



**The Republic of Uzbekistan State  
Committee on Forestry**

**Uzbekistan Resilient Landscapes  
Restoration Project  
(RESILAND)**

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**ENVIRONMENTAL AND SOCIAL  
MANAGEMENT FRAMEWORK  
(ESMF)**

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## ABBREVIATIONS AND ACRONYMS

CAREC	Regional Environmental Centre for Central Asia
CBA	Community Business Agent
CBD	Convention on Biological Diversity
CE	Citizen Engagement
CGIAR	Consortium of International Agricultural Research Centres
CITES	Convention on International Trade in Endangered Species
CPF	Country Partnership Framework
CRI	Corporate Result Indicator
DSEI	Draft Statement of Environmental Impacts
ESMF	Environmental and Social Management Framework
ESS	Environmental Social Standards
FAO	Food and Agriculture Organization of the United Nations
FLR	Forest Landscape Restoration
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	German Society for International Cooperation ( <i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i> )
GoU	Government of Uzbekistan
ICARDA	International Center for Agricultural Research in the Dry Areas
ICBA	International Center for Biosaline Agriculture
ICSD	Interstate Commission on Sustainable Development
ICT	Information and Communication Technology
IUCN	International Union for Conservation of Nature
KFS	Korea Forest Services
KWPF	Korea World Bank Partnership Facility
LDN	Land Degradation Neutrality
MCA	Mahalla Citizen Assembly
MIS	Management Information System
MoF	Ministry of Finance
NBT	Nature Based Tourism
NDC	Nationally Determined Contribution
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NSC	National Steering Committee
NTFP	Non-timber Forest Products
NWFP	Non-Wood Forest Product
PA	Protected Area
PDO	Project Development Objective
PF&RPF	Process Framework and Resettlement Policy Framework
PIU	Project Implementation Unit
PPSD	Project Procurement Strategy for Development
REFCA	Regional Engagement Framework for Central Asia
SCEEP	State Committee on Ecology and Environmental Protection
SCF	State Committee on Forestry
SCF-IREC	State Committee on Forestry-International Relations and Ecotourism Development
SEP	Stakeholder Engagement Plan
SFF	State Forest Fund
SME	Small and Medium Enterprise
TSAU	Tashkent State Agrarian University
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNECE	United Nations Economic Commission for Europe

Uzbekistan Resilient Landscapes Restoration Project

USFS	United States Forest Service
UzRDB	Red Book of the Republic of Uzbekistan

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## EXECUTIVE SUMMARY

**This Environmental and Social Framework (ESMF)** is prepared for the Uzbekistan Resilient Landscapes Restoration project (RESILAND UZ). The project will be implemented by the State Committee on Forestry (SCF) over a five-year period and funded by the World Bank. However, the proposed project consists of a series of sub projects that would only be identified during implementation. Therefore, the purpose of the ESMF is to set out the principles, rules and guidelines and procedures to assess the environmental and social risks and impacts of the proposed project when the subjects are being identified and appraised. Additionally, this ESMF contains measures and plans to reduce, mitigate and/or offset these environmental and social risks and impacts and describes institutional roles and responsibilities for managing these risks and impacts under the project, and the feedback and grievance mechanisms by which citizens and other interested parties can interact with the project implementation agency.

**Project objective and components.** The project development objective is to increase the area under sustainable landscape management in selected locations in Uzbekistan and promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration.

**The Project components and activities to achieve the objective are as follows:**

**Component 1: Strengthen Institutions and Policies, and Regional Collaboration.** This component will finance consulting services, goods, training and workshops, and operating costs. Sub-component 1.1 will support the development of an appropriate policy and reform of the legal and institutional framework to restore and sustainably manage forest landscapes in Uzbekistan. It will develop the country's first National Forest Inventory (NFI), which will serve, among other, to enhance planning capacities in support of Uzbekistan's LDN and NDC targets. Sub-component 1.2 will support the development of an Information and Communication Technology (ICT) Platform for FLR and forest management within the Forest Design Institute (*O'rmonloyikha*) of the SCF, in support of data-based decision making on forest and landscape management planning, including afforestation, reforestation and other FLR investments. Sub-component 1.3 will promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration by setting up a regional online database for sustainable landscape management and restoration to facilitate policy and strategy harmonization, and for addressing new emerging climate threats at the regional level. *The regional spillovers of this component are related to cross-fertilization of knowledge and harmonization of policies, standards, technologies, and consistency in evaluation methods for transboundary landscape restoration across Central Asia countries.*

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

**Component 3: Enhance Protected Areas and Nature-based Tourism.** This component will finance works, consulting services, non-consulting services, goods, training and workshops, and operating costs. It will finance activities that promote sustainable land and natural resource management practices through improved management of the Zaamin National Park and Zarafshan National Park and sustainable NBT. *The regional spillovers of this component will be improved conditions for regional NBT development and biodiversity*

conservation. These Protected Areas (PAs) are also significant carbon stores, providing sequestration benefits.

**Component 4: Project Management and Coordination.** Component 4 will finance consulting services, non-consulting services, goods, equipment, training, incremental operating costs, and other eligible expenses associated with project implementation. A PIU will be established within the SCF-International Relations and Ecotourism Development (SCF-IREED) to coordinate implementation, project management, coordination and reporting tasks, including preparation of annual work plans and budgets, procurement activities, financial management (FM) of project funds, hiring of external auditors, knowledge management, development and maintenance of a project communication program, grievance redress mechanism, and Monitoring and Evaluation (M&E) and reporting. The PIU will also be responsible for citizen engagement, ensuring project compliance with and monitoring implementation of Environmental and Social Framework-related issues, and that due attention is given to gender aspects as per Project design.

**Project locations.** The Project corridors span across degraded border areas as follows (*Figure*):

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



**Figure.** Project Sites (in grey)

**Potential environmental and social impacts of the project.** In the medium to long term the project is expected to bring significant environmental benefits such as reforested degraded lands, improved soil and water retention, reduced dust and salt migration, improved conservation and sustainable use of biodiversity

in selected ecosystems. Risks to the environment and society can be significant, but predicted, avoided or mitigated through assessment, management measures and investments.

**Environmental risks.** Environmental risks from project interventions may include new conversion or the loss of natural habitats and biodiversity from localized agriculture and forestry plantations; possible risks from changes to the watersheds and landscapes; potential spread of invasive tree or shrub species; risks related to the overharvesting of non-timber forest products (NTFPs); environmental and occupational hazard risks related to small scale renovation and construction works (building, trails, small roads). There is also a need to ensure that the SCF will maintain policies and practices that adequately conserve sensitive wildlife species and natural/critical habitats that the project corridors encompass, especially around the Zaamin National Park and Zarafshan National Park. These Project environmental risks are largely predictable and need to be adequately mitigated with prior assessment and planning. Activities on legal and institutional framework strengthening and the development of unified forest sector policies may necessitate environmental and social impact assessment considerations.

**Social impacts and risks.** The Social risk is rated as substantial mainly due to the contextual risks associated with the project and the capacity of the implementing agency to implement the Environmental and Social Framework (ESF). The project activities will be implemented in conjunction with the local government at provincial (Samarkand, Sirdaryo, Jizzakh, Kashkadarya and Surkhandarya) and district levels and jointly with its subordinated leshozes (state forest enterprise). Contextual risks include the competing interests and demands of different land and water users, and the need to consider trade-offs between different stakeholder interests and avoid elite capture, social exclusion during public consultations, exclusion of disadvantaged and vulnerable groups and individuals, and poor management of grievances and expectations. The substantial classification of social risks and impacts also relate to potential changes of land-use practices and restriction of access to pastures, forest land, and forest products traditionally used by local communities of targeted landscapes due to the development and implementation of integrated land use plans (ILUPs) and management plans for protected areas. ILUPs will be implemented at the regional level, focusing on SCF lands, PAs of various categories, and forested landscapes under other legal tenure categories/sectors. The project does not anticipate land acquisition and involuntary resettlement causing physical displacements due to project interventions / activities. Subprojects and activities that would involve physical involuntary resettlement will be excluded. Livelihood impacts related to access restrictions to land, pastures, forests, and other natural resources, both within and outside of protected areas, will be addressed in accordance with ESS5. Labor influx risk is estimated as low as it is anticipated involvement of targeted communities or local residents. Labor related risks associated with the civil works contractors and their compliance with ESS 2 are assessed as moderate. Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks associated with civil works are currently assessed as moderate.

**Overall risk rating of the project.** The overall risk rating of the project is Substantial, both on the Environmental and Social sides. This is due to the scale of the project, a wide range of interventions supported across components and that the details and scope of the sub activities won't be fully known at the appraisal stage. The following and complying with the World Bank Environmental and Social Standards (ESSs) are considered relevant: ESS 1, ESS 2, ESS 3, ESS 4, ESS5, ESS 6, ESS 8, and ESS 10.

**Environmental and Social Management Framework.** As the technical evaluation (e.g., feasibility studies, detailed designs) and specific intervention locations under the project are not identified and/or ready and their specific impacts are not known by project appraisal, a framework approach is adopted. Respectively, in accordance with the ESS1, an ESMF has been prepared, which specifies rules and procedures for the activities and for preparing adequate site-specific Environmental and Social Management Plans (ESMPs). The ESMF covers the following: (i) rules and procedures for environmental and social screening of project activities and subprojects to be supported under the project; (ii) guidance for preparing site-specific ESMP or ESMP Checklist, which would include the monitoring plans; (iii) mitigation measures for possible impacts of different proposed activities and subprojects to be supported by the project; (iv) requirements for monitoring and supervision of implementing of ESMPs, implementation arrangements; (vii) overview of the capacity of SCF (the project implementing agency) for E&S risk management and capacity building activities that would include other parties on mitigating potential environmental and social risks.

The ESMF also specifies that under the proposed institutional strengthening and capacity building activities should include special training on identifying and addressing environmental safeguards issues and integrating environmental requirements in feasibility studies. Furthermore, the client prepared a SA that includes: (i) stakeholder identification/mapping; (ii) stakeholder analysis of expectations, concerns, and issues; (iii) assessments of positive and negative impacts; and (iv) a social management plan to mitigate the negative impacts and enhance positive benefits.

**Borrower’s Environmental and Social Commitment Plan (ESCP).** The ESCP specifies the main responsibilities and actions to be undertaken by the SCF-IREC as the project implementing agency to ensure project compliance with the WB ESSs and in particular: (a) conducting environmental and social screening for all project activities via ESMP/ESMP Checklist covering the above aspects; (b) application of the ESMF to the relevant project activities, including the need to prepare site specific ESMPs; (c) reporting on environmental and social performance of all activities in a quarterly reports; (d) ensuring transparency in providing project environmental safeguards and ensuring all ESMPs are disclosed and publicly consulted with all interested parties; (e) maintaining through the whole period of project implementation human capacity to ensure project activities supervision and monitoring and providing adequate reporting to the implementing agency and to the WB; (f) preparation and adherence to the Environment, Social, Health and Safety Code of Conduct by works contractors; (g) implementation and reporting on the Process Framework and Resettlement Policy Framework (PF/RPF) and preparation, where required, adoption, communication, and implementation of site-specific Plans as detailed in the Frameworks, and (h) implementing and reporting on: (i) Stakeholders Engagement Plan; (ii) Labor Management Plans (LMP); and Grievance Mechanism.

### **Institutional Arrangements for Implementation of Environmental and Social Management Measures**

The SCF-IREC will have overall responsibility for project oversight, management and coordination, in conjunction with the local government at provincial and district levels and jointly with its subordinated *leshoz*. The SCF will manage the Project Designated Account and will be responsible for overall project reporting to the World Bank.

Technical Coordination Committee (TCC). While Project oversight responsibilities will rest with the SCF, a TCC will be established to provide technical guidance and ensure inter-ministerial coordination and cooperation. The TCC will be composed of representatives from relevant ministries, state committees, Project provinces, and other relevant stakeholders, and will meet two to three times per year.

