grazing activities with an IRR of 26.40 percent. This demonstrates their financial viability with estimated NPVs for the mentioned credit models in the range of US$38 to US$11,323. Table 3.1 provides a summary of the financial analysis.

Table 3.1: Summary of Financial Analysis

CATEGORY	Estimated Investment Costs (US$)				Annual Net Benefits (US$)			Annual Inc. net benefits per US$1 of Inv.	IRR (%)	NPV (US$)	Benefit-to-cost ratio
	IDA Loan	PROGREEN Grant	Beneficiary Contrib.	Total	Without Project	W. Project - Full Dvt	Incremental				
Landscape management investments											
1. Pistachio plantation (1ha model)	2,496	0	0	2,496	0	2,649	2,649	1.06	25.87%	1,801	1.72
2. Shelterbelt model (1ha model)	1,512	0	0	1,512	0	414	414	0.27	23.23%	188	1.12
3. Agroforestry model (1ha model)	2,206	0	0	2,206	0	271	271	0.12	19.56%	386	1.17
4. Fuelwood plantation (1ha model)	1,230	0	0	1,230	0	480	480	0.39	16.55%	38	1.03
5. Improved grazing land (typical village model)	32,101	0	0	32,101	93,497	107,992	14,496	0.45	26.40%	11,323	1.24

Key Assumptions

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

b) **Discount rate.** A financial discount rate of 6 percent was used in this analysis to assess the viability and robustness of investments, which is the current Opportunity Cost of Capital to a beneficiary.[81] The selection criterion for the IRR was to accept all projects for which the IRR is above the opportunity cost of capital, namely 16 percent. Using the IRR as the measure, the models' sensitivity to the changes in parameters could be assessed by varying the cost of investments, production costs, and revenues. The economic or social discount rate of 6 percent was applied for the economic analysis, which is a Social Opportunity Cost.[82] For the social opportunity costs of capital or Social Discount Rate, the analysis adopted a rate of 6 percent[83,84], which is a social discount rate for developing countries suggested by the World Bank, and a sensitivity analysis was run at discount rates of 3 percent and 14 percent.

c) **Leaseholders' perspective**. Financial viability was estimated using per hectare models reflecting the leaseholders' perspective, meaning that the investment costs were covered by the project in a loan form, which will be repaid during a 30-year period at a 3.3 percent interest rate with a grace period of five years.

[81] Re-financing rate in 2021, National Bank of Uzbekistan.
[82] Long-term government bonds interest rate in 2021, National Bank of Uzbekistan.
[83] 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, May 9, 2016. The discount rate is also in line with the discount rate in recently endorsed Strengthening Resilience of the Agriculture Sector Project in Tajikistan (P175952).
[84] The joint World Bank/International Monetary Fund Debt Sustainability Analysis (May 2020) projects an average growth rate of 3.8 percent in the coming decade.

Summary of the Per Hectare Models

5. **Pistachio plantations**. The indicative financial IRR is 14.3 percent and 25.87 percent from the leaseholders' forestry investment perspective. Although the initial cost is high because of the need for irrigation to secure good establishment, this model benefits from merchantable forage or medicinal plants being grown as an under-crop, which start from the year after establishment. Nuts can be harvested from Year 8 and productivity increases progressively to the Year 16, continuing well beyond the project's lifetime. There is an additional revenue stream from pruning and occasional thinning (that will be done to keep the trees healthy and productive) that can be sold for fuelwood.

6. **Shelterbelts - larger scale for infrastructure.** The indicative financial IRR is 7.6 percent and 23.23 percent from the leaseholders' forestry investment perspective. Well-designed shelterbelts can produce poles and timber without compromising their shelter value from around the Year 10. In most cases, only limited irrigation would be required for establishment. The spacing is such that forage can be cut and sold from the Year 2 onwards and limited grazing allowed from Year 10, when the trees are stable. In the model, it was assumed that the value of an average wood yield per hectare per annum is available and this is included as an annual benefit from Year 10 onwards. In reality, it will accrue as a larger sum periodically; however, the IRR is not sensitive to this assumption.

7. **Agroforestry.** The indicative financial IRR is 1.2 percent and 19.56 percent from the leaseholders' forestry investment perspective. It is assumed that some irrigation would be required, which is a significant early cost. The revenue stream relies on annual benefits from the Year 2 on for forage (or medicinal plants or a combination of these) with periodic fuelwood and poles, the latter appearing to be very valuable. The value of the fuelwood is based on productivity per hectare per annum as in the shelterbelt model. This is based on the model received from Uzbekistan, assuming 7 m^3/ha Mean Annual Increase and value of US$30/$m^3$. This model could be adapted for tugai forest restoration, for which no irrigation would be required since these forests are only found along watercourses, although most have been converted to agricultural use.

8. **Fuelwood plantations**. The indicative financial IRR is roughly 4.7 percent and 16.55 percent from the leaseholders' forestry investment perspective. The main benefit is from the wood, which is based on an annual revenue stream starting in Year 8 based on the average annual production in cubic meters per hectare per annum, which gives the same IRR as if it were a larger periodic figure rather than an annual one. There is a small annual benefit from controlled grazing and a larger one from Year 2 onwards for forage cut and sold. Benefits from saxaul tree plantations were not considered for this model since they were not deemed relevant for target provinces.

9. **Improved grazing land.** This model provides an IRR of 21 percent and an IRR of 26.4 percent from the leaseholders' perspective. The benefits accrue from sale of meat and milk from improved pasture grassland. The cost was proxied at US$300 per hectare in the Year 1 and US$100 per hectare in the Year 2. This would allow pasture improvement and protection from fire and grazing. Looking at the figures for forage value, an annual benefit stream of between US$100 and US$200 per hectare was estimated. With these initial costs, US$100 net revenue per year from years 11 to 30 gives an IRR of 21 percent. The improvements in pasture management were estimated and proxied from similar projects in the region and included the following considerations: (i) pasture improvement under superficial improvement, radical improvement, and controlled grazing; (ii) fodder crops under Alfalfa production and recurrent annual grass production; (iii) other operations, including improved access to pasture; and (iv) payment to shepherds, vet services, vaccination, and haymaking.

