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Annex 7a

Environmental and Social Impact Assessment (ESIA)

to the GCF Funding Proposal

Climate-resilient landscapes in Central Asia

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Abbreviations and Acronyms

AE	Accredited Entity
ADB	Asian Development Bank
AFOLU	Agriculture, Forestry and Other Land Use
APIU	Agricultural Project Implementation Unit
ARIS	The Community Development and Investment Agency of the Kyrgyz Republic
BPfA	Beijing Declaration and Platform for Action
BMZ	German Federal Ministry for Economic Cooperation and Development
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CIA	Central Intelligence Agency
CITES	Convention on International Trade in Endangered Species
CIIP	Centre for Implementation of Investment Projects
CIIP-CEP	Centre for Implementation of Investment Projects under the Committee for Environmental Protectio
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CR	Critically Endangered (on the IUCN Red List)
CRLE	Climate-Resilient and Low-Emission Land Use Practices
CO2	Carbon Dioxide (WIDESPREAD USE; standard chemical and climate science term used by IPCC and UNFCCC)
CSO	Civil Society Organisation
CS-FOR	Carbon Sequestration through Climate Investment in Forests and Rangelands in Kyrgyz Republic
DAE	Direct Access Entity
EBRD	European Bank for Reconstruction and Development
E&S	Environmental and Social
EE	Executing Entity
EN	Endangered (on the IUCN Red List)
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Safeguards
FAO	Food and Agriculture Organization of the United Nations
FP	Funding Proposal
FPIC	Free, Prior, and Informed Consent
GAP	Gender Action Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGGI	Global Green Growth Institute
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

GFP	Grievance Focal Point
GMO	Genetically Modified Organisms
GRM	Grievance Redress Mechanism
GHG	Greenhouse Gases (based on widespread, standard climate terminology used by IPCC and UNFCCC)
HDI	Human Development Index
HR	Human Resources
IA	International Category Ia (Strict Nature Reserve category under IUCN system)
IBAT	Integrated Biodiversity Assessment Tool
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation (World Bank Group)
ILO	International Labour Organization
IMF	International Monetary Fund
INFORM	Index for Risk Management
IP	Indigenous People
IPCC	Intergovernmental Panel on Climate Change
IPCC WGII	Intergovernmental Panel on Climate Change Working Group II
IPP	Indigenous Peoples Plan
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area
LDN	Land Degradation Neutrality (based on official UNCCD terminology)
MCO	Micro-Credit Organisations
MSMEs	Micro, Small and Medium Enterprises
MoWRAPI	Ministry of Water Resources, Agriculture and Processing Industry of the Kyrgyz Republic
NDA	National Designated Authority
NDC	Nationally Determined Contribution (to the Paris Agreement of the UNFCCC)
NCECC	National Committee on Ecology and Climate Change
ND-GAIN	Notre Dame Global Adaptation Initiative (Index)
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
PS	Performance Standards
PSC	Programme Steering Committee
PPE	Personal Protective Equipment
PMU	Programme Management Unit
SDG5	Sustainable Development Goal 5
SEAH	Sexual Exploitation, Sexual Abuse, and Sexual Harassment
SEP	Stakeholder Engagement Plan
S+G	Safeguards+Gender (Management System of GIZ)
tCO2e	Tonnes of carbon dioxide equivalent (based on widespread, standard emissions

	accounting terminology used by IPCC, GHG Protocol, and UNFCCC)
UNFCCC	United Nations Framework Convention on Climate Change
USD	US Dollar
UNCCD	United Nations Convention to Combat Desertification
UNDRR	United Nations Office for Disaster Risk Reduction
UN	United Nations
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USAID	United States Agency for International Development
VC	Value Chain
WUA	Water User Association
WB	World Bank
WRI	World Resources Institute
II	IUCN Protected Area Category II
III	IUCN Protected Area Category III
IV	IUCN Protected Area Category

Executive Summary

This document presents the Environmental and Social Impact Assessment (ESIA) of the 'Climate-resilient landscapes in Central Asia' programme proposed by the Accredited Entity, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The proposed programme will directly address critical climate risks affecting the agriculture, forestry and other land-use sectors in the Kyrgyz Republic, Tajikistan, and Uzbekistan, with a focus on the highly vulnerable and ecologically significant Fergana Valley, Surkhandarya, and Khatlon regions. The ESIA describes how the programme aligns with Green Climate Fund (GCF) ESS, national regulations, and international standards.

The ESIA describes how the programme will achieve overall environmental and social sustainability in compliance with:

- GCF's Sustainability Policies, including but not limited to:
    - Revised Environmental and Social Policy (B.BM-2021/18);
    - Environmental and Social Policy (B.19/10);
    - Indigenous Peoples Policy (B.19/11);
    - Gender Policy (B.24/12);
- German government policy and standards on human rights, environmental and social risks and sustainability;
- National legislation in the countries of intervention;
- International standards on safeguards management and good practice.

The ESIA assesses the possible risks and determines the possible (unintended) negative impacts as well as co-benefits that the programme activities may have on the natural and human environment during programme implementation.

For programme activities that may trigger medium to high risks, mitigation measures are defined in an Environmental and Social Management Plan (ESMP). This plan defines how the measures will be implemented, by whom, when, etc. The ESMP is a separate document.

Programme scope and objectives

'Climate-resilient landscapes in Central Asia' aims to enhance the resilience of vulnerable populations and the transboundary ecosystems they depend on in the Kyrgyz Republic, Tajikistan and Uzbekistan. It follows an integrated landscape approach structured around three integrated components:

- Component 1: Enabling environment for climate-resilient and low-carbon AFOLU sectors at national level;
- Component 2: Promotion and adoption of climate-resilient and low-emission practices and technologies at local level;
- Component 3: Foster regional cooperation to harmonise national priorities and support knowledge sharing.

Environmental and social risks and mitigation measures

The programme is classified as "Category B" (Medium Risk) under GCF's Environmental and Social Safeguards (ESS) framework, as most risks are localised, reversible, and manageable

with appropriate mitigation measures. The key identified risks and safeguards (mitigation measures) identified during the ESIA process include:

- **ESS 1 – Assessment and management of environmental and social risks and impacts (Medium risk before mitigation):** Key potential risks include water availability, pollution, sexual exploitation, abuse and harassment (SEAH), biodiversity loss, weak stakeholder engagement, risks of inequitable benefit distribution, and limited capacity of involved public institutions and authorities. These risks will be addressed through strong safeguards overseen by experienced staff, robust application of the ESMP, contractor oversight, promotion of sustainable land and water use, institutional coordination and inclusive, gender-responsive engagement, and grievance redress mechanisms (GRM).
- **ESS 2 – Labour and working conditions (Medium risk before mitigation):** The target countries are categorised as having limited worker protections, weak enforcement of existing labour regulations, and informal agricultural employment. Without mitigation there are potential risks of non-compliance with International Labour Organization and ESS 2 standards and SEAH incidents. The programme will enforce decent work conditions and strengthen labour compliance through improved management procedures, screening, and capacity building. The programme will further implement a gender-responsive grievance mechanism, a Gender Action Plan, and a code of conduct including SEAH prevention measures.
- **ESS 3 – Resource efficiency and pollution prevention (Medium risk before mitigation):** Risks relate to inefficient resource use, ageing infrastructure, and local pollution. The programme will address these through training, promotion of sustainable agricultural practices, improved water and energy management, environmental compliance, safe construction standards and enhanced monitoring.
- **ESS 4 – Community health, safety and security (Medium risk before mitigation):** Social tensions may arise from competition for assistance and misappropriation of funds, and there may be physical health and safety risks associated with implementation of sub-projects and mismanagement of agricultural chemicals. Mitigation will include participatory, inclusive planning, transparent engagement and selection processes, safe agricultural practices, targeted training, and improved emergency preparedness.
- **ESS 5 – Land acquisition and involuntary resettlement (Low risk before mitigation):** No physical displacement is expected, and all land use will be voluntary. Any minor economic displacement will be mitigated through sub-project screening, fair agreements, and inclusive engagement.
- **ESS 6 – Biodiversity conservation and sustainable management of living natural resources (Medium risk before mitigation):** The confirmed presence of threatened species and protected areas within the broader programme landscapes creates indirect biodiversity risks. These will be mitigated through sub-project screening, capacity building, exclusion criteria, and best-practice measures following the mitigation hierarchy.
- **ESS 7 – Indigenous peoples (Negligible risk before mitigation):** No Indigenous Peoples as defined by ESS 7 are present in the programme area. However, the programme will adopt inclusive, culturally sensitive consultation and will broadly apply ESS 7 principles of free, prior and informed consultation.
- **ESS 8 – Cultural heritage (Low risk before mitigation):** Given the limited physical footprint of the planned programme interventions, the sub-project screening and

chance-find procedures, cultural heritage impacts are expected to be minimal. However, a precautionary approach to cultural heritage management will be applied.

1. Introduction

Climate change is already having profound impacts across Central Asia, affecting agriculture, forestry and other land-use (AFOLU) sectors, as well as ecosystems, biodiversity, and the wider economy. These challenges are compounded by high rates of land degradation, overexploitation of resources, and rapid population growth. Increasingly frequent droughts, heatwaves, and floods threaten agricultural productivity and heighten the risk of food insecurity. In mountainous areas, torrential rains and accelerated glacial melt trigger flash floods and landslides, while river water availability is projected to peak by 2050. These hazards place vulnerable rural communities at particular risk, as they rely heavily on production systems and natural ecosystems for their livelihoods and food security, yet often lack the financial resources and technical knowledge needed to adapt.

Several barriers hinder the transition of AFOLU sectors towards greater climate resilience. The region generally lacks the financial, technical, and institutional capacity to implement mitigation and adaptation measures effectively. Furthermore, limited policy coherence and insufficient regional cooperation on transboundary issues constrain climate action and impede the transformation of AFOLU systems towards climate-resilient and low-emission (CRLE) pathways.

The proposed programme intends to enhance the resilience of the most vulnerable populations and the transboundary ecosystems on which they depend in the Kyrgyz Republic, Tajikistan, and Uzbekistan. To achieve this, the programme will adopt an integrated landscape approach structured around three interrelated components:

- Component 1: Enabling environment for climate-resilient and low-carbon AFOLU sectors at the national level;
- Component 2: Promotion and adoption of climate-resilient and low-emission practices and technologies at the local level;
- Component 3: Foster regional cooperation to harmonise national priorities and support knowledge sharing.

For the preparation of this Environmental and Social Impact Assessment (ESIA), the following assessment approach is adopted:

a) A research-based desk study to collect information on the baseline situation for the institutional, policy, and regulatory framework (chapter 4), the environmental and social profile of the target regions (chapter 5) and Environmental and Social Safeguards (ESS)-related capacities of the programme's executing entities (EE) (chapter 6);
(i) Stakeholder consultations with programme partners and beneficiaries in the target area(s) to introduce the proposed programme, consult on needs, incorporate local knowledge, and foster ownership (see Funding Proposal [FP] Annex 9a 'Summary of Stakeholder Consultations' and Annex 9b 'Stakeholder Engagement Plan').

The assessment is conducted in line with the Green Climate Fund (GCF) Environmental and Social Policy and Deutsche Gesellschaft für Internationale Zusammenarbeit's (GIZ) Safeguards and Gender standards based on German law and regulations in environmental and social safeguarding (chapter 3).

The analysis of potential risks and (unintended) negative impacts is depicted in chapter 0 and of sub-projects in chapter 8. It examines the baseline situation in the country (chapters 4, 5,

6) against the programme activities (chapter 2). For each potential risk, the probability of risk occurrence is assessed, the possible (unintended) negative impact is formulated, as well as the damage potential. Mitigation measures for activities assessed as having medium to high risk are defined in a separate Environmental and Social Management Plan (ESMP) (see FP Annex 7b).

2. Programme description

The regional programme directly addresses the critical climate risks impacting the AFOLU sectors in the Kyrgyz Republic, Tajikistan, and Uzbekistan, concentrating on the highly vulnerable and ecologically important Fergana Valley, and Surkhandarya, and Khatlon regions. Ranging from plains dominated by agriculture to pastures and forests widely distributed on foothills and mountain slopes, the selected intervention areas are interconnected, and inseparable elements of continuous and transboundary landscapes characterised by different land uses and natural ecosystems that necessitate an integrated regional approach. Climate change is exerting significant adverse effects on the selected regions through rising temperatures, increasing drought frequency, and more intense rainfall events, which are altering seasonal water availability, intensifying heat and drought stress, and accelerating land degradation processes, including soil erosion, landslides, and mudflows. These dynamics are projected to produce cascading impacts across agricultural production systems and ecosystems, resulting in reduced crop productivity and stability, diminished pasture carrying capacity, and the deterioration of forest functions. Moreover, although the energy sector remains the principal source of GHG emissions, emissions from the AFOLU sectors have been rising in the Kyrgyz Republic, Uzbekistan, and Tajikistan since the 1990s, driven by increasing agricultural emissions and a decline in forest carbon sequestration. The programme's integrated landscape approach fully recognises the interconnectedness of the selected transboundary landscapes and addresses climate risks by institutionalising climate-informed AFOLU planning, coordination, and monitoring. It strengthens climate and land-use decision-support systems, enhances capacities to access and manage climate finance, and promotes the adoption of CRLE practices and technologies through improved sub-national planning, extension services, and targeted investments in agriculture, forests, and pastures. At the regional level, the programme will reinforce cooperation through foresight processes, regional AFOLU pathways, knowledge exchange, and a climate investment platform to coordinate and mobilise finance for transboundary adaptation actions. The programme will enhance the climate resilience of 1,046,062 people directly and 1,480,919 people indirectly, mitigate 6.95 million tCO2e of GHG emissions, and bring 939,354 hectares of land under sustainable management, conservation, or restoration in 180 municipalities across the three countries.

The **first component** (national) establishes the foundation for systemic transformation by creating an enabling environment for change. To achieve its overall objective, the programme will be implemented through three interlinked components, as outlined in Table , that collectively catalyse and sustain a paradigm shift toward a CRLE development pathway in the AFOLU sectors at the national, local, and regional levels. The **first component** (national) establishes the foundation for systemic transformation by creating an enabling environment for change. It strengthens climate informed land-use planning and decision-support systems, improves the public finance landscape and promotes innovative financing mechanisms that mobilise both public and private resources to support the transition beyond the programme period. Building on this foundation, the **second component** (local) supports large-scale

investments and field-level implementation, directly contributing to the programme's climate adaptation and mitigation objectives. The **third component** (regional) addresses the transboundary nature of ecosystems and climate challenges by promoting coordination and collaboration across countries, facilitating the exchange of knowledge and innovation, and establishing financing vehicles for the collaborative management of ecosystems. The programme effectively responds to the countries' needs and Nationally Determined Contribution (NDC) and Land Degradation Neutrality (LDN) targets while significantly contributing to the GCF's Updated Strategic Plan 2024-2027 priorities, particularly targets 4 (food), 5 (ecosystem), 9 (locally led action), 10 (micro, small, and mediums enterprises), and 11 (local financial institutions). Shaped by priorities set by partners themselves through extensive national and local consultations, the programme will be implemented with key government bodies, including two direct access entities, i.e., The Community Development and Investment Agency of the Kyrgyz Republic (ARIS) and CIIP-CEP. Bridging a significant funding gap, GCF financing will enable the target countries to raise and realise their adaptation and mitigation ambitions in the AFOLU sectors and catalyse investments, leveraging private sector resources for scale and sustainability.

Table 1: Overview of components, outcomes, outputs, and activities

Component	Outcome	Output	Activity
Component 1: Enabling environment for climate-resilient and low-carbon AFOLU sectors at national level	Outcome 1: National climate-informed planning processes, regulatory environments and incentive schemes in place to enable land users to benefit from adaptation and low-emission practices and technologies	Output 1.1: Climate informed integrated sectoral and land use planning and programming processes and plans at national level are institutionalised	Activity 1.1.1: Improve the knowledge base and institutionalise climate-informed and gender responsive planning and monitoring at the national level
			Activity 1.1.2: Mainstream climate information into intersectoral coordination platforms and plans
		Output 1.2: Public financing environment promoting climate-resilient and low-emission land uses strengthened	Activity 1.2.1: Support a conducive public financing environment promoting climate-resilient, inclusive and low-emission land uses
		Output 1.3: Private sector finance for CRLE measures and value chains catalysed	Activity 1.3.1: Support domestic financial institutions to better manage climate risks in the agriculture sector
			Activity 1.3.2: Establish climate-smart agriculture financing facilities and support issuance of green bonds
Component 2: Promotion and adoption of low-carbon and climate-resilient practices and technologies at local level	Outcome 2: Enhanced climate-resilient and low-emissions development pathways for the vulnerable rural populations (farmers; smallholders) and of the transboundary ecosystems on which they depend	Output 2.1: Climate-informed, participatory AFOLU planning processes and plans at subnational level are institutionalised	Activity 2.1.1: Prioritisation of municipalities based on district-level climate diagnostics
			Activity 2.1.2: Develop local AFOLU adaptation plans in selected landscapes
		Output 2.2: Forests and pastures restored and under sustainable and climate-resilient use	Activity 2.2.1: Scale land restoration practices in degraded forests in transboundary landscapes
			Activity 2.2.2: Scale land restoration practices in degraded rangelands in transboundary landscapes
		Output 2.3: Farmers capacitated and incentivised to adopt climate-resilient and low-emission practices	Activity 2.3.1: Scale the adoption of locally relevant CRLE land use practices and technologies in agriculture in transboundary landscapes, with special attention to women and youth as key beneficiaries
			Activity 2.3.2: Establishment of financial mechanisms for enabling the adoption of CRLE practices in the agricultural sector

Component	Outcome	Output	Activity
			Activity 2.3.3: Investment in climate-resilient and low-emission agriculture and associated value-chain infrastructure
Component 3: Regional cooperation	Outcome 3: Regional cooperation for climate resilience strengthened	Output 3.1: Regional climate-informed development pathways for AFOLU and foresight capacities established	Activity 3.1.1: Strengthening regional foresight and planning capacities
			Activity 3.1.2: Creation of regional climate-informed development pathways for AFOLU
		Output 3.2: Enhanced regional knowledge exchange and information sharing through sustainable mechanisms	Activity 3.2.1: Enhancing regional knowledge exchange and information sharing through sustainable mechanisms
			Activity 3.2.2: Development of a climate resilience toolbox
		Output 3.3: Regional climate investment platform established	Activity 3.3.1: Creation of a regional climate investment platform
			Activity 3.3.2: Support the implementation adaptation actions in transboundary landscapes in the AFOLU sectors

3. Environmental and Social standards

3.1. Environmental and Social Policies of the GCF

3.1.1. GCF Environmental and Social Policy

GCF's **Revised Environmental and Social Policy** (GCF, 2021a) (decision B.21/18[1]) is an overarching policy framework that describes how the GCF integrates environmental and social considerations into its decision-making and operations to effectively manage environmental and social risks and impacts and improve outcomes. Through this policy, GCF ensures that all GCF-financed activities will commit to:

- Avoid, and where avoidance is impossible, mitigate adverse impacts to people and the environment;
- Avoid, and where avoidance is impossible, mitigate the risks of SEAH to people impacted by GCF-financed activities;
- Enhance equitable access to development benefits; and
- Give due consideration to persons in vulnerable positions and situations and marginalised populations, groups, and individuals, including women and girls, local communities, Indigenous peoples (IPs), and other marginalised groups of people and individuals that are affected or potentially affected by GCF-financed activities and are especially vulnerable to exploitation or other potentially harmful unintended project impacts.

The activities supported by GCF may include programmes, projects, and subprojects.

The Environmental and Social Policy requires that accredited entities (AEs) undertake an assessment of environmental and social risk, including transboundary risks and impacts, to ensure that all activities proposed for GCF financing meet the **environmental and social safeguards** pursuant to the ESS standards and policy. The environmental and social assessment is to be conducted in a manner that follows good international industry practices, identifies best alternatives and allows for an integrated and balanced view of the environmental and social risks and impacts pursuant to GCF standards and requirements of the accredited entities, considers the environmental and social factors that can affect the achievement of intended results, and shall include, where applicable, upstream and downstream environmental and social risks and impacts and impacts on ecosystems as well as identify opportunities to enhance the positive environmental and social outcomes and benefits.

Currently, GCF uses the **International Finance Corporation (IFC) Performance Standards (PS)** as its interim ESS Standards, as adopted by the GCF board in 2014[2]. The detailed description of these standards can be found on IFC's website[3].

Table 2: Overview of GCF's ESS Standards

ESS standard	Description
ESS 1: Assessment and management of	ESS 1 sets out the entities' responsibilities for assessing, managing, monitoring, and reporting on environmental and social risks and impacts associated with each stage of

[1] https://www.greenclimate.fund/document/revised-environmental-and-social-policy
[2] Source: Virtual Stakeholder Consultation on the topic of the development of the GCF's ESS - Stage 1: scoping | Green Climate Fund
[3] Source: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards

ESS standard	Description
environmental and social risks and impacts	an activity financed by GCF, to achieve environmental and social outcomes consistent with the Environmental and Social Standards. Entities carry out an ESIA of GCF-financed activities to assess the environmental and social risks, impacts and dependencies of the project.
ESS 2: Labour and working conditions	ESS 2 recognises that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of and respect for the fundamental rights of workers. ESS 2 establishes the need for fair treatment, including safe and healthy working conditions.
ESS 3: Resource efficiency and pollution prevention	ESS 3 recognises that increased economic activity and urbanisation often generate increased levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global level. ESS 3 outlines the requirements for managing resource use and pollution prevention, including following circular economy and responsible investment principles. Greenhouse gas emissions and embodied carbon are considered in this Standard. Where sub-projects will involve the installation of physical infrastructure, they need to address opportunities to improve the resource efficiency. Projects that are expected to produce more than 25,000 tons of CO2- equivalent annually, need to quantify and disclose emissions. Climate change mitigation is considered in this Standard too.
ESS 4: Community health, safety and security	ESS 4 concerns responsible practices to reduce health, safety, and security risks to communities. The safeguarding of personnel and property in accordance with relevant human rights principles is explained. ESS 4 has a focus on community exposure to impacts and risks due to project activities, equipment, and infrastructure. The relevance of climate adaptation in managing these issues takes on greater importance with the frequently modifying baseline, including changes to settlement locations and community compositions. This Standard acknowledges that infrastructure activities can impact people and natural resources outside the footprint and that public authorities play a key role in promoting health, safety, and security of the public. The Standard addresses the responsibility of relevant entities to avoid or minimise risks and impacts to community, health, safety, and security which might arise from project-related activities.
ESS 5: Land acquisition and involuntary resettlement	ESS 5 addresses the management of land acquisition, restrictions on land use, access to assets and natural resources, physical or economic displacement, and involuntary resettlement where this is unavoidable. This includes consideration of mitigation measures such as fair compensation and improvements of living conditions. ESS 5 considers how issues concerning land acquisition and involuntary resettlement are to be managed. Over the decade since the Standard was developed, there has been increased emphasis on social issues, especially the sensitivities of this topic, and related lessons learned have been shared.
ESS 6: Biodiversity conservation and sustainable management of living natural resources	ESS 6 recognises that protecting and conserving biodiversity, maintaining ecosystem services, and managing living natural resources adequately are fundamental to sustainable development and presents how to achieve this. The strong links between climate change and biodiversity mean that current crises in both domains are heavily inter-twined.
ESS 7: Indigenous Peoples	ESS 7 has an objective to minimise negative impacts, foster respect for human rights, dignity, and culture of indigenous populations, and promote development benefits in culturally appropriate ways. This includes consideration of Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples, and respecting and preserving the culture, knowledge, and practices of Indigenous Peoples. ESS 7 considers how IPs issues are to be incorporated in the management and implementation of GCF-financed activities. In 2018, GCF published its Indigenous Peoples Policy. The process for producing the Indigenous Peoples Policy included careful review and analysis of other investors' approach. The result was a carefully worded and detailed policy.
ESS 8: Cultural heritage	ESS 8 aims to guide companies in protecting cultural heritage from adverse impacts of project activities and supporting its preservation. This includes protecting cultural

ESS standard	Description
	heritage from adverse impacts and promoting the equitable sharing of benefits from the use of cultural heritage. When cultural heritage is a significant project issue, this includes the requirement for a Cultural Heritage Management Plan.

3.1.2. Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment (SEAH)

Sexual exploitation and sexual abuse violate human dignity and universally recognised international legal norms and standards and have always been considered unacceptable behaviour. Sexual harassment typically results from a culture of discrimination and privilege, based on unequal relations and power dynamics. The **GCF Policy on the Prevention and Protection from Sexual Exploitation, Sexual Abuse, and Sexual Harassment** (GCF, 2021b) establishes a zero tolerance-policy for SEAH. It sets clear obligations for GCF Covered Individuals and its Counterparties to prevent and respond to SEAH, and to refrain from condoning, encouraging, participating in, or engaging in SEAH.

In addition, **GCF's Revised Environmental and Social Policy**[4] establishes that all GCF-supported activities will commit to avoid, and wherever avoidance is impossible, mitigate the risk of SEAH to people impacted by GCF-financed activities. The Revised Environmental and Social Policy requires, inter alia, that in incidences of SEAH, i) there is an established accessible and inclusive survivor-centred and gender-responsive Grievance Redress Mechanisms in place, including specific procedures for SEAH and, ii) modalities provide timely services and redress to survivors.

3.1.3. Indigenous People Policy

The **GCF Indigenous Peoples Policy** (GCF, 2018) applies whenever IPs are present in, have, or had a collective attachment or right to areas where GCF-financed activities are implemented. This includes IPs who, during the lifetime of members of the community or group, have lost collective attachment to distinct habitats or ancestral territories in the project area because of forced severance, conflict, government resettlement programs, dispossession of their land, natural disasters, or incorporation of such territories into an urban area.

The Policy (decision B.19/11[5]) recognises that IPs often have identities and aspirations that are distinct from mainstream groups in national societies and are disadvantaged by traditional models of mitigation, adaptation, and development. In many instances, IPs are among the most economically marginalised and vulnerable segments of the population. The economic, social, and legal status of IPs frequently limit their capacity to defend their rights to, and interests in, land, territories, and natural and cultural resources, and may restrict their ability to participate in and benefit from development initiatives and climate change actions. In many cases, they do not receive equitable access to project benefits, or benefits are not devised or delivered in a form that is culturally appropriate, and they are not always adequately consulted about the design or implementation of activities that would profoundly affect their lives or communities. The Indigenous Peoples Policy applies to the GCF, AEs and National Designated Authorities (NDAs). The policy includes stringent safeguards for all projects/sub-projects/programmes that include indigenous people (IPs). People potentially affected by the

[4] GCF B.BM-2021/18 Revised environmental and social policy
https://www.greenclimate.fund/sites/default/files/document/revised-environmental-and-social-policy.pdf
[5] Indigenous Peoples Policy | Green Climate Fund

programme can include “ethnic groups”, which are considered equivalent to “indigenous people” by the definition used in the Indigenous Peoples Policy. If ESS 7 is triggered, an Indigenous Peoples Plan (IPP) is prepared as separate document.

3.1.4. Gender equality

The GCF gender policy[6] (B.24/12[7]) recognises that gender relations, roles and responsibilities exercise important influences on women and men’s access to and control over decisions, assets, resources, information, and knowledge. It also recognises that the impacts of climate change can exacerbate existing gender inequalities. The Gender Policy further acknowledges that climate change initiatives are more sustainable, equitable, and likely to achieve their objectives when gender equality and women’s empowerment considerations are integrated into the design and implementation of projects and sub-projects. The Gender Policy also recognises that women and vulnerable communities are part of the solution to climate change and should, therefore, be effectively engaged in discussions and decisions that affect them. The GCF Gender policy has three main objectives:

- To support climate change interventions and innovations through a comprehensive gender approach, applied both within the institution and by its network of partners, including AEs, NDAs, and focal points, and delivery partners for activities under the GCF Readiness and Preparatory Support Programme;
- To promote climate investments that:
    - advance gender equality through climate change mitigation and adaptation actions;
    - minimise social, gender-related, and climate-related risks in all climate change actions;
- To contribute to reducing the gender gap of climate-change-exacerbated social, economic, and environmental vulnerabilities and exclusions through GCF climate investments that mainstream gender equality issues.

3.2. Environmental and social policies and standards of the German Government

As an implementing agency of the German government, GIZ is legally bound to German law and regulations in environmental and social safeguarding. Additionally, specific government policies for the operations of GIZ apply.

3.2.1. Safeguards + Gender Management System of GIZ

Since 2017, GIZ is applying a Safeguards + Gender Management System[8] at every stage of commission management in all GIZ business sectors and with all commissioning parties. At institutional level, GIZ considers environmental and social risks jointly together with gender related aspects, so in one framework called Safeguards+Gender Management System. Specialists at the Safeguards + Gender Desk at GIZ’s headquarters ensure compliance with its rules and regulations and advise on analysis and risk assessment as well as the identification of adequate mitigation measures, but also on opportunities for co-benefits in the safeguard policy areas of environment, climate protection and adaptation to climate change, conflict and context sensitivity, human rights, and gender.

[6] Gender policy | Green Climate Fund
[7] Updated Gender Policy and Action Plan 2020–2023 | Green Climate Fund
[8] Safeguards+Gender management system (giz.de)

For climate risk, the assessment includes risks significantly affecting climate resilience (i.e. adaptive capacity) of people, ecosystems and/or infrastructure, as well as GHG emissions caused by project activities.

GIZ's Safeguards + Gender management has been assessed as compliant with the GCF's Environmental and Social Policy as part of GIZ's initial accreditation as an AE for the GCF in 2017, and re-accreditation in in early 2024.

3.2.2. Sexual Exploitation, Sexual Abuse, and Sexual Harassment (SEAH)

GIZ does not tolerate any form of sexual exploitation, abuse, and harassment in the company and all employees must follow GIZ policy banning sexual harassment at the workplace, as anchored in:

- the GIZ policy banning sexual harassment at the workplace;
- the GIZ Code of Ethics;
- the GIZ Code of Conduct;
- the GIZ Human Rights Policy.

GIZ promotes a corporate culture based on universal ethical values and principles[9]. Integrity, honesty, respect for human dignity, openness and non-discrimination are at the heart of this culture; GIZ categorically rejects corruption and bribery and stands for human rights[10].

GIZ's ethical principles, values and beliefs are set out in a Code of Ethics[11]. Its purpose is to guide the actions of GIZ's workforce and those we work with. GIZ has in place a specific policy banning sexual harassment at the workplace, referring to existing sanction in its HR policy. Since 2021, a dedicated unit within the Compliance and Integrity division is responsible for SEAH and also provides a complaint mechanism.

Children's rights are an essential component of GIZ's approach to human rights. GIZ takes responsibility for protecting children seriously in its business activities. The GIZ Child Protection Policy[12] is aligned with GIZ's Code of Ethics, GIZ's value system. Its policy is guided by international legal frameworks on children's rights.

As part of the contextual risk assessment and human rights provisions (ESS 1, ESS 4), various forms of violence as contextual phenomena in the project context, such as physical, sexual, psychological and/or structural violence, power, force and/or threats, power relations in general, discrimination of population groups, corruption patterns, are analysed, and addressed if such risks are identified. With regards to EEs, GIZ's focus is set on strengthening the organisations' capacities to deal with SEAH cases through their prevention mechanisms.