At the national level, the SCF-IREC will host a Project Implementation Unit (PIU) composed of, at a minimum, a project coordinator, and specialists in M&E, accounting, financial management (FM), communication, procurement, social and environmental specialists, and gender; as well as technical specialists in forestry, landscapes, ecotourism, community-based forest- and natural resource-based livelihoods, ICT, and policy.

Along with the PIUs environment, social development, and gender specialists, additional Stakeholder Engagement Specialist will be added as needed. The PIU has the responsibility to ensure implementation of and compliance with the World Bank Environmental and Social framework (ESF) and the specific instruments prepared and disclosed that are relevant to the Project. The Bank will continuously assess performance of the PIU during project implementation in managing project environmental and social (E&S) risks. Project-specific targeted training on environmental and social management aspects will be provided on the ESF team on an ongoing basis including on topics such as the ESMF implementation, ESMF/ESMP reporting, World Bank ESF and EHS Guidelines, management of hazardous materials and etc.. Specific PIU capacity building measures such as training needs are identified and listed in the ESCP. Furthermore, before the start of any civil works, the PIU will hire a Consultant with knowledge on the environmental and social management requirements for Republic of Uzbekistan, along with substantial knowledge on World Bank ESSs and requirements, to provide ESA related training to all parties concerned, including contractors.

### **Grievance Mechanism.**

The PIU will set up a project specific Grievance Mechanism (GM) to address all citizen complaints and requests related to the project. Day-to-day implementation of the GM and reporting to the World Bank will be the responsibility of the PIU. The system and requirements (including staffing) for the grievance redress chain of action – from registration, sorting and processing, and acknowledgement and follow-up, to verification and action, and finally feedback – are incorporated in the GM. To ensure management oversight of grievance handling, the PIU Monitoring & Evaluation will be responsible for monitoring the overall process, including verification that agreed resolutions are implemented. The Project Affected Persons (PAPs) may submit their grievances first to the local mahalla office, contractors, PFIs or directly to the sub-borrower. The grievance could be submitted both ways: (i) officially with indication of applicant’s contact information, and (ii) anonymously by dropping complaints into special boxes. It is recommended that each entity, which will be involved into the project implementation have to maintain logs for registration of grievances and Box for receiving complaints including anonymous. If the grievance has not been considered or the PAP has not received a satisfactory response, he/she may file a grievance to the RPCU. Regional Specialist will keep a record of the grievances received. This will be done by applying multiple absorption channels such as mail, email, phone, project website, personal delivery. Currently, citizens are actively using mobile networks, so the project will open special groups in Telegram and Facebook applications.

#### **World Bank Grievance Redress System.**

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance mechanisms or the WB’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB’s independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank’s attention, and Bank Management has been given an opportunity to respond.

**ESSs supervision and reporting.** Environmental and social monitoring during sub-component implementation should provide information about key environmental and social aspects of the sub-projects, particularly its environmental impacts, social consequences of impacts and the effectiveness of taken mitigation measures. Such information enables the PIU to evaluate the success of mitigation measures as part of project supervision and allows corrective action(s) to be implemented in a timely manner, when needed. The status of the compliance with the ESMPs’ requirements shall be regularly provided by contractors to the PIU (via the supervision consultant, if they are involved) / or by the responsible personnel of sub-project holder, and then to the Bank by the PIU, in a consolidated way, in form of their semi-annual report.

**Integration of the ESMPs into project documents.** The ESMP provisions will form part of the design documents for the project and will be included in construction contracts in case of civil works for selected subprojects, both into specifications and bills of quantities. Respectively the Contractors will be required to include the cost of ESMP requirements in their financial bids and required to comply with them while implementing the project activities. The bidding documents for selecting the contractors will include specifications that would ensure effective implementation of environmental, health and safety performance criteria by the winning bidder.

**COVID-19 crisis. The Project will support the WBG COVID-19 crisis, fragility, and disaster response efforts.** It will support the implementation of the World Bank’s response strategy as articulated in the June 2020 World Bank COVID-19 Crisis Response Approach Paper by strengthening policies, institutions, and investments for rebuilding better (Pillar 4) during the Resilient Recovery Stage. It will also support the World Bank 2020-25 Strategy for Fragility, Conflict, and Violence, which recognizes the importance of collaboration over shared resources in mitigating fragility and security risks.<sup>1</sup> The Project will also support Government of Uzbekistan’s COVID-19 National Strategic Preparedness & Response Plan for Health.

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<sup>1</sup> An ongoing Central Asia/ Afghanistan Regional Risk and Resilience Assessment will deliver results on drivers of risk and resilience, and areas to improve this for the Ferghana Valley and border areas between Afghanistan, Tajikistan, and Uzbekistan. This assessment will complement and provide input to the RESILAND SOP.

**ESMF Public consultations and information disclosure.**

Public Consultations have been undertaken during the ESMF development and started as early as possible. The project ESMF summary was first disclosed on 20th September 2021 on *urmon.uz* website. A letter of invitation with the abbreviated ESMF summary content in local language was also sent on 14<sup>th</sup> September 2021 to conduct virtual public consultations. Public consultations, compliant with current COVID-19 restrictions was conducted virtually on September 24, 2021, with regional branches of SCF. Several meetings including virtual ones were conducted with relevant stakeholders including specialists from various line ministries, specialists of SCF, from the State Committee of Ecology and Environmental Protection (SCEEP), and others. Public consultations in project target areas presented the project's objectives, planning activities, potential environmental and social impacts and proposed mitigation measures, and grievance redress mechanism to participants. The role of private sector in the project, impact to local community, possibilities to get financial support etc. questions were raised during consultations. The final ESMF will be disclosed on the WB external website prior Negotiations and subsequently on SCF website in ENG and upon translation to local language(s). Minutes of public consultation workshops are presented in Annex 9.

**ESMF implementation Budget.**

Implementation of ESMF is included in the preliminary budget for the Project with an estimated cost. Costs associated with the coordination of ESMF implementation by the SCF PIU will be fully costed after final design. Preliminary cost of ESMF implementation is **US\$585,060**.

## 1 PROJECT BACKGROUND

### 1.1. INTRODUCTION

The Uzbekistan Resilient Landscapes Restoration Project (RESILAND UZ) comes under the umbrella of a regional RESILAND Central Asia (CA) + program, the objective of which is to increase the resilience of regional landscapes in Central Asia. The Program will comprise analytics and advisory (funded by Bank Budget and Bank-executed Trust Funds such as PROGREEN), a regional IDA, KWPF, a GEF-financed project and other individual country projects. The regional program will include at least three IDA countries (Uzbekistan, Tajikistan, Kyrgyz Republic, and potentially Afghanistan) and support activities with regional spillovers, namely (i) improved connectivity and integrity of natural resources across borders, (ii) increased resilience of key regional infrastructure prone to the impacts of land degradation (e.g., roads, railways, and dams), and (iii) increased resilience of transboundary communities benefitting from more productive landscapes and livelihood opportunities. The Program will also help establish a regional platform for high-level dialogue to support harmonization of policies and approaches between countries on landscape restoration, designed as a component of the each country project. Since transboundary areas are hotspots for land degradation and poverty and restoring land can provide a dual benefit of increased productivity and improved livelihoods, and address risks to communities and infrastructure, regional cooperation is needed to harmonize approaches and harness the ecological and economic benefits across shared corridors. In this context, national approaches would not be as effective in affecting landscape restoration. A regional program is also aligned with the countries' changed vision of addressing the degradation of regional public goods by coming together as one region.

The Uzbekistan Resilient Landscapes Restoration Project will be financed by a US\$153 million IDA credit, US\$8 million PROGREEN Trust Fund grant, and US\$3 million Korea World Bank Partnership Facility (KWPF) Trust Fund grant. The Project will be implemented by the SCF over a five-year period. The geographic focus of the Project are six transboundary corridors<sup>2</sup> that traverse Uzbekistan and Tajikistan, with Project-financed activities taking place on the Uzbek side of the corridors.

The overall objective of the Project is support Uzbekistan's global commitments on land degradation neutrality (LDN), and Nationally Determined Contribution (NDC) to GHG mitigation. It will support Uzbekistan's commitment under the 2018 Bonn Challenge to restore 500,000 hectares of degraded land by 2030 and additional 500,000 hectares with the support of the international community, and the 2018 Astana Resolution on reinforced cooperation on landscape restoration in Central Asia.

### 1.2. SECTOR CONTEXT

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

Forest degradation has been ongoing for at least one century in Uzbekistan. Deforestation along mountainous rivers has caused formation of mudflows and destruction of irrigation systems. Moreover, climate change in Uzbekistan is progressing and may only worsen in the future: moisture availability may decline and consequently the probability of receiving reasonable crop harvests in non-irrigated lands (boghara) will decrease, as well as fodder biomass in pastures. In combination with increasing anthropogenic load, it will result in increasing the pressure on natural pastures, their further degradation and withdrawal of non-irrigated

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<sup>2</sup> For the purposes of the project, *transboundary corridors* are geographical spaces that provide connectivity between landscapes, ecosystems, and natural or modified habitats, ensuring the maintenance of ecosystem services. The corridors connect a mosaic of different land uses – protected areas, forests, pasture land, degraded agriculture lands, and irrigated land.

(dry) lands from economic turnover. In this context it becomes a necessity to find alternative methods of business, which could generate income for the people under conditions of current climatic change and restore normal condition and functions of ecosystems of drying zones for further sustainable use.<sup>3</sup>

Uzbekistan is a low forest-cover country (LFCC), with 3.68 million ha of land covered with forests (“forested land”), corresponding to 8.6% of the land area. The main function of nearly the entire forest estate is protection of soil and water; the wood production function is negligible. The largest forest areas (estimated to more than 3 million ha) are located in cold desert areas and consist mainly of low saxaul forests, which have the characteristics of woodlands than forests. Forests are likely to be significantly impacted by climate change but can contribute to increase resilience and reduce vulnerability of social systems and ecosystems in the country. Researchers expect that even small changes in temperature and precipitation could greatly affect future forest growth and survival in Uzbekistan.

In accordance with the Resolution No. 70 of the United Nations General Assembly, adopted at the UN Summit on Sustainable Development in September 2015, the Government of Uzbekistan has adopted national indicators for the Sustainable Development Goals (SDGs) - a Decree of the Cabinet of Ministers of the Republic of Uzbekistan No841 from 20 Oct 2018 "On Measures for Implementation of National Sustainable Development Goals and Targets for the Period up to 2030". By this decision, Uzbekistan approved national sustainable development goals, targets and indicators for the period up to 2030, including target 15.3 in the area of land degradation neutrality (LDN). The voluntary LDN target adopted by Uzbekistan is *“By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world”*.

The Law of the Republic of Uzbekistan on Amendments and Additions to the Law of the Republic of Uzbekistan "On Forest" dated April 16, 2018, No.ZRU-475. The purpose of this Law is to regulate relations in the field of protection, protection, breeding, reproduction, restoration, productivity, and use of forests.

Forests perform mainly ecological (soil protection, water protection, protection of flora and fauna and other natural resources, protective, sanitary and hygienic, health-improving, recreational) and socio-economic functions.

State forest fund. All forests form the state forest fund. The state forest fund consists of: forests of state importance, that is, forests under the jurisdiction of the state forestry authorities; forests used by other departments and legal entities.

In accordance with the Decree of the President of the Republic of Uzbekistan dated May 11, 2017, No. UP-5041 "On the establishment of the State Committee of the Republic of Uzbekistan on forestry" and the decree dated May 11, 2017, No. PP-2966 "On the organization of the activities of the State Committee of the Republic of Uzbekistan on forestry" a number of organizational and practical works were carried out in the republic to protect, increase, and rational use the forest fund.