Project Economic Analysis Results (EIRR)

10. A cost benefit analysis was performed based on indicative on-farm and off-farm activities, which were designed to achieve the PDO. The economic analysis used the financial analysis as its basis and quantified the ecosystem service valued in per hectare revenue from improvements in watershed and soil protection (10 percent), biodiversity conservation (5 percent), and NBT/recreation (10 percent) for each of the per hectare models from fuelwood-related interventions, pistachio plantation, agroforestry, shelterbelt tree plantation, and improved grazing land interventions. Given the benefit stream from sub-component 2.1 and cumulative cost streams across components 1-3, the EIRR of the Project is estimated at 24.0 percent. The base-case Economic NPV (ENPV) of the project's net benefit stream, discounted at 6 percent, is US$266.4 million. The NPV of benefits, the benefit-cost ratio, and the EIRR under different attributional rate scenarios[85] discounted using Social Discount Rate are presented in Table 3.2. This proves that the project is economically viable and justified and recommended for financing from an economic point of view.

Project Economic Analysis with Carbon Sequestration Benefits (EIRR Carbon)

11. Since the project presents a viable EIRR, an economic analysis with carbon sequestration benefits was carried out (Table 3.2) over and above project EIRR. Economic benefits from carbon sequestration across the project were added to the project benefit streams under the economic analysis presented above. With the carbon benefits, the project is viable with an economic rate of return of 59.3 percent and more than 50 percent as per lower and higher bound assumptions for the social price of carbon, respectively.

Table 3.2: Project Economic Indicators with Carbon Externalities

	All Direct Benefits with no Carbon Price	All Direct Benefits with Social Cost of Carbon (Lower Bound)	All Direct Benefits with Social Cost of Carbon (Upper bound)
ENPV (US$ million) at 6% discount rate	266.4	494.4	722.1
EIRR	24.0 (EIRR)	59.3 (EIRR Carbon, low)	>50 (EIRR Carbon, high)

Approach for Calculation of Carbon Sequestration Benefits

12. The project EIRR and economic analysis were used as a basis. A GHG analysis was carried out using EX-ACT (see details in Annex 4). EX-ACT is a land-based appraisal system for assessing a project's net carbon balance – the net balance of tons of CO_2 equivalent (tCO_2eq) of GHGs that were emitted, or carbon sequestered because of project interventions ('with project') compared to a "without project" scenario. The net carbon balance over a period of 30 years is estimated at -11,216,782 tCO2-eq (approximately 373,893 tCO2-eq/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). The carbon sequestration benefits were added to the total benefits from sub-component 2.1 to calculate the EIRR Carbon under two scenarios – lower bound and upper bound.

[85] Attributional rates mean the percent of attribution to avoided costs because of project interventions. The benefit transfer method takes estimates from the region or country level and aggregated numbers and tailors them per project site and intervention. Taking different attribution rates allows consideration of a wide range of applicability of regional/national estimates to project sites and interventions.

Sensitivity Analysis

13. 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 both a 20 percent decline in benefits and 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 20 percent. With a 14 percent discount rate, project NPV is US$64.9 million, and with a 3 percent discount rate, it is US$442.1 million. The results are presented in Table 3.3. The analysis establishes that the estimated benefits will be greater than the costs of the project.

Table 3.3: Sensitivity Analysis

Sensitivity Analysis (30-year Period)		Costs Increase			Increase of Benefits		Decrease of Benefits			Delay of Benefits		Discount Rate	
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 yr	2 yrs	3%	14%
Project EIRR	**24%**	21.9%	20.1%	16.1%	26.3%	28.7%	21.7%	19.3%	16.8%	20%	17.4%	24%	24%
ENPV (US$ million)	**266.4**	255.1	243.8	209.8	304.4	342.3	228.5	190.5	152.1	239.0	213.2	442.1	64.9

Summary of Indicative Benefits Over and Above the EIRR (Environmental, Social, and Unquantifiable)

14. Project benefits include both direct benefits, which are tangible and contribute towards financial returns, and indirect benefits, which are public goods, intangible, and contribute to economic returns. Evidence[86,87] suggests that every dollar invested in sustainable landscape restoration practices can yield 4 dollars of returns over a 30-year period. Project interventions are expected to result in various indirect benefits over and above carbon sequestration. Economic return accrues in the order of (i) approximately US$9 million in environmental benefits (ecosystem services, avoided costs from land degradation, loss of agricultural productivity, health impacts, salinization, loss of infrastructure to natural disasters, landslides, and mudslides), and (ii) approximately US$3 million in social benefits in terms of income from NBT activities in Zaamin PA and Central *leskhoz* of Samarkand PA. These estimates were presented as values using a benefit transfer approach using per hectare/per year values from similar analyses, government regulations, and studies from Central Asia. Detailed assumptions and sources are presented in Table 3.4.

15. **Environmental benefits.** In Uzbekistan, for each dollar investment in landscape restoration that intends to improve the quality of land and ecosystem services, the Project will yield two dollars in economic return. This will be over and above conventional financial return and justifies project investments from a public investment

[86] Mirzabaev, A., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds), *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].