Gender and equality

The German Coalition Government pursues a feminist foreign and development policy. The feminist policy approach is guided by the following principles: a gender transformative, intersectional, and human rights-based approach; an inclusive gender understanding; the promotion of the rights, representation, and resources of women, girls, and marginalised groups; joined-up multilateral action; and close cooperation with (feminist) civil society. The German Federal Ministry for Economic Cooperation and Development (BMZ) aims to increase

[9] Ethics and Integrity (giz.de)
[10] GIZ Human Rights
[11] Code of ethics.pdf (giz.de)
[12] Kindesschutzpolicy-en (giz.de)

the projects and programmes targeting gender equality as a significant objective to 85% and projects and programmes pursuing gender equality and the empowerment of women as its primary goal to 8% by 2025. Both the BMZ[13] and the German Foreign Office[14] launched their new strategies in March 2023. In addition, the BMZ launched a new Gender Action Plan (GAP) in December 2023.

The Gender Strategy "Gender reloaded: Vision needs Attitude – Attitude meets Action"[15] provides guidance and a solid accountability framework for the promotion of equal rights and opportunities for all people regardless of their gender, sexual orientation, and gender identity within GIZ and in the framework of our cooperation with development partners and commissioning parties. With its Gender Architecture, dedicated experts, more than 500 gender focal persons, and its Safeguards + Gender Management System, GIZ is well set to meet the requirements of GCF's Gender Policy and facilitate the roll-out and implementation of Germany's feminist foreign and development policy.

A gender analysis and a GAP are prepared as separate documents.

3.2.3. Complaints and Whistleblowing

The protection of whistle-blowers[16] is a high priority. GIZ's established Whistleblowing System[17] offers different reporting channels that can also be used anonymously and by anyone. Complaints and reports on legal violations, rule-breaking or regulatory infringement by employees or third parties (e.g. contracted service providers, funding recipients) in relation to the work of GIZ, can be submitted through an online Whistleblower Portal on the following issues, especially:

- Corruption and bribery;
- Misappropriation, fraud and embezzlement;
- Conflicts of interest;
- Sexual misconduct and sexual exploitation;
- Violations of human rights;
- Violations of environment-related obligations (violations of environmental law).

GIZ's Compliance and Integrity division is charged with the administration of the system. GIZ follows up on all reports and ensures resolute and fair investigation, using a standardised and transparent processing procedure. GIZ's Code of Conduct stipulates that no one providing information in justified cases suffer any disadvantage as a result unless involved in an infringement of the Code or other regulation himself. Complaints and reports can be filed with any GIZ country or project office, in writing or by requesting a meeting, if required.

A project-specific GRM will be established, to address grievances or complaints that may occur raised by beneficiaries or third-party actors during implementation. The GRM will consider a gender-responsive approach to also effectively handle SEAH-related grievances.

[13] Feminist development policy | BMZ
[14] Feminist Foreign Policy - Federal Foreign Office (auswaertiges-amt.de)
[15] GIZ Gender Strategy. Gender reloaded: Vision needs Attitude – Attitude meets Action
[16] Introduction (bkms-system.com)
[17] GIZ Whistleblowing

4. ESS-related institutional, policy and regulatory framework in the host country

4.1. International treaties, conventions, and agreements

The governments of the Kyrgyz Republic, Tajikistan, and Uzbekistan have adopted and ratified several international treaties, conventions, and agreements (refer to Annex 3). The most relevant are described briefly below.

Climate change: All countries have ratified the following international treaties, conventions, and agreements related to climate change:

- Paris Agreement (2015);
- Kyoto Protocol (1997);
- United Nations Framework Convention on Climate Change (UNFCCC) (1992).

Physical environment: All countries have ratified the following international treaties, conventions, and agreements related to the physical environment:

- Stockholm Convention on Persistent Organic Pollutants (2004);
- United Nations Convention to Combat Desertification (1994);
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989);
- Montreal Protocol on Substances that Deplete the Ozone Layer (1987);
- Vienna Convention for the Protection of the Ozone Layer (1985).

Biodiversity: All countries have ratified the following international treaties, conventions, and agreements related to biodiversity:

- Convention on Biological Diversity (1992);
- Convention on the Conservation of Migratory Species of Wild Animals (CMS/Bonn) (1979);
- Convention on International Trade in Endangered Species (CITES) (1973);
- Convention on Wetlands/Ramsar Convention (1971).

Labour: All countries have ratified a number of International Labour Organization (ILO) conventions and protocols regulating labour, child labour, employment, and equality of treatment (ILO, n.d.):

- 55 conventions and 1 protocol ratified by the Kyrgyz Republic;
- 50 conventions and 1 protocol ratified by Tajikistan;
- 25 conventions and 1 protocol ratified by Uzbekistan.

Human rights: All countries have ratified a number of international human rights instruments (OHCHR, n.d.):

- 12 ratified by the Kyrgyz Republic;
- 10 ratified by Tajikistan;
- 10 ratified by Uzbekistan.

4.2. National policies, strategies/agreements, and legal framework

4.2.1. Kyrgyz Republic

Reference on setting environmental and social standards for an investment project

- **Law of the Kyrgyz Republic "On Environmental Protection" (1999)** establishes the national framework for environmental protection and sustainable development. It sets environmental quality standards, defines obligations of project proponents, and provides the legal basis for environmental impact assessment, pollution control, and environmental monitoring.
- **Law of the Kyrgyz Republic "On Protection of the Ozone Layer" (2006)** aims to protect human health and the environment by preventing ozone layer depletion through regulating, restricting and supervising the management, circulation and licensing of ozone-depleting substances in line with international agreements.
- **Law of the Kyrgyz Republic "On Atmospheric Air Protection" (1999; amended 2016)** sets the legal framework for preventing and reducing air pollution in Kyrgyzstan. It regulates emissions from stationary and mobile sources, establishes air quality and emission standards, and defines requirements for permitting and environmental monitoring. The 2016 amendments strengthened controls on pollutants and clarified the responsibilities of enterprises to protect air quality.
- **Order of the Cabinet of Ministers of the Kyrgyz Republic (9 April 2025, No. 265-r)** aims to advance the national campaign "Jashyl Muras" ("Green Heritage"), mitigate climate change, improve the environment, expand forested and green areas, and preserve forests for future generations.
- **General Technical Regulations for Ensuring Environmental Safety in the Kyrgyz Republic (2009; updated 2019)** establishes the national framework for environmental protection and ecological safety in Kyrgyzstan. Its purpose is to ensure that all economic and other activities are conducted in a way that prevents harm to the environment, human health, and property by setting mandatory environmental safety requirements.
- **National Development Programme of the Kyrgyz Republic until 2030** sets out Kyrgyzstan's long-term vision to 2030, aiming for dynamic and sustainable growth built on economic development, social well-being and responsible governance. It emphasises broad cooperation between the state, business, civil society and international partners to strengthen national resilience, modernise institutions and create conditions for every citizen to contribute to the country's prosperity.
- **National Development Strategy of the Kyrgyz Republic until 2040** sets out long-term goals for national development, sustainable resource use, public health, labour, and agricultural growth. It emphasises food security, climate change adaptation, land management, water supply, and strengthening cooperative organisations and financial measures for agriculture.

Biodiversity

- **Law of the Kyrgyz Republic "On Ecological Expertise" (1999)** regulates the process of state environmental review for proposed projects and activities. It requires the preparation of environmental impact assessments, public consultation, and disclosure of environmental information prior to project approval.

- **Law of the Kyrgyz Republic "On the Animal World" (1999)** regulates the conservation, protection, management, and sustainable use of wild fauna. It establishes wildlife as public property, defines state responsibilities for monitoring and safeguarding species and habitats, and sets rules for the use of fauna, including licensing, hunting limits, and liability for violations.
- **Law of the Kyrgyz Republic "On Specially Protected Natural Areas" (2011), No. 18, May 3, 2011** establishes the legal framework for the designation, protection, management and use of specially protected natural areas in Kyrgyzstan. It regulates state nature reserves, natural parks, wildlife sanctuaries, nature monuments, botanical and zoological parks, biosphere reserves and transboundary protected areas. The law aims to conserve unique ecosystems, biodiversity and natural heritage, and sets out principles for state regulation. Scientific use, ecological monitoring and public participation.
- **Law of the Kyrgyz Republic "On Biosphere Reserves in the Kyrgyz Republic" (1999; amended 2020)** defines the legal framework for creating and managing biosphere reserves to conserve biodiversity, protect natural and cultural heritage, and support sustainable regional development. It defines their status, zoning and management requirements. The 2020 amendments strengthened norms on nature use and environmental protection within biosphere territories.
- **Law of the Kyrgyz Republic on the Protection and Use of Flora (2001; amended 2020)** establishes the legal framework for the protection, rational use and regeneration of the Kyrgyz Republic's flora. It defines responsibilities for state regulation, sustainable harvesting, conservation of wild plant species and maintenance of the state flora cadastre. Amendments (including those consolidated to 2020) strengthened provisions on unified state policy, quoits for use of wild flora and measures for protecting rare and endangered species.
- **Law of the Kyrgyz Republic On Chemicalization and Plant Protection (1999; amended 2020)** establishes the legal, ecological and safety requirements for the use of pesticides and agrochemicals in Kyrgyzstan to protect human health, animals and the environment. It regulates state oversight of chemical use in agriculture, sets rules for the safe handling of pesticides and defines responsibilities for violations. The 2020 amendments updated liability provisions and aligned enforcement with the national Code of Violations.
- **Law of the Kyrgyz Republic "On the Wildlife" (1999; updated 2020)** defines wildlife as a protected natural resource, sets rules for conservation, habitat protection, hunting and resource use, and outlines state responsibilities for maintaining biodiversity and managing fauna populations. The 2020 updates refine definitions and strengthen provisions for monitoring, protection and regulation of wildlife use.

Climate change

- **Updated Nationally Determined Contribution of the Kyrgyz Republic 2021** focuses on addressing climate change impacts through adaptation and mitigation measures, reducing greenhouse gas emissions, and promoting resilience across sectors.
- **Decree of the President of the Kyrgyz Republic "On Measures to Ensure Environmental Safety and Climate Resilience of the Kyrgyz Republic" (2021)** establishes measures to ensure environmental safety and climate resilience in the Kyrgyz Republic. It identifies improving environmental conditions, using natural

resources rationally, and minimising climate change impacts as key responsibilities for government bodies, local authorities, organisations and citizens.

- **Decree of the President of the Kyrgyz Republic "On the Announcement of 2022 as the Year of Protection of Mountain Ecosystems and Climate Resilience" (2022)** establishes measures to strengthen environmental, economic and food security, enhance climate resilience and preserve the country's natural heritage, as well as to support the International Year of Sustainable Mountain Development.

Forestry and environment sector

- **Forest Code of the Kyrgyz Republic (1999)** governs the use, protection, and regeneration of forest resources. The Code aims to conserve forest ecosystems, prevent land degradation, and regulate activities that may affect forest lands and biodiversity.
- **National Strategy and Action Plan on Biodiversity Conservation (2014–2024)** provides a policy framework for conserving biological diversity and promoting sustainable use of natural resources. It supports ecosystem protection and restoration and the integration of biodiversity considerations into development planning. The seventh report will be presented at the Conference of the Parties to the Convention on Biological Diversity in October 2026.
- **Concept of Development of the Forest Sector in the Kyrgyz Republic until 2040 (2018)** provides a framework for sustainable forest management and conservation, aiming to protect ecosystems, enhance environmental security, and reduce poverty. It includes measures for public and recreational forests, inventory systems, and long-term forest sector development.

Agriculture and livestock sector

- **Law of the Kyrgyz Republic "On Pastures" (2009)** regulates access to and use of pasture lands to ensure sustainable livestock management. It promotes community-based pasture governance and aims to prevent overgrazing and land degradation.
- **Decree of the President of the Kyrgyz Republic "On Measures for the Further Development of the Agro-Industrial Complex of the Kyrgyz Republic" (2024)** sets priority measures to modernise agriculture, including supporting farm cooperatives, improving financing, enhancing pasture management, and promoting modern technologies such as green biotechnologies, climate-adaptation tools and digitalisation. It also aims to expand exports, increase organic inputs and attract foreign investment to strengthen food security and sector sustainability.
- **Resolution of the Cabinet of Ministers of the Kyrgyz Republic "On Issues of Organic Production Certification" (2024)** approves the national procedures and rules for certifying organic production, including requirements for voluntary certification, internal control systems, and compliance checks. It establishes the framework for ensuring that organic products meet national standards and sets conditions for operations to obtain organic certification.
- **Cabinet of Ministers of the Kyrgyz Republic Order "Agro-Industrial Complex Lending Project" (2022)** supports food security and agricultural development by providing concessional loans and leasing options to farms and agribusinesses. The project aims to expand access to finance across the agro-industrial sector, strengthen production capacity, and promote participation in agricultural clusters.

- **Law of the Kyrgyz Republic "On Organic Production" (2024)** sets the legal framework for producing and certifying organic agricultural goods, prohibiting the use of agrochemicals, pesticides, GMOs and other non-organic inputs. It defines standards for organic production, processing and labelling and aims to support domestic organic producers and expand compliant organic markets.
- **Resolution of the Cabinet of Ministers of the Kyrgyz Republic "Organic Production Development Program in the Kyrgyz Republic for 2025-2029)" (2025)** approves the national program to expand and support organic production by creating favourable legal, economic and social conditions for organic producers. The program includes an action plan, monitoring indicators and a dedicated budget to guide state support, certification and sector development through 2029.
- **Resolution of the Cabinet of Ministers of the Kyrgyz Republic "On Regulation in the Field of Management and Use of Pastures" (2025)** complements the above at a procedural level.
- **Agricultural Development Strategy of the Kyrgyz Republic (2020–2025)** focuses on increasing agricultural productivity and competitiveness while promoting sustainable land management, climate resilience, and rural development. The strategy supports food security and sustainable livelihoods in rural areas.
- **Program for the Development of Agricultural Cooperatives in the Kyrgyz Republic (2023–2027)** aims to enhance agricultural and rural development by supporting cooperatives, improving farming practices, and boosting food security. It addresses employment, poverty reduction, infrastructure, trade, and access to equipment, while fostering business growth and international market integration.
- **National Action Plan for the Development of Family Farming in the Kyrgyz Republic (2023–2027)** promotes family farming as a cornerstone of rural development and food security. It integrates climate change considerations, supports youth involvement, and strengthens nutrition and livelihoods in rural communities.

Water resources

- **Water Code of the Kyrgyz Republic (2005)** establishes the legal framework for water resource management, protection, and use. It addresses water allocation, protection of water bodies from pollution, and sustainable use of surface and groundwater resources.

Land and regional planning sector

- **Green Taxonomy of the Kyrgyz Republic (2025)** establishes a national framework for identifying and promoting environmentally sustainable economic activities across key sectors. It sets eligibility criteria, definitions, and reporting standards to guide public authorities, financial institutions, and businesses in assessing green goods, services, and technologies. Covering energy, transport, waste and water management, and sustainable agriculture, the taxonomy links regulatory measures with fiscal incentives to mobilise investment in green projects. It aims to simplify procedures, align with international sustainable finance standards, and support climate-resilient practices by enabling access to green finance and encouraging low-carbon, resource-efficient technologies.
- **Land Code of the Kyrgyz Republic (1999)** regulates land tenure, land-use planning, land acquisition, and land protection. It provides procedures for land allocation and safeguards against land degradation.

- **Law of the Kyrgyz Republic “On Urban Planning and Architecture” (1994)** establishes the legal basis for spatial planning, zoning, and construction activities, ensuring that development complies with approved land-use plans and safety standards.
- **Law of the Kyrgyz Republic "On the Regulation of Land and Legal Relations" (2022)** establishes the legal framework for managing land rights and land use in the Kyrgyz Republic. It also governs procedures for recognising and registering rights to land parcels, particularly those falling under the land amnesty mechanism.

Gender

- **National Strategy of the Kyrgyz Republic on Achieving Gender Equality until 2030** sets national priorities for promoting gender equality in economic participation, access to resources, and decision-making. The strategy is relevant to labour practices, stakeholder engagement, and social impact assessment.
- **Law of the Kyrgyz Republic “On State Guarantees of Equal Rights and Equal Opportunities for Men and Women” (2008)** provides the legal framework to prevent discrimination and ensure equal rights in employment, education, and public participation.
- **Resolution of the Cabinet of Ministers of the Kyrgyz Republic "On Approval of the Program for the Support and Development of Women's Entrepreneurship in the Kyrgyz Republic for 2022-2026" (2021)** approves a national program to expand and strengthen women’s entrepreneurship by improving access to finance, providing training and business skills development, and creating supportive conditions for increasing the number of women-owned enterprises.

4.2.2. Tajikistan

Reference on setting environmental and social standards for an investment project

- **Law of the Republic of Tajikistan “On the Protection of the Environment” (2011)** provides the legal basis for environmental protection in Tajikistan, establishing environmental policy principles, requirements for environmental impact assessment, pollution control, environmental monitoring, and public rights to a healthy environment.
- **Law of the Republic of Tajikistan “On Environmental Expertise” (2012)** establishes the legal framework for conducting environmental expertise (state environmental review) to assess the environmental impacts of proposed activities before approval. It defines key concepts, sets procedures for environmental impact assessment, and aims to prevent harmful environmental, social and economic consequences by ensuring that planned projects comply with national environmental protection requirements
- **Law of the Republic of Tajikistan “On Environmental Education of the Population” (2010)** establishes the legal and organisational framework for promoting environmental awareness, ensuring citizens receive essential ecological knowledge, and fostering a culture of responsible attitudes toward nature through continuous environmental education.
- **Law of the Republic of Tajikistan “On Environmental Monitoring” (2011; amended 2024)** establishes the institutional, economic and social framework for an environmental monitoring in the country. It identifies the goals, objectives, responsible parties and principles of environmental monitoring in Tajikistan. It introduces a unified system of environmental monitoring in the country and a framework for the use of information

resources. It identifies the responsible agencies and a framework for the public participation.

- **Law of the Republic of Tajikistan "On Environmental Information" (2011)** establishes the legal, organisational, economic and social foundations for ensuring access to environmental/ecological information in Tajikistan. It regulates how individuals and legal entities may obtain complete, reliable, and timely environmental information.
- **Law of the Republic of Tajikistan "On Environmental Audit" (2011; amended 2024)** includes provisions for environmental audits of businesses and other organizations. An environmental audit is defined as an analysis and assessment of an enterprise's compliance with environmental laws and regulations. The law defines the objectives, tasks, objects and principles of an environmental audit. An environmental audit can be initiated by the relevant state agency. The audit initiated by a state agency is mandatory. There is no information about additional by-laws related to this law.
- **Law of the Republic of Tajikistan "On Environmental Impact Assessment" (2017; amended 2022)** establishes the legal and institutional basis for environmental impact assessment, its relationship with the state environmental expertise, as well as the procedure for accounting and classification of the environmental impact assessment objects. The environmental impact assessment in Tajikistan is regulated by the Law on Environmental Impact Assessment of July 18, 2017, No.1448. The law requires a classification of the economic and other planned activities depending on the level and types of potential environmental impacts into the following categories: "A", "B", "C" and "D", each with varying levels of associated environmental assessment and protection measures required.
- **State Program of the Republic of Tajikistan for 2023-2028 (2023; amended 2025)** defines national priorities for environmental protection and sustainable development for 2023-2028. The program sets measures for improving environmental quality, ensuring ecological safety and promoting rational, renewable use of natural resources. It aims to strengthen environmental management, address climate-related risks, protect biodiversity, and support a transition to greener economic development.
- **Government Decision No. 41 of 4 February 2002 on the establishment of the National Interdepartmental Coordination Commission in the Field of Environmental Statistics** establishes the National Interdepartmental Coordination Commission as the central body responsible for coordinating environmental statistics. Its functions include implementing unified state policy, developing a national environmental monitoring system, setting environmental indicators, and preparing proposals to improve environmental information and attract investment in this sector.
- **Order of the Government of the Republic of Tajikistan "On Approval of the Concept of Environmental Protection in the Republic of Tajikistan" (2008)** formally approves the Concept of Environmental Protection in the Republic of Tajikistan, a national strategic document guiding state environmental policy and rational environmental management.
- **Regulations on the activities of environmental posts in the Republic of Tajikistan (2004)** sets rules for establishing and operating environmental posts at key locations such as city entrances, major highways, protected areas and border zones. The posts conduct environmental control, including checking vehicle emissions and preventing illegal movement of hazardous substances, wildlife, plant species and other ecologically dangerous goods.

- **National Development Strategy of the Republic of Tajikistan up to 2030** outlines priorities for national development and sustainable growth, including agricultural production, ecological and organic practices, food security, climate change adaptation, and energy conservation. It also covers renewable energy, hydropower, fisheries, nutrition, food safety, and infrastructure development, with attention to gender, migration, and mountain areas.

Biodiversity

- **Law of the Republic of Tajikistan "On Environmental Protection" (2011, amended 2024)** defines the principles for environmental protection, including explicit protection of fauna, flora, forests, biodiversity and natural habitats, and establishes special protection regimes for reserves, sanctuaries and national parks.
- **Law of the Republic of Tajikistan "On Specially Protected Natural Areas" (2011)** governs the creation, protection, zoning and management of nature reserves, national parks, sanctuaries, biosphere reserves and buffer zones, ensuring legal protection of natural complexes and biodiversity.
- **Law of the Republic of Tajikistan "On Protection and Use of the Animal World** regulates conservation, protection, rational use and reproduction of wild animal species, safeguarding biodiversity, habitats, ecological comminates and sustainable use of wildlife resources.
- **Law of the Republic of Tajikistan "On Protection and Use of Flora) (2004, amended 2008)** regulates the protection, sustainable use and conservation of wild-growing plants, including rare, endangered and economically valuable species. It sets rules for managing plant resources, preserving natural vegetation, preventing damage to plant habitats and ensuring the reproduction of threatened flora.
- **Law of the Republic of Tajikistan "On Genetic Resources" (2022)** regulates the conservation access, use and protection of genetic resources of plants, animals and microorganisms, including in-situ and ex-situ conservation, gene banks, traditional knowledge related to genetic resources, and sustainable use of biological diversity. It establishes rules for assessing, storing and managing genetic material and protects rare and threatened genetic resources.

Climate change

- **Updated Nationally Determined Contribution of Tajikistan 2021** addresses climate change impacts through adaptation and mitigation strategies, focusing on reducing greenhouse gas emissions and enhancing resilience across sectors.
- **National Strategy for Adaptation to Climate Change of the Republic of Tajikistan up to 2030** provides a framework for addressing climate-related risks such as droughts, floods, and water shortages. It promotes food security, poverty reduction, soil and water conservation, irrigation, and land reclamation, while integrating traditional knowledge, research, and human rights considerations.

Forestry and environment sector

- **National Strategy on Disaster Risk Reduction (2019–2030)** addresses environmental risk management, resilience to natural hazards, and links to sustainable land and natural resource use relevant to forestry and ecosystem protection.

- **Law of the Republic of Tajikistan on the Protection of the Environment (2011)** covers conservation of ecosystems, biodiversity protection, regulation of natural resource use, and requirements for environmental monitoring and reporting.
- **Law on Forestry (2006)** regulates forest management, conservation, and sustainable use of forests, which is critical for the AFOLU sector.
- **Forest Sector Development Program 2022–2026** aims to improve forest management and conservation through legislation, institutional strengthening, afforestation, reforestation, and agroforestry. It addresses timber extraction, grazing control, and enforcement measures to ensure sustainable forestry practices.
- **Forest Code of the Republic of Tajikistan (2011)** sets the legal basis for protecting and sustainably managing Tajikistan's unified forest fund, requiring forest conservation, fire and pest prevention, sustainable use, and regular monitoring of forest resources.

Agriculture and livestock sector

- **Law of the Republic of Tajikistan "On Dehkan Farms" (2016)** governs the establishment, management, and rights of Dehkan farms (a major category of agricultural production units in Tajikistan) and provides the legal basis for land use in agriculture.
- **Law of the Republic of Tajikistan "On Agriculture" (2002, amended in 2013)** provides the legal basis for agricultural development in Tajikistan and includes provisions for sustainable farming practices.
- **Law of the Republic of Tajikistan "On Pastures" (2019)** regulates the management, use and protection of pasturelands, defining principles for sustainable grazing, public access, monitoring and improvement of pasture resources. It classifies different pasture types, sets rules for allocating and registering pasture-use rights, and requires local authorities to oversee pasture planning and environmental protection.
- **Law of the Republic of Tajikistan "On Soil Protection" (2009)** defines the main principles of State policy and the legal basis for public authorities, individuals and legal entities, aiming at the rational use of soil, protection of its quality and fertility, and protection of soil from adverse events, as well as regulating other, similar issues.
- **Program for the Development of the Agri-Food System and Sustainable Agriculture until 2030** focuses on strengthening agricultural and rural development through sustainable practices, food security, climate change adaptation, innovation, and environmental protection. It also supports youth engagement and improved nutrition.
- **Resolution of the Government of the Republic of Tajikistan on the Concept of Innovative Development of Agro-Industrial Complex from 2014 (2014)** approves the national concept to modernise the agro-industrial sector through technological innovation, higher productivity, improved processing and strengthened food security.
- **The Pasture Development Programme for 2016−2020** is a government programme aiming to improve pasture quality, increase fodder resources and strengthen sustainable livestock production. It focuses on restoring degraded pastures, boosting productivity through modern technologies, and supporting rural livelihoods and food security.

Water resources

- **National Water Strategy of the Republic of Tajikistan to 2040** outlines long-term plans for integrated water resources management, climate adaptation, institutional strengthening, and alignment with Sustainable Development Goals (SDGs).

- **Water Code of the Republic of Tajikistan (2020)** establishes legal norms for use, protection, planning, and allocation of water resources as a basis for sustainable water management.
- **The Water Sector Reform Programme of the Republic of Tajikistan for 2016−2025** aims to modernise water-resources management through basin-based governance, improved coordination among water users, and separation of policy and operational functions. It supports sustainable water use, rehabilitation of water infrastructure and adoption of integrated water resources management (IWRM).

Land and regional planning sector

- **Land Code of the Republic of Tajikistan (1996)** regulates land tenure, land use planning, and soil protection in Tajikistan.
- **Law of the Republic of Tajikistan "On Land Management" (2008)** sets the legal framework for land management activities, including land surveying, planning, allocation and protection. It regulates ow state bodies, land users and other entities organise, document and implement land-use arrangements to ensure rational and effective use of land resources.
- **Law of the Republic of Tajikistan "On Land Valuation" (2001)** establishes the legal basis for cadastral land valuation, defining methods for determining land value, cadastral zones and standard land prices to support taxation, rent setting and rational land use.
- **Law of the Republic of Tajikistan "On Land Reform" (1992)** defines the legal, economic and administrative measures for transitioning to new land-use relations, including creating special land funds, redistributing unused or irrationally used land, and granting citizens lifelong inheritable land-use rights. It aims to support diverse land-use forms, improve agricultural productivity and ensure rational land management.

Gender

- **National Development Strategy of the Republic of Tajikistan until 2030** recognises gender equality as an integral part of socio-economic development, including in climate adaptation, rural livelihoods, education, and access to resources.

4.2.3. Uzbekistan

Reference on setting environmental and social standards for an investment project

- **Law of the Republic of Uzbekistan "On Environmental Protection" (1992)** establishes the legal basis for environmental protection and sustainable development. It defines environmental quality standards, obligations of project proponents, pollution prevention measures, and the rights of citizens to a healthy environment.
- **Law of the Republic of Uzbekistan "On Environmental Assessment, Environmental Impact Assessment and Strategic Environmental Assessment" (2025)** regulates how Uzbekistan conducts environmental expertise, environmental impact assessments and strategic environmental assessments to prevent harmful effects from planned or ongoing activities. It defines the key concepts, procedures and responsibilities for ensuring environmental protection and ecological safety.
- **Resolution of the President of the Republic of Uzbekistan "On Measures for the Effective Organization of the Activities of the Ministry of Ecology, Environmental Protection and Climate Change" (2023)** restructures the Ministry of Ecology,

Environmental Protection and Climate Change to improve its effectiveness. It sets priority tasks, establishes new organisational structures including a Situational Centre and a National Climate Change Centre, and outlines measures for implementing environmental reforms and modernising monitoring systems.

- **Development Strategy of the New Uzbekistan (2022–2026)** sets priorities for national development and sustainable growth, including agricultural development, land management, innovation, and nutrition. It also addresses forest conservation, afforestation, water supply, public-private partnerships, and animal production, aiming to strengthen food security and rural livelihoods.
- **Strategy for the Transition of Uzbekistan to a Green Economy (2019–2030)** provides a roadmap for sustainable economic development through climate change adaptation, renewable energy, eco-friendly practices, and soil conservation. It promotes rural employment, investment, and ecosystem protection while reducing emissions and supporting compliance and enforcement.
- **Concept of Environmental Protection in Uzbekistan until 2030** outlines strategies for environmental security and sustainable development, focusing on soil and water conservation, pollution control, waste management, and air quality. It promotes eco-friendly practices, public participation, and land-use planning to safeguard ecosystems and public health.

Biodiversity

- **Strategy for Biodiversity Conservation in Uzbekistan (2019–2028)** aims to protect ecosystems and biodiversity through sustainable land use, forest conservation, afforestation, and desertification control. It addresses the conservation of wild species, protected areas, and tourism while promoting monitoring and species protection.
- **Law of the Republic of Uzbekistan "On Specially Protected Areas"** underpins the creation and management of national parks, reserves, sanctuaries and other protected areas.
- **Law of the Republic of Uzbekistan "On Protection and Use of Fauna" (1997)** regulates the protection, sustainable use and conservation of wild animal species, including hunting rules, species protection and habitat safeguards.
- **Law of the Republic of Uzbekistan "On Protection and Use of Flora" (1997)** establishes rules for conserving plant biodiversity, controlling collection and use of plant resources and preventing destruction of native flora.
- **Law of the Republic of Uzbekistan "On Forests"** regulates forest ecosystem protection, sustainable forest management and conservation of forest-dependent species.
- **Law of the Republic of Uzbekistan "On Strengthening the Protection of Animal and Flora (2024)** is a new amendment law strengthening penalties for illegal hunting, fishing, tree destruction and violations affecting flora and fauna. It closes legal gaps and enhances enforcement of biodiversity protections.

Climate change

- **Updated Nationally Determined Contribution of Uzbekistan 2025** focuses on addressing climate change impacts through adaptation and mitigation measures, reducing greenhouse gas emissions, and promoting resilience across sectors.

Forestry and environment sector

- **National Strategy on Biological Diversity of the Republic of Uzbekistan (2019–2028)** provides a framework for conservation of biodiversity and sustainable use of ecosystems. It supports habitat protection, restoration of degraded lands, and integration of biodiversity considerations into development planning.
- **Law of the Republic of Uzbekistan "On forest" (2018)** governs the protection, use, and regeneration of forest resources. The Code aims to prevent land degradation, combat desertification, and ensure sustainable forest management, particularly in environmentally sensitive and arid regions.
- **Law of the Republic of Uzbekistan "On the protection and use of flora" (2016)** regulates protection, sustainable use, and reproduction of wild vegetation and plant communities growing in natural conditions, including genetic conservation, restrictions on harvesting, and management of plant resources. The law defines public ownership of wild flora and establishes obligations for rational use and conservation of plant biodiversity across the territory of Uzbekistan.
- **Concept of Development of the Forestry System of Uzbekistan until 2030** provides a framework for sustainable forest management, afforestation, and desertification control. It includes measures for forest protection, fire prevention, biodiversity conservation, and tourism, while encouraging innovation and public-private partnerships.
- **Decree of the President of the Republic of Uzbekistan "On measures to ensure environmental sustainability by further increasing the level of greening in the republic and the consistent implementation of the national project 'Yashil Makon'" (2023)** aims to strengthen environmental sustainability in Uzbekistan by expanding nationwide greening efforts and ensuring the systematic implementation of the Yashil Makon (Green Space) project (see below). It introduces new mechanisms and funding approaches to establish parks, green belts and other landscaping initiatives across the country.
- **Yashil Makon (Green Nation; 2021)** a nationwide afforestation initiative aiming to plant 1 billion trees and shrubs across Uzbekistan over five years, expanding national green cover from 8 to 30 percent. It focuses on improving tree-management systems through climate-based site analysis, increasing nurseries, enhancing watering infrastructure, strengthening protections for trees, boosting public oversight, and establishing a digital tree register supported by the dedicated state enterprise "Green Space".