Main GoU efforts, particularly the 2019 Presidential Resolution on “Additional Measures to Increase the Efficiency of Forest Use in the Republic” (PP-4424), 2020 Presidential Resolution on the Forest System Development Concept to 2030 (PP-4850), and 2021 Presidential Resolution "On measures to develop science and promote scientific research in the forestry sector" (PP-4960) directed to ensuring integration of science and production, stimulation of research works, and also the enhancement of system of training having the best foreign practices corresponding to the level of international standards in forestry.

### **1.3. PROJECT BENEFICIARIES**

The main project beneficiaries are rural communities in the targeted areas. Within communities, beneficiaries are low-income households, farmer/community groups, livestock owners and herders, SMEs investing in forest assets, and the most vulnerable groups, including women and youth, who will benefit from

<sup>3</sup> <http://www.fao.org/3/k9589e/k9589e17.pdf>

new and improved landscape restoration practices that will provide them with jobs and income, and new and improved livelihood opportunities based on forest and non-forest products and services.

#### **1.4. PROJECT OBJECTIVE, COMPONENTS AND ACTIVITIES**

The project development objective (PDO) is to increase the area under sustainable landscape management in selected locations in Uzbekistan and promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration.

The project comprises of the following components and activities:

**Component 1: Strengthen Institutions and Policies, and Regional Collaboration.** This component will finance consulting services, goods, training and workshops, and operating costs. Sub-component 1.1 will support the development of an appropriate policy and reform of the legal and institutional framework to restore and sustainably manage forest landscapes in Uzbekistan. It will develop the country's first National Forest Inventory (NFI), which will serve, among other, to enhance planning capacities in support of Uzbekistan's LDN and NDC targets. Sub-component 1.2 will support the development of an Information and Communication Technology (ICT) Platform for FLR and forest management within the Forest Design Institute (O'rmonloyikha) of the SCF, in support of data-based decision making on forest and landscape management planning, including afforestation, reforestation and other FLR investments. Sub-component 1.3 will promote Uzbekistan's collaboration with Central Asia countries on transboundary landscape restoration by setting up a regional online database for sustainable landscape management and restoration to facilitate policy and strategy harmonization, and for addressing new emerging climate threats at the regional level. The regional spillovers of this component are related to cross-fertilization of knowledge and harmonization of policies, standards, technologies, and consistency in evaluation methods for transboundary landscape restoration across Central Asia countries.

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

In the first two years of implementation, the Project will support the forest policy review process; provide support in harmonizing legislative texts; prepare, launch, and implement the first NFI; operationalize the NFMS, develop an applied research agenda tailor-made to the needs of the Project; and outline the capacity building program. In the last 3 years of implementation, the NFI system will be in place; the FLR Strategic Master Plan will be developed; the new Forest Code will be drafted; a functional FLR monitoring system will be in place; and necessary capacity will be developed.

#### **Sub-component 1.2: Develop an ICT Platform for Forest Landscape Restoration and Management.**

Establishing an ICT Platform for FLR and forest management within the Forest Design Institute as a two-way forest management information system that: monitors afforestation, reforestation, natural regeneration forests, and forest land use changes; a disaster response information platform; forest big data with mobile application; and a decision support tool that produces tailor made recommendations on a set of forest-related

subjects for decision making, planning, and monitoring of forest restoration and management operations, and disaster response and preparedness actions. This sub-component will benefit from the technical support of Korea Forest Services (KFS), which has experience in the development of such ICT platforms. The sub-component will also finance the development of user-friendly guidelines for the Platform, purchase relevant ICT equipment for the SCF Forest Design Institute, and onboarding of SCF and leskhoz staff through training, including a specific focus for female staff. The new ICT Platform will also facilitate baseline mapping of NBT sites.

**Sub-component 1.3: Strengthen Regional Collaboration.** The objective of this sub-component is to promote Uzbekistan’s collaboration with Central Asia countries on transboundary cooperation and landscape restoration, given the critical need to address emerging threats at the regional level, including impacts of climate change. Activities supported under the sub-component will be designed in support of the RESILAND CA+ Program, and enable better governance and management of shared resources, exploit economies of scale related to regional NBT, and facilitate collective action to address these and other common goals. It will allow countries to come together to address challenges, find regional solutions for shared challenges faced by multiple countries, and thus promote global public goods. Sub-component resources will finance the establishment and management of a regional online database on sustainable landscape management and restoration, attached to the Central Asian Climate Information Platform (CACIP) that is managed by the Executive Committee of the International Fund for Saving the Aral Sea and the Regional Environmental Centre for Central Asia (CAREC) under CAMP4ASB. The regional online database will store and publish data and publications on sustainable landscape management and restoration and allow for a two-way dialog and knowledge exchange between various stakeholders on relevant subjects.

The sub-component will support the implementation of several key regional activities identified by the ICSD in its 10-year Regional Environmental Program for Sustainable Development, including: (i) development of an MoU for facilitating border-crossing for NBT in PAs and unique natural sites shared between countries, (ii) development of an MoU for using common modern methods of inventory of flora and fauna diversity, and ecosystem condition among transboundary corridors, (iii) development of a joint transboundary management plan for ecological corridors for migratory animals, and transboundary cooperation agreements for addressing issues of protection of key species and habitats, including PAs from fires, invasive species, etc., (iv) development of a protocol for using nature-based solutions, including erosion control and tree planting along roads to increase their resilience; and (v) development of an MoU for the designation of a transboundary ‘Peace Park’ between countries along the lines of the United Nations Convention to Combat Desertification (UNCCD) Peace Forest Initiative (2020).

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

**Sub-component 2.1: Enhance Tree-based Landscape Restoration and Management.** The main activities supported under this sub-component will include : (i) ecological site classification: development of a three-tier land electronic Geographic Information System (GIS)-based unit classification system as a decision support tool, including for aligning species with site characteristics that will link with and support integrated land use plans for Project corridors; (ii) production-oriented interventions with protective/restoration benefits; and (iii) ecosystem service-oriented interventions in support of farmer-managed natural regeneration and other forms of rehabilitation, restoration and protection, eco-structures, biodiversity

(through agrobiodiversity by planting native species of fruit and nut trees), and a Green Wager Program. Model nurseries, including for wild seed varieties in support of agrobiodiversity, will be supported to ensure supply of quality seedling stock for restoration activities. Given the structural constraints of climate, soils, and topography, all restoration and tree-based interventions will aim to generate both production and service values concurrently, and where possible, allow flexible management to facilitate responses to future changes in physical growing conditions and/or changing demand for products and services. Involved actors' different levels of access to resources of land, finance, time, and skill levels will inform the type and scale of any intervention.

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

The sub-component will be implemented in a phased manner during the five-year project period. In the first 18-24 months of implementation, it will be implemented in select regions, districts, and villages/clusters together with preparatory activities for at scale implementation in years 3 to 5.

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

The sub-component will be implemented in villages/clusters of villages situated within or adjacent to PAs in the six project corridors and follow a two-track implementation approach to support: (i) improvements or expansion of existing enterprises wherein the Project Implementation Unit (PIU) will work with the relevant leskhoz, regional government agencies, and ongoing enterprise support programs to provide 'light touch TA'; and (ii) formation of new group-based enterprises belonging to community members who are poor and vulnerable to impacts of land degradation and climate change. During the first 6-8 months of implementation, the PIU will recruit regional-level livelihood specialists, engage Technical Assistance Partners (TAPs) and Community Business Agents (CBAs), organize orientation workshops for local government officials and stakeholders, prepare the implementation plan, conduct a baseline study/market assessment in target villages, and develop a preliminary Monitoring Information System (MIS) to monitor the component. From month nine onwards, both tracks will be supported by providing robust TA and business development support to both existing and new enterprises. The Community Operations Manual (COM) will be prepared to guide the implementation of the sub-component.

**Component 3: Enhance Protected Areas and Nature-based Tourism.** This component will finance works, consulting services, non-consulting services, goods, training and workshops, and operating costs. It will finance activities that promote sustainable land and natural resource management practices through improved management of the Zaamin National Park and Zarafshan National Park and sustainable NBT. The regional

spillovers of this component will be improved conditions for regional NBT development and biodiversity conservation. These PAs are also significant carbon stores, providing sequestration benefits.

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

**Sub-component 3.2: Enhance Nature-based tourism.** The sub-component will finance activities that promote environmentally sustainable and climate-resilient forms of NBT, targeted both on domestic tourists and a potentially growing number of international visitors. The investments will be made within or adjacent to SFF lands, such as Bobotag and Uzun (Surkhandarya), Pop (Namangan), Qolgansir (Syrdarya), and Kitab and Shakhrisabz (Kashkadarya) and national parks in Jizzakh, Samarkand, Surkhandarya, Namangan, Syrdarya, and Kashkadarya provinces. Activities will complement the ongoing World Bank-financed Medium-Size Cities Integrated Urban Development Project (MSCIUDP, P162929) by upgrading ‘gateway settlements’ and creating rural-urban tourism corridors to realize increased and sustainable levels of tourist visitation. The types of investments that could be considered under include, but are not limited to improved basic infrastructure, trail systems, picnic and camping areas, and appropriate recreational facilities that promote sustainable natural resource uses, baseline mapping of promising NBT sites, connecting smaller settlements to trails to promote sustainable natural resources, diversify activities and potential for economic development, in combination with private sector engaging activities under the Project. The sub-component will also finance NBT promotion activities focused especially on the planned project corridors, and NBT-related technical studies.

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

**Component 4: Project Management and Coordination.** Component 4 will finance consulting services, non-consulting services, goods, equipment, training, incremental operating costs, and other eligible expenses associated with project implementation.

## 1.5. THE SCOPE AND OBJECTIVES OF ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

As the technical evaluation (e.g., feasibility studies, detailed designs) and specific intervention locations under the project are not identified and/or ready and their specific impacts are not known by project appraisal, a framework approach is adopted. Respectively, in accordance with the ESS1, ESMF is prepared. which

specifies rules and procedures for the activities and site-specific subprojects' Environmental and Social Impact Assessment (ESIA) and for preparing ESMPs. The main goal of the ESMF is to define the measures, ways and mechanism for avoiding, minimizing and/or mitigating potential negative environmental and related social impacts that may occur as the result of implementation of the project. The ESMF ensures that the identified subprojects are correctly assessed from environmental and social perspective to meet the WB's ESF and Environment, Health and Safety Guidelines (EHSGs) requirements alongside with Environmental and Social Laws and Regulations of the Republic of Uzbekistan for adequate mitigation residual and unavoidable impacts. ESMF provides guidelines for the development of appropriate mitigation and compensation measures for adverse impact caused by project activities. In this document the background/context, the policy and regulatory framework are described as well as environmental and social impacts of possible subprojects. This includes site-specific ESIA/s procedures and guidelines, institutional arrangements, consultation and disclosure procedures. The ESMF guides the implementation of project activities by the following:

- 1) Guidelines and procedures to avoid, mitigate, or minimize adverse environmental and social impacts of the potential activities.
- 2) A description of implementing arrangements including details on how environment and social risks, will be managed.
- 3) The criteria for determining acceptable environmental and social risks and pest management procedures for the proposed sub-projects.
- 4) Spelling out national rules and procedures for use of agricultural chemicals and pesticides.
- 5) Descriptions of the environmental and social screening or pest management screening processes that will help to define the required site-specific ESF instruments.
- 6) Checklists for preparing site-specific Environmental and Social Impact Assessments/Environmental and Social Management Plans (ESIAs/ESMPs).
- 7) ESMP checklists for the small- scale construction
- 8) Environmental and social monitoring and reporting requirements.
- 9) A section on proposed capacity building activities to help the implementing agencies comply with the ESF.