[87] Quillérou, E., Thomas, R.J., Guchgeldiyev, O., Ettling, S., Etter, H., & Stewart, N. 2016. *Economics of Land Degradation 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.

perspective, considering the benefits to the land, economy, and people. The value of ecosystem services was proxied from the difference in rent charged from private sector companies between "good quality" land and "poor quality" land, where quality is evaluated based on indicators, including provision of ecosystem services such as water, regulation of water, quality of soil and soil retention, and avoided sedimentation.[88] The difference in rent is US$460/hectare good quality to US$230/hectare poor quality; hence, improved quality of land is valued twice as high. Land restoration practices will be conducted across 77,700 hectares of land. It is assumed that this would improve the quality of ecosystem services and, hence, improve the quality of land. Each year, this would yield an economic benefit stream of approximately US$4 million. If these benefits were to be incorporated in the economic analysis, it would further increase the EIRR. There are other environmental benefits, including avoided costs from land degradation, loss of agricultural productivity, health impacts, salinization, loss of infrastructure to natural disasters, landslides, and mudslides. Where possible, proxies were taken from Central Asia to account for value of avoided cost and estimated over relevant hectares of project interventions. The project's total environmental benefits are in the range of US$9 million.

Table 3.4: Summary of Environmental Benefit Assumptions

Benefit	Relevant Ha Considered	Per Ha/Yr	Value and Benefits (US$ million/ year)	Source
Ecosystem services	77,700 (15,540 ha annually)	230	3.57	Resolution #993 dd. December 13, 2019 "About approval of the regulation for lease of the state forest fund lands" and Resolution #50 dd. February 30, 2021, "About modification and additions approval of the regulation for lease of the state forest fund lands"
Avoided costs – environmental degradation (total)	77,500 (15,500 ha annually)	38	0.59	Costs from environmental degradation in Tajikistan (World Bank, 2021)[89]
Avoided costs – loss of agricultural productivity	72,000 (14,400 ha annually)	19	0.27	Costs from environmental degradation in Tajikistan (World Bank, 2021)
Avoided costs – health impacts	72,000 (14,400 ha annually)	0.36 (Average 1.6)	0.02	Average of lower and upper bound from sand and dust storms, WAVES Study[90] in Uzbekistan Avoided costs from environmental degradation in Tajikistan (World Bank, 2021)
Avoided costs-infrastructure loss (landslide, mudflows)	5,500 (shelterbelt-focused, 1,100 ha annually)	6	0.006	Avoided costs from environmental degradation in Tajikistan (World Bank, 2021)
Avoided costs – natural disasters	5,500 (shelterbelt	375	0.41	Economic impacts of disasters amongst key corridors in Tajikistan (World Bank, 2021)[91] found

[88] This is with reference to Resolution #993 dd. December 13, 2019 "About approval of the regulation for lease of the state forest fund lands" and Resolution #50 dd. February 3, 2021 "About modification and additions approval of the regulation for lease of the state forest fund lands".
[89] *https://openknowledge.worldbank.org/handle/10986/34986.*
[90] *https://www.wavespartnership.org/.*
[91] *https://documents1.worldbank.org/curated/en/545481624287902413/pdf/Assessment-of-Economic-Impacts-from-Disasters-Along-Key-Corridors.pdf.*

	around roads, 1,100 ha annually)			loss of US$75 million per year across 200,000 hectares of roads in Tajikistan across disasters, landslides, economic losses from damage, and loss of income.
Avoided costs – salinization	77,500 (15,540 ha annually)	250	3.88	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]

16. **Social benefits from NBT activities.** Activities focused on NBT will provide income benefits for communities and the government. A study on a similar site carried out the GoU for the eco-trail sub-project in Chartak (under MSCIUDP) showed that substantial economic benefits could be extracted from increased tourism-related incomes in areas with such potential. The economic analysis considered benefits to the local tourism economy generated by the investment (including growing revenues of restaurants, hotels, and handicrafts stores), showing an NPV of 20 percent. This suggests that economic benefits in project areas can be experienced both by local households and by local businesses, thus pointing at high potential of such investments to have a positive impact. For this economic analysis, a benefit transfer approach was used from evidence[93] in Kyrgyz Republic and Tajikistan on mountain-based community tourism, which found additional income from NBT of US$306 per hectare per year. This was applied to the project sites, namely the Zaamin PA in Jizzakh Province, immediately bordering Tajikistan and Central *leskhoz* of Samarkand PA in Samarkand Province near the Tajikistan border. Component 3 will finance NBT initiatives in project sites of around 26,536 hectares, and, hence, the incremental income benefits are approximately US$15 million across six years, which is US$3 million annually.

17. **Unquantifiable benefits.** Other benefits that can be attributed to the project were also considered; however, they were not quantified for the purpose of the economic analysis due to data limitations. These are over and above the benefits mentioned above and can be quantified with further research and data analysis. This helps to contextualize the benefits presented as an underestimation of benefits from this project. These include increase in government revenue because of policies and interventions in the project, including: (i) livelihoods, jobs, and value added from SMEs under Component 3; (ii) incremental increase in revenue from illegal fees, damage (fire), and encroachment penalties; (iii) permit fee revenue; (iv) revenue from NBT and PAs; and (v) revenue from renting and leasing SFF land. Indirect benefits are related to avoided costs from (a) nutrient loss; (b) sedimentation removal; (c) water and wind erosion; and (d) floods. Further intangible but important benefits include, among others, increased crop diversification, improved access, security along borders[94], and regional benefits to Central Asia, such as improved connectivity across borders as well as improved biodiversity through green corridors and NBT 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 in Tajikistan[95], which is estimating the value of landscape restoration to reduce sedimentation in water reservoirs and the cost of natural disasters.

[92] Source: CAMP4ASB.
[93] Shokirov, Qobiljon; Abdykadyrova, Aisulu; Dear, Chad; Nowrojee, Sia. 2014. *Mountain tourism and sustainability in Kyrgyz Republic and Tajikistan: a research review*. Bishkek (Kyrgyz Republic): University of Central Asia.
[94] Mirzabaev, A., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds), *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].
[95] World Bank. 2021. *Mapping and Valuing Ecosystems Services, and Prioritizing Investments in Select Watersheds in Tajikistan to support Sustainable Hydropower*. Washington D.C.