Agriculture and livestock sector

- **Law of the Republic of Uzbekistan "On Plant Protection" (2023)** regulates measures to prevent, control, and eliminate pests, diseases, and weeds that threaten crops. It establishes responsibilities of farm enterprises, agricultural organisations, and authorities in protecting plants, promotes safe and sustainable plant protection practices, and sets rules for use of pesticides and other agrochemicals. The law is important for safeguarding food security, environmental health, and sustainable agricultural production.
- **Law of the Republic of Uzbekistan "On Farming" (2004)** regulates the creation, operation, reorganisation and liquidation of farms. It establishes the legal basis for farming entities operating on leased land and outlines their rights, obligations, and organisational structure.

- **Law of the Republic of Uzbekistan "On the Dehkan Economy" (2021)** regulates the creation and functioning of dehkan farms, which are typically small, family-based agricultural units producing crops and livestock primarily through personal labour.
- **Agriculture Development Strategy of Uzbekistan (2020–2030)** focuses on modernising agriculture and improving food security through better crop production, soil management, irrigation, and agricultural extension. It includes measures for nutrition, investment, and monitoring, as well as support for dairy, poultry, and fish products.

Water resources

- **Concept for the Development of the Water Management Sector of the Republic of Uzbekistan (2020–2030)** outlines reforms for integrated water resources management, efficiency improvements, and climate adaptation in the water sector.
- **Water Code of the Republic of Uzbekistan (2025)** establishes the legal framework for water use, protection, and management. It covers allocation of surface and groundwater resources, prevention of water pollution, and protection of water ecosystems, with relevance to irrigation and infrastructure projects.

Land and regional planning sector

- **Land Code of the Republic of Uzbekistan (1998)** regulates land ownership, land use rights, land allocation, and land protection. It provides procedures relevant to land acquisition, land conversion, and prevention of land degradation.

Gender

- **Law of the Republic of Uzbekistan "On Guarantees of Equal Rights and Opportunities for Women and Men" (2019)** provides the legal framework for gender equality and non-discrimination. It addresses equal access to employment, education, public participation, and decision-making.

4.3. Regional policies and strategies

The main regional development policies and strategies regarding environmental and social topics comprise the following:

- **Regional Climate Change Adaptation Strategy for Central Asia (2023–2030)** aims to strengthen regional cooperation to address climate change impacts and implement adaptation measures. Key objectives include improving coordination, developing mechanisms for adaptation projects and financing, enhancing knowledge sharing and scientific collaboration, and establishing climate monitoring and forecasting systems. Priority areas include agriculture, land management, and biodiversity conservation, with funding envisaged from national budgets, private sector, and sources such as the GCF.
- **Regional Environmental Programme for Sustainable Development in Central Asia (REP4SD-CA) (2021–2030)** provides a framework for regional cooperation to achieve environmental SDGs through synergy among conventions and treaties. It prioritises climate adaptation strategies, regional project development, and risk assessments for water resources and ecosystems. The programme promotes stakeholder coordination via the Interstate Commission on Sustainable Development Consultative Council and seeks financing from national budgets, international institutions, and donors, including GCF and Global Environment Facility (GEF).

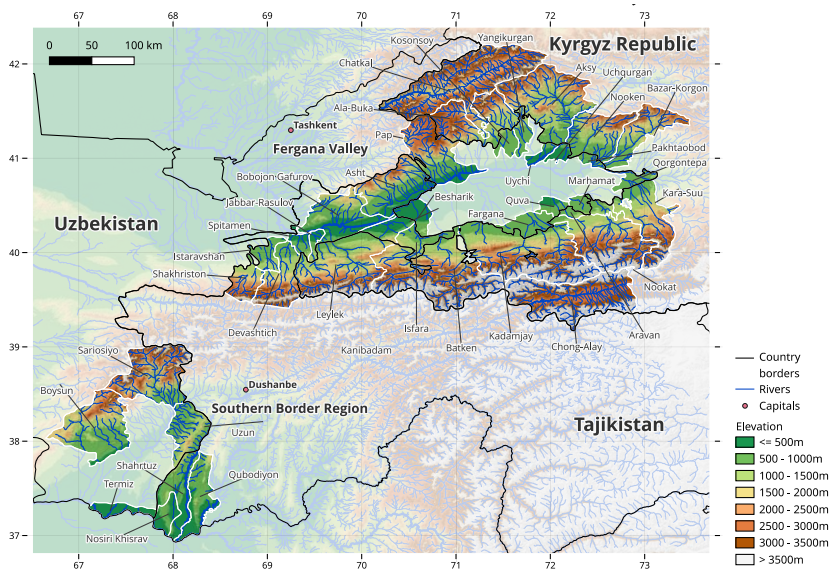
- **Regional Drought Risk Management and Mitigation Strategy in Central Asia (2021–2030)** focuses on proactive measures to enhance resilience to drought and water scarcity, supporting long-term socio-economic and institutional development. Strategic areas include monitoring and risk assessment, drought mitigation planning, capacity building, and regional cooperation. It aligns with UNCCD, UNFCCC, and UNDRR frameworks and targets joint actions to address desertification, land degradation, and drought across Central Asia.
- **Regional Strategy for Sand and Dust Storms Management in Central Asia (2021–2030)** seeks to reduce vulnerability to sand and dust storms through mitigation of source areas and proactive planning in affected regions. It addresses climate change and human-induced drivers, including the Aral Sea disaster and desertification. The strategy aims to strengthen institutional capacities, improve cooperation, and reduce social and economic vulnerabilities linked to sand and dust storms and land degradation.

5. Environmental and social profile of the target regions

5.1. Programme implementation regions and districts

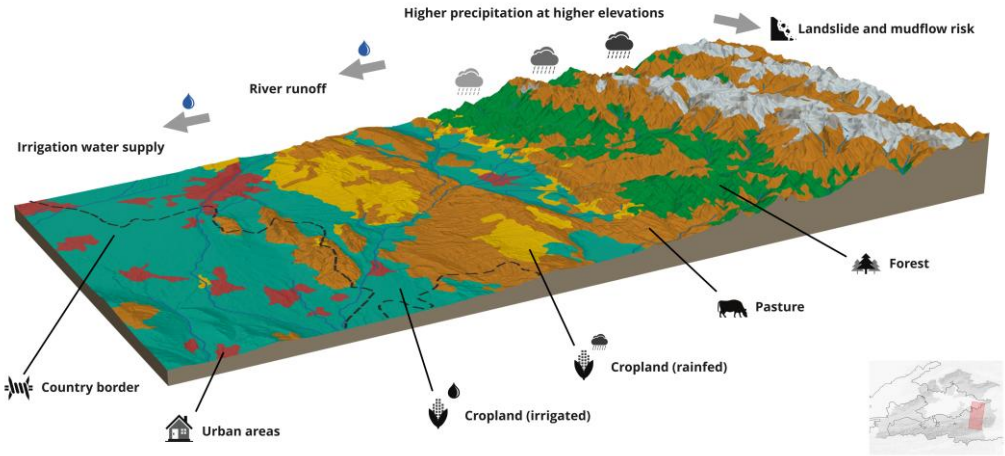
The proposed programme will target the Fergana Valley, and Surkhandarya and Khatlon regions in Central Asia (see Figure 1). These regions were selected because they are among the most climate-vulnerable, low adaptive capacity and densely populated transboundary landscapes for AFOLU in Central Asia. These areas lie within one of the most climate-vulnerable parts of Central Asia, where the Kyrgyz Republic, Tajikistan and Uzbekistan all rank highly in global vulnerability indices and face combined hazards and have limited coping capacity. Assessments, including ND-GAIN and INFORM, identify particularly high climate risk in and around the Fergana Valley and along the southern border between Uzbekistan and Tajikistan They face severe and increasing risks, including droughts, floods, heatwaves, land degradation, and water scarcity, which already threaten livelihoods and food security for millions of rural inhabitants. It functions as a major transboundary AFOLU hub, yet experiences intense pressure on land, soils, and irrigation systems. Surkhandarya and Khatlon are similarly critical production areas but suffer from widespread degradation, outdated water infrastructure, and high exposure to climate hazards. Due to the vertical connectivity of these landscapes across borders (see Figure 3), they require a regional approach to strengthen resilience and address shared climate and environmental challenges. Their selection was further validated through multi-criteria assessments and stakeholder consultations, which confirmed high vulnerability, landscape interconnectivity and alignment with national priorities. Through the programme, an estimated 939,354 hectares of land will be brought under restoration and sustainably management. The programme's landscape interventions will scale CRLE practices across agricultural land, forest and pasture rather than major infrastructure (see Figure 2 for major land use categories within the programme landscapes). As such, no significant land acquisition or physical displacement is anticipated in any country.

Figure 1: Programme areas: Districts around Fergana Valley (top right) and Southern Border Area between Uzbekistan and Tajikistan (bottom left); total of 38 labelled districts; colours according to elevation (30m x 30m grid)



Source: Illustration by GIZ based on Copernicus Programme, 2021[18]

Figure 2: Scheme of the vertical geography scheme typical for the programme area (exemplarily for the area around Nookat, Kyrgyzstan) (Land use data has been smoothed for presentation)

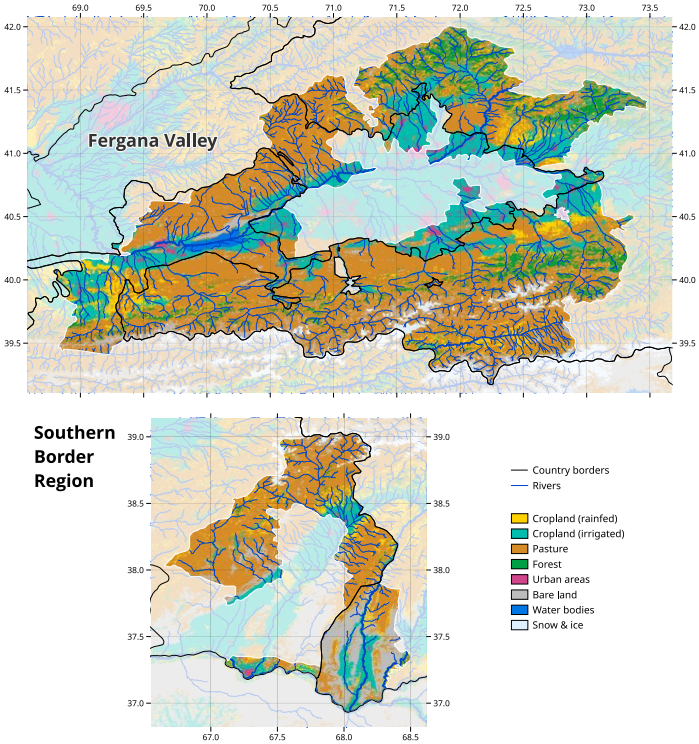


Source: Illustration by GIZ based on Copernicus Climate Change Service, 2021[19]

[18] Copernicus Programme. (2021). Copernicus Digital Elevation Model (DEM), GLO-30 Public. https://registry.opendata.aws/copernicus-dem/.

[19] Copernicus Climate Change Service, Climate Data Store. (2019). Land cover classification gridded maps from 1992 to present derived from satellite observations. Copernicus Climate Change Service (C3S) Climate Data Store (CDS). https://doi.org/10.24381/cds.006f2c9a.

Figure 3: Land use distribution in the programme areas
(Top: Fergana Valley; Bottom: Southern Border Area)



Source: Illustration by GIZ based on Copernicus Climate Change Service, 2019[20]
(Note that the dataset is based on satellite observations and differentiation between irrigated and rainfed schemes for cropland are only historic estimates)

5.2. Socio-economic profile

5.2.1. Demography

Kyrgyz Republic

As of 2024, the Kyrgyz Republic has a population of 7.2 million, concentrated in foothills and urban centres such as Bishkek and the Fergana Valley (National Statistical Committee of the Kyrgyz Republic, 2024c; World Bank & Asian Development Bank, 2021a). Youth under the age of 16 account for 34.2% of the population, indicating a young demographic profile (National Statistical Committee of the Kyrgyz Republic, 2024c; OECD, n.d.; Tilekeyev et al., 2019). Life expectancy is 71.9 years, and the country's Human Development Index (HDI) is 0.701, ranking 117th globally (World Bank, 2023a; UNDP, 2024c). Urban growth is projected to centre on Bishkek over the next 15 years (UNESCAP, 2022).

The programme intervention areas are located in the southern regions of Osh and Jalal-Abad, which form part of the Kyrgyz portion of the Fergana Valley. These regions are among the most densely populated and agriculturally intensive areas of the country, with high dependence on Agriculture, Forestry and Other Land Use (AFOLU) systems. Population

[20] Copernicus Climate Change Service, Climate Data Store. (2019). Land cover classification gridded maps from 1992 to present derived from satellite observations. Copernicus Climate Change Service (C3S) Climate Data Store (CDS). https://doi.org/10.24381/cds.006f2c9a.

density in the Fergana Valley significantly exceeds the national average, particularly in irrigated lowland areas where agricultural production is concentrated.

Demographically, the programme districts are characterised by relatively young populations and high dependency ratios, which increase pressure on land and water resources. Labour migration, particularly of working-age men, is widespread and has resulted in a growing number of women-managed households. This has important implications for agricultural labour availability, household resilience, and vulnerability to climate shocks.

Poverty levels in rural areas remain higher than in urban centres, and adaptive capacity is constrained by limited access to financial services, agricultural extension systems, and climate information.

Livelihoods in these districts are closely linked to smallholder agriculture, livestock production, and forest-related activities, particularly in areas adjacent to walnut forest systems.

The southern regions of Osh and Jalal-Abad are also recognised as climate vulnerability hotspots due to their reliance on climate-sensitive livelihoods and exposure to multiple hazards. Land degradation, particularly pasture degradation, is widespread, while increasing variability in precipitation and temperature is expected to exacerbate water scarcity and reduce agricultural productivity. These factors, combined with limited access to financial services and climate-resilient technologies, constrain adaptive capacity among rural households.

Tajikistan

Tajikistan is the least urbanised country in Central Asia, with 74% of the population living in rural areas, primarily in valleys and western regions (World Bank & Asian Development Bank, 2021b; FAO, 2023). Its HDI was 0.679 in 2022, ranking 126th globally (UNDP, 2024b). Population distribution and livelihoods remain closely linked to agriculture. The country has a relatively young population structure and high fertility rates, contributing to increasing pressure on land and natural resources.

The Devashtich district in Sughd Region is located in the northern Fergana Valley, which is one of the most densely populated and economically active regions in Tajikistan, characterised by intensive irrigated agriculture and strong cross-border economic linkages.

In contrast, the Khatlon Region, particularly Qubodiyon district, is characterised by a predominantly rural population, higher poverty levels, and greater dependence on remittances. Labour migration is widespread, resulting in a feminisation of agriculture and increasing reliance on women for farm management and household food security.

Across both regions, limited non-agricultural employment opportunities and high dependence on natural resources increase vulnerability to climate variability and environmental degradation. Limited access to infrastructure, services, and climate-resilient technologies further constrains adaptive capacity in these regions, increasing the vulnerability of rural populations targeted by the programme.

Uzbekistan

Uzbekistan is the most populous country in Central Asia, with 36.2 million people (FAO, 2019; World Bank, 2023b). Nearly half of the population lives in rural areas. The country's HDI

increased from 0.603 in 2000 to 0.727 in 2022 (UNDP, 2024a). Demographic structures vary locally due to migration patterns, influencing gender ratios in some rural areas (FAO, 2019).

The Fergana Valley is characterised by high population density, land fragmentation, and intensive agricultural production systems. However, Surkhandarya is predominantly rural, with a young population and strong dependence on irrigated agriculture, livestock production and cross-border economic dynamics. These areas are particularly sensitive to climate variability due to their reliance on water-intensive agricultural systems

Migration patterns influence local demographic structures, particularly in rural areas, affecting labour availability and household composition.

Despite ongoing economic reforms, rural populations in these regions continue to face structural constraints, including limited access to finance, extension services, and markets, which reduce their capacity to adapt to climate risks and adopt sustainable land management practices.

5.2.2. Socio-economic vulnerability and climate risk profiles

The programme intervention areas are characterised by a combination of high population density, strong dependence on the AFOLU sector, and increasing exposure to climate-related hazards.

Across these regions, rural populations exhibit elevated levels of socio-economic vulnerability due to limited income diversification, high reliance on natural resources, and exposure to environmental degradation. Agriculture, livestock production, and forestry-related activities remain primary sources of employment and income, particularly among smallholder farmers and rural households.

Climate risk overlays indicate that the target regions are exposed to multiple hazards, including drought, water scarcity, extreme heat, and land degradation. In mountainous and foothill areas, additional risks include landslides and flash floods, while lowland areas are increasingly affected by soil salinisation and declining productivity.

These risks disproportionately affect rural populations engaged in AFOLU systems, as their livelihoods are directly dependent on climate-sensitive natural resources. The combination of high exposure, sensitivity, and limited adaptive capacity places these populations among the most vulnerable groups targeted by the programme.

5.2.3. Social structure and community management

Kyrgyz Republic

The Kyrgyz Republic has a mixed rural–urban social structure. The population is ethnically diverse, comprising mainly Kyrgyz (73.8%) alongside significant Uzbek (14.8%) and Russian (5.1%) minorities. It is predominantly Sunni Muslim (90%) (CIA, 2024a). Three regions (Batken, Osh, and Jalal-Abad) form the Kyrgyz portion of the Fergana Valley, hosting 53% of the national population within 39% of the country's territory (National Statistical Committee of the Kyrgyz Republic, 2024c). These regions are characterised by largely rural settlement patterns and agriculture-based livelihoods, which shape local community organisation and resource use (National Statistical Committee of the Kyrgyz Republic, 2024a; 2024b).

In the programme districts of Bazar-Kurgan and Kara-Suu, community organisation is shaped by local governance structures (*ayil okmotu*), pasture user unions, and Water User

Associations. These institutions play a central role in regulating access to pasture, irrigation water, and forest resources.

Dependence on shared natural resources creates both opportunities for collective management and risks of conflict, particularly during periods of water scarcity or pasture degradation.

Tajikistan

Tajikistan's social structure is predominantly rural, with 74% of the population living outside urban centres and most communities located in valleys and western regions of the country (World Bank & Asian Development Bank, 2021b; FAO, 2023). Community organisation is closely linked to agricultural livelihoods, with a high proportion of households engaged in farming. In Sughd Region, which forms part of the Fergana Valley, both population density and economic activity are relatively high, supported by agriculture, industry and cross-border trade (TAJSTAT, 2024a, 2024b). Khatlon Region has a largely rural population and remains heavily dependent on migration and remittances, influencing household structures and community resilience (TAJSTAT, 2024a, 2024b; USAID, 2020; World Bank, 2023c).

In Devashtich and Qubodiyon districts, community organisation is closely linked to dehkan farming systems and local governance structures such as *jamoats*. In Khatlon Region, high dependence on remittances influences household structures and reduces local labour availability, increasing reliance on women and elderly populations for agricultural production

Uzbekistan

Uzbekistan's social structure is a balance between urban and rural populations, with nearly half of the population living in rural areas and relying on agriculture for livelihoods (FAO, 2019; UNDP, 2019). Settlement patterns and community structures vary significantly by region. The Fergana Valley provinces of Fergana, Namangan, and Andijan are among the most densely populated areas in the country (Statistics Agency under the President of the Republic of Uzbekistan, 2024). In Surkhandarya Region, 63.9% of the population is rural, and communities are characterised by young age structures and strong dependence on agriculture and cross-border dynamics (Statistics department of Surkhandarya region, 2024).

In Yangikurgan and Besharik districts, community organisation is structured around *mahalla* institutions, which play a central role in local governance, social support, and coordination of agricultural activities.

These institutions facilitate community-level engagement but may also reinforce existing inequalities in access to resources and decision-making processes.

5.2.4. Gender equality and women's empowerment

Kyrgyz Republic

Women account for approximately 50.2% of the total population in the Kyrgyz Republic, 60% of whom reside in rural areas. The country is a signatory to CEDAW and the Beijing Declaration and Platform for Action (BPfA), it participates in SDG5 commitments, and upholds the Law on State Guarantees of Equal Rights which is underpinned by a National Gender Equality Strategy to 2030. Despite strong frameworks and recent reforms, gender-responsive budget tracking, anti-discrimination enforcement, and gender-mainstreaming in many sectors

remain weak. Women perform 260 minutes/day of unpaid work versus 55 for men. In the AFOLU sector, only 18.5% of land titles and 20.2% of farm businesses are run by women. Women's participation in local and national decision-making platforms is also relatively low, with (on average) less than 15% of Water User Association (WUA) members being women. Women also remain underrepresented in pasture user unions and local governance structures, limiting their influence over land and natural resource management decisions.

In the southern programme regions of Osh and Jalal-Abad, women contribute not only to crop production but also to livestock care, fodder collection, pasture use, kitchen gardens, orchard management, and forest-related livelihoods, including activities linked to walnut-fruit forest systems. This broader AFOLU role is especially important in the programme intervention areas, where mixed farming, grazing, and forest use are closely interconnected.

Labour migration of men has increased women's practical responsibilities in agriculture and household management. However, this increase in responsibility has not translated into a corresponding increase in authority over land, livestock, or local natural resource governance. As a result, women's knowledge of pasture conditions, household production, and forest use remains insufficiently reflected in local planning and resource allocation decisions

Uzbekistan

Uzbekistan sits on a rapidly growing urban–rural spectrum; 50% of the population are women and half of rural residents are women. The country is a signatory to CEDAW and the BPfA, aligned with SDG5. National reforms include the Law on Guarantees of Equal Rights and Opportunities for Women and Men, the Strategy for Achieving Gender Equality to 2030, the Committee on Family and Women under the Cabinet of Ministers and the Gender Madad center with its legal support platform. The AFOLU sector is central to the rural economy, and women constitute the majority of agricultural labour (around 59%), yet remain underrepresented in commercial and mechanised farming. Land-use contracts and registrations often favour male heads, restricting women's access to credit and inputs. Women interact less with district authorities and extension services, with male-dominated training. In value chains, women are concentrated in low-return or informal activities, facing barriers to markets, certification, and finance. About 12% of irrigated land is managed by women, and female WUA membership is around 8%, underscoring limited influence over irrigation decisions and resource allocation.

Institutional reforms in Uzbekistan have improved the legal framework for gender equality and access to resources. However, practical constraints remain, particularly in rural areas. These include:

- Limited access to land-use rights in practice, despite formal eligibility
- Restricted access to credit and financial services due to collateral requirements
- Lower participation in agricultural extension and training programmes
- Social norms influencing participation in local governance and decision-making

In the programme regions, these constraints are particularly relevant because women's contribution to agricultural production is high, yet their ability to influence resource allocation, adopt climate-resilient technologies, and benefit from programme interventions remains limited.

It thus important to recognise women not only as a vulnerable group but as key actors in agricultural production whose contributions are structurally constrained by limited access to assets, services, and decision-making platforms.

Tajikistan

Approximately 49% of the population are women, 76% of whom live in rural areas. The country is a signatory to CEDAW and BPfA, and aligned with SDG5. Nationally, the Law on State Guarantees of Equal Rights (2005), the National Development Strategy 2030, and the State Program for the Prevention of Domestic Violence (2014–2023) shape gender policy, coordinated by the Committee for Women's and Family Affairs. Reforms expanded women's access to work rights (night work, maternity leave) and protections against domestic violence. Yet enforcement of anti-discrimination provisions and access to comprehensive sexual and reproductive health services remain weak; restrictions on women in hazardous occupations persist, and gender-responsive budgeting remains in pilot phases. In the AFOLU sector, agriculture employs the majority of rural workers, with women making up 59% of agricultural labour, yet only 22.4% of dehkan farms are registered to women, and female land plots are typically smaller and farther from irrigation sources. Women-headed farms account for 13.3% of crop land, while unpaid care time remains about 10x higher for women than men. These figures likely underestimate women's contributions, as a large proportion of their work is informal or unpaid, particularly on family farms.

In the programme regions, particularly in Khatlon, male labour migration has resulted in women assuming primary responsibility for farm management. Women are actively engaged in planting, irrigation, and harvesting, yet formal land ownership and decision-making authority remain predominantly male.

Women's access to financial resources, agricultural inputs, and extension services remains limited, constraining their adaptive capacity and ability to adopt climate-resilient practices

5.2.5. Employment

Kyrgyz Republic

Employment in the Kyrgyz Republic is divided between formal and informal sectors, with an estimated 74% of the workforce informally employed (Tilekeyev et al., 2019; Pesci & Dzhamangulov, 2023; World Bank & Asian Development Bank, 2021a). Agriculture remains the largest source of employment despite its declining contribution to Gross Domestic Product (GDP) (Tilekeyev et al., 2019; World Bank & Asian Development Bank, 2021a). The agricultural sector (along with forestry and fishing) accounts for 15.7% of all employment. The second-largest employers are wholesale and retail trade, as well as automobile and motorcycle repair, which account for 15.5% of all employment in the Republic. Construction is third in importance (12.2%), followed by manufacturing (11.1%), education (10.2%), and transportation and cargo storage (9.4%).

The economy grew by 6.2% in 2023, though poverty rates remain significant, ranging from 9.7% to 33% depending on measurement methodology (World Bank, 2024a; IMF, 2024). Outmigration for work is high, primarily to the Russian Federation (*The Times of Central Asia*, 2024).

For national employment, 45% is concentrated in the Fergana Valley regions of Batken, Osh, and Jalal-Abad reflecting the importance of agriculture and rural livelihoods in these areas (National Statistical Committee of the Kyrgyz Republic, 2024a; 2024b).

In the areas of Kara-Suu and Bazar-Kurgan, employment remains heavily concentrated in the AFOLU sector, especially in smallholder farming, livestock production, and seasonal agricultural work. Employment outside agriculture is limited, and many households rely on a combination of subsistence production, seasonal trade, and remittances. This pattern is particularly important in southern Kyrgyzstan, where labour migration reduces the availability of working-age men for agriculture and increases dependence on women, older persons, and youth for agricultural labour and household production. The regional labour structure therefore reinforces both economic vulnerability and gendered divisions of labour.

Tajikistan

Tajikistan's labour force is predominantly rural, with most employment linked to agriculture (World Bank & Asian Development Bank, 2021b; FAO, 2023). Economic growth over the past two decades has contributed to a reduction in poverty, although GDP per capita remains low at USD 1,189 in 2023 (FAO, 2023; World Bank, 2024b). Employment and household income are strongly influenced by labour migration (World Bank, 2024b).

Sughd Region employs approximately 440,000 workers, including 245,000 in agriculture, reflecting the region's mixed agricultural and industrial economy (TAJSTAT, 2024a, 2024b). Khatlon Region accounts for 39% of the national workforce, with most employment concentrated in agriculture, and is highly dependent on migration and remittance inflows (TAJSTAT, 2024a, 2024b; USAID, 2020).

In Qubodiyon, local labour markets are particularly constrained, with limited formal employment outside agriculture and a high dependence on migration. In Devashtich, economic activity is somewhat more diversified, but rural employment still depends heavily on AFOLU systems and small-scale trade. This makes both target regions highly sensitive to climate-related disruptions in crop and livestock production, as well as to broader economic shocks affecting migration and remittances.

Uzbekistan

Uzbekistan's labour market has undergone significant changes in recent years, with improvements in employment indicators following the COVID-19 period. While earlier data indicated unemployment rates of around 10.5%, more recent figures show a substantial decline, with unemployment falling to approximately 5.1% in early 2025 and 4.9% by the third quarter of 2025, reflecting ongoing labour market reforms and job creation efforts.

The labour force has expanded in line with population growth, with over 20 million people of working age and more than 14.8 million employed, and employment increasing across key sectors including services, agriculture, and construction. Economic growth has remained strong, supported by structural reforms and diversification efforts, although disparities between GDP growth and household income persist, particularly for lower-income groups.

Despite these improvements, structural challenges remain. A significant share of employment continues to be informal, accounting for approximately one-third of total employment, while a further share of the workforce is employed abroad, reflecting continued reliance on labour migration as a livelihood strategy. Informal employment remains particularly prevalent in

agriculture and seasonal labour, where flexibility and lower costs incentivise informal arrangements.

Migration for employment remains widespread and continues to be predominantly male, although female participation in migration and seasonal labour is increasing. These dynamics influence labour availability in rural areas and contribute to gendered patterns of employment, particularly in the AFOLU sector.

Overall, while Uzbekistan's labour market has shown clear post-pandemic recovery and declining unemployment, it remains characterised by informality, outward migration, and uneven access to stable and well-paid employment, particularly in rural and agriculture-dependent regions such as the programme intervention areas.

5.2.6. Agriculture

Kyrgyz Republic

Agriculture remains a central component of rural livelihoods in the Kyrgyz Republic and is the largest source of employment despite its declining share of GDP (Tilekeyev et al., 2019; World Bank & Asian Development Bank, 2021a). Agricultural activity is particularly concentrated in the Fergana Valley regions of Batken, Osh, and Jalal-Abad where a large share of the population depends on farming activities (National Statistical Committee of the Kyrgyz Republic, 2024c). These regions account for 45% of national employment but only 22% of GDP, reflecting the predominance of low-productivity agricultural activities (National Statistical Committee of the Kyrgyz Republic, 2024a; 2024b). These regions are characterised by intensive use of arable land for crop production, reflecting the importance of land resources for household income and food security (National Statistical Committee of the Kyrgyz Republic, 2023).

Jalal-Abad Region leads national crop production, primarily maize, wheat, barley, potatoes, and melons, while Batken produces cereals, vegetables, fruits, and rice. Osh Region records the lowest agricultural output among the three regions (National Statistical Committee of the Kyrgyz Republic, 2023).

In Kara-Suu and Bazar-Kurgan, mixed systems combining irrigated cultivation, rainfed plots, livestock production, pasture use, and forest-linked livelihoods are common. Pasture quality is a major determinant of household resilience, while nearby walnut-fruit forest landscapes in Jalal-Abad add an important forestry dimension to local livelihoods. This means that productivity, vulnerability, and climate resilience in the target areas depend not only on crops, but also on access to pasture, forest resources, and ecosystem services

Tajikistan

Agriculture, mainly cotton and cereals, is a dominant livelihood in Tajikistan and remains a key driver of the national economy, accounting for approximately 22% of GDP. Most households are engaged in farming, and agricultural production is largely concentrated in valleys and western regions of the country. However, only a relatively small proportion of land is suitable for productive use, with about 28% of total land considered productive. Within this, arable land represents a limited share, while pastures and rangelands account for the majority, underscoring the importance of livestock and extensive land-use systems within the broader AFOLU sector.