Annexes to be the part of ESMF:

1. Rules, criteria and procedures for environmental and social screening of project activities and subprojects to be supported under the project.
2. ESMP checklists for the smaller interventions like facility repair/rehabilitation or construction of small-scale existing infrastructure.
3. Sample Code of Conduct and List of Do's and Don'ts for workers and tourists in Protected Areas

The policy and regulatory framework consider the compliance with the national laws and needs to meet the WB requirements. ESA guidelines and procedures serve to define the responsibilities for sub-project preparation, screening, appraisal, implementing and monitoring. With the help of these guidelines the requirements for the sub project Environmental and Social Management Plans (ESMP) are outlined.

The ESMF serves also to provide details on procedures, criteria, and responsibilities for subproject environmental and social screening, preparing, implementing and monitoring of subproject specific ESIAs. Towards addressing the potential risks and impacts related to land acquisition, restrictions on land use and involuntary resettlement impacts, the SCF has developed a PF&RPF. The key objective of the PF&RPF is to provide a framework to appropriately identify, address and mitigate adverse socioeconomic impacts that may occur due to the implementation of subprojects. The LMP covering a worker grievance procedure, prepared for the Project include measures to ensure their labor and working conditions and occupational health and safety are consistent with ESS 2.

The project does not anticipate any physical displacement due to direct project interventions and construction works. The project interventions will be implemented in representative sites within the project areas, predominantly on State Forest land. Other lands may be used where interventions are required, provided

there are no outstanding issues such as disputed tenure or other rights. Any project subcomponents and activities which would involve any physical displacement will not be eligible for financing by this project. This requirement will be ensured through the implementation of the project ESMF. To mitigate the risks and impacts from access restrictions to natural resources in and outside PAs caused by project activities, a PF&RPF has been prepared to facilitate community participation in and outside of Protected areas and aims to enable the affected communities to participate in the design of project components; to ensure their livelihoods will not be negatively affected as a result of project implementation; to identify and provide them with alternative sources of livelihood and necessary support, and to actively involve them in the implementation and monitoring of relevant project activities. Once site-specific project components are defined and the necessary information becomes available, site specific Action Plans will be prepared, and adopted, communicated and implemented, where needed, to mitigate the livelihood impacts of planned project activities.

The SEP identifies different stakeholders and provides an approach towards engaging with them throughout the project's life. The plan includes the following: (i) stakeholder identification and analysis; (ii) planning for stakeholder engagement for implementation; (iii) grievance mechanism; (iv) engagement during preparation including disclosure and consultation on E&S instruments; and (v) continuous interface with and reporting to the stakeholders.

## 2 REGULATORY AND INSTITUTIONAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT

### 2.1. INSTITUTIONAL FRAMEWORK

The State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection (SCEEP) is a specially authorized state body in the field of state environmental expertise. The SCEEP is subordinated to Cabinet of Ministers (CM) and has responsibility for ministries, state committees, establishments and organizations for the use and protection of lands, subsoils, water, forests, flora and fauna, and air.

The CM is the Executive body responsible for the implementation of state nature protection policy, coordinate development and realization of state programs of socio-economic development. The CM controls their execution and is responsible for registration and evaluation of nature resources. Obligations of regions regarding environmental protection are put to the regional government headed by the Leader of administration (*khokims*). Regional and local government are responsible for registering and evaluating the condition of nature resources, ecologically harmful facilities and are responsible for control, nature protection and usage of nature resources.

The activity of the committee is regulated by President Resolution No. 5024 ‘On Improving the System of State Management in the sphere of Ecology and Environmental Protection’ of 21<sup>st</sup> April 2017.

The structure of SCEEP takes the form of a central body in Tashkent with regional branches and agencies providing scientific and technical support. Regional environmental authorities are structured similarly to the SCEEP. Other state bodies of the Republic of Uzbekistan dealing with environment-related issues are:

- Ministry of Water Resources;
- State Committee for Geology and Mineral Resources (or Goskomgeologiya);
- Centre of Hydro-meteorological Service (or Uzhydromet);
- Ministry of Health (or MoH RUz);
- State Inspectorate for Exploration Supervision, Operations Safety Supervision of Industry, Mining and Utilities Sector (or Sanoatgeokontekhnazorat);
- Ministry of Emergency Situations, etc.

Ministry of Water Resources is responsible for water allocation among different users within Republic of Uzbekistan. Based on forecast and limits provided by Interstate Commission for Water Coordination (ICWC), water is allocated among users with the priority given to drinking water supply sector<sup>4</sup>.

State Committee for Geology and Mineral Resources: (i) carries out, together with Geological Survey Services of the neighboring countries, work on identifying and studying the focal points of radioactive and toxic pollution within transboundary territories, prepare geological maps and atlases reflecting specially hazardous zones and sections; (ii) in accordance with the procedure established by legislation, exercises control over protection of geological and mineralogical facilities as well as underground water from pollution and depletion.

Uzhydromet establishes and maintains the State Hydrometeorological Fund of Data, the State Fund of data on environment pollution, state accounting of surface waters; systematic observations of air, soil, surface water, as well as formation and development of disastrous hydrometeorological phenomena.

Ministry of Health – develops and approves sanitary regulations, rules, and hygienic standards, carries out state sanitary supervision over their observance as well as methodological supervision of the work of sanitary and epidemiological services, regardless of their departmental subordination. The Center of State Sanitary and Epidemiological Surveillance of MH (CSSES) controls the use of pesticides. The CSSES controls the use of pesticides and performs the following tasks:

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<sup>4</sup> Law of RUz “On water and water use” (1993), chapter 8, para 25

- Organization and implementation of state sanitary supervision over the conditions of The Center for State Sanitary and Epidemiological Surveillance is responsible for control of pesticide use in agriculture. agriculture;
- Coordination of activities of interested organizations and institutions in protection of public health  
Coordination of activities of interested organizations and institutions on protection of public health against harmful effects of pesticides and mineral fertilizers;

Provision of organizational and methodological assistance to sanitary and epidemiological institutions and  
Organizational and methodological assistance to Sanitary and Epidemiological Service institutions of the Ministry of Agriculture on implementation and improvement of control over the use of pesticides and mineral fertilizers in agriculture.

Sanoatgeokontekhnazorat (State Inspectorate for Supervision of Subsurface Resources Geological Investigation, Safe Work in Industry, Mining, Utilities and Household Sector) – works together with the State Committee for Ecology and Environment protection of the RUZ and carries out control in the field of geological investigation, use and protection of subsurface resources.

## **2.2. NATIONAL ENVIRONMENTAL LEGISLATION**

National environmental legislation is based on the regulations of the Constitution of Uzbekistan, which was accepted on December 8, 1992, amended in accordance with the Law of Uzbekistan dated 28.12.1993, No. 989-XII, and the Law of Uzbekistan dated 24.04.2003 No. 470-II. There is a requirement that Government, departments, public officers, social associations, and citizens act in accordance with the relevant Constitution and laws. (Article 15). None of the regulations of Constitution can be interpreted to the prejudice of rights and interests of Uzbekistan. None of the laws or other normative-legal acts can contradict norms and principles of the Constitution (Article 16).

In accordance with the Constitution of Uzbekistan, land, its resources, flora and fauna, and other natural resources are national wealth and are subjected to rational usage and protected by government. Article 55 of the Constitution of the Uzbekistan states, "... land, its resources, flora and fauna and also other nature resources are the national wealth and should be rationally used and protected by state".

The main legal document concerning the forestry sector in Uzbekistan is the "Law on Forest" enacted on April 15, 1999 and reviewed and approved by the Senate on March 29, 2018. Under the Law, the role of managing, protecting, using, and restoring of the forests is entrusted to the SCF, and newly envisaged legal mechanisms are described for participation of self-governing bodies of citizens, non-government organizations (NGOs), and citizens, in ensuring protection and use of forests.

Another central legislative act is the "Law about Especially Protected Natural Territories" (1993) which identifies recreation zones, regime of the state national parks and reserves, and other protective zones.

The "Law about Protection and Use of Flora" (1997) directs the procedure of logging; while Decree No. 62 (1994) with respect to industrial wood plantations regulates and promotes the creation of industrial plantations of poplars and other fast-growing tree species to meet the need of wood processing industry, pulp and paper industry, and for construction purposes.

The fundamental legislative act regulating nature conservation is the Law "On nature protection" No. 754-XII dated December 9, 1992 (last revision was made by Law of Uzbekistan No.59 dated 10.10.2006). This Law states legal, economic and organizational bases for keeping conditions of environment, rational usage of nature complexes. It has the aim to provide balanced harmonic development of relations between humans and nature, protection of ecological systems, nature complexes and separate objects, and guarantee rights of citizens for favorable environment. The influence of economic activity on nature environment is limited by norms and quality standards established for various components of the natural environment. The aim is to guarantee ecological safety of population, production and protection of nature resources.

Law on protection of agricultural plants against pests, disease, and weeds (116-II, August 31, 2000 116-II). The purpose of this Law is regulation of the relations connected with ensuring protection of agricultural plants against wreckers, diseases and weeds, prevention of harmful effects of remedies of plants on health of the person, the surrounding environment.

Mechanisms of safe handling of chemicals, including registration, licensing to prevent the formation of stocks of dangerous chemicals (primarily pesticides) in the country are provided by the Laws of the Republic of Uzbekistan "On Narcotic Drugs and Psychotropic Substances" and "On Protection of Agricultural Plants from Pests, Diseases and Weeds". These mechanisms are also regulated by the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On import, export, export and transit through the territory of the Republic of Uzbekistan of narcotic drugs, psychotropic substances and precursors", Annex to the Resolution of the Cabinet of Ministers of 25 July 1995 "The list of specific goods, import of which is subject to licenses, issued by of the Ministry of Internal Affairs of the Republic of Uzbekistan".

Activities related to the safe handling of chemicals are regulated and/or monitored by the Cabinet of Ministers of the Republic of Uzbekistan (local authorities at different levels), the Ministry of Health, the Ministry of Agriculture, State Committee of Ecology and Environmental Protection, Goskhimkommission, Customs Committee, Ministry of Internal Affairs, security agencies and civil self-governance bodies.

Law "About conservation" (754-XII, December 9, 1992, amended on 14-11-2019). This Law establishes legal, economic and organizational basis of preserving conditions of the environment, rational use of natural resources. It aims to provide the balanced harmonious development of the relations between the person and the nature, protection of ecological systems, natural complexes and separate objects, to guarantee the rights of citizens to the favorable environment.

Law about the Protected Natural Territories (710-II, December 3, 2004, amended on 29-09-2020). The Law is regulating the relations in the field of the organization, protection and use of the protected natural territories. The protected natural territories are the land areas and (or) water space (water area) having priority ecological, scientific, cultural, esthetic, recreational and sanitary and improving value, fully or partially, constantly or which are temporarily withdrawn from economic operation. For the purpose of preserving, reproduction and recovery of natural objects and complexes in the protected natural territories the mode of protection and use is set (further - the mode). The protected natural territories constitute the single ecological system intended for ensuring biological, landscape diversity and maintenance of ecological equilibrium.

According to Article 5. The protected natural territories depending on their purpose and the mode are subdivided into the following categories:

- national parks;
- complex (landscape) wildlife areas;
- natural parks;
- state nature sanctuaries;
- the territories for preserving, reproduction and recovery of separate natural objects and complexes;
- the protected landscapes;
- the territories for management of separate natural resources.

Creation of the state biospheric wildlife reserves, national parks, the interstate protected natural territories and other protected natural territories can be provided by the legislation. Directly related to the project is Article 24 which states that upon the establishment of natural parks, their territory must be designated (zoned) into the following areas:

- zones of strict protection (reserves),
- zones of recreational use,
- zones of economic use,
- etc. (incl. zones of sanatoriums)

Article 25 further clarifies that all zones “*would have differentiated regime of land use in accordance with their designation*” and any changes in zone boundaries and extent would be regulated by the government authorities following the conclusion of state environmental expertise.