Public Provision of Finance

18. 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[96], the support for landscape restoration and forestry activities budgeted at UZS 11,550,811,000 (US$7 million)[97] as of 2015 is inadequate. Further, SCF budget was US$10 million in 2015, most of which was allocated to staff salaries. This only increased by 1.7 percent in the past six years, with the 2021 budget allocated being US$11.77 million (UZS 125,352.21 billion).[98] While this justifies public investment support, public investment alone is not sufficient for meeting Uzbekistan's LDN targets and land restoration-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 the ECCA30 Initiative. The project will also involve banks, including micro-lending institutions and PPPs, to provide financial support to women and SMEs in carrying out interventions.

World Bank Value Addition

19. The unique proposition of the World Bank for this project is justified since it builds on extensive experience in sustainable landscape restoration and management at national and transboundary levels and is linked to a broader regional initiative - the RESILAND CA+ Program. The World Bank has a long history of collaboration with Uzbekistan's natural resource sector, mainly in water and land[99] and it has also been engaged in forest landscape projects in the region, notably the Integrated Forest Ecosystem Management Project in Kyrgyz Republic (P151102), and the Resilient Landscapes Restoration Project in Kazakhstan (P171577). This experience and regional knowledge put the World Bank in an advantageous position to support this project. The World Bank also has accumulated significant global experience with integrated and multi-sectoral landscape management and restoration approaches across the world, with substantial programs in countries across Africa[100], crowding in both public and private finance alongside other RESILAND CA+ Program projects that can provide valuable lessons and innovations to Uzbekistan to build back better through COVID-19 recovery actions. The World Bank is also well positioned to convene regional collaboration in the Central Asia context through the RESILAND CA+ Program with experience and partnerships already established through the ongoing World Bank-financed CAMP4ASB, GIZ[101], and the Economics of Land Degradation Initiative, which will strengthen delivery of environmental, social, and economic benefits for Uzbekistan. Given the integrated and regional nature of the Project, the World Bank can play a key role through its convening power in helping to 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.

[96] US$11 billion across a 30-year period as per Mirzabaev et al., 2016.
[97] Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, 2015.
[98] As per data received from SCF, 2021.
[99] For example, CAMP4ASB, the Second Ferghana Valley Water Resource Management Project (P149610), Livestock Sector Development Project (P153613), Agricultural Modernization Project (P158372), and Horticultural Development Project (P133703).
[100] For example, the Ethiopia Climate Action through Landscape Management Program-for-Results (P170384).
[101] GIZ's ILUMA program, whose second phase is soon to be launched, provides substantial information on land use practices at the landscape level in which were piloted and tested in Central Asia countries, including Uzbekistan, for more than 10 years.

ANNEX 4: Climate Change Co-Benefits

COUNTRY: Uzbekistan
Uzbekistan Resilient Landscapes Restoration Project

1. 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, horticulture, and PA management. Improved landscape management through these activities reduces landscape vulnerability to climate change impacts and enhances resilience through nature-based solutions, protecting and preserving PAs, NBT, shelterbelts, climate resilient infrastructure, and climate smart livelihoods in regional corridors which are climate sensitive and vulnerable. Reduced vulnerability and enhanced resilience result in improved adaptation of landscapes to expected risks posed by climate change.

2. The project was screened for climate and disaster risk by using the Climate and Disaster Risk Screening Tool. In addition, this project piloted the Climate Hazards and Resilience Rating Tool, which showcased that project-supported activities were additional and would not be possible without the project. The Tool will be piloted by the project to integrate climate risk scenarios into the economic analysis for a few selected sites during project implementation.

3. In terms of mitigation co-benefits, Section I of the Project Appraisal Document (PAD) outlines how the project will support Uzbekistan's global commitments on LDN and NDC to GHG mitigation. Project contribution to GHG accounting was carried out using EX-ACT and found a total of 11,216,782 tCO2-eq sequestered through the life of the project (30-year analysis horizon), equivalent to 373,893 tCO2-eq/year, which is over 200 percent of the baseline emissions. The total GHG emission reduction benefits were estimated considering the estimated shadow price of carbon that will evolve from year to year according to the 2017 World Bank Shadow Price of Carbon Guidance Note. The estimate found an NPV of US$494.4 million with lower bound estimates, and an ERR of 59.3 percent. The assumptions used in the EX-ACT analysis are in line with those used for the Economic and Financial Analysis.

4. For identified risks, appropriate resilience measures are included in the project design as climate change resilient practices. The results framework will measure progress towards their achievement, including a PDO-level indicator measuring the land area under sustainable landscape management practices which will yield the carbon emission reductions through EX-ACT, and a more specific GHG mitigation IRI. Furthermore, an IRI, "Enabling Environment for Land Degradation Neutrality and Nationally Determined Contribution targets improved", is included in the results framework. These will help monitor the climate co-benefits of the project.

5. The context section of the PAD outlines climate vulnerability context and highlights the main areas of vulnerability as productivity of agriculture, resilience of transport and infrastructure, and potential for tourism development, with linkages to increasing fragility in the region. This section outlines the unique role of addressing land degradation as both a mitigation-relevant activity with potential for emission reductions, as well as one for building resilience (adaptation-relevant activity) and outlines the links between land degradation-related vulnerabilities for ecosystems, people, and the economy. It also details landslides, flooding, and forest and landscape fire threats as climate impacts for which forest plantations can provide critical adaptation and mitigation co-benefits.

a) Sub-component 1.1 will support the development of a policy and a legal and institutional framework to restore and sustainably manage forest landscapes in Uzbekistan; develop the country's NFI; and enhance the capacities of key stakeholders in support of Uzbekistan's LDN and NDC targets, contributing to policy-related mitigation co-benefits. Meeting NDC targets without an NFI would not be possible from the agriculture, forestry, and other land use sector, hence this activity is additional. The context and links to reducing climate change are provided in Section I. Relevant activities include carbon tax, a national FLR plan, including carbon sequestration benefits, an NFMS to help track climate commitments, training, educational curricula, and on-the-job training on landscape restoration practices, including focus and links to climate resilience and mitigation benefits (see Annex 2).