Sughd Region employs a substantial agricultural workforce, with approximately 245,000 people engaged in agriculture alongside industrial and trade activities (TAJSTAT, 2024a, 2024b). Khatlon Region has a largely agriculture-based economy, contributing significantly to national GDP and employment, while remaining vulnerable to poverty, food insecurity, and climate-related hazards (TAJSTAT, 2024a, 2024b; FAO, 2023; IPCC Working Group II, 2023). The main crops grown in Tajikistan include cotton, wheat, fruits (such as apricots, grapes, and apples), vegetables, rice, maize, and barley, with cotton being the country's most important cash crop.

Agricultural production systems are characterised by a combination of irrigated lowland farming and rainfed upland systems, with irrigated cotton and wheat dominating lowland areas, and wheat, potatoes, horticulture, and grazing systems prevalent in upland regions. Since the transition from Soviet collective farming, the sector has shifted towards small-scale, privately managed farms, particularly dehkan farms, which now cultivate a significant share of arable land, alongside household plots that account for the majority of landholdings. The average operational farm size remains small (approximately 1.1 ha), contributing to high levels of fragmentation and limiting economies of scale.

The sector is further constrained by low levels of mechanisation, aging irrigation infrastructure, and limited investment in modern technologies, resulting in relatively low productivity. Smallholder farmers often face difficulties integrating into value chains, with challenges including high post-harvest losses, limited agro-processing capacity, and insufficient diversification of production systems.

Livestock production and pasture use are also critical components of rural livelihoods, particularly in the programme intervention areas. However, pasture productivity is constrained by weak governance arrangements, limited access to quality feed and fodder, and challenges in animal health management, including relatively high rates of morbidity and mortality. These factors reduce the efficiency of pasture use and increase vulnerability to climate variability.

Overall, the agricultural sector in Tajikistan should be understood within an integrated AFOLU framework, where crop production, livestock systems, pasture management, and natural resource use are closely interlinked and collectively determine rural livelihoods and resilience.

Uzbekistan

Agriculture plays a key role in Uzbekistan's economy and rural livelihoods, with nearly half of the population living in rural areas and relying on agricultural activities (FAO, 2019; UNDP, 2019). Despite the country's predominantly desert terrain, fertile areas such as the Fergana Valley and the Surkhan-Sherabad plain support significant crop and livestock production (FAO, 2019).

In Surkhandarya Region, agriculture dominates the regional economy, accounting for 67.4% of regional GDP and 7.9% of national agricultural output (Statistics department of Surkhandarya region, 2024). Key crops include cotton, cereals, vegetables, grapes, figs, and citrus fruits, and more than one-third of the population is employed in the agricultural sector (Statistics department of Surkhandarya region, 2024; UNDP, 2019).

The use of irrigation systems in Uzbekistan is common; they support annual (e.g., potatoes) and perennial systems (e.g., orchards) across all locations.

Across both regions, historical reliance on chemical inputs and irrigation-intensive practices, combined with aging infrastructure, has contributed to soil degradation, salinisation, and declining water efficiency in some areas.

These dynamics highlight the need for an integrated AFOLU approach that addresses soil health, water management, and ecosystem resilience, rather than focusing solely on crop productivity.

5.2.7. Access to land and natural resources

Kyrgyz Republic

Following its independence from the USSR in 1991, the Kyrgyz Republic privatised land and established market-based farming, with responsibilities transferred to state entities and local government bodies.

The Kyrgyz Republic had no private ownership of land, while the ethnic Kyrgyz had a culture of nomadic herding. In this context, in 1991, the Kyrgyz government adopted a package of laws regulating land relations. These defined the legal, organisational, and economic aspects of the formation and functioning of agricultural enterprises of different ownership. While this land reform has ensured farmers' full ownership of land, it has also fragmented agricultural land and led to the dominance of small-scale peasants. There are cases of obtaining a land share of up to 3 acres of land per family, limiting farming households that want to increase income derived from farm employment. In this respect, the Kyrgyz Republic faces new challenges:

- Developing and implementing state and regional programmes to consolidate small land plots.
- Developing legal and economic ways to protect against the unjustified reduction of valuable agricultural land and land use for non-agricultural purposes.
- Fighting against land degradation and desertification.

The land reforms are ongoing. Recently, pasture committees were dissolved and pasture management was given to SGI. However, these reforms were not conducive to an optimal pasture management system, which will be further resulting in the fast degradation of pastures.

Tajikistan

In Tajikistan, access to land and natural resources is a critical determinant of livelihoods, as the majority of the population resides in rural areas and relies on agriculture, much of it rain-fed (World Bank & Asian Development Bank, 2021b; FAO, 2023). Over 90% of the country is mountainous, limiting the amount of arable land and concentrating agriculture in narrow valleys and irrigated lowlands. This creates high pressure on smallholder land, leading to fragmentation, overuse, and declining soil fertility in some areas.

The state retains ownership of all land, while farmers are granted long-term use rights to cultivate agricultural areas. Small household plots are particularly important for rural households, providing food and supplemental income. Agricultural production depends strongly on irrigation systems fed by rivers such as the Amu Darya, Zarafshan, Syrdarya and the Vakhsh River. At the same time, the country faces constraints such as limited arable land

due to its mountainous terrain and issues of land degradation and water management that affect sustainable resource use.

In Khatlon Region, dependence on agricultural land is especially pronounced, contributing to vulnerability related to poverty, food insecurity, and exposure to natural hazards (TAJSTAT, 2024a, 2024b; FAO, 2023; IPCC Working Group II, 2023).

Uzbekistan

In Uzbekistan, access to land and natural resources is largely regulated by the state, as all land is formally owned by the government and farmers obtain land through long-term lease arrangements rather than private ownership. Agricultural land is mainly allocated to farms and small household plots, which are important for rural livelihoods and food production. Access to key natural resources, especially water for irrigation, depends heavily on major river systems such as the Amu Darya and the Syr Darya, making irrigation management central to agricultural productivity. However, challenges such as land degradation, salinisation, and water scarcity continue to affect sustainable access to these resources.

In the programme areas, particularly in the Fergana Valley, high population density and land fragmentation significantly constrain access to productive land, especially for smallholder farmers and new entrants. Land allocation and use are influenced by administrative processes, which can affect flexibility in land use and investment decisions.

Access to irrigation water is a critical factor influencing agricultural productivity. Water distribution is managed through irrigation systems and local institutions, but availability is subject to seasonal variability and upstream demand.

In practice, access to land and water resources may vary between households, depending on location, institutional participation, and administrative processes. These constraints are particularly relevant in the programme areas, where competition for land and water is high

5.2.8. Access to financial goods and services

Kyrgyz Republic

Household access to financial resources in the Kyrgyz Republic is strongly influenced by labour migration and remittance inflows. Remittances accounted for 22.4% of GDP in early 2024, with the majority originating from the Russian Federation (*The Times of Central Asia*, 2024).

Sub-projects (e.g., improved irrigation, agroforestry plantings, infrastructure in villages) in the Kyrgyz Republic will involve community interactions and equipment. No large-scale resettlement is planned, and Kyrgyz land tenure laws (Land Code 1999) protect against involuntary land loss.

In addition to conventional financial services, access to finance in rural areas of the Kyrgyz Republic is supported by emerging public financing mechanisms aimed at strengthening local development. The State Programme on Subsidies for Local Community Initiatives (2024–2027) provides targeted funding from national and regional development funds to support community-led projects that improve local infrastructure, livelihoods, and living conditions. This programme responds to persistent constraints at local level, including limited municipal budgets, weak capacity of local governments to mobilise community investment, and low public awareness of financing opportunities. While the programme has the potential to improve

access to funding for small-scale local initiatives in programme areas such as Bazar-Kurgan and Kara-Suu, its effectiveness depends on local institutional capacity, awareness, and the ability of communities – particularly vulnerable groups – to participate in programme identification and implementation.

At a broader systemic level, access to finance in the Kyrgyz Republic is increasingly shaped by the country's transition towards a green economy, although the financial sector remains at an early stage of development in this regard. Current assessments indicate that green finance is still underdeveloped, fragmented, and lacks a clear methodological and regulatory framework, despite growing interest from both financial institutions and the market. Demand for green financial products is expected to increase significantly in the coming years, particularly in sectors linked to agriculture, land use, and climate adaptation; however, supply remains constrained by limited technical expertise, lack of standardised definitions and taxonomy, and low awareness among both financial institutions and end users. Ongoing efforts – including the development of a national green taxonomy, ESG reporting frameworks, and the establishment of a Green Finance Fund – aim to strengthen the financial sector's capacity to support environmentally sustainable investments. In the programme intervention areas, these structural constraints mean that smallholder farmers and rural households currently have limited access to financing tailored to climate-resilient and sustainable land management practices, despite increasing relevance of such investments for local livelihoods.

For rural households in Kara-Suu and Bazar-Kurgan, access to finance remains constrained by collateral requirements, limited financial literacy, and low-income diversification. These constraints are especially significant for women and young people, who may contribute substantially to agricultural production without holding formal title to land or productive assets. In the southern programme districts, where migration has increased women's operational role in farming, lack of formal control over assets can limit access to credit even when women are effectively managing household production

Tajikistan

Tajikistan is highly dependent on remittances as a source of household income and financial security. In 2023, remittance inflows accounted for approximately 38% of GDP, among the highest shares globally (World Bank, 2024b). Despite strong economic growth and declining poverty rates, GDP per capita remains low, constraining access to formal financial goods and services for a large share of the population (FAO, 2023; World Bank, 2024b).

Access to finance in Sughd and Khatlon is constrained by collateral requirements, documentation barriers, and unequal access to productive assets. These constraints affect all smallholders, but they are especially acute for women, whose land rights and asset ownership are often weaker in practice than in law. FAO notes that women farmers face limited access to quality seeds, fertilisers, equipment, and credit, all of which reduce productivity on women-managed farms and restrict entry into higher-value value chains.

Uzbekistan

Recent reforms in Uzbekistan's financial sector have significantly expanded the availability and diversity of financial services, including the rapid growth of digital banking and fintech solutions. The increasing use of mobile payment platforms, electronic transactions, and cashless payment systems has improved financial inclusion, including in rural areas. By 2024, approximately 40% of all payments were cashless, supported by widespread adoption of

digital platforms and government e-services, with further expansion planned through unified QR payment systems and mandatory electronic payments for key services by 2026.

At the same time, the government and Central Bank have introduced a series of reforms to modernise the financial sector, including the development of microfinance banks, fintech ecosystems, and open banking systems, which are expected to enhance access to credit and financial products for small businesses and rural populations. These reforms are complemented by initiatives to support startups, venture financing, and innovation in financial services, including partnerships between financial institutions and technology providers.

Government-supported financing programmes and international financial flows are also expanding. Uzbekistan has received substantial concessional financing (e.g. World Bank programmes of approximately USD 800 million) to support economic reforms, private sector development, and climate resilience. These programmes aim to improve access to finance for agriculture, infrastructure, and climate-related investments, including the adoption of water-efficient and climate-smart technologies.

Despite these positive developments, access to finance in rural programme areas such as Yangikurgan, Besharik, and Surkhandarya remains uneven. Smallholder farmers continue to face constraints related to collateral requirements, limited tailored financial products, and gaps in financial literacy, while regional disparities in banking infrastructure and digital access persist. Women and small-scale producers are particularly affected, as they often lack formal control over assets or face additional barriers in accessing financial institutions.

As a result, many rural households rely on informal financing mechanisms or self-financing, which limits their ability to invest in productivity improvements and climate-resilient agricultural practices

5.2.9. Labour and working conditions

Kyrgyz Republic

The Kyrgyz Republic scores 73.5 out of 100 on the Labour Rights Index (Labour Rights Index, 2024a), below the regional average, highlighting weaknesses in labour protection, particularly around forced and child labour. Although moderate legal safeguards exist, enforcement is limited. A large informal workforce, low social protection coverage, low union density, and minimal labour inspection capacity (around one inspector per 59,240 workers) all constrain effective monitoring and enforcement.

Labour rights are further undermined by restrictions on independent trade unions and freedom of association, as well as wider civil society constraints. Forced and child labour risks persist in vulnerable, labour-intensive sectors, and workplace injuries and unsafe conditions remain common due to weak occupational health and safety oversight.

Some progress has been made, including the resumption of labour inspections and cooperation with the ILO to strengthen labour laws, promote decent work and improve workplace safety and anti-harassment standards (UNDP, 2024c). However, wider institutional weaknesses and human rights concerns continue to limit improvement.

Labour and working conditions in the areas of Osh and Jalal-Abad are shaped by structural characteristics of the Kyrgyz labour market, including high levels of informality, low

productivity, and skills mismatches, which constrain income generation and employment opportunities in rural areas. These challenges are particularly evident in the AFOLU sector, where most workers are engaged in smallholder agriculture, livestock production, and seasonal activities, often without formal contracts or social protection.

Gender disparities are significant, with women more likely to be engaged in informal and unpaid agricultural labour, particularly in households affected by labour migration. Although women play a central role in agricultural production, their participation in formal employment and access to training and income-generating opportunities remains limited.

Working conditions in the AFOLU sector are characterised by manual labour intensity and exposure to occupational risks, including use of agrochemicals and increasing heat stress associated with climate variability. At the same time, labour governance and social dialogue mechanisms are less effective in rural areas, where labour issues are often addressed informally and workers have limited access to formal grievance or representation systems.

In the context of the transition towards more sustainable and climate-resilient land use, these conditions highlight the importance of a “just transition” approach, ensuring that improvements in environmental sustainability are accompanied by better working conditions, skills development, and inclusive economic opportunities.

Child labour in the Kyrgyz Republic is primarily associated with family-based agricultural activities, particularly in rural areas where children may assist with livestock herding, harvesting, and household food production. While such activities are often considered part of traditional livelihood systems, there is a risk that children may be involved in hazardous tasks or excessive working hours, especially during peak agricultural seasons. These risks are more pronounced in economically vulnerable households and remote areas with limited access to education and social services.

Forced labour is not considered widespread; however, risks may arise in informal and seasonal labour arrangements, particularly in agriculture and small-scale production, where labour relationships are not formalised and oversight is limited. In such contexts, workers may face constraints related to debt, dependency on intermediaries, or limited ability to refuse work, although these are generally localised and not systemic. Strengthening awareness of labour rights and improving oversight in informal sectors remain important considerations in rural areas.

Tajikistan

Tajikistan has national labour legislation and has ratified core ILO conventions (ILO, 2025). It engages with the ILO through Decent Work Country Programmes and tripartite structures that promote social dialogue, decent employment, and international standards. Despite this cooperation, significant challenges remain. Independent labour organising is extremely difficult due to state pressure on civil society and restrictions on freedom of association. Trade unions exist but are generally state-aligned, limiting meaningful collective bargaining.

The 2024 US State Department human rights report highlights serious constraints on freedom of expression, a lack of judicial independence, and cases of torture and ill treatment (US Department of State, 2025). These systemic issues weaken enforcement of labour protections and restrict access to redress.

The US Department of State also documents credible reports of trafficking in persons, including forced labour, as well as the presence of some of the worst forms of child labour (US Department of State, 2025). Enforcement remains weak, reflecting structural gaps in oversight and social protection.

In October 2025, the government, employers' union and trade unions signed a new Action Plan on Decent Work for 2025–2026, aiming to strengthen social protection, improve working conditions, enhance social dialogue, and support a just transition to a greener economy. While this cooperation with the ILO may bring gradual improvements, substantial progress will require deeper reforms in governance, judicial independence, and civil freedoms.

Child labour in Tajikistan is linked primarily to rural livelihoods and agricultural production, where children may participate in planting, harvesting, and livestock-related activities, particularly in family farming systems. In some areas, especially during peak agricultural seasons such as cotton harvesting, there is a risk of children being involved in work that may interfere with schooling or expose them to hazardous conditions. Economic pressures, including poverty and labour migration, can increase reliance on children's labour within households.

Forced labour risks in Tajikistan are associated mainly with informal labour markets and migration-related dynamics. While the use of forced labour in the cotton sector has declined significantly due to government reforms and monitoring, vulnerabilities remain in seasonal agricultural work and informal employment, where workers may have limited bargaining power or formal protections. Migration for work, both internal and external, can also expose workers to situations of dependency or exploitation, particularly where contracts and protections are weak.

Uzbekistan

Uzbekistan continues to face broad human rights challenges that affect labour rights. Restrictions on freedom of expression, arbitrary arrests, and the prohibition of independent trade unions limit workers' ability to organise and advocate for their rights (US Department of State, 2025; Labour Rights Index, 2024b). State-aligned unions dominate, suppressing genuine trade union pluralism, while civil society and independent human rights organisations face strict regulation and barriers to registration.

Despite being officially prohibited, forced labour persists in parts of the cotton harvest, including sporadic cases in 2025, affecting both public sector and agricultural workers (US Department of State, 2025). Coercion is often linked to local-level quota pressure and structural legacies, despite the abolition of the state cotton quota system in 2020. ILO monitoring shows a significant reduction in forced labour, though it has not been fully eliminated, with around 6.8% of workers affected in 2023 (Niyazova, 2026).

Labour rights issues extend beyond agriculture into state-linked sectors such as education and healthcare, where reports include unpaid wages, excessive working hours, and forced labour. Industry assessments, including the 2025 Better Work Uzbekistan Annual Report (ACARO, 2025; Better Work, 2025), highlight ongoing non-compliance in occupational safety and health and discrimination, indicating persistent enforcement gaps.

According to the US Department of State (2025), Uzbekistan continues to restrict independent unions, with significant or systematic limitations on workers' ability to form, join, or operate trade unions freely. Civil society organisations (CSOs) remain heavily regulated, while

independent human rights groups face registration denials. This suppresses labour advocacy and weakens worker representation. Although formal legal reforms exist, functional trade union pluralism is still absent, and state-aligned unions dominate.

Uzbekistan has made significant progress in addressing forced labour and child labour in the cotton sector, including through strengthened monitoring systems and reforms that have been widely recognised at the international level. However, risks of child labour persist in family-based agricultural activities, particularly in rural areas where children may assist with household farming, livestock care, and seasonal agricultural work. While often informal, such involvement may raise concerns where it affects school attendance or involves hazardous tasks.

Forced labour risks have decreased substantially in formal agricultural systems, particularly in state-regulated cotton production. Nevertheless, potential risks remain in informal, seasonal, and smallholder-based labour arrangements, where employment relationships are less regulated and workers may lack formal contracts or access to grievance mechanisms. In rural programme areas such as the Fergana Valley and Surkhandarya, the prevalence of informal labour increases the importance of continued monitoring and awareness of labour rights, particularly for vulnerable groups including women, youth, and seasonal workers.

5.3. Environmental profile

5.3.1. Geography and climate

Kyrgyz Republic

The Kyrgyz Republic is a landlocked country, covering 199,951 km² with a population of 7.2 million (World Bank Climate Change Knowledge Portal, n.d.). It shares borders with Kazakhstan, Uzbekistan, Tajikistan, and China (Department of Foreign Affairs and Trade – Australian Government, 2024). The terrain is predominantly mountainous, with an average elevation of 2,988 m and peaks reaching 7,439 m. The country experiences an extreme continental climate with large seasonal and spatial variations. Average annual temperatures range from less than −10°C in the high-altitude Tien Shan mountains to over 12°C in the northern and western lowlands. In lowland areas, summer temperatures regularly exceed 30°C, while winter temperatures fall below −5°C.: (World Bank Group & Asian Development Bank, 2021a). Annual precipitation averages 378 mm but varies from 100 mm in arid zones to 1,000 mm in alpine areas. About 24% of land lies above 3,500 m under permanent snow cover (Kyrgyz Republic, 2016).

Tajikistan

Tajikistan is a low-income, landlocked country with a population of 10.51 million people (World Bank Climate Change Knowledge Portal, n.d.; TAJSTAT, 2025). It borders the Kyrgyz Republic and Uzbekistan to the north and west, China to the east, and Afghanistan to the south (UNECE, 2024). The country is dominated by mountains, which cover around 93% of its territory and range from 300 m to over 7,000 m in elevation. Nearly half of the land lies above 3,000 m, creating sharp climatic and ecological contrasts. Tajikistan contains around 1,300 lakes and is crossed by two of Central Asia's major rivers, the Amu Darya and Syr Darya (World Bank & Asian Development Bank, 2021b). The two rivers strongly influence water availability and resource use across Tajikistan. The eastern Pamirs experience extremely cold winters, heavy snow cover, and short summers, while the western lowlands and foothills are

milder and more densely populated. Extreme agro-climatic diversity means that there are great differences in land use patterns and farming practices throughout the country. North Tajikistan, centred around the fertile Fergana Valley (Sughd region), is relatively flatter, more developed with industry and agriculture (cotton/cereal), and more populated than other regions of the country.

Uzbekistan

Uzbekistan is a doubly landlocked country situated in the Aral Sea Basin, with around 80% of its territory covered by temperate deserts and arid landscapes (FAO, 2024). The climate is continental and arid, characterised by sharp seasonal extremes, with hot summers and cold winters. Population settlements are unevenly distributed, the fertile Fergana Valley in the east supports dense populations, while central and western desert regions remain sparsely inhabited (FAO, 2024). The country has relatively low forest cover, amounting to 3.68 million hectares or 8.6% of total land area (World Bank, 2022a). Over recent decades, forest degradation has intensified due to uncontrolled grazing, fuelwood demand, and agricultural expansion. The Aral Sea Basin, where Uzbekistan is situated, was once a major ecological anchor supported by the Aral Sea, formerly one of the world's largest freshwater bodies. Large-scale river diversion during the Soviet period caused the sea to shrink dramatically, a process known as the Aral Sea Crisis, which has since driven widespread salinisation and desertification across the region (CIA, 2024b).

5.3.2. Soil and geology

Kyrgyz Republic

The Kyrgyz Republic is dominated by high mountain systems, and its soils reflect the rugged topography. The most widespread soil types are Leptosols and Cambisols, which occur across the steep uplands and are typically shallow, stony, and low in organic matter (JRC & FAO, 2023). More fertile soils, including Fluvisols and limited areas of Chernozems, are found in the lower valleys and alluvial plains where agriculture is concentrated. These areas benefit from deeper profiles and higher nutrient availability.

However, the country experiences significant soil erosion, particularly on steep slopes where Leptosols dominate. Erosion is accelerated by overgrazing, deforestation, and unsustainable land use, leading to a measurable trend of topsoil loss and declining soil fertility across upland landscapes. Mountainous areas are recognised as hotspots for erosion-driven degradation across Central Asia (JRC & FAO, 2023).

Tajikistan

Tajikistan's soils are strongly influenced by its mountainous terrain, with high elevations and narrow valleys, with an average elevation of over 3000 m (JRC & FAO, 2023) The high elevations mean that their upper slopes are permanently covered with ice and snow, with localised permafrost at the highest elevations (JRC & FAO, 2023). The predominant soil types are Leptosols and Cambisols on the slopes, where shallow depth, rockiness and low organic matter limit fertility. In contrast, lower slopes are covered by grass and shrubs that provide inputs of organic matter to the soil. However, limited rainfall and low temperatures for most of the year mean that soil-forming processes are slow (JRC &FAO, 2023). The river valleys and alluvial plains contain Fluvisols and Gleysols, which provide the country's most fertile and agriculturally productive land, particularly where irrigation is available. These valley systems

support the majority of Tajikistan's arable agriculture and are essential for food production (FAO, 2015; JRC & FAO, 2023).

High rate of soil erosion is of concern, increased by steep gradients, sparse vegetation, and intensive land use. Soil loss contributes to declining fertility in cultivated areas and increased sediment loads in rivers. Much like other mountainous regions in Central Asia, erosion represents a persistent threat to long-term agricultural productivity (JRC & FAO, 2023).

Uzbekistan

Uzbekistan's soils reflect its arid to semi-arid climate, with extensive low-rainfall plains. Southern parts of Uzbekistan are flanked by hot semi-arid climates with hot summers and warm or cool winters, and higher levels of precipitation. The dominant soil types include Calcisols, Gypsisols, Solonchaks (saline soils), and Arenosols, particularly in central and western regions, reflecting strong evaporation, limited leaching, and the accumulation of salts and carbonates in the soil profile (JRC & FAO, 2023; FAO, 2015).

Natural fertility is generally low outside irrigated zones, but in the major river valleys (such as those of the Amu Darya and Syr Darya) Fluvisols and some Chernozems occur, forming the country's most productive agricultural land (JRC & FAO, 2023).

The Surkhandarya region has soils that are poorly supplied with humus, very high with mobile phosphorus and poorly supplied with exchangeable potassium (Mirkhaydarova & Ruzmetov, 2023). Mirkhaydarova & Ruzmetov's (2023) study indicates that some soils in the region show signs of contamination with various heavy metals, reflecting increasing industrial activity in the region, suggesting the importance of land management interventions in the area.

5.3.3. Water

Kyrgyz Republic

Kyrgyz Republic's mountainous landscape supports numerous rivers and glaciers, which are vital for agriculture and hydropower. However, water availability is uneven, with arid conditions dominating lowlands and higher precipitation in alpine zones. Seasonal variability and glacial melt strongly influence water supply, making it vulnerable to climate change impacts such as drought and reduced snowpack (World Bank Group & Asian Development Bank, 2021a).

Irrigation dominates national water use (FAO, 2021), and the Karadarya-Syrdarya-Amudarya basin faces high water stress (WRI, 2021). Climate change is expected to intensify hydrological extremes and reduce glacier contributions, increasing pressure on already strained water, land and energy systems.

Hydropower provides ~90% of the country's electricity, resulting in a relatively low-carbon electricity mix, but dependence on water makes the system unreliable (International Energy Agency, 2020). During low-water periods, fossil fuel use rises, meaning the energy sector contributes more than half of national greenhouse gas emissions (Government of the Kyrgyz Republic, 2016; 2021).

Water and sanitation infrastructure is outdated, energy-inefficient and not designed for climate pressures. Wastewater treatment is limited, with only ~30% of collected municipal wastewater treated and low sewerage coverage outside of major urban areas (World Bank, 2022b). Additionally, pollution of water resources from point sources such as industries, mining, and landfill sites is causing water quality issues. Pollution from industry, mining and landfills further

degrades water quality, posing public health risks. Poor sanitation also reduces tourism potential in rural areas.

Tajikistan

The country's numerous glaciers, particularly concentrated in the eastern highlands, are essential for water retention, flow regulation, and climate moderation (World Bank & Asian Development Bank, 2021b). Snowmelt, permafrost, and glacier melt collectively feed major river systems, providing critical inputs into the Aral Sea Basin. Water resources support irrigation, domestic use, and industry and generate approximately 95% of Tajikistan's electricity (World Bank & Asian Development Bank, 2021b). Despite this abundance, seasonal variability and dependence on glacial melt leave the country vulnerable to long-term climate change impacts on water availability.

Uzbekistan

Water resources in Uzbekistan are heavily stressed due to the country's arid climate and intensive agricultural demands. Irrigated agriculture alone accounts for around 90% of national water use, placing significant pressure on rivers and groundwater in an already water-scarce environment (World Bank, 2023b). Inefficient irrigation systems, high evaporation rates, and degraded soils further exacerbate water scarcity. Climate change is expected to intensify these pressures through increased temperatures, reduced river flows, and greater variability.

5.3.4. Waste

Kyrgyz Republic

Kyrgyz Republic has long-term issues with collecting and processing solid domestic and industrial waste. Although some efforts have been made to strengthen the waste management system, waste generation is rising due to population growth and increased consumption, and large volumes still accumulate in landfills and the environment (UNDP Kyrgyzstan, 2021). Constraints such as illegal dumping and low recycling rates mean that most waste is neither sorted or properly managed. This has significant impacts on human health, the environment and the economy. Experts estimate that about 16 million tons of waste are in landfills near cities and villages in the republic (UNDP Kyrgyzstan, 2021).

Tajikistan

Waste management systems are underdeveloped, and hazardous waste continues to pose risks due to the absence of fully established controls and enforcement mechanisms. Partnerships with international bodies such as UNEP aim to strengthen chemicals and waste management capacity (UNEP, 2025).

Uzbekistan

Recycling of solid municipal waste stands at below 10% in Uzbekistan, compared to about 50% in the EU (World Bank, 2024c). In the Khorezm region in western Uzbekistan, 10% of residents benefit from waste management services (EBRD, 2022). National strategies aim to reform and modernise waste management systems and have attracted international cooperation (World Bank, EBRD etc.; EBRD, 2022), but the majority of the country still has outdated systems. A dedicated Waste Management and Circular Economy Development Agency has now been established under the National Committee for Ecology and Climate

Change, and it is attracting significant donor financing, suggesting that progress in waste management and circular economy development may accelerate in the coming years.

5.3.5. Biodiversity and forests

Kyrgyz Republic

Land cover consists mainly of grasslands (56%), followed by barren lands (13.1%), croplands (8.1%), snowy terrain (9.9%), and forests (4.6%) (Park et al., 2021). Grasslands provide essential ecosystem services, including forage, carbon storage, and pollinator habitats, supporting rural livelihoods. Over 60% of the population depends on these resources (Khazieva et al., 2022). However, overgrazing of accessible pastures, underuse of remote pastures, and broader land degradation have reduced productivity, weakened ecosystem function, and increased pressure on biodiversity and rural livelihoods (Khazieva et al., 2022).

National policy and planning frameworks emphasise the importance of biodiversity and natural capital to Kyrgyzstan's economy and long-term development trajectory. Forests, pastures, water resources and ecosystems underpin rural livelihoods, environmental stability and climate regulation, yet are subject to increasing degradation, fragmentation and unsustainable use. Despite strong policy recognition, implementation challenges remain, including limited institutional capacity, weak intersectoral coordination, insufficient financing and incomplete integration of natural capital into decision-making. Protected areas currently cover a relatively limited proportion of the national territory and do not yet form a fully connected ecological network, increasing the vulnerability of species and ecosystems to ongoing pressures. The programme's focus on climate-resilient AFOLU systems, restoration of degraded land, and improved landscape governance is therefore directly aligned with national biodiversity and green economy priorities.

Within the Kyrgyz programme target regions (Osh, Jalal-Abad and Batken), biodiversity-sensitive areas include protected areas and conservation landscapes associated with the Western Tien-Shan system. These include Besh-Aral State Nature Reserve (Ia), Sary-Chelek State Nature Reserve (Ia) and associated biosphere reserve designation, as well as protected landscapes and wildlife refuges such as Kara-Shoro Nature Park (II), Kyrgyz-Ata National Park (II), and a number of Category IV wildlife refuges. These areas form part of a broader transboundary ecological network spanning Kyrgyz Republic, Uzbekistan and Kazakhstan, recognised internationally through the Western Tien-Shan UNESCO World Heritage Site.

Tajikistan

Tajikistan's diverse topography supports a range of ecosystems, from alpine deserts in the east to river valley vegetation and forest patches in the west. Agricultural areas and most settlements are concentrated in valleys and low-lying regions, where soils, water, and climate conditions favour crop and livestock production (World Bank & Asian Development Bank, 2021b). Key crops such as cotton and cereals form the backbone of rural livelihoods but place pressure on land and water resources and have contributed to soil erosion, reduced vegetation cover, and localised habitat loss. Fragile mountain ecosystems, limited forest cover, and intensive land use make biodiversity and forest resources highly sensitive to land degradation and climate pressures.