The National Biodiversity Strategy. Since 1995, Uzbekistan is a party to the Convention on Biological Diversity (CBD, 1992). As the instrument of CBD requirements implementation, Uzbekistan adopted its National Biodiversity Strategy, first in 1998, and in 2019 it approved the National Strategy for the conservation of Biological Diversity 2019-2028 (2019 Resolution of the Cabinet of Ministers No 484) as the second National Biodiversity Strategy and Action Plan.

NBSAP as strategic objectives list such commitments as reduction of direct pressures on biological diversity, and sustainable use of its components in protected landscapes; development of the Protected Area system, as well as increasing the volume of benefits provided by ecosystem services.

Law “On Atmospheric Air Protection” (1996, amended on 28.09.2020). It describes regulations on atmosphere protection and its objectives. It specifies standards, quality and deleterious effect norms, requirements on fuels and lubricants, production and operation of vehicles and other transport means and equipment, ozone layer protection requirements, obligations of enterprises, institutions and organizations toward atmospheric protection, and compensations for damages from atmospheric pollutions.

Law “On water and water use” (1993). It regulates the water relations, rational use of water by the population and economy. The law regulates the protection of waters from pollution and depletion, and prevention and liquidation of harmful effects of water, improvement of water bodies and the protection of the rights of enterprises and institutions, organizations and dehqan farms and individuals in the field of water relations.

Land Code of the Republic of Uzbekistan (1998). It aims to regulate land relations in order to ensure that present and future generations have science-based, sustainable use and conservation of land, breeding and improvement of soil fertility, conservation and improvement of the environment and creating conditions for equitable development of all forms of management, the protection of individuals and legal entities’ right for land, as well as strengthening the rule of law in this area.

Law “On Wastes” (2002, amended on 15.11.2019). It addresses waste management, exclusive of emissions and air and water pollution, and confers authority to the SNPC concerning inspections, coordination, ecological expertise and establishing certain parameters with regard to the locations where waste may be processed. Enterprises are responsible for their waste, but, if they recycle, they may be provided with assistance from the state budget, the National Fund for Nature Protection or voluntary payments. The principal objective of this law is to prevent negative effects of solid wastes on people’s lives and health, as well as on the environment, reduce wastes generations, and encourage rational use of waste reduction techniques in household activities.

Law “On environmental control” (2013, amended on 13.11.2019) - The purpose of this Law is to regulate relations in the field of environmental control. The main objectives of environmental control are: (i) prevention, detection and suppression of violation of the requirements of legislation in the field of environmental protection and rational use of natural resources; (ii) monitoring the state of the environment, identifying situations that can lead to environmental pollution, irrational use of natural resources, create a threat to life and health of citizens; (iii) determination of compliance with the environmental requirements of the planned or ongoing economic and other activities; (iv) ensuring compliance with the rights and legitimate interests of legal entities and individuals, performing their duties in the field of environmental protection and rational use of natural resources.

Law “On Protection and Usage Objects of Archeological Heritage” (2009, amended on 19.04.2019) – regulates relations in the field of protection and usage of objective of archeological heritages, defines ownership rights of such objectives, responsible entities and provides a procedure of archeological investigation of the objectives of archeological heritage.

A ‘Presidential Resolution on the Forest System Development Concept to 2030’ (PP-4850) (October 6, 2020) defines the forest sector’s strategic goals, policy priorities, and implementation mechanisms, and prioritizes policy, capacities, forest protection activities, incentives for private sector investments, improved monitoring, and expanded economic activities in the sector. The Concept is aligned with the August 23, 2019 Presidential Resolution on ‘Additional Measures to Increase the Efficiency of Forest Use in the Republic’ (PP-4424), and with the Decision of the Cabinet of Ministers in August 2020 on the ‘Creation of Industrial Plantations of Fast-growing Trees’ (no. 520). These call to increase the country’s forest area to 6 million hectares in ten years by farmers and Public-Private Partnerships (PPP) through scientific research and incentive-based agroforestry. To implement the Concept, on January 21, 2021, another Presidential Resolution was adopted on ‘Measures to Develop Science and Promote Scientific Research in the Forestry Sector’ (PP-4960).<sup>5</sup> In 2019, the Uzbekistan ‘Concept of Development of the Tourism Industry 2025’ and a corresponding Action Plan were adopted to develop the tourism sector with a focus on rural areas in the regions, and the zoning of ecotourism areas within almost all State reserves. The agencies responsible for forest management in Uzbekistan and Tajikistan recently prepared a draft roadmap highlighting joint activities for cooperation in the sector.

The Nature Protection Normative Documents. Most important nature protection documents issued by President and Cabinet of Ministers include:

- No. UP-5024 of 21.04.2017. "On improvement of the system of state management in the sphere of ecology and environmental protection".
- No. UP-5490 of 27.07.2018. "On measures to further improve the system of protection of the rights and legitimate interests of business entities"
- No. UP-5863 of 30.10.2019. "On approval of the Concept of environmental protection of the Republic of Uzbekistan until 2030"
- PP-2915 of April 21, 2017. "On measures to ensure the organization of activities of the State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection"
- PP-3956 of 03.10.2018 "On additional measures to improve the system of state administration in the field of ecology and environmental protection".
- PP-4247 of 20.03.2019 "On measures to improve the system of state management in the sphere of protected areas".

Resolutions of the Cabinet of Ministers

- "On the regulation of the use of biological resources and on the procedure for the authorization procedures in the field of natural resources", October 20, 2014, No. 290
- "On measures to further improve the use of the objects of the flora" of 30.09.2015, No. 278
- "On measures to further improve the use of the objects of the flora in order to develop the processing industry of the republic" from 23.03.2016, №85
- "On approval of the schedule for the phased implementation of public services provided exclusively through public service centers for the period 2018-2020" from 25.04.2017, No. 239
- "On approval of some administrative regulations for the provision of public services in the sphere of nature management" from 31.03.2018, No. 255
- "On approval of the strategy for the conservation of biodiversity in the Republic of Uzbekistan for the period 2019-2028" from 11.09.2019, №484
- "On measures to further improve the procedure for ordering the use of trees and shrubs not included in the state forest fund, as well as the issuance of permits in the field of their use" from 17.01.2019, №43
- "On additional measures for the effective organization of production and industrial processing of licorice and other medicinal plants "from 15.02.2019, №138

<sup>5</sup> Resolution PP-4960 introduces new departments and entities in the FC’s structure responsible for scientific research: a Department for Coordination of Scientific Organizations and Introduction of Innovations, a Scientific Experimental Pistachio Farming Station, a Forest Economy Department, and a Design Institute Urmonloyiha (translated as ‘Forestry Project’) as a state institution responsible for improving the quality and effectiveness of design and survey work in the forestry sector.

- "On approval of the environmental monitoring program in the Republic of Uzbekistan for 2016-2020" of 23.08.2016 r., № 273
- "On conducting the state accounting, accounting volumes of use and state cadastre of objects of fauna and flora" from 07.11.2018, №914
- "On approval of the regulation on the order of maintaining the state cadastre of protected natural territories of the Republic of Uzbekistan" from March 10, 1998, №104
- "On approval of the Regulation on the order of maintaining the passport of the protected natural territory" from June 2, 2014, №137
- "On improvement of the environmental monitoring system in the Republic of Uzbekistan" of 5.09.2019, №737
- "On Approval of the Regulation on the Procedure of Establishment and Maintenance of State Registration of Nurseries and Plantations for Growing Wild Plants" of 25.05.2019 №430
- Decree of the Cabinet of Ministers "On improving the monitoring system of the natural environment in the Republic of Uzbekistan" (No 737, 05.09.2019);
- SanR&N RUz No. 0150-04 Storage, application and transportation of pesticides;
- SanR&N RUz No. 0372-20 (new edition) Temporary sanitary rules and norms for organizing the activities of state bodies and other organizations, as well as business entities during the application of restrictive measures during the COVID-19 pandemic.

The Republic of Uzbekistan is party to a series of international environmental treaties and Regional Agreements which also contain a series of requirements to be considered while conducting the subprojects ESA. The country is party to the three Rio Conventions: Convention on Climate Change, Convention on Biological Diversity (CBD), and Convention to Combat Desertification. Additionally, the country has signed and ratified the following treaties:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal ratified 7 Feb 1996;
- Convention on Protection of the World Cultural and Natural Heritage (22.12.1995);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (01.07.1997);
- Bonn Convention on Conservation of Migrating Species of Wild Animals (01.05.1998).
- Vienna Convention for the Protection of the Ozone Layer. Signed 1985, ratified 1993.
- Montreal Convention on Ozone Depletion. Signed 1987, ratified 1993.
- Basel conventions on the control of transboundary movements of hazardous waste and their disposal Signed 1989, ratified 1995.
- Framework convention on climate change. Signed 1992, ratified 1993.
- UN convention to combat desertification. Signed 1994, ratified 1995.
- Convention on Biological Diversity. Signed 1992, ratified 1996.
- Convention on International Trade in Endangered Species (CITES). Signed 1973, ratified 1997.
- The World Heritage Convention. Signed 1973, ratified 1995.
- Convention on the Prohibition of Military or any other Aggressive Destructive Actions to the Environment. Signed 1977, ratified 1978.

### **2.3. NATIONAL EIA RULES AND PROCEDURES**

The national EIA procedure is regulated by Law on Environmental Expertise and The Regulation on State Environmental Expertise (SEE) approved by Cabinet of Ministry Decree No.541 dated from 7 September 2020. According to the para 9 of the Decree No.541 the Center for State Ecological Expertise under the State Committee for Ecology (Center for State Ecological Expertise -CSEE) is responsible for the study, analyze and carry out of the proposed projects, environmental standards, and other environmental impact assessment documents. The three EIA stages and their required deliverables are summarized as follows:

- Stage I: The 'Draft Statement of the Environmental Impacts (DSEI)' ('PZVOS' is the national acronym), to be conducted at the planning stage of the proposed project prior to development funds being allocated.
- Stage II: The 'Statement of the Environmental Impacts (SEI)' ('ZVOS' is the national acronym), to be completed where it was identified by the CSEE at Stage I that additional investigations or analyses

were necessary. The Statement must be submitted to the CSEE before approval of the project’s feasibility study, and therefore before construction.

- Stage III: The ‘Statement on Environmental Consequences (SEC)’ (‘ZEP’ is the national acronym) represents the final stage in the SEE process and is to be conducted before the project is commissioned. The report details the modifications to the project design that have been made from the CSEE review at the first two stages of the EIA process, the comments received through the public consultation, the environmental norms applicable to the project and environmental monitoring requirements associated with the project and principal conclusions.

According to the para 51 A positive conclusion of the state environmental expertise shall be prerequisite for the start of financing the object of the state environmental assessment by banks and other credit organizations. And it’s shall not have legal force if the object of expertise was not commissioned within three years from the date of issuance of the Conclusion of state environmental expertise. All economic activities subject to SEE are classified based on the Annex 1 into one of four categories:

- Category I – “high risk of environmental impact” (SEE is conducted by the national CSEE within 10 days, all EIA materials are required);
- Category II – “medium risk of environmental impact” (SEE is conducted by the national CSEE within 7 days, all EIA materials are required);
- Category III – “low risk of impact” (SEE is conducted by regional branches of CSEE within 5 days, all EIA materials are required); and
- Category IV – “low impact” (SEE is conducted by regional branches of CSEE within 3 days, only a questionnaire form is required).

EIA procedure in Uzbekistan is presented in Figure 2.1 below.