b) Sub-component 1.2 will support establishing an ICT Platform for FLR and forest management within the Forest Design Institute. This will include activities such as ICT Platform's software, whose features will likely include a two-way forest management information system that monitors afforestation, reforestation, natural regeneration forests, and forest land use changes, and a disaster response information platform, forming a basis for decision making within the agriculture, forestry, and other land use sector on actions for climate change policy (see Annex 2).

c) Sub-component 1.3 will support building climate resilience of regional infrastructure, including through NBT, nature-based solutions, tree planting, biodiversity conservation through improved regional collaboration—given the critical need to address emerging threats at the regional level, including impacts of climate change. The sub-component outlines the climate sensitivity and vulnerability context of regional infrastructure and the role of climate policy in moving towards a regionally connected resilient future in the context of tourism, biodiversity, transport infrastructure, and others, qualifying this sub-component to contribute to adaptation co-benefits since the intention and purpose of the design of these activities is to increase resilience to climate change impacts, vulnerabilities, and sensitivities, particularly in PAs (a climate hotspot).[102] Activities include a regional online database attached to the CAMP4ASB CACIP together with a dedicated regional activity on development of a protocol for using nature-based solutions; and erosion control and tree planting along roads to increase climate resilience of infrastructure (see Annex 2)

d) Sub-component 2.1 will bring trees into the existing, often degraded, landscapes with the aim of reducing degradation through soil loss by wind and/or water, overgrazing, uncontrolled fire, salinization, or flooding. This would increase climate resilience as well as accrue reduction in GHG emissions, with carbon sequestration outlined as a primary benefit for this subcomponent in Annex 2. As per EX-ACT, the emission reductions from these activities will lead to substantial reductions >25,000 tCO2-eq year and are estimated at a total of 10,256,370 tCO2-eq or 341,879 tCO2-eq annually and over 200 percent of baseline emissions, qualifying for substantial emission reductions. This is primarily delivered through activities such as tree planting, including fruit and nut horticulture using improved varieties, and potentially with underplanted medicinal plants; agroforestry systems such as fodder banks and boundary and shade trees using multi-purpose shade trees where possible; shelterbelts associated with infrastructure such as roads, railways, and canals, assisted natural regeneration around forest patches with control of fire and grazing, and planting of framework species (see Annex 2). These help to justify mitigation co-benefits as per the revised Multilateral Development Bank methodology. In addition to mitigation, given the vulnerability related to flooding, fire and salinity, these land restoration practices and activities are designed with the purpose of building climate resilience and building capacity to respond to adverse impacts of climate change. For example, limited water resources because of

[102] Seim A, Omurova G, Azisov E, Musuraliev K, Aliev K, Tulyaganov T, et al. 2016. *Climate Change Increases Drought Stress of Juniper Trees in the Mountains of Central Asia*. PLoS ONE 11(4): e0153888.

climate change impacts will be considered when locating new tree nurseries to ensure adequate water availability at the time of maximum demand in the nursey cycle (see Annex 2). The indicative financial models used both in the EX-ACT and Economic and Financial Analysis are (i) pistachio (to some extent horticulture) plantations (9,500 hectares); (ii) agroforestry (19,000 hectares); (iii) shelterbelts (5,500 hectares); and (iv) fuelwood plantations (8,500 hectares). A conservative assumption that 80 percent of all planted would survive was applied before entering the number of hectares to EX-ACT. The Inputs section reflect the required quantity of fertilizers and chemicals to be applied.

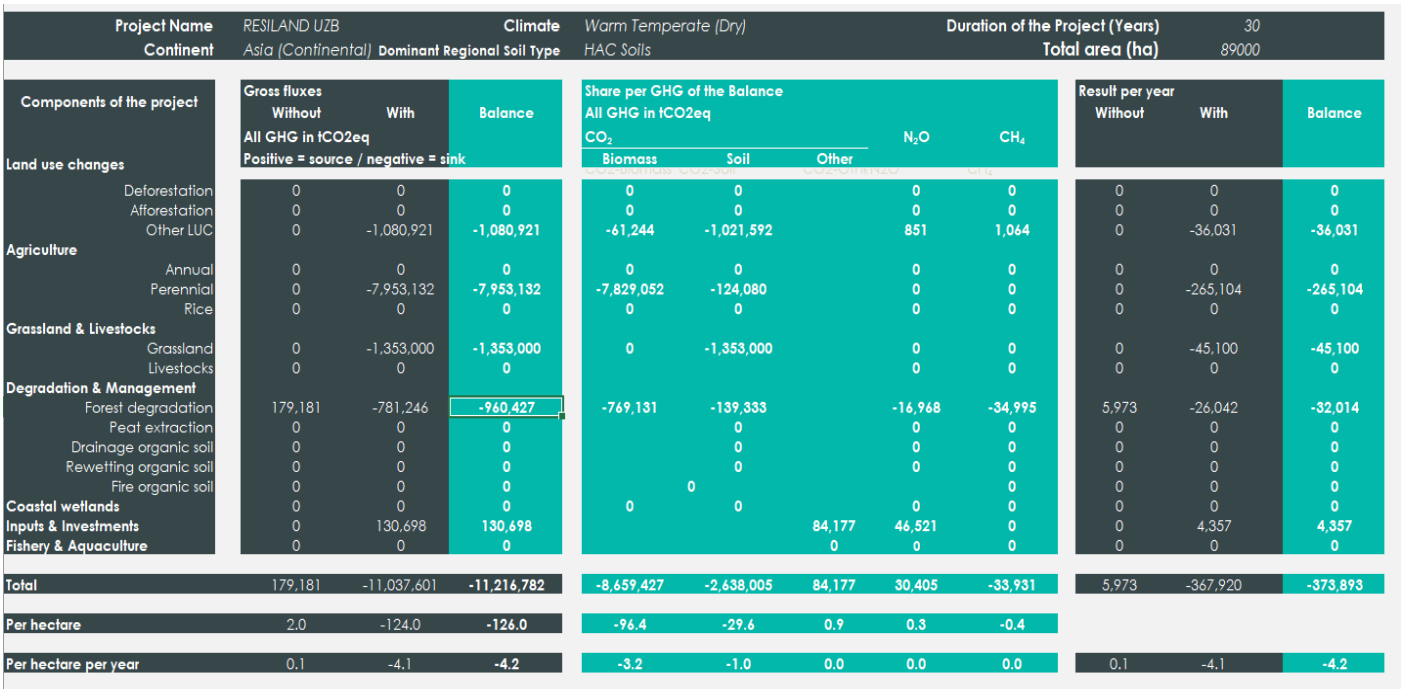
e) Sub-component 2.2 will bring in opportunities for adaptation co-benefits through activities supporting sustainable "climate smart" rural livelihoods (vulnerability context) from forest development activities, including FLR, reforestation, agroforestry, NWFPs, firewood management, and NBT (climate resilient enterprises, vulnerability context) and "enhancing existing natural resource-based or linked livelihood activities: climate-smart forest livelihood activities". Activities also include a market assessment of climate-smart tree-based livelihood activities, NBT, and livelihood diversification options that reduce pressure on forests and rangelands, and preparation of a menu of viable livelihood options (see Annex 2). The matching grants activity will establish a system of enterprise development to provide working capital needed to start-up or expand the livelihoods activities as identified in the business plans of community-level business enterprises, both individual and group-based.