Within the Tajik programme target regions, particularly Khatlon and the Sughd/Fergana Valley landscape, several nationally important protected areas and conservation sites are present.

In Khatlon, these include Tigrovaya Balka Nature Reserve (notable for tugay riparian forest ecosystems), Dashtijum Nature Reserve (mountain ecosystems and Important Bird Area), Childukhtaron Nature Reserve, Karatau Nature Reserve and Nurek Nature Reserve, as well as Sari-Khosor National Park. In the Sughd and western Fergana Valley landscape, conservation-relevant areas include reserves and Key Biodiversity Areas associated with mountain ecosystems and wetlands, including the Kayrakkum Reservoir, which supports important waterbird populations. These landscapes combine intensive agricultural use with remnant natural habitats and ecological corridors, increasing sensitivity to land-use pressures.

Uzbekistan

Uzbekistan's ecosystems are shaped largely by desert and semi-desert conditions, with rangelands covering 82% of agricultural land, 16.2% classified as arable, and 1.2% dedicated to permanent crops (FAO, 2024). Continued degradation poses risks to biodiversity, soil stability, and rural livelihoods. The expansion of agriculture and pasture lands, combined with unsustainable grazing and weak governance, has accelerated land degradation and desertification. Rangelands remain essential to national production systems, supplying around 30% of meat and 60% of wool, yet their long-term productivity is increasingly threatened by persistent degradation (FAO, 2024).

Within the Uzbek programme target regions, biodiversity-sensitive areas include protected mountain and foothill ecosystems in Surkhandarya and smaller but ecologically important sites within the Fergana Valley. Key protected areas include the Chatkal Biosphere State Reserve (Ia), Ugam-Chatkal State National Nature Park (II), and associated biosphere reserve landscape, as well as a number of natural monuments and Key Biodiversity Areas linked to mountain, river valley and tugay ecosystems.

5.3.6. Biodiversity (IBAT) screening

Biodiversity screening was conducted using the Integrated Biodiversity Assessment Tool (IBAT) to identify species of global conservation concern within the broader programme geographies across Kyrgyz Republic, Tajikistan, and Uzbekistan. The screening identified multiple species listed as Critically Endangered (CR) and Endangered (EN) on the International Union for Conservation of Nature (IUCN) Red List.

Protected species

The following species classified as CR were identified within the programme countries:

- *Pseudoscaphirhynchus fedtschenkoi* (Syr-Darya Shovelnose Sturgeon), a freshwater fish species occurring across all three countries;
- *Vanellus gregarius* (Sociable Lapwing), a migratory bird occurring during passage across all three countries;
- *Alsophylax ferganensis* (Fergana Even-toed Gecko), occurring only in Uzbekistan.

These species are experiencing declining population trends. The sturgeon and lapwing are transboundary species dependent on river systems and steppe/wetland habitats, respectively, which extend across Central Asia.

The following Endangered (EN) species were identified through IBAT screening:

- Freshwater fish:
    - *Aspiolucius esocinus;*

    - *Luciobarbus brachycephalus* (Aral Barbel);

- Waterbirds and steppe birds:
    - *Oxyura leucocephala* (White-headed Duck);
    - *Otis tarda* (Great Bustard);
    - *Calidris tenuirostris* (Great Knot);

- Raptors:
    - *Haliaeetus leucoryphus* (Pallas's Fish-eagle);
    - *Neophron percnopterus* (Egyptian Vulture);
    - *Aquila nipalensis* (Steppe Eagle);
    - *Falco cherrug* (Saker Falcon);

- Reptiles:
    - *Teratoscincus rustamowi;*

- Flora
    - *Cousinia knorringiae*
    - *Tulipa neustruevae*
    - *Tulipa scharipovii*
    - *Tulipa toktogulica*

It should be noted that IBAT screening identified the presence of Great Knot and Pallas's Fish Eagle within the three countries based on global IUCN Red List distribution datasets. This may include records of vagrant occurrences of these species, as opposed to regular or resident populations. Recent information indicates that Great Knot is no longer considered present in the region. Pallas's Fish Eagle likewise occurs only as a rare vagrant during passage or overwintering, with no evidence of regular or resident populations.

A key exception to the broadly shared distribution pattern of the species identified is the Fergana Even-toed Gecko (*Alsophylax ferganensis;* Figure 4), which was discovered in 2023 and is endemic to Uzbekistan. The species is known only from an area of approximately 300 hectares in the vicinity of Shorsu village in the southern Fergana Valley. Its extent of occurrence and area of occupancy are both estimated at 12 km². It occurs at a single location within a clay gorge in the Kampyrkak foothills and may be genuinely endemic to this confined habitat.

Figure 4: Fergana Even-toed Gecko (Alsophylax ferganensis)



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The species is strictly nocturnal and occupies clay-variegated canyons with sandstone outcrops. It shelters in soil cracks and beneath rocks during the day and is active after sunset. More than 10% of its habitat has reportedly been lost since 2021 due to expanding mining and quarrying activities. Given its extremely restricted range and ongoing habitat decline, it is assessed as CR.

Despite targeted surveys in Uzbekistan, Tajikistan (Sughd Province), and Kyrgyz Republic (Batken region), the species has only been confirmed near Shorsu village. It is presumed absent from Kyrgyz Republic.

Protected areas

Screening of protected and conservation-designated areas using IBAT identified multiple sites of biodiversity importance within, or ecologically connected to, the programme target landscapes in Kyrgyz Republic, Tajikistan and Uzbekistan. These include State Nature Reserves (Category Ia), National Parks and Nature Parks (Category II), Natural Monuments (Category III), Wildlife Refuges (Category IV), UNESCO Biosphere Reserves, Key Biodiversity Areas (KBAs), and transboundary designations such as the Western Tien-Shan World Heritage Site.

For the purposes of this assessment, emphasis is placed on protected and conservation-relevant areas within or near the programme target regions, rather than presenting a country-wide total. These sites are primarily located in mountain, foothill, wetland, riparian and steppe ecosystems, which are recognised as biodiversity-rich and ecologically sensitive.

A summary of protected areas and conservation sites identified through screening is provided in Table 3.

Table 3: Protected and conservation-designated areas in the programme target landscapes

Country	Site name	Designation	IUCN category	Notes
Kyrgyz Republic	Sary-Chelek	State Nature Reserve / Biosphere Reserve	Ia	Western Tien-Shan landscape

Country	Site name	Designation	IUCN category	Notes
Kyrgyz Republic	Besh-Aral	State Nature Reserve	Ia	Western Tien-Shan
Kyrgyz Republic	Kara-Shoro	Nature Park	II	Regional protected landscape
Kyrgyz Republic	Kyrgyz-Ata	National Park	II	Mountain ecosystem
Kyrgyz Republic	Multiple (Akbuurin, Chandalash, etc.)	Wildlife Refuges	IV	Local conservation areas
Tajikistan	Tigrovaya Balka	Nature Reserve	Ia	Tugay ecosystems
Tajikistan	Dashtijum	Nature Reserve	Ia	Mountain + IBA
Tajikistan	Sari-Khosor	National Park	II	Biodiversity-rich landscape
Tajikistan	Kayrakkum Reservoir	KBA	NA	Important waterbird habitat
Uzbekistan	Chatkal Biosphere Reserve	State Reserve	Ia	Western Tien-Shan
Uzbekistan	Ugam-Chatkal	National Nature Park	II	Major protected landscape
Uzbekistan	Pop National Nature Park	National Park	II	Fergana Valley
Uzbekistan	Multiple natural monuments	Natural Monuments	III	Localised biodiversity sites
Uzbekistan	Multiple KBAs: Bashkyzylsay Unit of the Chatkal Mountains Biosphere Reserve; Angren Plateau; Central section of the Kurama Mountain Range; Tereklisay section of the Chatkal Mountains Biosphere Reserve; Pulatkhan Gorge; Oygaing River Valley; Mirzaaral Tugay	KBA	NA	Mountain, river and tugay habitats
Transboundary	Western Tien-Shan	World Heritage Site	NA	Cross-border ecological system

Alien invasive species

Analysis of the Global Biodiversity Information Facility dataset indicates that at least 89 species classified as invasive have been recorded across Kyrgyz Republic, Tajikistan and Uzbekistan (see Table). These species predominantly occupy terrestrial ecosystems, with several commonly associated with disturbed ground, open areas, secondary growth, and infrastructure corridors.

Table 4: Alien invasive species in the three countries

denotes presence; denotes absence

Scientific name	Habitat	Presence		
		Kyrgyz Republic	Tajikistan	Uzbekistan
Actinopterygii				
Gambusia holbrooki (Girard, 1859)	Freshwater/ Brackish			
Amphibia				

Scientific name	Habitat	Presence		
		Kyrgyz Republic	Tajikistan	Uzbekistan
Lithobates catesbeianus (Shaw, 1802)	Terrestrial/ Freshwater			
Mammalia				
Myocastor coypus (Molina, 1782)	Terrestrial/ Freshwater			
Liliopsida				
Avena fatua L.	Terrestrial			
Avena sterilis L.	Terrestrial			
Cynodon dactylon (L.) Pers.	Terrestrial			
Cyperus difformis L.	Terrestrial			
Cyperus iria L.	Terrestrial			
Cyperus rotundus L.	Terrestrial/ Freshwater			
Cyperus tenuispica Steud.	Terrestrial			
Echinochloa crus-galli (L.) P.Beauv.	Terrestrial			
Echinochloa oryzoides (Ard.) Fritsch	Terrestrial			
Magnoliopsida				
Adonis aestivalis L.	Terrestrial			
Ailanthus altissima Swingle	Terrestrial			
Alkekengi officinarum Moench	Terrestrial			
Amaranthus albus L.	Terrestrial			
Amaranthus blitoides S.Watson	Terrestrial			
Amaranthus blitum L.	Terrestrial			
Amaranthus graecizans L.	Terrestrial			
Amaranthus lividus	Terrestrial			
Amaranthus paniculatus L.	Terrestrial			
Amaranthus retroflexus L.	Terrestrial			
Amaranthus viridis L.	Terrestrial			
Artemisia annua L.	Terrestrial			
Artemisia dracunculus L.	Terrestrial			
Artemisia scoparia Waldst. & Kit.	Terrestrial			
Axyris amaranthoides L.	Terrestrial			
Bidens frondosa L.	Terrestrial			
Brassica campestris L.	Terrestrial			
Capsella bursa-pastoris Medik.	Terrestrial			
Centaurea benedicta (L.) L.	Terrestrial			
Centaurea depressa M.Bieb.	Terrestrial			
Centaurea diffusa Lam.	Terrestrial			
Centaurea iberica Trevir. ex Spreng.	Terrestrial			
Centaurea jacea L.	Terrestrial			
Cerastium nemorale M.Bieb.	Terrestrial			
Convolvulus arvensis L.	Terrestrial			
Cucumis melo L.	Terrestrial			
Cuscuta approximata Bab.	Terrestrial parasitic plant)			
Cuscuta bucharica Palib. ex Fedschenko	Host			
Cuscuta campestris Yunck.	Terrestrial			
Cuscuta chinensis Lam.	Terrestrial			
Cuscuta epilinum Weihe	Terrestrial			
Cuscuta lehmanniana Bunge	Terrestrial parasitic plant)			

Scientific name	Habitat	Presence		
		Kyrgyz Republic	Tajikistan	Uzbekistan
Cuscuta monogyna Vahl	Terrestrial parasitic plant)			
Cuscuta pentagona Engelm.	Terrestrial parasitic plant)			
Cyclachaena xanthiifolia Fresen.	Terrestrial			
Datura stramonium L.	Terrestrial			
Erigeron annuus Pers.	Terrestrial			
Erigeron canadensis L.	Terrestrial			
Eruca sativa Mill.	Terrestrial			
Euclidium syriacum (L.) W.T.Aiton	Terrestrial			
Fagopyrum tataricum Gaertn.	Terrestrial			
Galinsoga parviflora Cav.	Terrestrial			
Galinsoga quadriradiata Ruiz & Pav.	Terrestrial			
Hibiscus trionum L.	Terrestrial			
Kickxia elatine (L.) Dumort.	Terrestrial			
Lycopsis orientalis Steph.	Terrestrial			
Lysimachia arvensis (L.) U.Manns & Anderb.	Terrestrial			
Lysimachia foemina (Mill.) U.Manns & Anderb.	Terrestrial			
Orobanche aegyptiaca Pers.	Terrestrial			
Orobanche cumana Wallr.	Terrestrial			
Phlomis bucharica Regel	Terrestrial			
Physalis alkekengi	Terrestrial			
Pilosella aurantiaca (L.) F.W.Schultz & Sch.Bip.	Terrestrial			
Ranunculus arvensis L.	Terrestrial			
Rubus sanctus Schreb.	Terrestrial			
Rumex crispus L.	Terrestrial			
Rumex paulsenianus Rech.f.	Terrestrial			
Sigesbeckia orientalis L.	Terrestrial			
Sinapis arvensis L.	Terrestrial			
Spergula arvensis L.	Terrestrial			
Spinacia turkestanica Iljin	Terrestrial			
Stizolophus balsamita (Lam.) Cass.	Terrestrial			
Strigosella africana (L.) Botsch.	Terrestrial			
Symphyotrichum graminifolium (Spreng.) G.L.Nesom	Terrestrial			
Taraxacum officinale F.H.Wigg.	Terrestrial			
Thermopsis dolichocarpa V.Nikitin	Terrestrial			
Tribulus terrestris L.	Terrestrial			
Turgenia latifolia (L.) Hoffm.	Terrestrial			
Vaccaria hispanica (Miller) Rauschert	Terrestrial			
Veronica persica Poir.	Terrestrial			
Veronica polita Fries	Terrestrial			
Xanthium orientale L.	Terrestrial			
Xanthium spinosum L.	Terrestrial			
Xanthium strumarium Lour.	Terrestrial			
Xeranthemum annuum L.	Terrestrial			
Polypodiopsida				
Azolla filiculoides Lam.	Freshwater			

5.4. Climate vulnerability and hazards

The Central Asian highlands are highly hazard-prone and climate-vulnerable. Across the Kyrgyz Republic, Tajikistan and Uzbekistan, climate risks arise from a combination of rising temperatures, increasing drought frequency, more intense rainfall events, recurrent flooding, landslides and mudflows, and reduced high-altitude water storage due to glacier retreat. These hazards are more severe in the regions where the three countries overlap (the Fergana Valley and the southern border area between Uzbekistan and Tajikistan). These areas also have the highest combined levels of hazard, exposure and limited coping capacity. Lower lying areas are affected by summer water scarcity, soil moisture deficits and pressure on irrigation systems. Higher elevation zones experience floods, landslides and erosion during wet months. These stresses affect community well-being, for example, limited water and sanitation infrastructure in rural areas contributes to heightened health risks, including water-borne diseases.

5.4.1. Kyrgyz Republic

The Kyrgyz Republic faces increasing climate risks, including temperature extremes, droughts, and glacial retreat. It is among the most climate-vulnerable countries in Central Asia, with high exposure to hazards such as more intense rainfall, floods, landslides and mudflows, which particularly affect the mountainous catchments feeding the programme area. These hazards threaten water resources, agriculture, and ecosystems, causing land degradation and pasture overuse. Rural communities reliant on natural resources are particularly vulnerable, with climate change amplifying pressures on grasslands and forests and reducing resilience and food security (World Bank Group & Asian Development Bank, 2021a). Combined hazard, exposure and vulnerability levels are highest in the regions where the Kyrgyz Republic converges with Tajikistan and Uzbekistan, including the Fergana Valley and its surrounding uplands.

5.4.2. Tajikistan

Tajikistan is also among the most hazard-prone countries in Central Asia, facing frequent earthquakes, floods, droughts, avalanches, landslides, and mudslides (World Bank, 2021). Climate risk assessment highlights that Tajikistan has some of the highest levels of combined hazard, exposure and limited coping capacity in the region, particularly in the southern areas bordering Uzbekistan and in the mountainous zones linked to the Fergana Valley. Glacier-dependent river basins and steep mountainous terrain increase exposure to climate-related disasters, while isolated forests and fragile ecosystems are highly susceptible to degradation. Rural communities in these transboundary areas are especially affected, as climate-sensitive agriculture, pasture use and forest resources are important for livelihoods. Limited forest cover, extensive slope instability, and the rapid retreat of glaciers heighten environmental vulnerability, particularly in highland areas where ecosystems are already under stress. Limited disaster preparedness capacity further complicates these challenges, reducing the country's ability to respond effectively to environmental crises (World Bank, 2021). Because Tajikistan has fragile ecosystems and relies heavily on resources affected by climate change, it has a limited ability to cope with environmental pressures. These vulnerabilities are most prominent where Tajikistan's landscapes are connected with Kyrgyz Republic and Uzbekistan, highlighting the importance of coordinated resilience measures.

5.4.3. Uzbekistan

Uzbekistan faces significant climate-related hazards, including extreme heat, water scarcity, worsening dust storms, and progressing desertification (CIA, 2024b). The country's highly

energy- and resource-intensive economic model further amplifies vulnerability, as growth in agriculture, industry, and population increases pressure on already stressed natural resources (World Bank, 2023b). Agriculture, despite harsh climate conditions, remains vital, contributing 25.5% of Gross National Income and employing 27.2% of the population (FAO, 2024). However, the sector's water dependence and exposure to land degradation make it particularly sensitive to climate impacts. These vulnerabilities are further reflected in relatively low income per capita and the dependence of rural communities on degraded rangelands for livelihoods. Combined hazard and exposure levels are especially high in the southern border region with Tajikistan, where drought, heat stress and water scarcity interact with degraded soils and ageing irrigation systems. These transboundary areas experience shared climate pressures with the Fergana Valley to the east.

5.5. Cultural heritage

5.5.1. Kyrgyz Republic

In the Kyrgyz Republic, cultural heritage is protected under national legislation, including the Law on the Protection and Use of Historical and Cultural Heritage. The Kyrgyz Republic is also a signatory to the UNESCO World Heritage Convention.

The Osh and Jalal-Abad Regions are located within the Kyrgyz Republic part of the Fergana Valley and adjacent foothill and mountain systems. These have historically served as zones of interaction between settled agricultural communities and nomadic or semi-nomadic pastoral societies. As a result, cultural heritage in these areas is characterised by a combination of tangible heritage features and rich intangible cultural traditions linked to mobility, land use, and community identity.

Tangible cultural heritage in the programme areas includes religious structures such as mosques, local shrines, and cemeteries, many of which are embedded within village landscapes and agricultural land. These sites are often maintained at community level and may not be formally registered but are of high local significance. In addition, the broader Osh and Jalal-Abad regions are historically associated with trade routes linked to the Silk Road, and while major archaeological sites are typically located outside the immediate programme areas, the wider landscape contains archaeological sensitivity, particularly in older settlement zones and river valleys.

Intangible cultural heritage is particularly prominent and includes traditional pastoral practices, seasonal migration patterns, oral traditions, and customary governance systems related to pasture and forest use. In mountain and foothill areas, transhumance practices, although evolving remain part of cultural identity, with seasonal movement of livestock linked to traditional ecological knowledge.

The walnut-fruit forests of Jalal-Abad Region represent a unique biocultural landscape, where ecological systems and cultural practices are closely intertwined. Local communities maintain traditional knowledge related to forest use, including harvesting of non-timber forest products, customary access arrangements, and intergenerational knowledge transfer. These practices contribute to both cultural continuity and ecosystem management.

Cultural heritage is therefore not limited to discrete sites but is embedded within landscape-level systems that combine ecological, social, and cultural values, making it particularly sensitive to changes in land use, access, and resource management.

5.5.2. Tajikistan

Tajikistan has a rich cultural heritage, including archaeological sites, historical monuments, shrines, and sacred landscapes, particularly in mountainous and rural areas. The Law on the Protection and Use of Historical and Cultural Heritage regulates such sites.

The Sughd and Khatlon Regions are situated within historically significant cultural landscapes shaped by centuries of agricultural development, settlement, and regional exchange. These areas form part of broader historical zones associated with the Silk Road and long-standing irrigation-based civilizations, where water management, agriculture, and settlement patterns have deep cultural roots.

In Devashtich district (Sughd Region), cultural heritage is closely associated with historic irrigated agriculture systems, including orchards and smallholder farming practices that reflect long-term adaptation to local environmental conditions. Traditional knowledge related to irrigation management, crop selection, and land stewardship forms an important component of intangible cultural heritage. The region also contains religious and historical sites, including mosques, cemeteries, and local monuments, which are integral to community identity. In some areas, archaeological remains and historically significant settlements may be present, particularly in locations with long histories of habitation.

In Qubodiyon district (Khatlon Region), cultural heritage is similarly embedded within rural landscapes, but with additional influences from historical migration patterns and socio-economic transformations. Cultural practices are closely linked to community structures, family systems, and agricultural livelihoods. Religious sites, burial grounds, and community landmarks are widely distributed across rural areas and are often maintained through local traditions rather than formal protection systems.

Intangible cultural heritage in both regions includes oral traditions, community rituals, and customary practices related to land and water use, as well as social norms governing resource sharing and collective action. These cultural systems play a key role in maintaining social cohesion and guiding local decision-making processes.

Overall, cultural heritage in the programme areas is characterised by a strong integration of historical land use, traditional knowledge systems, and community identity, with many elements not formally documented but widely recognised at local level

5.5.3. Uzbekistan

The Fergana Valley and Surkhandarya Region of Uzbekistan are historically rich cultural landscapes with deep connections to Central Asia’s agricultural, trade, and settlement history. These regions have been continuously inhabited for centuries and form part of broader cultural zones associated with the Silk Road, resulting in a layered cultural heritage that includes both tangible monuments and living cultural traditions.

In the Fergana Valley, including Yangikurgan and Besharik districts, cultural heritage is closely linked to traditional irrigated agriculture systems, which have been developed and refined over generations. These systems reflect sophisticated knowledge of water management and land use, and are supported by social institutions such as the *mahalla*, which play a central role in community organisation, dispute resolution, and maintenance of social norms.

Tangible cultural heritage in these areas includes mosques, mausoleums, cemeteries, and local historical sites, many of which are integrated into everyday community life. While major

heritage monuments are typically located in urban centres, rural areas also contain culturally significant features that may not be formally registered but are important at local level.

Surkhandarya Region has a distinct cultural context influenced by its geographic position near historical trade routes and borders. The region is known for its archaeological richness, with evidence of ancient settlements and cultural exchange. Although programme activities are unlikely to directly affect major archaeological sites, the broader landscape is considered sensitive in terms of potential subsurface heritage.

Intangible cultural heritage across both regions includes traditional agricultural knowledge, craftsmanship, oral traditions, and community practices, as well as cultural norms related to land stewardship and resource use. These practices are maintained through family and community structures and are closely tied to rural livelihoods.

As in the other programme countries, cultural heritage is strongly embedded within living landscapes, where physical sites, traditional practices, and community identity are interconnected. This requires a holistic approach to cultural heritage management that considers both tangible and intangible elements.

6. ESS related capacities of the programme's executing entities

6.1. Role of GIZ as AE

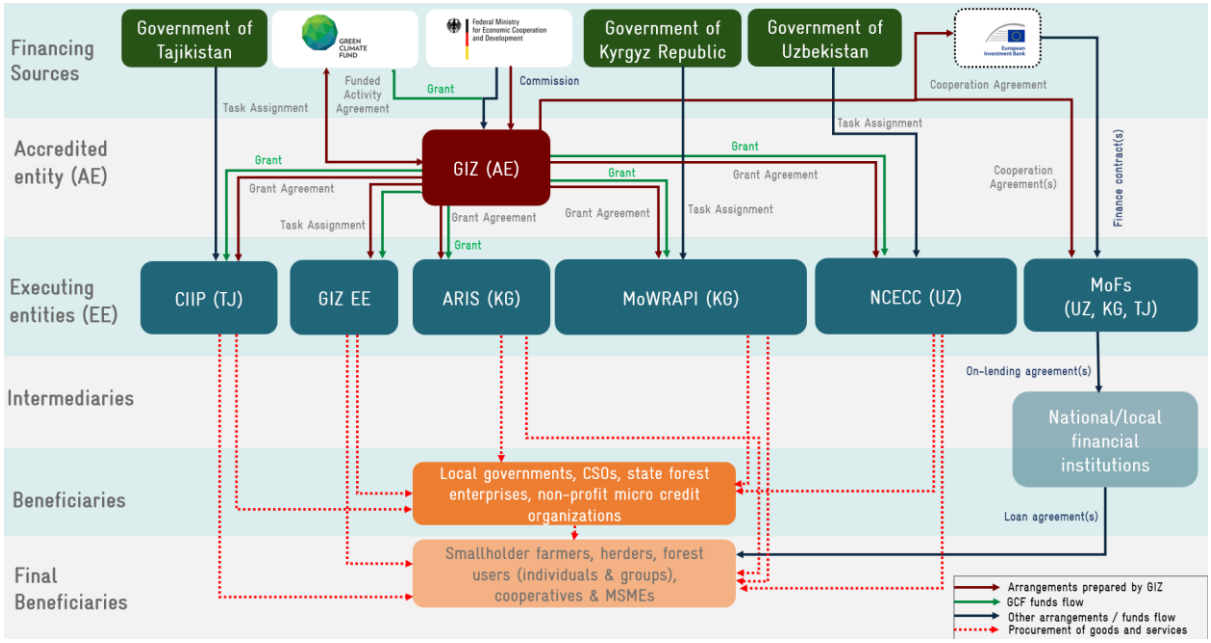
In its capacity as an AE, GIZ will assume oversight responsibility of the programme, as defined in the Accreditation Master Agreement between the GCF and GIZ. GIZ will administer programme proceeds on behalf of the GCF and will provide oversight, guidance, and quality assurance of the involved EEs through its relevant head office units as well as accompanying monitoring and ensure regular reporting.

In order to implement the programme, GIZ will enter the following legal arrangements (see Figure 5):

- The commission by the German Federal Ministry for Economic Cooperation and Development (BMZ) to implement the GCF programme.
- The Funded Activity Agreement (FAA) between GCF and GIZ as basis for the transfer of GCF proceeds to GIZ.
- Four grant agreements (i.e., subsidiary agreements) with the respective Executing Entities based on GIZ's standard operating procedures for grant agreements; also, to contractually secure government co-financing contributions.
- Cooperation agreements with the Ministries of Finance in Tajikistan, Kyrgyz Republic, and Uzbekistan, acting as EEs, to contractually ensure the implementation of the EIB co-finance.
- Cooperation agreement with EIB to contractually secure the envisioned co-financing contribution.
- Additionally, there will be an internal task assignment from GIZ AE to GIZ EE for the implementation of the programme.

As AE, GIZ applies its ESS system, which is aligned with GCF requirements and includes procedures for environmental and social screening, risk categorisation, monitoring, and reporting. GIZ has extensive experience in implementing projects in the AFOLU sector across Central Asia and supporting partner institutions in strengthening their safeguard capacities.

Figure 5: Legal arrangements and flow of funds



Source: Own elaboration, 2026

6.2. Role of GIZ as EE

GIZ is legally bound to German law and regulations in environmental and social safeguarding. Additionally, specific government policies for the operations of GIZ apply. Please refer to sub-chapter 3.2 which addresses the applicable environmental and social policies and standards related to GIZ.

GIZ has been operating in Central Asia since the early 1990s based on Development Cooperation Framework Agreements and currently employs around 400 staff members, with approximately 350 being national staff. GIZ's technical assistance in the green sector encompasses ecosystem, land management, sustainable agriculture, transboundary climate risk management, and support for the green economy and private sector development.

In its capacity as an EE, GIZ will lead, and provide overall management of the Technical Assistance to the Programme at national and subnational levels. It will be responsible for:

- Managing the programme budget assigned to GIZ as EE.
- Monitoring and evaluating implementation.
- Liaising with the GIZ Country Offices in Uzbekistan, Kyrgyz Republic and Tajikistan regarding budget and finances, monitoring and reporting, staff and contracts, and procurement.
- Reporting to the German Embassy and BMZ regarding Germany's financial contributions to the programme, as well as the overall progress of programme implementation.
- Coordinating programme implementation with the other EEs, co-financing partners, counterparts, and other relevant donors, and projects operating in the same technical and/or geographical area, as applicable.
- Coordinating with, and reporting to, line ministries involved in the programme, as well as the NDAs.
- Liaising with and reporting to the Programme Steering Committee.
- Supporting the establishment and management of the Programme Management Units (PMU).

- Concluding further grants as required (e.g. with GGGI, University of Reading).

6.3. National EEs

Besides GIZ, the EEs that have been identified for the implementation of the programme are outlined in Sections 6.3.1. -6.3.3. below.

Ministries of Finance in all three countries will channel concessional loan finance from European Investment Bank to domestic public and private institutions.

6.3.1. Kyrgyz Republic

ARIS and the Ministry of Water Resources, Agriculture and Processing Industry (MoWRAPI) are the EEs in the Kyrgyz Republic. ARIS was established by presidential decree to attract investments to overcome poverty reduction, local development, and support to communities and local self-government bodies. ARIS works with rural populations, supporting projects aimed at improving infrastructure and social services to the population, supporting rural and urban businesses, and improving interaction between local communities and government agencies. It has been accredited as a Direct Access Entity to the GCF since March 2024 and is currently an EE for the project "Carbon Sequestration through Climate Investment in Forests and Rangelands in Kyrgyz Republic (CS-FOR)" (FP116). The MoWRAPI hosts a special agricultural project implementation unit which is responsible for the management of investments from multilateral banks in the agricultural and broadly in the land use sector. This unit holds extensive experience in managing investments from the World Bank (WB) and IFAD, among others.

With regard to ESSs, both ARIS and MoWRAPI have prior experience implementing projects financed by international financial institutions, which include environmental and social requirements. ARIS has a more institutionalised system. It operates under a formally approved Social and Environmental Policy, requires programme-level E&S risk assessment, uses ESMPs proportionate to risk, embeds safeguard requirements in procurement and contracting, and applies established grievance redress and gender procedures. MoWRAPI has applied programme-based ESMS arrangements in major programmes and has experience integrating donor safeguard requirements into grant screening, subproject appraisal, and implementation.

Stakeholder consultations and enhanced due diligence indicate that both institutions have designated safeguard expertise and familiarity with environmental assessment procedures. Capacity nevertheless differs between the two institutions and remains moderate when assessed against full GCF ESS requirements, particularly in relation to:

- Integration of social risks, including gender, vulnerable groups, and community-level impacts, into routine programme planning and implementation
- Systematic monitoring and reporting of environmental and social risks and outcomes
- Application of landscape-level approaches that integrate biodiversity, land use, climate risks, and community impacts across multiple local actors.

At the local level, implementing structures, e.g., pasture user enterprises, have limited experience with formal safeguard requirements and will require targeted capacity support from the EEs.

6.3.2. Tajikistan

The Government of Tajikistan, represented by the Centre for Implementation of Investment Projects (CIIP) within the Committee for Environmental Protection, will be the EE in Tajikistan. The Centre for Implementation of Investment Projects (CIIP) implements projects financed by

the WB, GEF, IFAD, Adaptation Fund, and other partners. The CIIP has been accredited as a DAE since July 2024.

The CIIP has demonstrated experience in implementing projects financed by international organisations that require compliance with environmental and social safeguards. It has a formal ESMS and Gender Policy aligned with international standards, and applies mandatory environmental and social screening, risk categorisation, and preparation of ESMPs and Gender Action Plans where required.