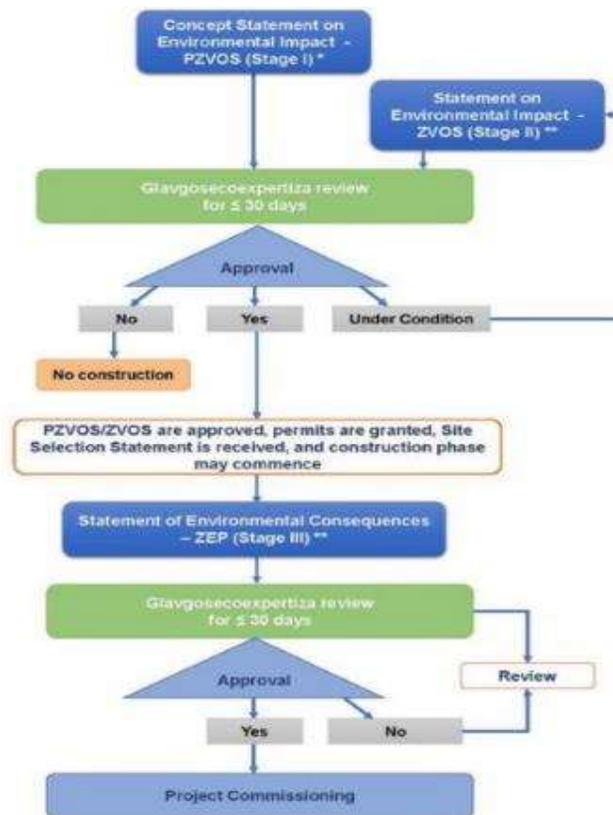


Figure 2.1: Uzbek EIA procedure<sup>6</sup>

<sup>6</sup> Regulation on the State Environmental Expertise in the Republic of Uzbekistan No.541 of 07.09.2020

## 2.4. KEY NATIONAL LEGISLATION ON SOCIAL ASPECTS

The legal and policy framework of the project is based on national laws and legislations related to land acquisition and compensation policy in Uzbekistan and Environmental and Social Standards of the World Bank. Based on the analysis of applicable laws and policies and WB's ESF objectives and requirements, project related LAR principles have been adopted.

**Constitution.** The Constitution of the Republic of Uzbekistan (December 8, 1992) provides that: Everyone shall have the right to own property (Article 36). The economy of Uzbekistan, evolving towards market relations, is based on various forms of ownership. The state shall guarantee freedom of economic activity, entrepreneurship, and labor with due regard for the priority of consumers' rights, equality and legal protection of all forms of ownership (Article 53). An owner, at his discretion, shall possess, use and dispose of his property. The use of any property must not be harmful to the ecological environment nor shall it infringe on the rights and legally protected interests of citizens, juridical entities, and the state (Article 54). The land, its minerals, waters, fauna and flora, other natural resources shall constitute the national wealth and shall be rationally used and protected by the state (Article 55).

**Land Code.** The Land Code (LC) is the main regulatory framework for land related matters in Uzbekistan. The LC regulates allocation, transfer and sale of land plots, defines ownership and rights on land. It describes responsibilities of different state authorities (Cabinet of Ministers, province, district, city Hokimiyat) in land management; rights and obligations of land possessor, user, tenant and owner; land category types, land acquisition and compensation, resolution of land disputes and land protection. The LC also defines the terms of rights termination on land plot, seizure and land acquisition of land plot for state and public needs, and terms of seizure of land plot in violation of land legislation. The LC provides that:

Withdrawal of the land or part thereof for state and public needs is made by agreement with land user and tenant by decision respectively khokim of district, city, region or by decision of the Cabinet of Ministers (Article 37, Clause 1). In case of disagreement the land user or tenant of the land with a decision of district (city, region) khokim, or the decision of the Cabinet of Ministers to withdraw the land, this decision may be appealed in court (Article 37, Clause 2);

Losses caused by violation of the rights of land users, tenants and landowners (including lost profits), shall be reimbursed in full (Article 41, Clause 3);

The withdrawal of the land for state or public needs may be produced after allocated to land user or tenant an equivalent land plot and the compensation all losses including lost profits (Article 41, Clause 4).

The LC (Article 36, Clause 1) specifies instances when the right to the land can be terminated. Termination of the right of possession and the right of permanent or temporary use of land is made by decisions, respectively, of khokims of districts, cities, regions or by the decision of the Cabinet of Ministers on the proposal of the bodies exercising state control over the use and protection of land, on the basis of supporting documents justifying the termination of the rights. In case of disagreement with the decisions of the Cabinet of Ministers and the officials of the termination of the right of possession, the right of permanent or temporary land use natural and legal persons may appeal to the court (Article 36, Clause 4).

According to Article 39, Clause 1 land user, tenant and landowner have besides others the right for reimbursement of losses (including lost profits), in case of withdrawal of land or compensation costs for voluntary renunciation of land (Article 39, Clause 1, sub-Clause 7).

The LC (Article 86, Clause 1) specifies the cases where losses of land users must be compensated in full including lost profits:

- seizure, redemption or temporary occupation of land;
- the restriction of their rights in connection with the establishment of water protection zones, coastal strips, sanitary protection zones of water bodies, zones of formation of surface and underground water, zones of resort areas, public areas of biosphere reserves, protected zones around national parks, game

reserves, national nature monuments, sites of cultural heritage, discharges, roads, pipelines, communication and power lines.

According to the Article 87, Clause 1 losses of agricultural and forestry production, caused by the withdrawal of agricultural and forest land, including agricultural land, owned and used by individuals to use them for purposes not related to agriculture and forestry, restrictions on the rights of land users and tenants or deterioration land due to the impact caused by the activity of enterprises, institutions and organizations, shall be reimbursed in addition to the indemnity provided for in Article 86. Losses of agricultural and forestry production is compensated by legal and natural persons:

- which removes withdrawn agricultural and forest lands for purposes not related to agriculture and forestry;
- around objects that set security, sanitary and protection zones with the exception of the revolutions of agricultural and forest land, or transfer them to less valuable lands.

**Civil Code.** The Civil Code (CC) defines the legal status of participants of civil relations, the grounds and procedure of implementation of property rights and other proprietary rights, rights on intellectual property, regulates the contractual and other obligations, as well as other property and related personal non-property relations. The CC defines general rules of property seizure, determination of property cost and rights for compensation, terms of rights termination.

The CC provides that: person whose right has been violated may demand full compensation for damages, unless the law or the contract provides compensation for losses in a smaller size (Article 14, Clause 1). The Civil Code (Article 14, Clause 2) also specifies that losses are understood as:

- expenses that the person whose right is violated, made or must make to restore the violated right;
- the loss of or damage to property (real damage);
- the revenues that this person would have received under normal conditions of civil turnover if his right had not been violated (lost profits).

According to article 14, Clause 3 “If the person has violated law, revenues received as a result of this, the person whose rights were violated, has the right to demand compensation along with other losses, lost profits in the amount not less than such profits”.

According to article 7 “If an international treaty or agreement stipulates other rules than those stipulated by civil legislation, rules of the international treaty or agreement”. This rule is a common rule for all Uzbekistan’s laws.

According to the Article 8, Clause 3, the rights to the property which are subject to state registration shall arise upon the registration of the relevant rights to it, unless otherwise provided by law. Article 84, Clause 1 provides that the right of ownership and other real property rights, creation, transfer, restriction and termination of these rights are subject to state registration. This means that without registration the right to real estate property does not enter into the force. This statement is very important for the further understanding of LAR processes related to land acquisition and building’s demolition.

**Resolution of Cabinet of Ministers № 146 (25 May 2011).** This Resolution is aimed to improve the procedure of granting land plots, protect the rights of legal entities and individuals on land and improve the architecture of settlements and the efficient use of their land for construction in accordance with the Land Code and the Town Planning Code. This resolution has approved two Regulations: (i) Regulation on the procedure for granting land for urban development and other non-agricultural purposes, (ii) Regulation on the procedure of compensation for land possessors, users, tenants and owners, as well as losses of agriculture and forestry. The Regulation on the procedure for granting land for urban development and other non-agricultural purposes contains the following provisions:

Order of land plot location, preparation and approval of site selection and land allocation documents without approved planning documentation;  
Order of placement, selection and land allocation with approved planning documentation,

- Order for rejection in the selection and land allocation for construction;
- Provision(sale) of land plots for individual housing construction;
- Elements of urban planning documents and development regulation lines.

The Regulation on the procedure of compensation for possessors, users, tenants and land owners, as well as losses of agriculture and forestry includes the following:

- Compensation for losses of owners, users, tenants and land owners;
- Compensation for losses of agriculture and forestry;
- cost of irrigation and developing equal new land plot in return for seized irrigated agricultural land;
- Cost of fundamental improvement of grassland and pasture;
- Scheme for determination of losses of land possessors, users, tenants and owners, as well as losses of agriculture and forestry;
- Coefficients on location of seized land plots.

The losses of land possessors, users, tenants and owners, as well as losses of agriculture and forestry should be compensated before granting of documents certifying rights on land plot. The regulation also orders that demolition of house, or building shall be done only after agreeing on compensation and providing replacement premises. The regulation orders that compensation has to be paid before starting any construction work. The land possessors, users, tenants and owners, whose land plots are seized and to whom land plots are granted, in case of disagreement with defined amount of losses, can appeal to court. In case of acquisition and temporary occupation of land plot or part thereof, the following would be subject to compensation:

- Cost of land plot, owned by individuals and legal entities;
- Cost of residential houses, constructions and installations, including incomplete constructions, and also located outside of allocated plot, if its further utilization is impossible due to seize of land plot.
- Cost of fruits and berries, protection and other perennial plants;
- Cost of incomplete agricultural production;
- Lost profit.

Above-described Laws and Regulations mention that non-titled and squatters on land and building/structures are ineligible for any compensation.

Collectively, these regulations provide a sound basis for acquiring land for public purposes and for compensating land users according to the registered use of the land in Uzbekistan.

**Tax code.** The Tax Code (TC) is a regulatory framework for taxation related matters of individuals and legal entities. This law regulates compensation for vulnerable group of people in terms of applying discounts or exemption from property taxes, income tax and other taxes stipulated in this TC.

**Labor code and employment law.** These two documents are main legislations regulating labor relations of individuals employed with labor contract by enterprises, institutions, organizations of all type ownership forms, including contracted by individuals. These legislations are considering interests of employees and employers provide efficient function of labor market, just and secure labor conditions, protection of labor rights and employees health, promote to growth of labor productivity, increase of work quality, raising on this matter welfare and social livelihood level of the population.

Both WB policy and the Uzbek law provide for the indemnification of APs who lose a job because of land/assets acquisition under a public interest project. The two, however, differ substantially on how the matter is conceptualized and resolved in practice. WB| policy compounds the matter as an income rehabilitation issue and thus requires that the actual job income lost by the APs is fully reimbursed to them. This approach covers temporary and permanent job losses and is generally implemented through an allowance providing the APs their declared monthly salary (what should be substantiated by the supporting documents) for the number of months of business stoppage up to a maximum of 12 months which is the benchmark for permanent job loss. For informal permanent jobs without declared salaries the approach is the

same but based on national minimum salary. To guarantee proper policy application the payment of the job loss allowances are to be directly disbursed to the APs by the project proponent.

The national legislation, instead, limits the matter to the payment as mandated by the Labor Code of fixed employment termination indemnities due by an employer to his employees and to the obligation of the project proponent to reimburse the employer of the cost of those indemnities mandate by the Civil Code. Such an approach excludes from job loss compensation informal employees without a declared salary, applies only to permanently affected jobs and does not automatically guarantee that the APs receive their job termination dues<sup>[1]</sup>.

**Resolution of Cabinet of Ministers № 44 (15 February 2013).** This resolution determine the procedure for the appointment and payment by Makhalla allowances for families with children under the age of 14 years, allowances for child care until the age of two years and allowance for low income families. According to this resolution the following types of families are entitled for allowances:

- families who have lost both parents and children involved in family education;
- families where one or both parents are disabled children;
- widow (er), raising two or more children under the age of 14, living separately from other relatives;
- family with disabled children;
- mothers or fathers who are bringing up the children in a single-parent family. In this case the fact of child rearing mother (father) in an incomplete family established by makhalla;
- families in which one or both parents are unemployed who has been registered at centers to promote employment and social protection of the population as job-seekers;
- single retired persons.