f) Under Component 3, forest management, preservation, and PA management are opportunities for Uzbekistan to build resilience of ecosystems threatened by climate change impacts, including on biodiversity. Climate change impacts on forests and their vitality are essential for semi-arid environments such as those in Central Asia, where the mountain regions belong to globally important biodiversity hotspots. Alterations in specie distribution or drought-induced tree mortality might not only result in a loss of biodiversity but also in a loss of other ecosystem services, as evidenced[103] through impacts on juniper trees in the Zaamin PA. This component, through restoration-related activities, qualifies for adaptation co-benefits via activities such as environmentally sustainable climate smart NBT and support for climate smart livelihoods in climate hotspots such as Zaamin PA (see Annex 2). This component also qualifies for emission reductions. The EX-ACT analysis finds projected emission reductions to be 32,014 tCO2-eq/year, also qualifying for "substantial emission reductions". The increased carbon sequestration is mainly reached due to the improved fire management in PAs on the total area on 20,000 hectares by decreasing the assumed periodicity from 3 to 5 years.

6. **Mitigation co-benefits.** In terms of mitigation co-benefits, this PAD outlines how the project will support Uzbekistan's commitments 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 FAO's EX-ACT. According to the 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 30 years. Emission reduction estimates come from: (i) a range of activities, including land use change from grasslands to perennial tree cops across 15,200 hectares and degraded land to perennial crops across 4,400 hectares, 7,600 hectares, and 6,800 hectares; (ii) improving land management on grasslands across 35,000 hectares; (iii) improving forest degradation and management across 20,000 hectares; and (iv) fertilizer and pesticide application will lead to 130,698 tCO2-eq emissions.

[103] Ibid.

Figure 4.1: EX-ACT Analysis Results



Project Name	RESILAND UZB	Climate	Warm Temperate (Dry)	Duration of the Project (Years)	30
Continent	Asia (Continental)	Dominant Regional Soil Type	HAC Soils	Total area (ha)	89000

Components of the project	Gross fluxes All GHG in tCO2eq Positive = source / negative = sink			Share per GHG of the Balance All GHG in tCO2eq					Result per year		
	Without	With	Balance	CO_2 Biomass	CO_2 Soil	CO_2 Other	N_2O	CH_4	Without	With	Balance
Land use changes											
Deforestation	0	0	0	0	0		0	0	0	0	0
Afforestation	0	0	0	0	0		0	0	0	0	0
Other LUC	0	-1,080,921	-1,080,921	-61,244	-1,021,592		851	1,064	0	-36,031	-36,031
Agriculture											
Annual	0	0	0	0	0		0	0	0	0	0
Perennial	0	-7,953,132	-7,953,132	-7,829,052	-124,080		0	0	0	-265,104	-265,104
Rice	0	0	0	0	0		0	0	0	0	0
Grassland & Livestocks											
Grassland	0	-1,353,000	-1,353,000	0	-1,353,000		0	0	0	-45,100	-45,100
Livestocks	0	0	0				0	0	0	0	0
Degradation & Management											
Forest degradation	179,181	-781,246	-960,427	-769,131	-139,333		-16,968	-34,995	5,973	-26,042	-32,014
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	130,698	130,698			84,177	46,521	0	0	4,357	4,357
Fishery & Aquaculture	0	0	0			0	0	0	0	0	0
Total	179,181	-11,037,601	-11,216,782	-8,659,427	-2,638,005	84,177	30,405	-33,931	5,973	-367,920	-373,893
Per hectare	2.0	-124.0	-126.0	-96.4	-29.6	0.9	0.3	-0.4			
Per hectare per year	0.1	-4.1	-4.2	-3.2	-1.0	0.0	0.0	0.0	0.1	-4.1	-4.2

Table 4.1: Summary of Project Emission Reduction

Components	Projected Emission Reductions per year With Project	Baseline emissions	Percentage: Projected Emission Reductions per year of Baseline Emissions
Component 2.1	301,135 tCO2-eq	0 tCO2-eq	N/A
Component 2.2	71,142 tCO2-eq	179,181 tCO2-eq	39%
Total	367,920 tCO2-eq	179,181 tCO2-eq	205%