This experience provides a solid institutional foundation for managing environmental and social risks, including appraisal-stage screening, safeguard documentation, grievance redress, and donor reporting. However, stakeholder consultations indicate a policy-to-practice gap, i.e., capacity to address social dimensions of ESS, such as sustained stakeholder engagement, gender inclusion, grievance follow-up, and management of community-level impacts, is weaker at sub-national levels.

In addition, implementation capacity in regions such as Khatlon is constrained by limited technical resources, largely manual monitoring systems, uneven community awareness of grievance channels, and limited field reach of specialist staff. These factors may affect timely monitoring and management of environmental and social risks without additional support.

6.3.3. Uzbekistan

The National Committee on Environment and Climate Change (NCECC) will be the EE in Uzbekistan. The NCECC is a government institution responsible for environmental protection, climate change adaptation and mitigation, and sustainable natural resource management. It oversees the implementation of projects in the environmental sector, funded by various donors and multilateral banks, including the GCF, the WB, FAO and ADB. At the national level, institutional capacity for environmental management is relatively strong, supported by the Committee's regulatory mandate, technical expertise, environmental assessment functions, and scientific review capacity. However, stakeholder consultations indicate that challenges remain in ensuring effective implementation of environmental and social safeguards at sub-national levels, particularly in relation to:

- Inclusive stakeholder engagement processes and programme-level grievance and redress mechanisms
- Integration of social risk considerations, including gender, vulnerable groups, and SEAH-related safeguards
- Monitoring, reporting, and enforcement of safeguards in dispersed rural programme areas, including through sub-national implementing structures.

Project safeguard arrangements have largely been developed ad hoc under donor-led implementation in the absence of a formalised ESMS aligned with international standards. Local-level institutions, including *mahalla* structures and agricultural support services, provide an important platform for engagement but will require capacity strengthening from the EE.

6.4. Environmental and social capacity of EEs

The E&S capacity of the programme's EEs has been assessed based on enhanced due diligence, stakeholder consultations conducted during programme preparation and the ESIA with government agencies, technical specialists, and local implementing partners, as well as a review of institutional mandates and prior project experience.

Overall, the EEs possess relevant sectoral expertise and experience in implementing development projects, their capacity to manage environmental and social risks in accordance with international standards, such as the GCF ESSs, varies across countries and institutional levels.

Across all three countries, EEs demonstrate:

- Experience in implementing projects financed by international organisations (e.g. World Bank, GEF, Adaptation Fund, GCF)
- Established institutional mandates in agriculture, water management, and environmental protection
- Relevant technical expertise in natural resource management, climate adaptation, and public-sector project implementation.

However, consultations and document review also indicate that:

- Application of environmental and social safeguards is still uneven and, in some cases, remains compliance-driven and more closely aligned to national regulations than to fully institutionalised international good practice
- Dedicated environmental and social risk management systems are not consistently institutionalised, particularly at sub-national levels
- Capacity for systematic screening, monitoring, grievance management, and reporting of E&S risks remains constrained, especially within local implementing structures.

Overall, ARIS and MoWRAPI show comparatively stronger operational experience in applying donor safeguard requirements in Kyrgyzstan; CIIP shows a stronger formal policy framework but still faces implementation and monitoring gaps; and NCECC shows strong environmental regulatory expertise but some institutional gaps in formal international ESS systems. These findings are consistent with the initial ESS screening results and confirm the need for targeted capacity building and implementation support, including dedicated staff.

6.5. Flow of funds

GCF funds and co-finance from BMZ will be channelled to the final beneficiaries of the programme through different pathways, both in the form of financial flows and technical assistance (see Figure 5 above). GCF proceeds will be forwarded to GIZ as the Accredited Entity and subsequently to the Executing Entities. The EEs (ARIS, MoWRAPI, CIIP and NCECC) will manage the financial mechanisms and procure goods and services for final beneficiaries (e.g., MSMEs, cooperatives, herders, smallholder farmers) to support the implementation of CRLE agriculture, sustainable forest management and the rehabilitation of rangelands and grasslands. In addition, GIZ (EE) will channel GCF proceeds to selected implementation partners such as GGGI and will support different partner institutions with technical assistance measures.

6.6. Governance and management

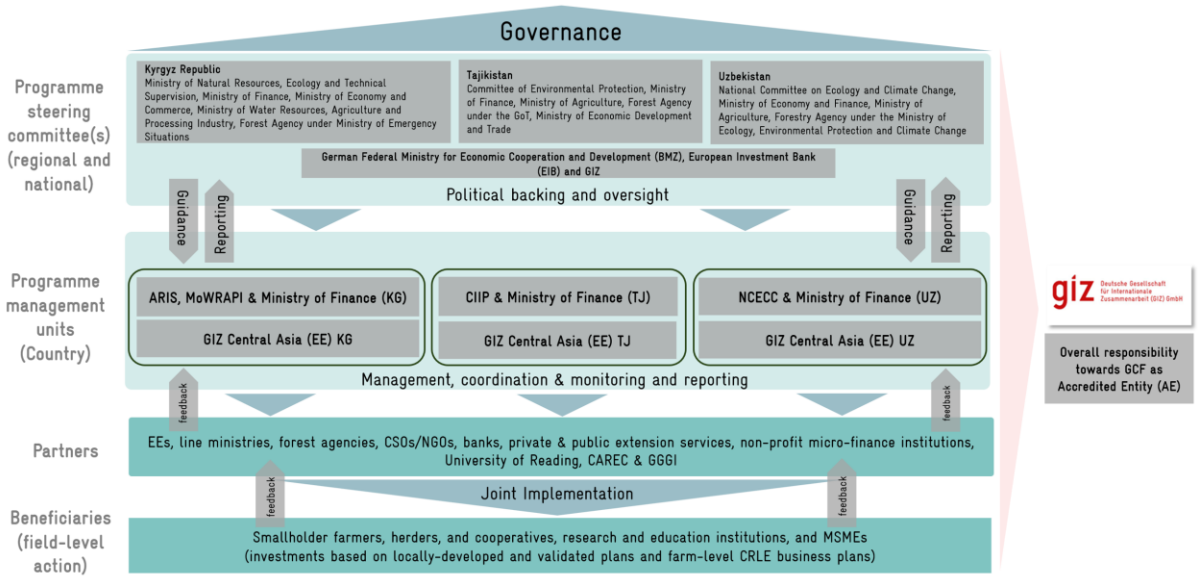
As visualised in Figure 6, programme steering will be managed through three complementary bodies: the regional and national Programme Steering Committees (PSCs) as well as the Programme Management Units (PMUs) in each country.

The regional Steering Committee will serve as the programme's overarching governance body, comprising representatives of the same core institutions participating in the National Steering Committees of each participating country. The regional Steering Committee will provide strategic guidance and oversight for the overall programme, take joint decisions on regional priorities, and play a central role in guiding the implementation of all regional relevant

measures, especially under Component 3 (Regional Cooperation), including cross-border activities and associated resource allocation. Each participating country will establish a national Steering Committee to provide strategic guidance and oversight for the implementation of the country-specific programme packages. The national Steering Committee will oversee national planning, implementation, and country-level resource allocation, ensuring alignment with national priorities and effective coordination among national and sub-national stakeholders.

Its members include the National Committee on Ecology and Climate Change of Uzbekistan, Ministry of Natural Resources, Ecology and Technical Supervision of the Kyrgyz Republic, the Committee of Environmental Protection of Tajikistan, the three key national ministries/institutions overseeing the programme, as well as BMZ and GIZ in its capacity as the AE.

Figure 6: Programme governance and management



Source: Own elaboration, 2026

Key responsibilities of the PSCs will be to:

- Provide overall guidance for programme implementation.
- Provide feedback and validation of annual work plans, in consideration of annual reports and programme evaluations.
- Ensure programme progress and coherence with the (evolving) international and national policy context.
- Stay informed of programme adherence with the ESMP, the GAP and the SEP.
- Support the coordination of programme activities across different line ministries and between the private and public sectors and civil society.

Based on the guidance and decisions of the PSCs, the PMUs in each country will focus on programme coordination, operational planning, and adaptive and financial management. The PMUs include the national EE(s), and the respective GIZ Central Asia country team. Finally, programme implementation will be carried out by the technical teams of the respective EEs, along with their implementation partners.

Additionally, the PMUs will have the following responsibilities:

- Implementing the decisions and recommendations of the PSCs.
- Coordinating and ensuring timely execution of activities by each Executing Entity as outlined in the Annual Operating Plan, regularly updating the PSCs and fostering a common understanding between the Executing Entities regarding the theory of change and its integration across all programme activities.
- Supervising technical and budgetary programme progress, and aligning with approved plans, budgets and indicators.
- Promptly mobilising technical expertise from Executing Entities and other stakeholders upon identification of programme implementation issues.
- Facilitating harmonious collaboration with stakeholders for each of the programme components and identifying the tasks and additional requirements that must be addressed in relation to the programme.
- Facilitating information flow from the programme beneficiaries to the PSCs.
- Implementing and monitoring the ESMP, GAP and SEP.
- Overseeing the progress of indicators managed by each Executing Entity in the monitoring system.
- Assessing and consolidating insights and experiences from the programme.

Member institutions of the PMUs will include:

- EEs: GIZ, CIIP, ARIS, MoWRAPI, NCECC, Ministries of Finance.

As and when necessary or desirable, extended PMU meetings can also be organised, involving PMU members and additional invitees – from the public and private sectors and from civil society – to address specific technical, geographical or sectoral issues. The PMU will consist of a dedicated team of professionals from each EE including finance managers, gender, ESS and M&E specialists, and technical advisors.

7. ESIA at programme level

The present chapter assesses the potential risks and negative environmental and social impacts of the proposed programme activities.

7.1. Summary of assessment at programme level

This programme is categorised as Category B (medium risk) in adherence with GCF's principles and GIZ's S+G Management System. Risks associated with the programme are generally localised, temporary, and largely reversible, with limited adverse impacts that can be mitigated through appropriate measures. Table 5 summarises the risks and negative impacts of the proposed programme activities and their relation to triggered ESS standards. The table also provides a summary of related mitigation measures.

A detailed break-down of the mitigation measures required for each ESS in relation to the respective programme activities/sub-activities is provided in the ESMP.

7.1.1. Context-specific SEAH risk analysis

The assessment of sexual exploitation, sexual abuse and sexual harassment (SEAH) considers both contextual factors in the programme countries and risks arising from the design and implementation of the programme. The assessment covers interactions among

programme and Executing Entity personnel, consultants, contractors, financial institutions, extension providers, workers, beneficiaries and community members.

Contextual risk factors

The programme will be implemented predominantly in rural areas characterised by significant informal and seasonal employment, economic vulnerability, outward labour migration and unequal access to land, finance, information and decision-making. Women undertake a substantial share of agricultural and household work but are frequently underrepresented in formal land ownership, producer organisations, water and pasture governance bodies, financial decision-making and paid employment.

Male labour migration has increased the responsibilities of women in agricultural production and household management without necessarily increasing their control over land, income or productive assets. Women and young people may therefore depend on government officials, financial institutions, extension providers, project personnel, local leaders or household decision-makers for access to project information, training, financing, equipment and other benefits.

Social norms affecting women's mobility and participation, concerns about family or community reputation, limited availability of confidential reporting channels, language and literacy barriers, and uneven availability of specialised survivor-support services may discourage reporting. Risks may be greater for women and girls from low-income or female-headed households, informal and seasonal workers, persons with disabilities, young women, minority-language groups, and persons living or working in remote locations.

The programme does not involve major construction, large labour influxes, worker camps, physical displacement or the distribution of cash. These characteristics reduce some common SEAH risks. Nevertheless, the large geographical coverage, dispersed implementation sites, hierarchical relationships and allocation of valuable programme opportunities create relevant risks that require active management.

Programme -specific risks

Component/output or activity	Principal interactions and potential SEAH risk pathways	Groups potentially exposed	Inherent risk
Component 1: Enabling environment for climate-resilient and low-carbon AFOLU sectors at national level	Harassment within workplaces, training, workshops and technical-assistance relationships; unequal power between consultants, officials, trainers, financial-institution personnel and participants; gatekeeping over access to training, professional opportunities, financial products and investment support; inappropriate communications or retaliation following rejection of sexual advances.	Female personnel and consultants, junior staff, female representatives of public institutions and financial institutions, women entrepreneurs and potential borrowers, young participants and persons in precarious employment.	Low to medium

Output 2.1: Climate-informed AFOLU planning processes and plans at subnational level are institutionalized	Harassment or exploitation during consultations, mobilisation, household outreach and planning meetings; exclusion or retaliation where women raise concerns; isolated interactions between facilitators and community members; local leaders or project intermediaries using their influence over participation or prioritisation of investments.	Women land users, female-headed households, young women, minority-language groups, persons with disabilities and community members with limited formal influence.	Medium
Output 2.2: Forests and pastures restored and under sustainable and climate-resilient use & activity 2.3.1: Scale the adoption of locally relevant CRLE land use practices and technologies in agriculture in transboundary landscapes	Harassment or abuse in labour-intensive, seasonal or informal work; interactions at remote or dispersed sites; field visits by extension providers, contractors or project personnel; unsafe travel or isolated work; male-dominated work environments; dependence on supervisors for work allocation, payment, equipment or access to technical assistance.	Female and young workers, informal or seasonal workers, women entering traditionally male-dominated activities, community workers and beneficiaries at remote sites.	Medium
Activities 2.3.3: Investment in climate-resilient and low-emission agriculture and associated value-chain infrastructure	Sexual exploitation or harassment linked to application support, beneficiary verification, approval, provision of equipment or services, loan or grant decisions, and monitoring; actual or perceived exchange of sexual favours for access to finance or favourable treatment; repeated one-to-one contact with extension workers, financial intermediaries or selection personnel; retaliation or exclusion following rejection or reporting.	Women farmers, women- and youth-led enterprises, applicants lacking collateral or formal documentation, low-income applicants, persons with low financial literacy and persons dependent on intermediaries to complete applications.	Medium
Output 3.1: Regional climate-informed development pathways for AFOLU and foresight capacities established & activity 3.3.1: Creation of a regional climate investment platform	Sexual harassment during workshops, conferences, travel, accommodation, mentoring and online communications; hierarchical relationships involving senior officials, experts and young leaders; gatekeeping over participation, visibility, employment and professional opportunities.	Female participants, junior professionals, young leaders, consultants, administrative personnel and persons travelling away from established support networks.	Low to medium
Activity 3.3.2: Support the implementation of adaptation actions in transboundary landscapes in the AFOLU sectors	Risks associated with grant selection, technical assistance, field missions, travel and implementation at dispersed or remote sites; influence of host institutions and technical personnel over access to grants and services; cross-border or minority-language barriers to reporting and referral services.	Applicants, local partner institutions, women and youth representatives, community workers and beneficiaries in transboundary and remote locations.	Medium

Overall assessment

The programme's inherent SEAH risk is assessed as moderate. The highest exposure is associated with Component 2 and Activity 3.3.2 because these activities involve the allocation of valuable resources, community-level engagement, labour-intensive implementation and repeated field-level interactions. Components 1 and 3 involve lower physical exposure but retain risks arising from hierarchical relationships, training, and travel.

With the measures contained in the ESMP and GAP (and GRM), including transparent selection procedures, codes of conduct, contractual requirements, mandatory training, safe engagement protocols, confidential reporting channels, mapped survivor-support services and continuous monitoring, **the residual risk is assessed as low**. This assessment will be reviewed during implementation whenever activities, delivery arrangements or contextual conditions change.

Table 5: Possible risks and negative impacts of programme activities during implementation (programme level)

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
ESS 1 – Assessment and Management of Environmental and Social Risks and Impacts GCF Category: B (Medium Risk)	Component 1 - 3 Component 2 also in relation to site-specific risks	All components: Environmental and social risks are primarily associated with labour rights, SEAH, ineffective stakeholder engagement, and ineffective oversight and monitoring of benefit distribution. Additional risks include insufficient institutional capacities to monitor, report, and manage identified E&S risks. Component 2: Soil degradation; biodiversity loss and overuse of natural resources, e.g. water resulting in risk of maladaptation SEAH in community interactions Elite capture in beneficiary selection; exclusion of women from planning processes.	Medium	**Programme management:** Recruit dedicated E&S and Gender specialists; implement the ESMP clear responsibilities; mandate compliance of all EEs with GIZ policies through contractual arrangements and require adequate contractual arrangements and spot-checking from EEs to ensure corresponding adherence of all partners and beneficiaries; provide training and awareness on ESS requirements, including SEAH prevention; beneficiary selection and compliance monitoring in accordance with GIZ's business partner check and risk-based compliance management system. **Implementation of GRM:** Implement and monitor gender-responsive GRM; conduct targeted SEAH training. **Stakeholder engagement:** Implement and monitor SEP; use transparent beneficiary selection with gender-disaggregated tracking; consult community leaders and distinct groups early; respect local customs, land rights and calendars	High	Low	No

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
				in design and scheduling; provide materials in local languages; use local trainers and field-based methods; conduct targeted women and youth consultations; set minimum women representation targets and schedule meetings around domestic responsibilities.			
ESS 2 – Labour and Working Conditions GCF Category: A (High Risk)	Component 1 and 3 Component 2 – all activities & Component 3 site-specific measures	All components: There is a risk that implementation of programme activities could unintentionally lead to labour rights violations and SEAH. Component 2 and 3: Unsafe working conditions, particularly at beneficiaries' level, during activities that involve labour-intensive tasks; unfair wages; labour rights violations; risk of forced or child labour (particularly during peak agricultural seasons); SEAH exposure during training and capacity-building activities; increased physical labour burden on women due to male migration.	Medium	**Programme management:** Align programme management policies with GIZ standard operating procedures and national labour laws; strictly avoid child and forced labour; provide training on good occupational health and safety practices; assess health and safety risks, and determine necessary training requirements for projects involving road transport or the use of agriculture/forestry machinery; assess and apply health and safety risks associated with the application of biological controls; mandate that all contractual partners adhere to GIZ policies (e.g. Code of Conduct) which include labour and working conditions requirements. **Capacity building on labour rights:**	High	Medium	No

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
				Conduct awareness raising on labour rights with beneficiaries and local governments[21]. **Implementation of GRM:** Implement gender-responsive GRM for labour complaints; establish anonymous, safe reporting channels for SEAH and other grievances; ensure that the GRM is equipped to handle SEAH issues; train all programme staff on SEAH avoidance; require monitoring and reporting of the GRM's effectiveness by beneficiaries; require an annual assessment of the GRM's effectiveness.			
ESS 3 – Resource Efficiency and Pollution Prevention GCF Category: B (Medium Risk)	Activity 2.2.1 Activity 2.2.2 Activity 2.3.1 Activity 2.3.3 Activity 3.3.2	Localised pollution from poor waste management; inefficient water use and increased competition for scarce water resources (particularly in Uzbekistan); risk of increased electricity demand and diversion of supply from other users.	Medium	Provide targeted capacity building for farmers, partners, contractors and local authorities on pollution prevention, resource efficiency and sustainable composting; promote adaptation measures that reduce reliance on agrochemicals; provide durable materials for protective structures; require irrigation-related investments to verify water availability; optimise water and	High	Low	No

[21] For the Kyrgyz Republic: Ayil Okmotu and Akimats, for Tajikistan: Hukumats and Jamoats, and for Uzbekistan: Hokimiyat and Mahlla level.

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
				energy use through efficient design and maintenance of water retention, distribution and irrigation systems, including drip irrigation, verify water availability and equitable access in coordination with water user associations; require good housekeeping, spill prevention and waste management, apply E&S screening to all subprojects and implement any site-specific ESS measures identified; and strengthen environmental monitoring, supervision and reporting with corrective actions as needed.			
ESS 4 – Community Health, Safety and Security GCF Category B (Medium Risk)	Activity 2.2.1 Activity 2.2.2 Activity 2.3.1 Activity 2.3.3	Waterborne disease risk from irrigation or drainage works; risks during construction; inappropriate use of crop protectants or fertilisers, inadequate waste management, or poor performance of equipment and road transportation social tensions from competition for project funding, or misappropriation and theft incidents; SEAH risks during training and partner interactions; restricted civil	Medium	Design water systems to minimise stagnant water, vector risks and water quality impacts; integrate health, safety and pollution risk management into AFOLU activities, including controls on agrochemical use, safe storage, signage and prior notification; establish transparent beneficiary selection; implement a project-wide GRM in local languages with outreach to vulnerable groups; train all staff, contractors and partners on codes of conduct, SEAH prevention, and E&S requirements, and support community	High	Low	No

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
		freedoms limiting effective grievance reporting; vector-borne disease risk from stagnant water.		awareness-raising; apply participatory planning to prevent land-, pasture- and access-related conflicts, including rotational grazing and corridor design.			
ESS 5 – Land Acquisition and Involuntary Resettlement GCF Category: C (Low Risk)	Activity 2.2.1 Activity 2.2.2 Activity 2.3.1 Activity 2.3.3 Activity 3.3.2	Minor, temporary restriction on access to grazing or farming land for demonstration sites or water infrastructure; potential disruption to traditional grazing patterns from reforestation or pasture closure; risk of perceived unfair land allocation; women's exclusion from climate finance due to formal land title being held in male relatives' names.	Low	No involuntary land acquisition and physical displacement permitted; conduct social screening before any sub-project incl. land titles or evidence of legal access, ensure that any economic impacts are mitigated through national policies to guide any economic displacement; address land disputes through the GRM; register temporary easements with national land cadastres; support integrated land-use planning processes; apply gender-responsive financial eligibility criteria.	High	Low	No
ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources GCF Category: B (Medium Risk)	Activity 2.2.1 Activity 2.2.2 Activity 2.3.1 Activity 2.3.3 Activity 3.3.2	Indirect pressure on protected areas, Key Biodiversity Areas (KBAs) and threatened species; risk of introducing invasive or non-native species (e.g. Acacia windbreaks); habitat loss, degradation and fragmentation from agricultural expansion; increased exploitation of timber and non-timber	Medium	Provide targeted training and guidance on biodiversity-sensitive AFOLU practices; use demonstration plots and promote knowledge exchange among beneficiaries; conduct biodiversity screening (IBAT), critical habitat or proximity to critical habitat or protected areas for sub-projects during management / investment planning; establish clear exclusion	High	Low	No

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
		products; specific risk to critically endangered Fergana Even-toed Gecko (Alsophylax ferganensis) near Shorsu village, Uzbekistan.		criteria for activities that would result in conversion/degradation of critical habitats, significant impacts on CR/EN species, or activities within legally designated protected areas; promote the use of locally adapted, non-invasive species and check proposed species against available national guidance where feasible; consider biodiversity indicators into project monitoring framework; establish buffer zones around critical habitats; where service crops are promoted as windbreaks, shade trees, and cover crops, their introduction will be coupled with appropriate management practices; retain beneficial vegetation at orchards; integrate biodiversity considerations into sub-projects, and training and advisory support provided alongside financing. For potential sub-projects near Shorsu village conduct additional biodiversity assessment.			
ESS 7 – Indigenous Peoples	Not applicable	No IP (as defined by ESS 7) are present in the programme area. Residual risks include: marginalisation of pastoralists and herders considered as	Negligible	As no impacts to IPs are anticipated, no IP-specific mitigation measures are proposed.	N/A	Negligible	No

ESS Standard Triggered / GCF ESS Category	Programme Activity	Possible Risk During Implementation	Risk Rating (Low, Medium, High)	Broader Risk Mitigation Measures	Assumed Mitigation Effectiveness	Risk Rating After Mitigation (Low, Medium, High)	Further ESS Assessment Required
GCF Category: C (Low Risk / Negligible)		vulnerable groups; language barriers limiting participation (Kyrgyz, Uzbek, Tajik, Russian); potential disregard of traditional grazing rights or culturally important land; exclusion of minority language groups from information.					
ESS 8 – Cultural Heritage GCF Category: C (Low Risk)	Activity 2.2.1 Activity 2.2.2 Activity 2.3.1 Activity 2.3.3 Activity 3.3.2	Accidental disturbance of previously unknown archaeological remains during small-scale earth works; inadvertent damage to sacred sites, shrines, burial grounds or culturally significant landscape features; restricted access to culturally important sites during programme activities; community concerns if culturally sensitive areas are affected.	Low	Screen all sub-projects involving ground disturbance for cultural heritage risks; explicitly exclude known cultural heritage or religious sites from programme intervention areas; implement the Chance Finds Procedure and require immediate work stoppage and notification to heritage authorities if remains are discovered; brief all contractors and community workers on cultural heritage sensitivity before works begin; consult the community on the presence of culturally important sites during sub-project planning.	High	Low	No

7.2. ESS 1: Assessment and management of environmental and social risks and impacts

7.2.1. Assessment

The programme's primary goal is to strengthen adaptation to climate change in the target region through the promotion of CRLE land use practices. This focus is expected to generate positive environmental and social outcomes, including improved livelihoods for farmers, enhanced food security, and strengthened climate resilience. By introducing sustainable practices, the programme can mitigate some of the adverse effects of climate change, such as soil erosion, declining agricultural productivity, and biodiversity loss. Furthermore, the programme emphasises inclusivity and capacity building, which are likely to empower marginalised groups and strengthen community resilience. These opportunities lower the programme's overall risk profile.

Despite its positive impacts, the proposed activities carry potential low to medium risks linked to several ESSs. If not adequately managed, these could result in unintended negative impacts. The following key risks contribute to the Medium risk rating for ESS1 (prior to application of mitigation measures):

Environmental risks

- Intensification of agriculture and forestry, if not managed sustainably, could lead to overuse of natural resources, soil degradation, and biodiversity loss. These risks could inadvertently result in maladaptation, where the programme exacerbates vulnerabilities instead of reducing them.

Social risks

- The programme operates in regions with existing constraints on water and other resources. Competition for resources, especially in resource-scarce areas, may pose a risk to community stability and programme outcomes.
- SEAH risks exist in community interactions, training programmes, and financial operations.

Governance and operational risks

- Weak institutional frameworks and limited capacity for environmental and social management could hinder effective implementation of the ESMP, GAP, SEP, and GRMs.
- Lack of adaptive management frameworks may weaken the ability to dynamically mitigate risks and respond effectively to observed impacts.

Assessment on conflicts and violation of human rights

ESS 1 requires a comprehensive assessment of environmental and social risks, including potential conflicts and human rights violations that could arise as unintended consequences of programme activities. The programme will operate in a context where access to land, water, and other natural resources is often limited, particularly in regions impacted by climate change. These constraints may increase competition for these resources, leading to social tensions between local communities or among different stakeholder groups. Additionally, vulnerable groups may face exclusion from programme benefits, limited participation in decision-making, or exploitation through unsafe labour practices. Moreover, insufficient engagement with local communities may lead to misunderstandings about the proposed programme. Such

perceptions could escalate into disputes or social tensions, undermining community cohesion and programme objectives.

GCF's E&S policy, as well as GIZ's safeguards management system, put a significant emphasis on avoiding infringement of the human rights of others and address adverse human rights impacts that those ventures may cause or contribute to. Each of the ESSs has elements related to human rights dimensions that a programme may face during its operations. For the present programme, human rights risks and impacts are essentially related to working conditions, SEAH, gender equality, and gender-based violence and are respectively assessed under the relevant ESS category. By following the respective plans (ESMP and GAP), the programme will be able to mitigate potential human rights issues arising from the different ESS categories.

Kyrgyz Republic

Consultations confirmed that environmental degradation in the Kyrgyz programme areas is closely linked to water scarcity, pasture overgrazing, deforestation, pest outbreaks, and increasing exposure to climate-induced hazards such as landslides and extreme rainfall events. Water competition between communities, particularly under rotational irrigation schedules, has intensified due to declining seasonal flows.

Pasture management reforms in the Kyrgyz Republic, including the development of pasture-use plans by pasture committees, have established an important framework for sustainable rangeland management. However, these plans have not been consistently enforced, and livestock numbers in some areas continue to exceed ecological carrying capacity.

This reflects a combination of institutional, economic, and environmental factors. While pasture-use plans define seasonal grazing patterns and stocking limits, their implementation is often constrained by limited enforcement capacity and reliance on voluntary compliance. At the same time, livestock remains a key livelihood asset and store of wealth, creating strong incentives for households to increase herd sizes, particularly in response to economic uncertainty and climate variability.

Grazing pressure is also unevenly distributed, with overuse of accessible pastures near settlements and underutilisation of more remote areas due to infrastructure and access constraints. Pasture condition mapping indicates that degradation is concentrated in these high-pressure areas, particularly in winter and spring pastures. In addition, limited availability of updated data on pasture condition and carrying capacity constrains adaptive management.

Institutional fragmentation further affects implementation, as responsibilities for pasture, livestock, and environmental management are spread across multiple agencies with limited coordination. Variability in local governance capacity and community participation also influences compliance with pasture-use plans.

As a result, pasture-use plans have not consistently achieved their intended outcomes, and continued grazing pressure in some areas contributes to land degradation and declining productivity. Addressing these challenges requires strengthening enforcement, improving coordination, and aligning pasture management with broader livelihood and climate resilience strategies.

Participants in consultation activities also highlighted improper fertiliser use, insufficient soil pH monitoring, and ecological stress in walnut forest ecosystems. These environmental risks are compounded by institutional coordination challenges between pasture committees, water user associations, forestry units, and local authorities. There is a risk that, without effective programme screening and strong monitoring and management during implementation, the programme will exacerbate or replicate these ineffective practices.

In the Kyrgyz districts of Karasu and Bazar-Kurgan, contextual social risks are primarily linked to entrenched patriarchal norms and informal authority structures. Women reported that participation in public meetings or external training may require permission from husbands or influential community members. This creates a risk that participatory land-use planning and climate finance mechanisms could unintentionally exclude women if engagement formats are not specifically adapted. Additionally, informal leaders may influence beneficiary selection and community decision-making processes. Without transparent eligibility criteria and multi-channel communication strategies, the programme could face risks of elite capture or perceived favouritism.

Uzbekistan

In Uzbekistan, irrigation inefficiency, soil degradation from historical chemical use, waste accumulation in canals, and water quality concerns represent primary environmental risks. Besharik district is particularly vulnerable due to its dependence on transboundary water flows, increasing the risk of water shortages during regional drought conditions.

Air pollution, climate warming, and declining soil fertility were identified as additional environmental stressors. Participants during stakeholder engagement emphasised the importance of practical implementation, noting that previous projects sometimes failed to translate planning into tangible field-level outcomes.

In Uzbekistan, women play an increasingly central role in agricultural management due to male migration. However, formal representation in land-use governance and irrigation planning remains limited. The primary risk is not exclusion through restrictive norms, but rather structural underrepresentation in formal institutions. In addition, integration of climate risk information into planning processes is required to minimise risk associated with water scarcity and climate variability.

Tajikistan

Stakeholder consultations confirmed that the programme districts in Tajikistan (Devashtich in Sughd Region and Qubodiyon in Khatlon Region) are highly vulnerable to climate variability and environmental degradation, including prolonged drought, declining groundwater availability, soil salinisation, erosion, dust storms, pest outbreaks, and deforestation. In Qubodiyon, rising groundwater levels and salinity have significantly reduced soil productivity, while drainage infrastructure is often poorly maintained or non-functional. In Devashtich, reduced inflows to reservoirs and the drying of local springs have affected irrigation reliability, with direct impacts on orchard productivity and household income stability. These environmental pressures directly affect livelihoods and increase competition over water and land resources, particularly during the agricultural growing season.