The Uzbekistan's legislation does not define compensation as targeting the rehabilitation of the APs livelihood. It instead focuses on the mere compensation of directly measurable physical impacts or incomes. This may create some reconciliation problem with WB requirements especially for what concerns the compensation of indirectly affected items that become unusable after impacts or for the provision of severe impacts, vulnerable APs and relocation allowances. Thereby, requirements of WB for vulnerable segments of the population agree with category of residents, determined by the Government. However, to meet the ESF principles to improve the standards of living of the displaced poor and other vulnerable groups at least national minimum standards, the vulnerable households will be provided with a one-time additional allowance.

**Resolution of Cabinet Ministers №3857 (16 July 2018).** The resolution "On measures to improve the effectiveness of training and realizing projects with participation of international financial institutions and foreign government financial organizations" partly provides that payment of compensation for the land acquisition, demolition of houses, other structures, plantings within the framework of projects with the participation of International Financial Institutions (IFIs), if it is agreed and stated in agreements, then will be carried out by authorized bodies in accordance with the requirements of IFIs or Foreign Governmental Finance Organizations (FGFOs).

**Decree of the President of the Republic of Uzbekistan №5495 (1 August 2018).** Decree "On measures on cardinal improvement of investment climate in the republic of Uzbekistan" partly provides that the adoption of decisions on the seizure of land for state and public needs is allowed only after an open discussion with interested parties whose land plots are planned to be seized, as well as assessing the benefits and costs; demolition of residential, industrial premises, other structures and structures belonging to individuals and legal entities, with the withdrawal of land plots is allowed after full compensation of the market value of immovable property and losses caused to owners in connection with such withdrawal.

**Resolution of Cabinet of Ministers № 911 (16 November 2019).** The resolution envisages procedures for acquisition of lands for state and public needs that belong to individuals (individual entrepreneur, citizen of the Republic of Uzbekistan, foreign citizen and stateless persons) and legal entities (business entities, non-governmental organizations) on the basis of ownership, permanent use or temporary use, as well as in the

framework of investment projects and compensation for property owners including for the properties located on impacted lands.

According to the Chapter 3 (General procedure for providing compensation to owners due to demolition of properties), Article 11 of the resolution, compensations are paid as follows:

- market value of real estate located on the seized land, and the market value of the right to the seized land;
- expenses associated with the temporary acquisition of properties, including relocation;
- loss of profits of individuals and legal entities, and other expenses and losses stipulated by law or agreement.
- the cost of self-constructed housing, industrial and other buildings and structures should also be covered.
- types of compensation provided:
  - cash;
  - provision of land plot or another property for the acquired land and property;
  - other form of compensation as per agreement of parties.

By agreement of the parties, the owner may be provided with several types of compensation, considering the estimated value of the property. The term for the provision of a new property instead of demolished property should not exceed 24 months from the date of provision of another property for temporary use. If a new property is not issued within the indicated period, the entrepreneur pays the owner a fine of 0.01 percent for each day of delay. In this case, the size of the fine should not exceed 50 percent of the value of the violated property. An agreement providing for the provision of property as compensation is subject to state registration in cases provided for by law.

In case of acquiring the land for state and public needs, compensation shall be paid by the Council of Ministers of the Republic of Karakalpakstan, Hokimiyats of the city of Tashkent, regions, or district (city) from the funds of the corresponding centralized fund and other sources not prohibited by law.

In case of acquiring the land for investment projects, the investor pays compensation and compensation can also be paid from other sources not prohibited by law, through:

- Transferring funds to the appropriate bank (deposit) account of the affected owner;
- In case of acquiring an apartment building the affected owner shall be given apartment for ownership in the same area or another area based on the agreement of parties;
- A new apartment can be given from an apartment building (or houses) which are being built on the acquired land plot, as wished by the affected owner. In this case, the owner will be provided with temporary housing for rent paid by the investor, until he/she receives a new apartment in the housing buildings which is being built;
- In case of acquiring lands occupied by a non-residential building, as agreed by parties, the affected owner shall be given a non-residential building within the same district (city) and not less than the total area of the acquired non-residential building;
- If a non-residential building to be given as compensation from the buildings being built at the acquired land, the affected owner shall be given a temporary non-residential building for rent at the expense of the investor until she/he will receive the compensated non-residential building;
- In case of acquiring a land, plot occupied by an individual residential premise (including construction in progress, but registered) - by an agreement of the parties, the owner shall be compensated with an individual residential premise within the district (city);
- In case of acquiring a land plot the affected owner shall be given another land plot, the type and area of which is equal to the previous one.

If the market value of the right to the seized land exceeds the market value of the right to the land plot provided as compensation, the difference shall be compensated to the right holder of the land plot. If the market value of the right to the affected land is lower than the market value of the right to the land granted as compensation, the affected land holder will not be required not pay the difference. By agreement of the

parties, the size, and types of the land plot unit for compensation may be reduced by providing additional land plot as compensation. In case of acquiring the land plot for housing construction, the investor provides the affected owner and his/her family with temporary rent housing until the completion of construction and transferring the housing unit to the affected owner. In this case, the construction period should not exceed two years from the date of conclusion of the agreement.

**Law of the Republic of Uzbekistan #ZRU-410 dated September 22, 2016** on introduction of amendments and additions to the law of the Republic of Uzbekistan “On Labor Protection”. The purpose of this Law is to regulate relations in the field of labor protection. Labor protection legislation consists of this Law and other legislative acts. If an international treaty of the Republic of Uzbekistan establishes rules other than those provided by the legislation of the Republic of Uzbekistan on labor protection, then the rules of the international treaty are applied. This Law applies to:

- employees who are in labor relations with enterprises, institutions and organizations (hereinafter referred to as organizations), as well as with individual employers;
- students of higher educational institutions, students of secondary specialized, vocational educational institutions, students of other educational institutions undergoing industrial practice;
- military personnel recruited to work in organizations;
- citizens doing alternative service;
- persons serving a sentence under a court sentence during the period of their work in organizations determined by institutions for the execution of punishment, as well as persons who are subject to an administrative penalty in the form of administrative arrest, persons involved in other types of work, including those organized in the interests of society and state.

**Decree of the President of the Republic of Uzbekistan #UP-5041 dated May 11, 2017** "On establishment of the State Committee of the Republic of Uzbekistan for Forestry".

Determine the main tasks and areas of activity of the State Committee of the Republic of Uzbekistan on Forestry:

- implementation of a unified state policy in the field of forestry, aimed at the comprehensive expansion and rational use of forest resources;
- development of proposals for the improvement of forestry legislation and the implementation of effective control over its observance;
- organization of effective management of the forest fund and protected natural areas, creation, reproduction, protection and protection of forest plantations, rational and careful use of forests;
- development and implementation of measures to prevent desertification, reforestation and protective afforestation in the republic, organization of work to create anti-erosion plantations on mountain slopes, in ravines and on waste lands;
- maintaining strict accounting and studying the forest fund, fauna and flora, introducing the achievements of science and advanced experience into the practice of forestry;
- protection of forests from fires, pests and diseases, illegal logging and other violations of forest legislation;
- organization of the development and implementation of a unified system of certification and standardization of planting material for ornamental plants;
- expansion and development of associated economic activities in forestry, implementation of measures for the production of seedlings, collection of medicinal herbs, organization of production and deep processing of agricultural products, beekeeping products, fish farming, animal husbandry, production of consumer goods;
- attraction of grants from international financial institutions to the industry, wide development of ecological tourism;
- organization of training, retraining and advanced training of specialists with higher and secondary specialized education in the field of forestry.

**Resolution of the President of the Republic of Uzbekistan #PP-2966 dated May 11, 2017** "On organization of activities of the State Committee of the Republic of Uzbekistan on Forestry".

In pursuance of the Decree of the President of the Republic of Uzbekistan dated May 11, 2017 #-5041 "On the establishment of the State Committee of the Republic of Uzbekistan on Forestry" and in order to effectively organize the activities of the State Committee of the Republic of Uzbekistan on Forestry.

**Law of the Republic of Uzbekistan #ZRU-445 dated September 11, 2017** “About appeals of individuals and legal entities”. The purpose of this Law is to regulate relations in the field of appeals of individuals and legal entities to state bodies and state institutions, as well as to their officials. This Law also applies to organizations with state participation and citizens' self-government bodies. This Law does not apply to:

- applications, the procedure for consideration of which is established by the legislation on administrative responsibility, civil procedural, criminal procedural, criminal executive, economic procedural and other legislative acts;
- mutual correspondence of state bodies, as well as their structural divisions.

The main principles for considering appeals are:

- legality;
- timeliness and completeness of consideration of appeals;
- uniformity of requirements for appeals;
- observance of the rights, freedoms and legitimate interests of individuals and legal entities;
- inadmissibility of bureaucracy and red tape when considering appeals;
- transparency of the activities of state bodies, organizations and their officials when considering appeals.

The procedure for admitting individuals and representatives of legal entities.

Reception of individuals and representatives of legal entities is carried out by the head or other official of a state body, organization. For this, special structural subdivisions can be created in state bodies and organizations, officials responsible for reception are determined. Heads or other authorized officials of state bodies may organize off-site personal receptions of individuals and representatives of legal entities, as well as public receptions. Reception of individuals and representatives of legal entities is carried out on the established days and hours according to the reception schedule. Off-site personal receptions of individuals and representatives of legal entities, as well as public receptions, if necessary, may be held outside the reception schedules. A public reception can also be carried out by visiting courtyards (apartments), other premises and places. If the resolution of the issues raised during the reception does not belong to the powers of the state body, organization or their official, then the relevant officials should explain to the applicant which body or organization should be contacted to resolve the issues set forth in the appeal. During a personal reception, by decision of the head of a state body, organization and with notification of the applicant, special technical means (audio and video recording, as well as photography) may be used. When applying orally, an individual must present a document proving his identity, and a representative of a legal entity must present a document confirming his authority and proving his identity, with the exception of applications received during a public reception. Oral appeals can also be submitted using information and communication technologies in real time, including through helplines, "hot lines" of state bodies, organizations and through videoconferencing.

Terms of consideration of appeals. The application or complaint is considered within fifteen days from the date of receipt by the state body, organization or their official, who are obliged to resolve the issue on the merits, and when additional study and (or) verification is required, the request for additional documents - within up to one month.

In cases where for the consideration of applications and complaints it is necessary to conduct an inspection, request additional materials or take other measures, the terms of their consideration can be exceptionally extended by the head of the relevant state body, organization, but not more than one month, with a message about this addressing.

The proposal is considered within a period of up to one month from the date of receipt by the state body, organization or their official, except for those proposals that require additional study, about which the individual or legal entity who submitted the proposal is notified in writing, within ten days.

Resolution of the President of the Republic of Uzbekistan #PP-4850 dated October 6, 2020 "On approval of the concept of development of the forestry system of the Republic of Uzbekistan until 2030". The main objectives of the Concept are:

- introduction of rules and procedures for leasing and public-private partnerships based on the principles of a market economy in order to ensure the protection, conservation, restoration, cultivation and rational use of forests in the Republic of Uzbekistan;
- combating desertification, creating forests in order to prevent desertification in the Aral and Aral Sea regions;
- establishment of environmentally friendly, waste-free production in forests by attracting foreign investments into the industry;
- introduction of innovative technologies in forestry activities;
- a gradual transition to the practice of self-sufficiency through the introduction of a market economy mechanism in the organization and management of forestry;
- increasing the tourist potential of forests.