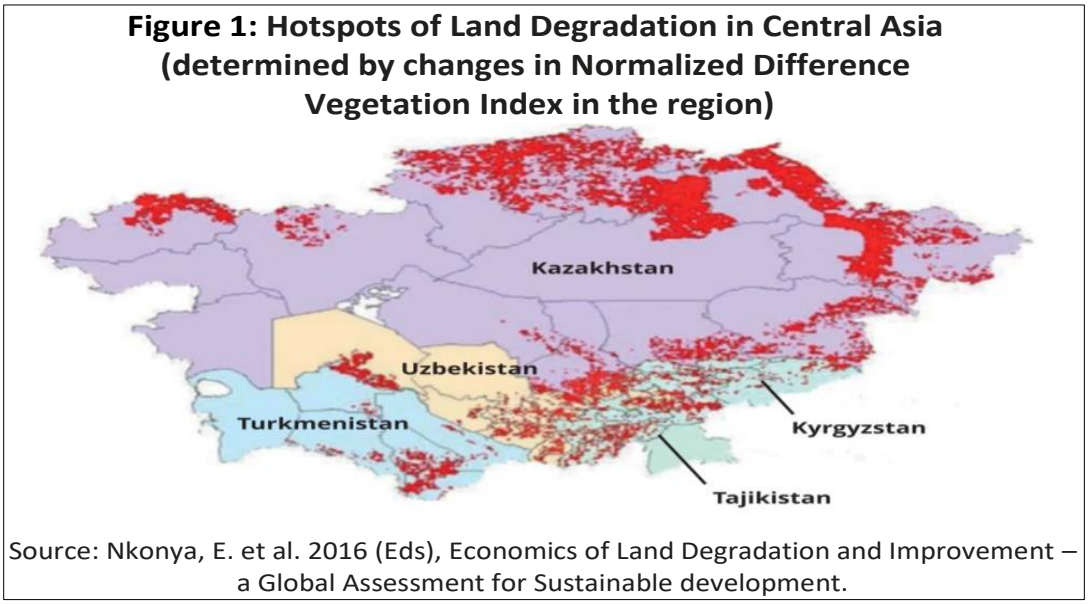
ANNEX 5: Central Asia+ Resilient Landscape Restoration Program (RESILAND CA+ Program)

COUNTRY: Uzbekistan
Uzbekistan 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[104], causing acute regional externalities.** The adjacent figure 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 impact key infrastructure in the region and possible tourism development along the Silk Road. 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. 2016 (Eds), Economics of Land Degradation and Improvement – a Global Assessment for Sustainable development.

[104] This could be explained, *inter-alia*, 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., Thomas, R.J., Guchgeldiyev, O., Ettling, S., Etter, H., & Stewart, N. (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. Available from *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 6 times higher than the cost of action[105] 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.[106] 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 Kyrgyz Republic that have led to an economic cost of about US$750 million to Tajikistan alone in the last decades.[107] 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 onwards due to intensive afforestation in the dried bed of the Aral Sea.[108]

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 in previous years toward transboundary cooperation.[109]

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 the 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, regional, and international stakeholders in addressing environmental and sustainability challenges across the region.

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

[105] Mirzabaev, A., Goedecke, J., Dubovyk, O., Djanibekov, U., Quang, B.L., & Aw-Hassan, A. 2016. *Economics of land degradation in Central Asia*. In Nkonya, E. et al (Eds), *Economics of Land Degradation and improvement – a global assessment for sustainable development*. Springer. Retrieved on [2016, 01/11] from [DOI 10.1007/978-3-319-19168-3_10].
[106] EM-DAT International Disaster Database, Université Catholique de Louvain (UCL)–CRED, D. Guha-Sapir, Brussels, Belgium.
[107] According to the World Bank data.
[108] UNECE. 2020. *Environmental Performance Reviews for Uzbekistan - Third Review*. Geneva, Switzerland.
[109] World Bank 2017; Reuters December 15, 2017.

key to mitigating and adapting to climate change.[110] The RESILAND CA+ Program is 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 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 borders 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 TF-financed IPFs 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 Kyrgyz Republic) that support activities with regional spillovers, namely (i) improved connectivity and integrity of natural resources across borders, (ii) increased resilience of key regional infrastructure prone to the impacts of land degradation (for example, roads and railways), (iii) increased resilience of transboundary communities benefiting from more productive landscapes and livelihood opportunities, and (iv) 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. **Indicators that will be used to measure the Program 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)
e) Regional institutions supported through capacity strengthening activities (Number)