Consultations further highlighted that environmental degradation is compounded by institutional coordination challenges between key sectors, including agriculture, water

management, forestry, and environmental protection. Local stakeholders noted that responsibilities for water allocation, land management, and infrastructure maintenance are often fragmented across institutions, resulting in gaps in service delivery and limited accountability for maintenance of irrigation and drainage systems. This has contributed to the deterioration of infrastructure and reduced the long-term sustainability of previous investments.

At community level, access to water resources is a critical issue and may give rise to localized tensions, particularly in periods of water scarcity. Stakeholders reported that water distribution is not always perceived as equitable, with upstream–downstream dynamics and infrastructure condition influencing access. While these tensions are generally managed through local arrangements, they highlight the potential for resource-based conflicts if climate variability intensifies or if programme interventions alter existing water use patterns without adequate consultation and coordination.

Gender-related vulnerabilities were consistently raised during consultations. In both districts, women are highly engaged in agricultural production, including crop cultivation, irrigation management at household level, and livestock care. However, women remain underrepresented in formal decision-making structures such as Water User Associations and land committees. Male labour migration has increased women's responsibilities in managing farms and household livelihoods, but this has not been matched by increased participation in institutional processes or access to resources.

Stakeholders also indicated that women's participation in community meetings and decision-making processes may be constrained by social norms, time burdens, and limited access to information. As a result, there is a risk that women's priorities, particularly related to water access, agricultural inputs, and household-level resilience, may not be fully reflected in programme planning and implementation. Without targeted outreach and inclusive consultation mechanisms, there is a risk that women and female-headed households may be under-represented among programme beneficiaries, despite their central role in the AFOLU sector.

In addition, consultations identified broader socio-economic vulnerabilities, including limited access to financial resources, agricultural inputs, and technical support, particularly among smallholder farmers. These constraints may disproportionately affect vulnerable groups, including women, low-income households, and those reliant on remittances. If not adequately addressed, such factors could influence the equitable distribution of programme benefits and contribute to perceptions of exclusion or unfairness.

Overall, while no systemic human rights violations were identified in the programme areas, the interaction between climate stressors, resource constraints, institutional limitations, and social inequalities creates conditions in which localized conflicts or inequitable outcomes could arise. These risks underscore the importance of inclusive stakeholder engagement, transparent resource allocation, and targeted support to vulnerable groups in programme design and implementation.

7.2.2. Impact rating (low, medium, high)

The overall impact under ESS 1 is assessed as medium (prior to application of mitigation measures). Environmental and social risks are primarily associated with pollution generation,

SEAH, equitable water distribution, biodiversity loss, ineffective stakeholder engagement, and ineffective oversight and monitoring of benefit distribution.

Additional risks include insufficient institutional capacities to monitor, report, and manage identified E&S risks. However, these risks are localised, temporary and have manageable impacts through feasible and effective mitigation measures.

7.3. ESS 2: Labour and working conditions

7.3.1. Assessment

The risks relating to labour rights and applicable standards are broadly similar for all three countries. Without effective mitigation, there is a moderate risk that implementation of programme activities could unintentionally lead to labour rights violations, forced and child labour, and SEAH. However, the implementation of sub-projects with strong mitigation and oversight represents an important opportunity to drive societal change and reduce the prevalence of such occurrences in the medium to long term.

Programme activities, particularly in agriculture, forestry, pasture restoration and training, involve labour-intensive tasks that carry risks such as unsafe working conditions, unfair wages, and potential labour rights violations, including forced or child labour.

Across the Kyrgyz Republic, Tajikistan, and Uzbekistan, high levels of informal employment, limited access to effective GRMs, seasonal migration, and rigid gender roles may increase these risks. Vulnerable groups, including women and youth, may face increased exposure to SEAH during activities requiring high interaction with programme staff or other beneficiaries, such as training and capacity-building. Child labour may occur in farming households participating in programme activities, particularly during peak agricultural periods when adult migration increases the reliance on children.

Climate change and related natural hazards, such as rising temperatures, increasing drought frequency and more intense rainfall events, are likely to heighten livelihood pressures and unsafe working practices, further increasing worker vulnerability.

Although mechanisation has reduced manual labour demands in some areas, seasonal reliance on family labour (including children) during cotton harvest was reported in Bazar-Kurgan of the Kyrgyz Republic. In economically constrained households, children may temporarily assist in harvesting activities. While not systemic or institutionalised, this represents a risk under ESS 2. No child labour concerns were identified in Uzbekistan, although women's expanded roles due to migration may increase physical labour intensity. However, increased female workload due to male migration may lead to labour intensity and occupational health risks if climate-resilient practices require additional manual inputs.

Similarly, no child labour was identified in the Devashtich or Qabodiyon districts of Tajikistan. However, women's unpaid labour burden is substantial, particularly during irrigation shortages.

Overall, there is a risk that the implementation of projects funded by the programme could lead to an increase in child labour or increase the manual workload amongst women.

7.3.2. Impact rating (low, medium, high)

For all three countries, this risk is assessed as medium (prior to application of mitigation measures).

The programme will operate in contexts where labour market institutions, enforcement capacity, and occupational health and safety practices may vary across sectors and locations. In particular, in parts of the agricultural and rural workforce, there may be challenges related to consistent application and monitoring of national labour legislation, including with respect to working conditions, the use of personal protective equipment, working hours, non-discrimination, worker representation, and the prevention of child labour, forced labour, and informal labour practices. These contextual factors may create a risk that programme-supported activities, especially those involving seasonal, contracted, or community-based labour, do not fully align with the requirements of ESS 2 and relevant ILO principles unless appropriate controls, monitoring, and capacity-building measures are put in place.

While all three governments have ratified international conventions on labour rights, the agricultural sector in particular often operates informally, with many farmers lacking formal employment contracts. ILO promotes decent working conditions, but progress is hampered by implementation at national and local levels.

Labour practices during the beneficiaries' activities, poor health and safety practices, non-compliance's with labour laws, contracting standards, non-adherence on the use of personal protective equipment (PPE) in various operations, improper storage and handling of equipment, and agrochemicals could create risks to the health and safety of workers; and non-alignment with the requirements of international standards such as those set out in the ILO and ESS 2.

7.4. ESS 3: Resource efficiency and pollution prevention

7.4.1. Assessment

The risks relating to resource efficiency and pollution prevention are similar for all three countries. Without effective planning, there is a risk that the implementation of programme activities could exacerbate existing challenges in relation to energy efficiency, water availability, and air quality. However, the implementation of the programme will result in measurable improvements through the introduction of modern technologies and adoption of climate--resilient and low-emission land use practices that are energy- and resource-efficient.

Existing waste management and water treatment infrastructure is poor, leading to a risk that programme activities will contribute to localised pollution.

Water resources are also limited, and water availability in some locations is limited. There is a risk that programme activities will increase competition for water resources.

Electricity supply is vulnerable to climatic conditions or equipment failure. There is a risk that programme activities will increase electricity demand and divert electricity supply away from other users.

Fertile soils are required to support productive agricultural systems, and any activity that could lead to soil erosion or degradation could negatively impact on the success of the programme.

Kyrgyz Republic

Although irrigation infrastructure in the selected Kyrgyz districts is not uniformly degraded, increasing climate variability places pressure on pasture ecosystems and small-scale agricultural production. Reduced vegetation cover in upland grazing areas suggests emerging risks of overgrazing and biodiversity loss if restoration and rotational grazing practices are not strengthened. Agricultural productivity in the region depends heavily on chemical fertilisers

such as urea and ammonium nitrate. Farmers reported that improper fertiliser application and lack of soil pH testing often lead to reduced nutrient absorption, leaving chemical residues in the soil and contributing to long-term soil degradation. In some cases, fertilisers remain in crystalline form in the soil, indicating inefficient nutrient uptake and potential environmental impacts. Overgrazing in certain areas has reduced vegetation cover, resulting in soil erosion and declining productivity of rangeland ecosystems. At the same time, forest ecosystems, particularly walnut forests, face ecological stress due to climate variability, pest outbreaks, and unsustainable land-use practices. There is a risk that, without effective programme screening and strong monitoring and management during implementation, the programme exacerbates or fails to counter these existing risks.

Uzbekistan

Water efficiency is a critical environmental priority in Uzbekistan intervention districts. Drought conditions and groundwater decline create vulnerability for both commercial and subsistence agriculture. Agricultural systems in Yangikurgan and Besharik districts have historically relied on intensive use of chemical fertilisers and pesticides, which has contributed to soil degradation and environmental pollution in some areas. Participants in community consultations noted that long-term application of chemical inputs has affected soil fertility and water quality. Water scarcity represents another key challenge affecting resource efficiency. Irrigation systems depend on surface water flows that are influenced by upstream water use and seasonal climate variability. In Besharik district in particular, water shortages have already affected agricultural productivity in some areas. Waste management issues were also identified by stakeholders, including accumulation of waste in irrigation canals and streams. These practices can obstruct water flows and contribute to localised pollution. Farmers expressed interest in transitioning towards more sustainable agricultural practices, including organic fertilisers and biological pest control, but indicated that limited technical knowledge and financial constraints have hindered adoption of these methods. There is a risk that, without effective programme screening and strong monitoring and management during implementation, the programme exacerbates or fails to counter these existing risks.

Water scarcity is acute in Uzbekistan, and altering irrigation practices could impact communal water use. Improper drainage could create vectors for malaria or dengue in valley areas. Approximately 80% of Uzbekistan's water resources originate from neighbouring countries (World Bank, 2025). Uzbekistan also draws heavily from the transboundary Amu Darya and Syr Darya rivers, with substantial water losses caused by inefficient irrigation systems and pumping infrastructure (World Bank, 2025). These inefficiencies cause water shortages, which is expected to worsen due to climate change-related droughts and reduced river inflows, placing pressure on water, land and energy systems (IISD, 2024), and which could be exacerbated if sub-projects are not carefully screened and monitored during implementation.

Tajikistan

In Tajikistan environmental risks affect sectors such as hydropower, irrigation and mining where outdated facilities, limited pollution control measures and high water losses remain common. Recent environmental performance assessments show Tajikistan scores particularly low on key environmental indicators such as air quality, wastewater treatment, and water quality (Environmental Performance Index, 2024). This highlights challenges in pollution control and basic service provision across the country.

Irrigation inefficiencies and soil salinity also represent significant environmental challenges. In Devashtich district, declining rainfall and reduced surface water availability have placed increasing pressure on irrigation systems. Farmers reported that springs and small reservoirs that previously supported irrigation have become unreliable due to climate variability. In Qubodiyon district, inefficient drainage systems and rising groundwater levels have resulted in soil salinisation in certain agricultural areas. These conditions reduce crop productivity and increase the need for additional irrigation and fertiliser inputs, creating a cycle of declining soil quality and increased resource consumption. In both areas, there is a risk that any project which increases water consumption may not be viable without first improving reliability of irrigation systems.

Due to Tajikistan's mountainous terrain, sub-projects must account for floods and landslides. Ill-managed irrigation or flood-control works could inadvertently worsen downstream flooding or water contamination. Waterborne illnesses (cholera, dysentery, hepatitis) are a concern if sanitation is poor and water reuse increases. Chemical use (fertilisers or herbicides) in demonstration plots could expose farm workers and communities.

Stakeholders also highlighted the loss of shelterbelts and forest cover, which has increased vulnerability to wind erosion and dust accumulation. Dust deposition on crops reduces photosynthesis and crop productivity, forcing farmers to apply additional agricultural inputs to maintain yields.

Livestock production systems also face efficiency challenges due to declining pasture quality and limited access to veterinary services.

In addition, agricultural waste management practices remain limited in many communities, and chemical residues from fertilisers and pesticides may accumulate in soils and water bodies.

7.4.2. Impact rating (low, medium, high)

For all three countries, the potential impacts and risks related to ESS 3 are assessed as medium (prior to application of mitigation measures). The Kyrgyz Republic, Tajikistan, and Uzbekistan face structural challenges linked to inefficient water and energy use, limited wastewater treatment facilities, aging infrastructure, and limited pollution control systems. Poor air quality is linked to a reliance on fossil fuels.

All countries have a high dependence on irrigated agriculture, combined with water stress, climate variability, and outdated irrigation and wastewater infrastructure, increasing the risk of inefficient resource use and pollution of soil and water resources.

National strategies and internationally supported programmes aim to improve resource efficiency and environmental management; however, their effectiveness is often limited at the local level. Pollution risks are generally localised and manageable through use of best practices. Therefore, impacts associated with ESS 3 are not expected to be severe or irreversible but require targeted mitigation measures and steady implementation to prevent cumulative environmental effects.

7.5. ESS 4: Community health, safety and security

7.5.1. Assessment

Programme-related climate adaptation activities (e.g., irrigation schemes, reforestation, pasture works) may carry implications for community health and safety. New irrigation

reservoirs or field drainage, for instance, could create breeding grounds for vectors or contaminate water supplies. Inappropriate use of crop protectants or fertilisers, inadequate waste management, or poor performance of equipment may also impact community health and safety. There is also a risk related to road transportation and incidents or accidental events related to programme-related traffic. These impacts may be exacerbated by a lack of and access to adequate health care. However, the implementation of the programme will result in measurable improvements through the introduction of modern technologies, capacity building on pollution control, and waste management thereby possibly reducing the risk of negative health and safety impacts.

Social tensions may arise in the context of competition for funding or other programme activities.

Any misappropriation and theft incidents at the beneficiary level could lead to social tension or disputes within communities.

Potential SEAH risks may result from sub-projects requiring community interactions, collaboration with other project partners and interactions among project staff (training sessions, capacity-building to project partners, etc.).

All three countries face restrictions of civil society, freedom of expression, and limited independent journalism. There is therefore a risk that the ability of communities or community members to raise grievances, particularly in relation to beneficiaries' activities, may be hampered.

Pest outbreaks, including locust infestations and forest pests, threaten agricultural productivity and food security, potentially increasing livelihood stress and associated social vulnerabilities. Air pollution and chemical residues from historical agricultural practices were also identified as environmental health concerns. Improper disposal of waste and agricultural inputs in canals and streams may contribute to water contamination and sanitation risks. Extreme heat events, prolonged drought periods, and dust storms increase health risks, particularly for women and elderly populations engaged in agricultural labour. In Qubodiyon, dust storms associated with seasonal winds contribute to respiratory problems and reduce agricultural productivity. Water scarcity and irrigation system failures also create health risks when communities rely on unsafe water sources or must transport water manually over long distances. These conditions disproportionately affect women, who are often responsible for water collection and irrigation management. Infrastructure failures, including non-functional pumps and deteriorated drainage canals, increase the risk of flooding, waterlogging, and vector-borne diseases. There is a risk that without effective programme screening, and strong monitoring and management during implementation the programme exacerbates or replicates these existing risks.

The rehabilitation of irrigation infrastructure and introduction of new agricultural technologies may also present temporary safety risks during construction and installation phases

7.5.2. Impact rating (low, medium, high)

For all three countries this risk is assessed as medium (prior to application of mitigation measures).

This is largely due to restrictions of civil freedom and the associated risk of community members not being able to voice concerns and receive adequate grievance resolution. Given the nature and scale of the proposed interventions, the likely involvement of community

members in beneficiaries' activities and the absence of large-scale or hazardous works, the risk to community health, safety and security in all three countries would be low.

7.6. ESS 5: Land acquisition and involuntary resettlement

7.6.1. Assessment

For all three countries, the potential risks and impacts are limited. Most programme measures involve advisory services, training or equipment that do not require taking land from individuals. In rare cases, voluntary community contributions of land may be sought for demonstration sites, nursery gardens, or water infrastructure. This could temporarily restrict access to grazing or farming areas. If not managed properly, such land use could affect local producers' livelihoods, particularly for vulnerable groups. Traditional grazing patterns may be impacted by reforestation of degraded communal land or closure of pastureland. Planting shelterbelts or orchards on unused public land could change land cover but is unlikely to displace users.

Miscommunication of land allocations could lead to rumours of unfair land allocation.

While the programme does not involve land acquisition or resettlement, indirect exclusion risks may arise if financial instruments rely solely on formal land title documentation. Given that land is frequently registered in male relatives' names, women may face barriers in accessing climate finance independently.

Kyrgyz Republic

Land rights in the Kyrgyz Republic are generally regulated through formal cadastral registration and leasing arrangements, women's effective participation in land management and land-related decision-making remains limited in practice. In many households, land registration and formal documentation are held in the names of male household members, even though women are actively involved in agricultural production and management of family farms. Male labour migration has increased women's responsibilities in agriculture, with many women functioning as de facto farm managers responsible for irrigation scheduling, crop management, and marketing of agricultural products. However, women often lack formal authority in land-related negotiations or community-level decision-making structures such as water user associations and pasture committees.

Uzbekistan

In Uzbekistan, legal frameworks allow women to access land and credit. However, practical limitations such as formal employment requirements and collateral availability influence loan eligibility. If financial facilities are designed without gender-responsive criteria, women managing smaller plots may be excluded from larger investment opportunities.

Tajikistan

Even though according to the 1994 Constitution, women and men are endowed with the same rights to access land in Tajikistan, in practice women do not enjoy equal rights. Women's limited formal land ownership significantly constrains access to credit. Female-headed households may experience greater autonomy in decision-making but also face higher financial vulnerability.

7.6.2. Impact rating (low, medium, high)

For all three countries this risk is assessed as low (prior to application of mitigation measures).

No physical displacement is anticipated, and programme land use will be voluntary. Only minor, temporary land-use changes may occur. The risk of minor economic displacement will be readily mitigated.

7.7. ESS 6: Biodiversity conservation and sustainable management of living natural resources

7.7.1. Assessment

The programme aims to promote climate-resilient and low-emission AFOLU land use practices and enhance livelihoods through VC development and adaptation measures. While these interventions have potential positive environmental and social impacts, they also present risks of biodiversity loss and ecosystem degradation if not carefully managed. Screening using the IBAT (section 5.3.6.) has confirmed that the three participating countries support a number of globally significant biodiversity values, including CR and EN species and nationally and internationally designated protected areas. These sensitivities occur across forest, savannah, wetland, and agro-ecological systems that may overlap with potential sub-project landscapes.

Although the programme does not intend to implement activities within legally designated protected areas, agricultural and rangeland systems in some regions may be located within the wider ecological landscapes surrounding these sites. Therefore, there is potential for indirect pressures, such as land-use intensification, grazing expansion, water abstraction, or introduction of non-native species, to affect ecological connectivity and habitat quality if not properly managed.

The presence of multiple IUCN Category Ia and II sites (strict reserves and national parks) indicates areas of high conservation value where biodiversity sensitivity is particularly elevated. Consequently, any sub-project proposed within proximity to these sites will require precautionary screening to ensure that no direct or indirect impacts occur and ecological buffers and set-back distances are applied as necessary.

There is a risk that the use of species known as invasive in other contexts, such as windbreaks and shade trees like *Acacia* as well as cover crops as part of agroforestry or agricultural practices, could lead to biological imbalances in local ecosystems, reduce biodiversity, and alter natural habitat structures and quality by outcompeting native flora. However, their ability to thrive in challenging climatic conditions or grow quickly is what makes them valuable as service crops. The introduction of new drought-tolerant crops or changes to crop planting schedules could have similar impacts. In landscapes identified through biodiversity (IBAT) screening as supporting threatened species or located within proximity to protected areas, the ecological consequences of inappropriate species introduction or land-use intensification may be amplified. The programme will therefore aim to balance these benefits with the potential risks to local natural habitats and ecosystems through careful species selection, screening, and adaptive management strategies.

Additionally, the programme's focus on improving economic opportunities through VCs may inadvertently increase the demand for agricultural land, creating pressure on nearby natural habitats (including forests, wetlands and rangelands) and ecosystems. This could result in natural habitat loss and degradation, particularly in regions where farmers seek to capitalise on new market opportunities. Biodiversity (IBAT) screening indicates that some intervention areas may be situated within broader ecological landscapes that include KBAs and protected

areas, meaning that indirect and cumulative impacts, such as habitat fragmentation, disturbance, increased resource extraction or encroachment, must be carefully managed. An indirect impact of the programme is the potential to increase exploitation of natural resources including timber and non-timber products if not adequately addressed, posing additional threats to biodiversity and ecosystem services.

In Uzbekistan, the presence of the likely endemic critically endangered Fergana Even-toed Gecko (Alsophylax ferganensis) has been identified in a restricted geographic range in the vicinity of Shorsu village. There is an additional risk of impacts to this species from any projects that may impact this area.

7.7.2. Impact rating: (low, medium, high)

This risk is assessed as medium (prior to application of mitigation measures). While the programme does not finance large-scale infrastructure or direct land conversion and is primarily focused on capacity building, value-chain development, and climate-resilient agricultural practices, biodiversity (IBAT) screening confirms the presence of threatened species and protected areas within the broader programme geographies. As such, there is a credible risk of indirect or induced impacts on natural and potentially critical habitats if sub-project activities are not appropriately screened and managed. However, these risks are considered manageable through strengthened biodiversity screening, exclusion criteria and mitigation measures embedded within the ESMP. All biodiversity risks will be managed in accordance with the mitigation hierarchy: avoidance as the primary approach, followed by minimisation, restoration, and, where appropriate, compensatory measures.

7.8. ESS 7: Indigenous peoples

7.8.1. Assessment

The applicability of ESS7 was assessed through a desk review and field-level stakeholder engagement conducted during programme preparation, applying the ESS7 criteria and the GCF Indigenous Peoples Policy rather than relying solely on national recognition of ethnic or linguistic groups. The review covered official demographic and statistical data, relevant legislation and policies, programme baseline and feasibility studies, previous environmental and social assessments, and published information concerning the target regions in the Kyrgyz Republic, Tajikistan and Uzbekistan. It examined whether communities demonstrated self-identification as Indigenous Peoples, collective attachment to distinct ancestral territories and natural resources, distinct customary institutions or resource-management systems, and separate cultural, linguistic, social or economic institutions. The findings were verified through consultations with national and local authorities, community representatives, Water User Associations, pasture committees, farmers, women's groups, civil society organisations and technical specialists. Stakeholders consistently identified vulnerable groups in terms of gender, poverty, remoteness, age and livelihood dependence on natural resources, but did not identify any communities possessing the collective characteristics described in the GCF Indigenous Peoples Policy. Hence, neither the documentary review nor the consultations identified communities meeting the ESS7 or GCF Indigenous Peoples Policy characteristics within the programme intervention areas. Although the areas are ethnically and linguistically diverse, the identified minorities participate in the established administrative, political and legal systems and do not maintain the combination of distinct collective identity, territorial attachment and customary institutions required under either ESS7 or the GCF Indigenous Peoples Policy. ESS7 is therefore not considered to be triggered by the Programme.

The ESS for the programme are developed in a manner that recognises this.

Kyrgyz Republic

Although formal ESS 7 safeguards are not required, it is still important to avoid marginalising local customs. For instance, pasture management or agroforestry should respect traditional grazing rights. If any programme site overlaps with sacred or culturally important land (e.g., shrines, burial grounds), it could cause community offense. Language barriers (Kyrgyz / Uzbek / Russian) might limit participation if not addressed.

Tajikistan

Key IP considerations include the unique culture of highland communities, nomadic or farming minorities such as the Pamiri communities in Gorno-Badakhshan, or other mountain peoples. If outreach or training is done only in Tajik, segments of the population might be left out. Use of local lore or land (such as alpine pastures) without proper consultation could infringe on customary practices. There is no risk of expropriation, but a lack of cultural sensitivity could lead to distrust.

Uzbekistan

Engagement activities will be culturally inclusive. Trainings and meetings will be held in Uzbek (and Russian as needed), and gender and minority representation will be ensured. The programme will work with district khokims (governors) to identify any local customs needing consideration. If a minority language group (e.g., Tajik or Russian speakers in Fergana) is present in an area, information will be provided in those languages as well. These steps fulfil ESS 7's requirement to respect culture and promote participation even in the absence of a distinct IP population.

7.8.2. Impact rating (low, medium, high)

No IPs as defined by ESS 7 are present in the programme area. Therefore, no adverse impacts are anticipated, and the risk under ESS 7 is negligible (prior to application of mitigation measures)**.**

7.9. ESS 8: Cultural heritage

7.9.1. Assessment

All three countries are rich in tangible and intangible cultural heritage. This is partly due to their heritage sites related to the Silk Road trade and cultural exchange, but there are also ancient heritage sites (e.g., petroglyphs and rock art), early religious monuments, landscape features, and other heritage sites of national or global importance. All three countries have legislation in place for protecting heritage sites.

The programme's activities are primarily limited to agricultural land, pasture, and forest landscapes and do not include large construction works. Nevertheless, given the widespread presence of archaeological remains, sacred sites, mausoleums, burial grounds, and culturally important landscape features (e.g., sacred springs, trees and mountains), earthworks associated with programme activities could encounter unknown tangible cultural resources.

Potential impacts are expected to be limited and highly localised, these may, however, include:

- Accidental disturbance of previously unknown archaeological remains during small-scale excavation (e.g., for irrigation structures or planting pits);
- Inadvertent damage to known cultural heritage such as sacred sites, shrines, burial places, or culturally important trees or landscape features;

- Restrictions on access to culturally important sites if programme activities are not properly planned;
- Community concerns if culturally sensitive areas are affected by programme activities.

No impacts on nationally protected or World Heritage Sites are expected, as the programme does not target such areas.

7.9.2. Impact rating (low, medium, high)

For all three countries, this risk is assessed as low (prior to application of mitigation measures).

Given the small scale of physical interventions, the absence of activities in known heritage sites and the application of screening and Chance Finds Procedures, potential impacts on cultural heritage in all three countries are expected to be very limited.

8. Environmental and social impacts (sub-project level)

The section is structured into a) presenting key elements of the programme's financial mechanism and b) the actual E&S assessment. While chapter 7 outlines identified potential risks and (unintended) negative impacts at the programme level, this chapter focuses on E&S risks associated with the implementation of sub-projects under Activities 2.2.1; 2.2.2; 2.3.1; 2.3.2 and 2.3.3 as well as 3.3.2.

Activities 2.3.1 and 2.3.3 establish an agricultural finance mechanism comprising two complementary components to support CRLE agricultural land management practices and value chain investments. GCF proceeds will be administered by MoWRAPI, CIIP and NCECC to provide goods and services to final beneficiaries through an application and selection process. Successful applicants will receive goods and services procured by the respective national executing entity, subject to their provision of the required beneficiary contribution, which varies by beneficiary group. These goods and services will support the adoption of CRLE agricultural practices and technologies.

EIB loan proceeds will be managed by MoF KG, MoF TJ and MoF UZ and intermediated through local financial institutions following an application and appraisal process. Successful MSME applicants will receive loans to finance eligible equipment and investments supporting the adoption of CRLE technologies and practices, as well as broader value chain development in the programme regions. Financing will be available for both rainfed and irrigated agriculture, with particularly strong demand expected from irrigated production systems.

The Activity 2.3.2 entails a financial mechanism aimed to fund CRLE agricultural land management practices in the Kyrgyz Republic. It is the only activity that partially relates to only one country. GCF proceeds will be administered by GIZ EE to choose final beneficiaries via an application and selection process run by three non-profit micro-credit organisations (MCO) whose establishment will be supported by GIZ with an initial in-kind support of equipment and inputs on the condition of 100% repayment by beneficiaries to create an asset-based revolving scheme. Successful applicants will receive agricultural inputs and mechanised services from Conservation Agriculture Teams with a condition to repay in cash to MCOs, including a small fee. Access to seasonal inputs and mechanised services will support the adoption of no-till wheat production in the programme region in the Kyrgyz Republic.

Activities 2.2.1 and 2.2.2 entail a financial mechanism aimed to fund CRLE forest and pastureland management practices. GCF proceeds will be administered by ARIS, MoWRAPI, CIIP, and NCECC for the provision of goods and services to final beneficiaries. State forest enterprises and local institutions responsible for forest and pasture management will receive equipment, materials, and services that enable the implementation of restoration, reforestation, and sustainable and climate resilient land use measures prioritised in the municipal forest and pasture investment plans which will be developed under activities 2.2.1 and 2.2.2. The equipment and materials will support the adoption of CRLE forest and pasture management practices and technologies in the programme regions.

The Activity 3.3.2 entails a financial mechanism aimed to fund transboundary adaptation and knowledge and capacity building measures. GCF proceeds will be administered by an institution that will be selected to host the platform for the provision of goods and services to final beneficiaries through an application and selection process. Successful applicants will be awarded goods and services directly procured by the host institution, provided that the proposal is jointly developed and implemented by a minimum of two institutions, with one institution from each neighbouring country. The goods and services will support transboundary land restoration, sustainable management of natural resources, and biodiversity conservation in the selected landscapes.

8.1. Sub-project description

8.1.1. Key elements of Matching Grant Mechanism & Credit Programme

Table 6: Overview of sub-project

Project Type/ Name	Matching grant mechanism (activities 2.3.1 and 2.3.3)	Credit programme (Activity 2.3.3)
Project Theme	Adaptation/Agriculture	
Project Location	The sub-projects are implemented on the farm of the final beneficiaries, i.e., it is land under productive use in total of 180 target municipalities in Batken, Jalal-Abad, and Osh regions in the Kyrgyz Republic; Sughd, Khatlon regions in Tajikistan; and Andijon, Fergana, Namangan, and Surkhandarya regions in Uzbekistan.	
Responsible EE	MoWRAPI, CIIP, NCECC	MoF KG, MoF TJ, MoF UZ
Estimated Programme Cost (Scale)	From 5,000 € to 50,000 €	Up to 500,000 €
Estimated Programme Duration	6-12 months	12 months

Source: GIZ, 2026

Eligible final beneficiaries[1]:

Kyrgyz Republic

Matching grant mechanism:

- **Peasant farms or individual/smallholder farmers** (criteria: legally registered a/o recognised entity in the country; with applicable registration, tax identification documents and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; capacity to provide the required minimum matching contribution; declaration of no double funding)
- **Farmer groups & agricultural cooperatives** (criteria: legally registered a/o recognised entity in the country; with applicable registration, tax identification documents and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; capacity to provide the required minimum matching contribution; declaration of no double funding)

Credit programme:

- **Agri-MSMEs** (criteria: legally registered a/o recognised entity in the country; with applicable registration, tax identification documents and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)

Tajikistan

Matching grant mechanism:

- **Individual/smallholder farmers** (criteria: legally registered a/o recognised entity or individual producer in the country; with active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; capacity to provide the required minimum matching contribution; declaration of no double funding)

[1] These are initial criteria to be finalized during project implementation.

- **Farmer groups and CBOs** (example criteria: legally registered a/o recognised entity or individual producer in the country; with active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)

Credit programme:

- **Agri-MSMEs** (example criteria: legally registered a/o recognised entity or individual producer in the country; with active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)

Uzbekistan

Matching grant mechanism:

- **Dehkan farms** (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN), and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; capacity to provide the required minimum matching contribution; declaration of no double funding)
- **Farms** (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN), and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)

Credit programme:

- **Agri-MSMEs** (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN), and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)
- **Agricultural clusters** (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN), and active bank account; operational in the agriculture sector and within the eligible project area and value chains defined under the programme; evidence of legal access to land, site or productive assets relevant to the proposed investment; declaration of no double funding)

Eligible measures[2] (Nature of measure):

#	CRLE practices	Land use systems		
		Rainfed agriculture (wheat)	**Irrigated agriculture** (fruits, seed potato, horticulture)	**Non-timber forest products**
1	Promote no-till seeding	x		
2	Crop rotation	x		
3	Crop/soil covering	x	x	
4	Promote use of anti-hail a/o insect-proof/shade nets		x	
6	Use of climate resilient seeds and seedlings	x	x	
7	Use of resilient root stocks and fruit cultivars		x	

[2] These are initial measures to be finalized during project implementation.