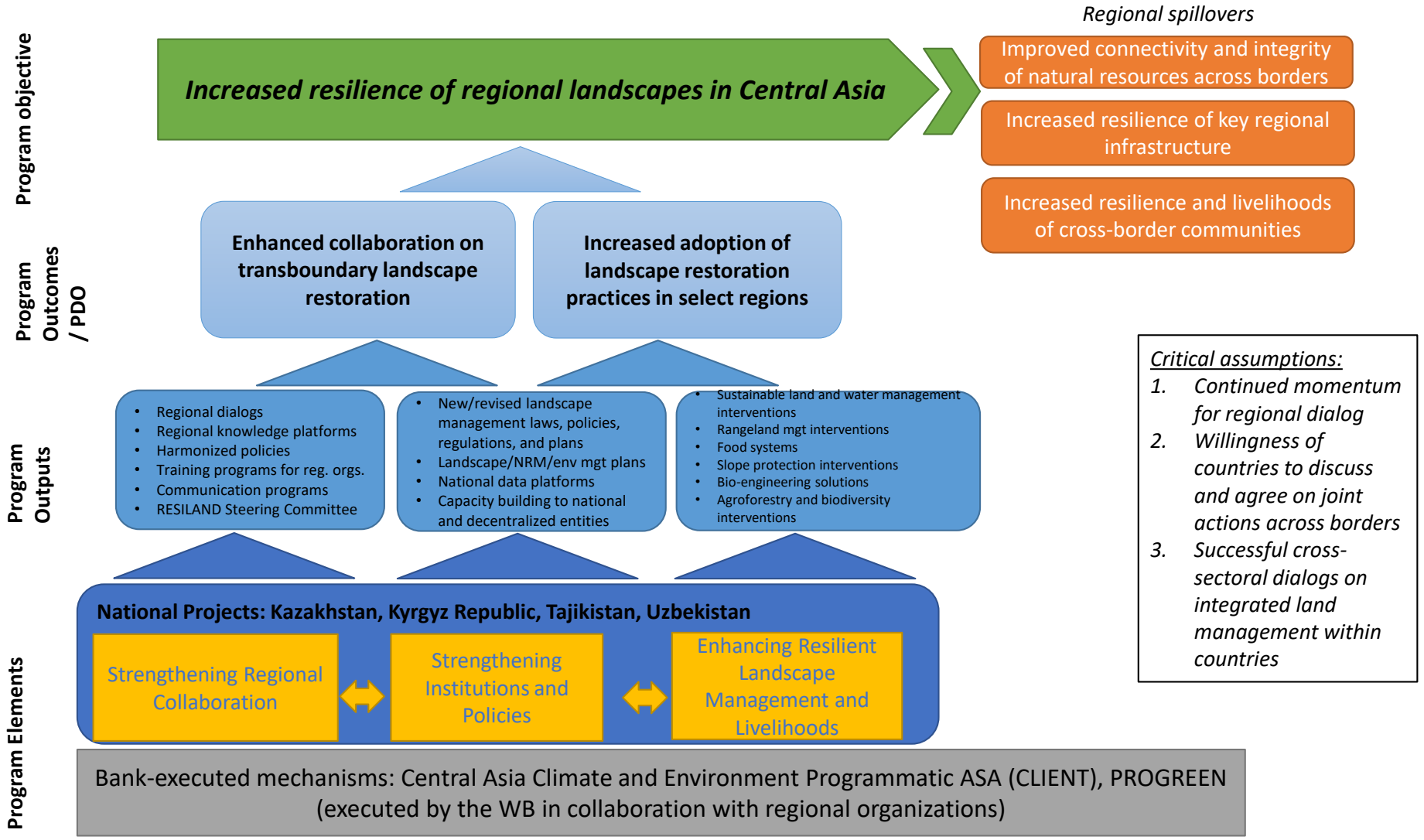
11. All future RESILAND CA+ Program operations in other countries will share these key indicators and will together contribute to regional spillovers, which would then be integrated to measure impact at the Program level.

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 multi-country 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 RESILAND CA+ projects will support the WBG COVID-19 crisis, fragility, and disaster response efforts.** They will support the implementation of the World Bank 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.

Figure 5.2: RESILAND CA+ Program: Theory of Change

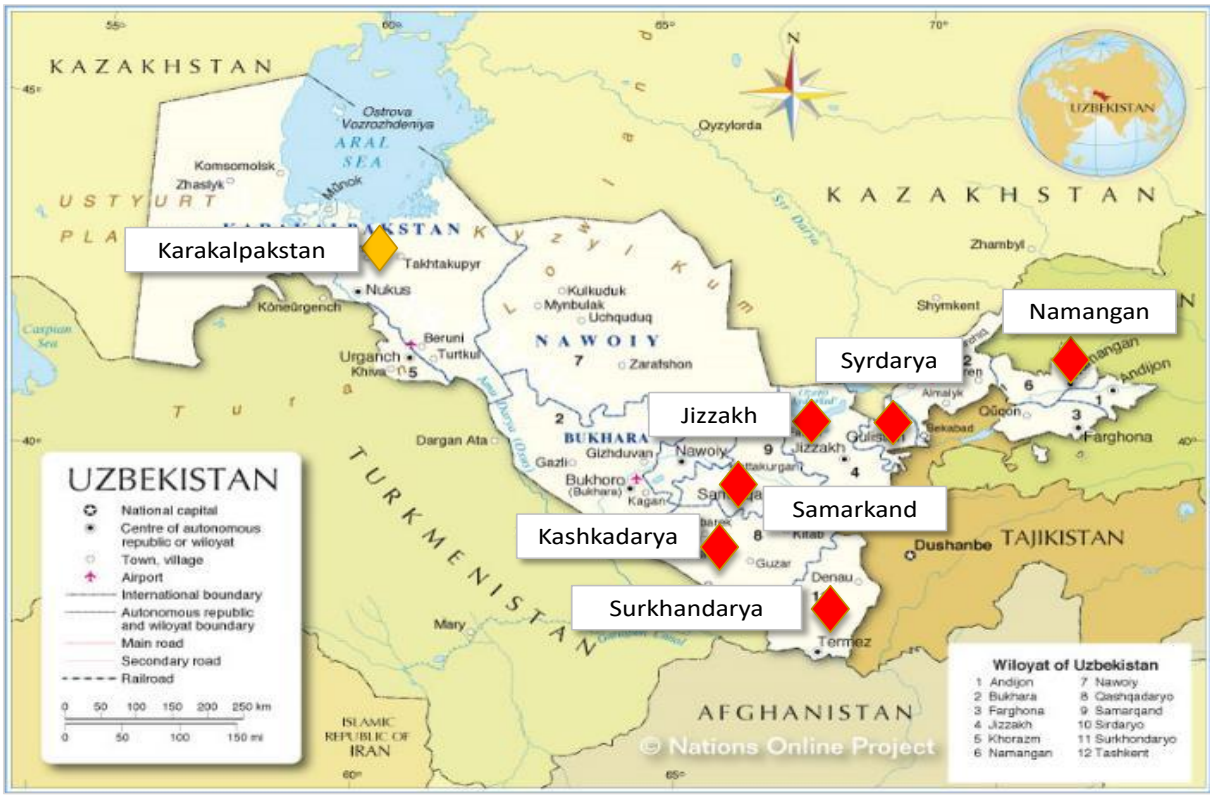


ANNEX 6: Project Map

COUNTRY: Uzbekistan
Uzbekistan Resilient Landscapes Restoration Project

Map 1: Project Districts

Map 2: Project Provinces



Note: Red diamonds mark Project provinces; yellow diamond marks a candidate province for potential future engagement.