#	CRLE practices	Land use systems		
		Rainfed agriculture (wheat)	Irrigated agriculture (fruits, seed potato, horticulture)	Non-timber forest products
8	Upgrade local seed multiplication		x	
9	Improved orchard management		x	
10	Improved greenhouse cultivation practices		x	
11	Improved plant nutrition and pest management	x	x	
12	Improved irrigation practices		x	
13	Strengthening post-harvest capacities and equipment	x	x	x

Eligible cost categories:

- Agricultural inputs e.g., climate resilient seeds
- Materials and equipment
    a. Machinery, e.g., direct seeding machines
    b. Farm-level efficient irrigation systems, e.g., drip irrigation, sprinkler, water retention tanks, geomembrane technology
    c. Anti-hail and anti-insect nets, protective cultivation structure
    d. Solar pumps
    e. Small-scale farm equipment and tools
    f. Greenhouses
- Operational facilities
    a. Storage facilities
    b. Cold storage
    c. Small-scale drying and processing equipment
    d. Packaging and quality improvement equipment
- Services
    a. Technical design and installation services; training directly related to approved investments
    b. Digitalisation
    c. Process automation
    d. Quality certification, e.g., ISO, HACCP

8.1.2. Key elements of No-Till Adoption Accelerator

Table 7: Overview of sub-project

Project Type/ Name	No-Till Adoption Accelerator (Activity 2.3.2)
Project Theme	Adaptation/ Rain-fed agriculture
Project Location	The sub-projects are implemented on the rainfed agricultural land of farmers in target municipalities of Batken, Jalal-Abad, and Osh regions in the Kyrgyz Republic.
Responsible EE	GIZ
Estimated Project Cost (Scale)	No cash. Initial in-kind contribution of machinery and inputs worth EUR 500,000 for an MCO
Estimated Project Duration	12-18 months

Source: GIZ, 2026

Eligible final beneficiaries[3]:

Kyrgyz Republic:

- **Micro credit organisations** (example criteria: established legally an MCO in the Kyrgyz Republic and registered as a non-profit organization, active in the agriculture sector, minimum 3 years track record in agricultural financing).
- **Farmer** (example criteria: availability of rainfed land, willingness to adopt zero tillage / regenerative practices, commitment to participate in advisory support and monitoring activities).

Eligible measures[4] (Nature of measure):

#	CRLE practices	Land use system:
		Rainfed agriculture (wheat)
1	Promote no-till seeding	x
2	Crop rotation	x
3	Crop/soil covering	x
5	Use of climate resilient seeds and seedlings	x
6	Improved plant nutrition and pest management	x

Eligible cost categories:

- Agricultural inputs e.g., climate resilient seeds and mineral fertiliser
- Materials and equipment
    a. Machinery, e.g., direct seeding machine
- Operational facilities
    a. Storage facilities
- Services
    a. Technical design and installation services; training directly related to approved investments
    b. Digitalisation
    c. Process automation
    d. Quality certification, e.g., ISO, HACCP

8.1.3. Key elements of Forest and Pasture Investment mechanism

Table 8: Overview of sub-project

Project Type/ Name	Forest & pasture investment (Activities 2.2.1 and 2.2.2)
Project Theme	Cross-cutting / forest & pasture
Project Location	The sub-projects are implemented in the forest and pasture of 11 state forest enterprises (SFEs) and pastureland of 55 target municipalities in Batken, Jalalabad, and Osh regions in the Kyrgyz Republic; forest and pasture of 6 SFEs and pastureland of 55 municipalities in Sughd and Khatlon regions in Tajikistan; and forest and pasture of 8 SFEs and pastureland of 30 municipalities in Namangan and Surkhandarya regions in Uzbekistan.
Responsible EE	MoWRAPI, ARIS, CIIP, NCECC
Estimated Project Cost (Scale)	No cash. Direct supply of equipment, materials, and services
Estimated Project Duration	Up to 4 years

[3] These are initial criteria to be finalized during project implementation.
[4] These are initial measures to be finalized during project implementation.

Eligible final beneficiaries[5]:

- **State forest enterprises** (example criteria: legal status/registration; within the eligible project area defined under the programme).
- **Local institutions responsible for pasture management** (example criteria: legal status/registration (as municipality, or association, or pasture user group/union etc.), within the eligible project area defined under the programme; evidence of legal access to land relevant to the proposed investment; declaration of no double funding).

Eligible measures[6] (Nature of measure):

#	Restoration, reforestation, and sustainable and climate-resilient management practices	Land use systems	
		Forest	Pasture
1	Assisted natural regeneration and restoration, e.g., temporary fencing	x	x
2	Tree plantation in most degraded areas, e.g., indigenous species	x	
3	Improved seedling quality and survival potential/rate of tree plantations	x	
4	Multiplication of locally selected, climate resilient trees (seeds and seedlings)	x	
5	Strengthened production capacity of tree nurseries	x	
6	Establishment of water retention and distribution structures, e.g., water tanks, solar pumps	x	
7	Improved monitoring and reporting, incl. management of local data	x	x
8	Improved locally adapted, climate resilient forage seeds		x
9	Improved access to remote, under-used pastures, e.g., small bridges		x
10	Improved rotational grazing		x
11	Improved access to water in under-grazed distant pastures, e.g., water points, solar pumps		x

Eligible cost categories:

- Forest and pasture inputs e.g., climate resilient seeds and seedlings
- Materials and equipment
    a. Small machinery & equipment for use in tree nurseries
    b. Fencing material
    c. Construction material for water points & water retention and distribution
    d. Equipment and hardware for monitoring, data, and reporting
    e. Machinery, e.g., graders for unpaved road cleaning
- Services
    a. Labour

8.1.4. Key elements of Regional Investment Platform

Table 9: Overview of sub- project

Project Type/ Name	Regional investment platform (Activity 3.3.2)
Project Theme	Cross-cutting / agriculture, forest, pasture, and biodiversity
Project Location	The sub-projects are implemented in the transboundary landscapes in the project's intervention areas in the Kyrgyz Republic, Tajikistan, and Uzbekistan.
Responsible EE	GIZ

[5] These are initial criteria to be finalized during project implementation.
[6] These are initial measures to be finalized during project implementation.

Estimated Project Cost (Scale)	No cash. Direct supply of equipment, materials, and services worth between EUR 100,000 and 300,000
Estimated Project Duration	6 months – 1.5 years, depending on the proposal

Source: GIZ, 2026

Eligible final beneficiaries[7]:

- **National institutions in the AFOLU sectors** (example criteria: legal status; within the eligible project area defined under the project; operational in the considered sectors and within the eligible project area defined under the project;).
- **Sub-national and devolved institutions in the AFOLU sector: District administrations, local administrations** (example criteria: legal status; within the eligible project area defined under the programme).
- **Protected areas, e.g., national parks** (example criteria: legal status/registration; within the eligible project area defined under the programme).
- **SMEs active in the target land use systems** (for technical assistance, such as training or exchange of experience) (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN); operational in the considered sectors and within the eligible project area defined under the programme).
- **Business unions** (for technical assistance, such as training or exchange of experience) (example criteria: legally registered entity in the country; with valid registration certificate, tax identification number (TIN); operational in the considered sectors and within the eligible project area defined under the programme).
- **CSOs** (example criteria: legally registered in the country; operational in the considered sectors and within the eligible project area defined under the programme; evidence of track record and successfully completed experiences in the sector; capacity to provide a co-financing contribution; declaration of no double funding).

Eligible measures[8] (Nature of measure):

#	Transboundary measures	Land use systems			
		Agriculture	Forest	Pasture	Protected area
1	Restoration of degraded land, e.g., coordinated upstream and downstream measures or intervention in forests or on pastures in shared landscape		x	x	x
2	Improved climate informed protected area management plan				x
3	Improved habitat connectivity, e.g., corridors across borders				x
4	Capacity development	x	x	x	x
5	Enhanced knowledge exchange and peer learning	x	x	x	x
6	Support innovative approaches, e.g., monitoring		x	x	x

Eligible cost categories:

- Forest and pasture inputs e.g., climate resilient seeds and seedlings
- Materials and equipment
    a. Small machinery
    b. Fencing material

[7] These are initial criteria to be finalized during project implementation.
[8] These are initial measures to be finalized during project implementation.

    c. Construction material for water retention and distribution
    d. Equipment for tree nurseries
    e. Equipment and hardware for protected areas
- Services
    a. Labour
- Technical assistance & capacity building
    a. Development of management plans
    b. Training
    c. Exchange visits
    d. Knowledge sharing events

8.2. ESIA (sub-project level)

The eligible activities are primarily categorized as ESS Category C (minimal or low risk) in adherence with GCF's principles and GIZ's S+G Management System. Associated risks are generally with minimal or no adverse environmental or social risks and/or impacts. However, some eligible activities are also categorized as ESS Category B in adherence with GCF's principles and GIZ's S+G Management System. These risks are generally localised, temporary, and largely reversible, with limited adverse impacts that can be mitigated through appropriate measures.

- **Agricultural finance mechanisms:** under the Matching Grant Mechanism and the No-Till Adoption Accelerator (Activities 2.3.1, 2.3.2 and 2.3.3), subprojects involving improved plant nutrition and pest management are classified as ESS Category B. Under the credit programme (Activity 2.3.3), demand from MSMEs is expected to focus primarily on CRLE equipment and technology adoption, particularly for irrigated production systems and value-chain investments. The associated ESS risks are assessed as ESS Category C.
- **Pasture and forest investments:** under Activities 2.2.1 and 2.2.2, subprojects involving assisted natural regeneration and ecosystem restoration, improved access to remote and underused pastures, and improved water access in distant, under-grazed pasture areas are classified as ESS Category B.
- **Regional Investment Platform:** under Activity 3.3.2, no ESS Category B activities have been identified.

Table 10 outlines the risks and adverse impacts of the eligible activities for sub-projects and their relation to triggered ESS standards. For activities rated ESS category B, mitigation measures have been identified and integrated in the ESMP (at sub-project level). Should there be any deviation during implementation from the identified risks, potential adverse impacts as well as identified mitigation measures, the respective information will be shared with the GCF with subsequent disclosure.

Table 10: Possible E&S risks and potential adverse impacts of eligible activities in sub-projects

Eligible activity	ESS standard triggered	Possible risk & potential adverse impact during programme implementation	GCF ESS category
No-till seeding	ESS 3	Potential increase in herbicide use and fuel/lubricant leakage from machinery.	C
Crop rotation	ESS 3 ESS 6	Some rotations may increase fertilizer and irrigation demand if unsuitable crops are chosen. Use of non-local or invasive rotation crops could affect on-farm agrobiodiversity and adjacent habitats.	C
Crop/soil covering	ESS 1 ESS 3 ESS 6	Incorrect mulch/cover management may compete for moisture, harbor pests or affect sowing/harvest operations. Plastic or synthetic coverings, if used, can generate waste. Introduction of invasive cover crops or residue removal from sensitive areas could affect biodiversity.	C
Use of anti-hail, insect-proof and/or shade nets	ESS 1 ESS 2	Installation and use of small protective structures may create localized visual impacts and operational nuisances. Workers may face fall, lifting or tool-related injuries during installation and maintenance.	C

Eligible activity	ESS standard triggered	Possible risk & potential adverse impact during programme implementation	GCF ESS category
	ESS 3 ESS 4	Plastic netting and support materials can generate waste at end of life. Loose or poorly tensioned netting may create hazards for nearby people, livestock or wildlife.	
Use of climate resilient seeds and seedlings	ESS 3 ESS 6	Poor-quality or poorly adapted planting material may fail under local conditions and undermine farmer confidence. Uncertified material may indirectly increase input demand if varieties are unsuitable or disease prone. Introduction of non-native or invasive material may affect local varieties and agrobiodiversity.	C
Use of resilient root stocks and fruit cultivars	ESS 3 ESS 6	Some cultivars may require higher water and nutrient inputs than anticipated. Replacement with narrow genetic material can reduce local varietal diversity.	C
Upgrade local seed multiplication	ESS 2 ESS 3 ESS 6	Workers may be exposed to seed treatment agents, dust and machinery hazards. Seed treatment, storage and packaging can generate waste. Multiplication of unsuitable or contaminated seed can affect local biodiversity and biosecurity.	C
Improved orchard management	ESS 6	Poor pruning or removal of hedgerows/ground cover may reduce habitat for beneficial species.	C
Improved greenhouse cultivation practices	ESS 2 ESS 3	Heat stress, poor ventilation, and manual handling may affect workers a/o farmers. Greenhouses may increase water, energy and plastic consumption and generate waste.	C
Improved plant nutrition and pest management	ESS 2 ESS 3 ESS 4 ESS 6	Workers may be exposed to fertilizers and spraying operations. Overuse or poor storage/disposal of fertilizers may contaminate soil and water and create hazardous waste. Spray drift and accidental exposure may affect nearby households, livestock or water users. Non-target species, including pollinators and natural enemies, may be harmed.	B
Improved irrigation practices	ESS 2 ESS 3	Small irrigation works or changes in water application may cause localized salinization, drainage issues or trenching disturbance if poorly designed. Workers may face hazards from pumps, pipes, excavation and electrical equipment. Inefficient abstraction or leakage can waste water and contribute to salinity/waterlogging.	C
Strengthen post-harvest capacities and equipment	ESS 2 ESS 3 ESS 4	Workers may be exposed to moving parts, noise, dust, heat, electricity and manual handling. Processing/storage equipment may increase electricity use and generate organic waste, wastewater or packaging waste. Fire, electrical faults or poor storage could affect surrounding users.	C
Assisted natural regeneration and restoration	ESS 2 ESS 4	Workers involved in planting, fencing or site works may face tool, terrain and weather-related hazards. Restrictions and fencing may create tensions with nearby users or livestock movements.	B

Eligible activity	ESS standard triggered	Possible risk & potential adverse impact during programme implementation	GCF ESS category
	ESS 5 ESS 6	Temporary or partial loss of access to grazing, fuelwood or other natural resources may occur.	
Tree plantation	ESS 3 ESS 5 ESS 6	Plantations may require water, fertilizers, and generate nursery/plastic waste. Tenure disputes or reduced access to land/resources may arise if plantation siting is contested. Monocultures or unsuitable species may reduce habitat quality and affect local biodiversity.	C
Improved seedling quality and survival	ESS 3 ESS 6	Use of containers, substrates or watering can generate small waste and resource-use issues. Unsuitable species selection can affect ecosystem integrity.	C
Strengthen production capacity of tree nurseries	ESS 2 ESS 3 ESS 4	Workers may be exposed to repetitive tasks, tools, fertilizers and watering systems. Nurseries can increase water use, substrate extraction and plastic waste. Water storage, chemicals or site access can create low-level safety risks for nearby users.	C
Establishment of water retention and distribution structures	ESS 2 ESS 3	Construction and maintenance may expose workers to excavation, drowning, machinery or electrical hazards. Structures can affect water efficiency, sedimentation and localized water quality.	C
Improved monitoring and reporting (forest & pasture)	ESS 1	Collection and handling of field information may create minor governance and consent issues if poorly managed.	C
Improved locally adapted, climate resilient forage seeds	ESS 6	Non-native or invasive forage species could spread and alter pasture biodiversity.	C
Improved access to remote, under-used pastures	ESS 2 ESS 3 ESS 4 ESS 5 ESS 6	Workers may face machinery, traffic and terrain-related hazards during works. Road works/cleaning can generate dust, spoil and fuel leakage. Improved access can increase traffic safety risks and shift grazing pressure toward remote areas. Access changes may affect customary use patterns or trigger disputes over pasture rights. Access to remote/under-grazed pastures and their increased use may disturb habitats or fragment vegetation.	B
Improved access to water in under-grazed distant pastures	ESS 2 ESS 3 ESS 4 ESS 5	Construction and maintenance of pumps may create worker safety risks. Water abstraction, contamination from livestock concentration and waste from infrastructure are possible. Water points may create safety risks and competition among users. Access to strategically located water points may change control over pasture resources.	B

Eligible activity	ESS standard triggered	Possible risk & potential adverse impact during programme implementation	GCF ESS category
Promote rotational grazing	ESS 4 ESS 5 ESS 6	Temporary restrictions or livestock movement rules may create conflict among user groups. Temporary loss of access to some plots or routes may affect livelihoods if alternatives are not agreed. Access to remote/under-grazed pastures and their increased use may disturb habitats or fragment vegetation.	C
Development of protected area management plan	ESS 1 ESS 4 ESS 5 ESS 6 ESS 8	Planning could shape future land-use restrictions or expectations if not based on adequate consultation and screening. Stakeholder conflict may arise if communities perceive exclusion from the planning process. Future access-use restrictions could be embedded in the plan if livelihood implications are not considered. The purpose is biodiversity conservation; however, poor planning could overlook ecological connectivity or sensitive uses. Protected area planning may affect cultural heritage or customary sites if not identified early.	C
Improved habitat connectivity	ESS 4 ESS 5 ESS 6	Restrictions on movement or land use may affect communities and increase human-wildlife interaction. Livelihood access or use of corridor areas may be constrained. Poorly designed corridors could fail ecologically or disturb sensitive habitat during implementation.	C
Capacity development	ESS 1 ESS 4	Training may exclude certain groups or overlook context-specific barriers if poorly designed. SEAH, conflict or accessibility issues may affect participants in community-facing training settings.	C
Knowledge exchange and peer learning	ESS 1 ESS 2 ESS 4	Exchange activities may unintentionally exclude vulnerable groups. Travel, transport and event organization may create minor safety risks for participants and staff. Group interactions may create low-level SEAH or social tension risks.	C
Innovative approaches to land monitoring	ESS 1	Pilot innovations may have uncertain environmental and social performance because details are not yet fully defined. Some innovations may use new materials, inputs or equipment with uncertain waste/resource implications.	C

Source: GIZ, 2026

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Appendix 1: Guidelines for developing a Grievance Redress Mechanism (GRM)

A formalised process is essential to manage grievances and address complaints related to the project. This Grievance Redress Mechanism (GRM) will be fully developed during the programme inception phase, in alignment with guidelines and recommendations from the Green Climate Fund (GCF). The GRM will function as a structured, systematic process for stakeholders to file complaints and seek resolution. The GRM should be accessible to all relevant stakeholders, such as NGOs, CSOs, private sector entities, and local municipalities. The implementation of the GRM aims to foster systemic change to minimise the volume of grievances, build local trust, and strengthen stakeholder support for the programme, while identifying potential and actual impacts that the programme needs to address through operational changes or other forms of remedy.

A functioning, transparent, culturally appropriate and accessible GRM is integral to ensuring compliance with the programme's Environmental and Social Safeguards. The programme will guarantee that affected or potentially affected communities will be informed about programme activities and provided with accessible channels to raise concerns or grievances. Likewise, the GRM will ensure that policies regarding SEAH (i.e., the project's Zero Tolerance Policy to SEAH, beneficiaries' rights) are publicly available and communicated to staff and beneficiaries, emphasising confidentiality and non-retaliation to encourage women's use of the mechanism

The GRM's main objectives include:

- To provide a process by which grievances from communities, groups, individuals, local authorities, NGOs and other local stakeholders can be processed efficiently, and constructively.
- To answer to and resolve grievances amicably and minimise the use of the legal system, enabling smooth implementation of all programme activities.
- To offer individuals and community groups a way to express their grievances and problems in a systematic and transparent manner.
- To institutionalise a reporting system to take corrective action.
- To establish relationships of trust with local communities and stakeholders.
- To establish programme responsibility regarding grievances and establish a course of action to manage the grievances in a timely manner.

A GRM must adhere to key principles to ensure fairness and transparency. When an individual or community files a grievance, it is generally because they perceive an activity carried out by the programme as causing or potentially causing harm. In such cases, the claimant expects a response, justification, or compensation from the programme. All grievances are deemed admissible and must be considered; the subsequent investigation will determine whether the grievance is justified.

The GRM procedure is built on several core principles:

- The process must be open, culturally appropriate, and conducted in the relevant local language.
- Clear and ongoing channels of communication between the claimant and the programme must be maintained throughout the process.
- Every community member or group must have access to the GRM procedure.
- All grievances are recorded, regardless of their perceived validity, with investigations determining their justification.

- Any justified grievance must be addressed, and corrective actions implemented where possible.

Disclosure mechanism

The GRM will be disseminated early in the stakeholder engagement process (i.e., during the inception phase) in a way that is easily understood by diverse stakeholders, including those who are illiterate and other especially vulnerable people, including:

- Community-based communication and awareness: The GRM will be explained during community sessions verbally by workshop leads, ensuring that women and men understand how to report grievances.
- Inclusive and culturally-appropriate outreach: The GRM will be disseminated through products tailored to local contexts and literacy levels to maximise accessibility (e.g., radio and WhatsApp audio messages, visual and audio-based formats, as well as handouts, flyers, and illustrated guides).
- Women leaders as GRM multipliers: Recognising that women may feel more comfortable reporting grievances to trusted female peers, women leaders will serve as focal points to disseminate information and provide guidance on accessing the GRM within their communities.

The GRM guarantees that stakeholders are thoroughly informed on registering complaints, including full contact details for anyone to lodge a formal complaint. This GRM needs to be consistent with international standards and Malagasy law.

Alternative remedies

If the grievant does not see their grievances addressed by the programme, then in that case, the grievant may also get in contact with GIZ directly (https://www.bkms-system.com/bkwebanon/report/clientInfo?cin=26zig7&c=-1&language=eng). Another option for grievant is the GRM process by the GCF itself (i.e. GCF Independence Redress Mechanism, https://irm.greenclimate.fund/).

SEAH-related grievances

GIZ pursues a zero-tolerance policy towards any form of sexual exploitation, abuse and harassment. This commitment is in line with legal and policy frameworks at international[1], national, GIZ corporate[2], and GCF level[3].

SEAH-related grievances follow a different process, as they have the potential to be qualitatively different – and potentially more serious – than non-SEAH grievances:

- Potential conflicts of interest: the complaint may relate to the behaviour of a programme stakeholder who might be involved in the consideration of grievances.
- Privacy: a complainant making serious allegations of sexual harassment or abuse may not wish his/her identity to be widely known.
- Gender and cultural sensitivity: a complainant, particularly if traumatised, may wish to discuss a grievance only with someone of their own gender or in a culturally acceptable context.

[1] Universal Declaration of Human Rights, the Convention on the Elimination of All Forms of Discrimination against Women and International Labour Organization (ILO) Conventions: 100 (ILO Convention for Equal Remuneration for Men and Women for Work), 111 (The Discrimination (Employment and Occupation) Convention of 1958), 190 (The Violence and Harassment Convention of 2019).

[2] GIZ Code of Ethics, GIZ Code of Conduct, GIZ Policy of prohibiting sexual harassment and sexual misconduct, GIZ Corporate Gender Strategy, GIZ Diversity Code

[3] GCF Revised Environmental and Social Policy

Accordingly, the programme's GRM incorporates a survivor-centred and gender-responsive protocol for SEAH-related grievances.

Distinct SEAH protocol are to be followed depending on the grievant:

1. Programme **stakeholders** including beneficiaries, communities, etc.
2. GIZ staff

SEAH grievance redress protocol for programme stakeholders

SEAH-related feedback and grievances can be submitted by the same three groups that are served under the programme-specific GRM, namely:

- Individuals or entities directly impacted by the programme, including potential beneficiaries;
- Stakeholders with a vested interest in the programme;
- Residents or communities influenced by programme activities.

A specific SEAH-protocol will be developed for the GRM to ensure grievances are handled in a survivor-centred and gender-responsive way, in alignment with GCF's Revised Environmental and Social Policy. For handling SEAH-related grievances, individuals will be encouraged to use a dedicated programme phone number and dedicated programme e-mail address distinct from the general GRM contact details. The programme will discourage SEAH-related grievance submissions through other channels such as government extension officers and workshops. Comprehensive guidance on the SEAH protocol within the GRM will be made available, including leaflets and workshop materials.

In case of SEAH-related grievance is inadvertently submitted through non-SEAH channels the responsible Advisor on ESS and Gender will ensure that they are redirected to the SEAH-related grievance track. SEAH-related phone calls and e-mails will be managed separately and distinct from non-SEAH grievances.

SEAH-related grievances will always be considered with compassion, sensitivity and confidentiality. The advisor will customise a response approach for each SEAH grievance, considering the nature and seriousness of the allegations. If necessary (due to gender or linguistic reasons), a grievance Focal Point will be appointed, adhering to strict confidentiality requirements. The Grievance Focal Point will establish contact with the complainant to understand their preferences and ensure a confidential approach. Based on the details provided, a tailored response approach will be devised, in line with the complainant's wishes and the severity of the grievance.

Possible programme responses to SEAH grievances are diverse and context specific. Examples of responses could, conceivably, include actions such as: support to survivors (such as psycho-social support or medical care); education of trainers on gender- and SEAH-related topics to ensure inappropriate behaviour is not repeated; removal of personnel from programme roles; expanded SEAH awareness-raising among programme stakeholders; women-only or ethnic group-only (as appropriate) training workshops; or, in extreme cases, referral of grievances to relevant regulatory or law enforcement authorities.

Should the complainant remain dissatisfied with the proposed actions or the response approach, the grievance can be further escalated to: (i) the GIZ Country Office in the Kyrgyz Republic, Tajikistan, and Uzbekistan respectively; (ii) the GCF Independent Redress Mechanism; and (iii) legal and administrative remedies outside the programme framework that are available in the country.

SEAH grievance redress protocol for GIZ staff

Employees of GIZ Kyrgyzstan, Tajikistan, and Uzbekistan who feel that s/he is being sexually harassed are encouraged to reach out to the Gender Focal Point (GFP) or the Country Director directly to ensure discretion and confidentiality.

In addition, appointed 'trustees' are put in place as persons of trust with knowledge of the local cultural contexts and the local languages, to whom a staff subject to sexual harassment can confide in and seek support from, and help to report the incident to the GFP or Country Director whenever further urgent action and decisions are required.

An employee who has been found guilty to have breached this policy will be subject to appropriate disciplinary action in accordance with the applicable GIZ internal regulations and the applicable law.

Depending on the severity of the case, consequences can range from an apology to the person subject to sexual harassment, written reprimand, demotion, to – in the event of a severe or pervasive harassment (as judged from the perspective of a reasonable person) – dismissal or unilateral termination of contract without notice and in accordance with the applicable law. Immediate disciplinary action will be taken against anyone who victimizes or retaliates against a person who has complained of harassment.

If a complaint against non-staff members, including customers, suppliers and partners is rightfully upheld, it could result in termination of a contract, suspension of service or business cooperation.

It is also considered a violation of this policy for anyone to make a false complaint/report of harassment or to provide false information regarding a complaint/report of harassment.

Appendix 2: ESS Exclusion List (Standard appendix)

The programme must not involve, support, finance, or be associated with any of the following activities, including those falling under the IFC Exclusion list:

- Forms of forced labour, or harmful or exploitative forms of child labour.
- Activities deemed illegal under host country laws or regulations, international conventions and agreements, or subject to international phase-out bans.
- Production of or trade in products containing PCBs.
- Purchase, production of or trade in pharmaceuticals, pesticides, herbicides, or other hazardous substances subject to international phase-outs or bans, including under the Rotterdam Convention and Stockholm Convention.
- Production of or trade in ozone-depleting substances subject to international phase-out under the Montreal Protocol.
- Trade in wildlife or wildlife products regulated under the CITES Convention.
- Transboundary movement of waste prohibited under international law, including under the Basel Convention, except for non-hazardous waste destined for recycling.
- Activities prohibited by host country legislation or international conventions relating to the protection of biodiversity resources or cultural heritage.
- Production of, trade in, or use of unbonded asbestos fibres or asbestos-containing products.
- Weapons and munitions.
- Sex work and related infrastructure and services.
- Gambling and related equipment.
- Tobacco production, processing, and distribution.
- Alcohol production, processing, and distribution involving hard liquor.
- Production of or trade in radioactive materials, excluding certain medical and measurement equipment where the radioactive source is trivial or adequately shielded.
- Investments in the search, extraction, production, distribution, processing, or promotion of fossil fuels, including coal, oil, natural gas, and peat.
- Activities that increase the use of fossil fuels and/or prolong the technical or economic lifetime of heat and power production using fossil fuels, except for limited back-up generation, household cooking purposes, or processes where feasible alternatives do not exist.
- Biofuel projects meeting any of the following conditions:
    - Based on feedstock grown on land with high carbon content or biodiversity value, including rainforests, wetlands, peat lands, grasslands, reserves, protected lands, or lands with high conservation value.
    - Using feedstock for liquid biofuels where higher climate or development benefits would occur if the feedstock were used unprocessed, such as direct combustion in a co-generation plant.
    - Using solid biomass fuels from forests, whether planted or natural, with a carbon cycle incompatible with the Paris Agreement.
    - First-generation biofuel projects with a production area over 75 hectares.
- Commercial logging operations, or the purchase of logging equipment for use in primary forests or old-growth forests.
- Production of or trade in wood or other forestry products other than from sustainably managed forests.

Appendix 3: International Treaties, Conventions and Agreements

International treaty / convention / agreement	Date of ratification/accession		
	Kyrgyz Republic	Tajikistan	Uzbekistan
Paris Agreement (2015)	18 February 2020	22 March 2017	09 November 2018
CITES – Convention on International Trade in Endangered Species (1973)	04 June 2007 (entry into force 2 September 2007)	31 December 2015 (entry into force 30 March 2016)	10 July 1997 (entry into force 8 October 1997)
Vienna Convention for the Protection of the Ozone Layer (1985)	31 May 2000	06 May 1996	18 May 1993
Montreal Protocol on Substances that Deplete the Ozone Layer (1987)	31 May 2000	07 January 1998	18 May 1993
UNFCCC – United Nations Framework Convention on Climate Change (1992)	25 May 2000	07 January 1998	20 June 1993
Kyoto Protocol (1997)	13 May 2003	29 December 2008	12 October 1999
Convention on Biological Diversity (1992)	06 August 1996	29 October 1997	19 July 1995
Convention on Wetlands (Ramsar, 1971)	12 November 2002	18 July 2001	08 October 2001
UN Convention to Combat Desertification (1994)	19 September 1997	16 July 1997	31 October 1995
Basel Convention (Hazardous Waste, 1989)	13 August 1996	30 June 2016	07 February 1996
Stockholm Convention on POPs (2004)	12 December 2006	8 February 2007	28 June 2019
World Heritage Convention (1972)	03 July 1995	28 August 1992	13 January 1993

International treaty / convention / agreement	Date of ratification/accession		
	Kyrgyz Republic	Tajikistan	Uzbekistan
WTO Marrakesh Agreement (1994)	20 November 1998	02 March 2013	WTO member since 1994
WTO Agreement on Trade Facilitation (2013)	Accepted via WTO membership	Accepted via WTO membership	Accepted via WTO membership
Convention on Migratory Species (CMS/Bonn, 1979)	01 May 2014	01 February 2001	01 September 1998
Aarhus Convention (1998)	01 May 2001	17 July 2001	28 March 2025
Espoo Convention (1991)	01 May 2001	17 July 2001	Not a party
Rotterdam Convention (1998)	25 May 2000	24 February 2025	Not a party
UNECE Water Convention (1992)	Not a party	Not a party	4 September 2007