**Approaches Concepts.** When implementing the Concept, the following approaches are used:

- systematization and improvement of the regulatory and legal framework - implementation of international norms, codification of forest legislation, calculation of the economic potential of forests, the introduction of assessment mechanisms when allocating them for lease;
- rational use of the part of the forested land area of the forest fund, assessment of the effectiveness of work on afforestation, combating desertification;
- lease of forest lands, ensuring the transparency of the rules and procedures of public-private partnership with their effective and rational use;
- improvement of the monitoring system of the state of forests, formation of a fund of information resources;
- the creation of forests based on the soil and climatic conditions of the territory of the republic, the comprehensive expansion of the forest fund, the introduction of innovative technologies in the implementation of measures for their protection;
- organization of ecotourism routes and the necessary infrastructure for the development of ecotourism;
- widespread introduction on the lands of the forest fund of the results of scientific research in the cultivation of plants resistant to salinity and drought;
- participation in the events of the international community for the development of the forestry industry and the fight against desertification.

Forest management on the basis of public-private partnerships and improvement of the system of lease relations create opportunities for individuals and legal entities to receive stable socio-economic benefits from forest lands and resources.

#### **Improving the system of social support for forestry workers.**

In order to effectively fulfill the tasks and obligations entrusted to forestry, it is necessary to strengthen their material and technical base. Wherein:

- forestry workers are fully provided with stamps, special clothing, working tools, communications, transport and technical equipment;
- events are held annually to celebrate the "Day of the Forester". Also, in order to stimulate those who have contributed to the development of the forestry field, an honorary title and a badge are established.
- Improvement of the system of training scientific personnel in the field of forestry.

Joint activities are being carried out to increase the potential of higher educational institutions and research institutes that train forestry specialists. At the same time, to ensure a close connection between forestry and research institutes, the following measures are being taken:

- revision of the quota for admission to the relevant higher educational institutions, taking into account the needs of forestry;
- revision of sectoral curricula taking into account advanced modern scientific and practical experience;
- introduction of the practice of financing contract payments for students studying at the Faculty of Forestry of the relevant higher educational institutions at the expense of forestry funds;

- in order to increase the scientific potential of the Scientific Research Institute of Forestry, an increase in the admission quota for basic doctoral and doctoral studies and the development of a system of material incentives for them;
- in order to attract to work and stimulate gifted young scientists and specialists, the implementation of measures to improve their living conditions;
- development of targeted programs aimed at sustainable development of forestry, increasing its productivity in the most important areas of forestry development in cooperation with science and industry;
- restoration and organization of the student scientific community under the guidance of research assistants;
- promoting the importance of forestry and the beneficial properties of forests to young people, including the regular organization of forestry and environmental groups in schools.

**Resolution of the President of the Republic of Uzbekistan #PP-4960 dated January 21, 2021 "On measures to develop science and stimulate research in the field of forestry".**

In order to implement the Concept for the development of the forestry system of the Republic of Uzbekistan until 2030, ensure the integration of science and production, stimulate research work, as well as improve the system of training personnel with advanced foreign experience that corresponds to the level of international standards in forestry:

Agree with the proposals of the State Forestry Committee, the Ministry of Economic Development and Poverty Reduction and the Ministry of Finance, which provide, starting from February 1, 2021:

- a) creation: Directorate for the coordination of the activities of scientific organizations and the introduction of innovations from 4 staff units in the structure of the central office of the State Committee for Forestry for the purpose of training, retraining, advanced training and systematic organization of foreign training for personnel in the field of forestry, as well as the widespread introduction of innovative developments into production;  
Scientific and experimental station of pistachio growing in the form of a state institution at the Scientific Research Institute of Forestry on the basis of pistachio brood plantations on the Oktosh site of the Gallaaral Department of the Jizzakh State Forestry in order to develop pistachio farming, select new and high-yielding varieties and types of pistachios, zoning, and organization of seminars, trainings and other events on pistachio breeding for foresters, farms and dekhkan farms;  
Department of Forest Economics in the structure of the Scientific Research Institute of Forestry in order to ensure the development and implementation of technological maps of forestry activities in forestry practice;
- b) the abolition of the Center for the Analysis of Seed Production of Forest and Medicinal Plants under the State Committee on Forestry and its transfer to the Scientific Research Institute of Forestry with the preservation of the material and technical base for the development of forest seed production and coordination of the results of the analysis of seeds of forest plants with research work.

**Law of the Republic of Uzbekistan on guarantees and freedom of information access** as of April 24, 1997 #400-I governs the relations arising in implementation process of constitutional right of everyone freely and to unimpededly seek, receive, research, to transfer and distribute information.

**Law of the Republic of Uzbekistan on principles and warranties of freedom of information** as of December 12, 2002 #439-II. The main objectives of this Law are to ensure compliance with the principles and guarantees of freedom of information, the exercise of the right of everyone to freely and unimpededly seek, receive, research, disseminate, use and store information, as well as ensure the protection of information and information security of the individual, society and the state.

**Law of the Republic of Uzbekistan on the appeals of individuals and legal entities** as of December 03, 2014 #378 governs grievance redress procedure in Uzbekistan. This Law obliges state authorities to deal with appeals and provides clear framework to handle the case. The appeals can be in the form of applications, proposals and complaints and submitted in three ways: oral, written and digital format. The application or complaint shall be considered within fifteen days from the date of receipt in the state authority, which is

obliged to resolve the issue on the merits, as well as require additional study and (or) check, a request for additional documents - up to one month. No project specific GM is warranted under the national legislation. However, it is allowed to apply to: a) conciliation commission; b) Labor Inspection under the Ministry of Employment and Labor Relations; and c) court.

## **2.5. CULTURAL HERITAGE REGULATORY FRAMEWORK**

The project activities might include rehabilitation of cultural heritages. The Constitution of the Republic of Uzbekistan states that "Concern for the preservation of historical monuments and other cultural values - the chore and duty of citizens of Uzbekistan" (article 49).

The Main Scientific-Production Department (MSPD) on protection of cultural heritages under Ministry of Culture is special designated entity responsible for protection of cultural heritages. Scientific-production workshops and number of private companies conduct rehabilitation works. All rehabilitation works need to be implemented in fully compliance with design developed by specialized companies (JC "Tamirshunos", LLC "Madaniy Meros" and etc.)

The Law of RUz "On protection and use of objects of cultural heritage" (2001) states (para 20) that under "saving of cultural heritages is considered their conservation, repairing, rehabilitation, adopting for current usage and conduction related scientific-production research, design and production works". An official permission from the Ministry of Culture of the RUz needs to be received prior starting of rehabilitation works.

In accordance with the Decree of the President of the Republic of Uzbekistan dated December 19, 2018 No. PP-4068 "On measures to radically improve activities in the field of protection of objects of material cultural heritage", the Department of Cultural Heritage was created. According to the Regulation of the Department of Cultural Heritage (Appendix No. 4 of the DCM "On approval of regulatory legal acts on the use and protection of objects of material cultural heritage on the organization of the activities of the Department of Cultural Heritage under the Ministry of Culture of the Republic of Uzbekistan" No. 265 of 03/30/2019), the main tasks of the department are:

- State control over the observance of legislation on the protection and use of material cultural heritage, including objects of archaeological heritage, museum objects and collections, as well as cultural values;
- Maintaining the state cadastre of objects of material cultural heritage, identification, documentation and state registration of objects of historical, scientific, artistic or special cultural value, definition of categories and protected areas of real estate of material cultural heritage, as well as ensuring their rational use;
- Carrying out constant scientific and technical control over the examination of the preservation of historical and cultural value and the uniqueness of historical, cultural and design and estimate documentation, carrying out work to preserve the historical and cultural value and uniqueness of objects of material cultural heritage;
- Coordination of urban planning and other economic activities in the territories included in the list of specially protected objects of historical, cultural and world cultural heritage, while preserving their historical and cultural environment, natural landscape and identity;
- Maintaining the state catalog of archaeological artifacts, monitoring compliance with the terms and conditions of archaeological research, timely registration and transfer of archaeological artifacts to the state and their transfer to scientific, cultural and educational institutions, as well as receiving, studying and submitting scientific reports on archaeological research. collection of archives, conservation and museumification of archaeological sites;
- Maintaining the state catalog of the national museum fund, transferring museum items and collections from the museum fund or transferring to another museum fund, issuing permits for the sale of cultural property, as well as cultural property included in the lists and registers of state protection, including museum items and collections checking the preservation and accounting of sources, except for the National Archives Fund;
- Close cooperation with scientists, craftsmen, restorers, specialists, support for the development of specific methods, traditions and schools in the field of renovation, implementation of public control;

- Broad promotion and popularization of material cultural heritage, effective implementation of public-private partnership mechanisms, innovative and advanced information and communication technologies, development of electronic services;
- Development of cooperation with international and foreign organizations, including attraction of grants, loans and sponsorship of financial institutions.

In accordance with the DCM "On approval of the regulation on licensing activities for the preservation of immovable objects of material cultural heritage" No. 1021 dated 20.12.2019, preservation of immovable property of tangible cultural heritage is a licensed type of activity and is regulated by the above Regulation. Legal entities licensed in accordance with the requirements of this Regulation may engage in activities related to the preservation of immovable property that is a subject of cultural heritage.

## 2.6. THE WORLD BANK ENVIRONMENTAL AND SOCIAL FRAMEWORK

The WB's Environmental and Social Framework (ESF), is applicable to the proposed project. The ESF reflects commitment to the sustainable development of investment projects through the application of Environmental and Social Standards (ESSs) designed to identify and manage environmental risks. The ESSs are aimed at preventing, minimizing, reducing or mitigating negative social and environmental risks and the impacts on projects. The ten ESSs are the followings:

- ESS 1: Assessment and Management of Environmental and Social Risks and Impacts;
- ESS 2: Labor and Working Conditions;
- ESS 3: Resource Efficiency and Pollution Prevention and Management;
- ESS 4: Community Health and Safety;
- ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement;
- ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities;
- ESS 8: Cultural Heritage;
- ESS 9: Financial Intermediaries; and
- ESS 10: Stakeholder Engagement and Information Disclosure.

These ESS's offers broad and systematic coverage of adverse environmental and social risks and makes important advances in areas such as transparency, non-discrimination, public participation, and accountability including expanded roles for grievance mechanisms.

**Relevant World Bank Environmental & Social Standards.** According to the ESF, the World Bank classifies all projects (including projects involving Financial Intermediaries (FIs)) into one of four classifications: *High Risk*, *Substantial Risk*, *Moderate Risk* or *Low Risk*. In determining the appropriate risk classification, the Bank takes into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the Borrower (including any other entity responsible for the implementation of the project) to manage the environmental and social risks and impacts in a manner consistent with the ESSs. Other areas of risk may also be relevant to the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed.

The environmental and social risk ratings of the project are assessed as **Substantial**. This is due to the scale of the project, a wide range of interventions supported across components and that the details and scope of the sub activities will not be fully known at the appraisal stage. These following Standards are considered relevant: ESS 1, ESS 2, ESS 3, ESS 4, ESS5, ESS 6, ESS 8, and ESS 10. Towards addressing the risks, the following instruments will be prepared by the Borrower/GoU prior to project appraisal, consulted on, and cleared by the World Bank:

- I. Environment and Social Commitment Plan (ESCP).
- II. Stakeholder Engagement Plan (SEP);
- III. Environmental and Social Management Framework (ESMF)
- IV. Labor Management Procedures (LMP);
- V. Process Framework & Resettlement Policy Framework (PF&RPF);

**ESS 1 - Assessment and Management of Environmental and Social Risks and Impacts:** The Standard sets out the Client's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing, in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). The proposed project consists of a series of sub-projects that would only be identified during implementation. Therefore, an Environmental and Social Management Framework (ESMF) assessment approach is taken to set out the principles, rules and guidelines and procedures to assess the environmental and social risks and impacts of the proposed project when the subjects are being identified and appraised. Following a screening process, appropriate level sub-project specific ESF instruments - site-specific ESIA and/or ESMPs, others will be prepared. For example, before the start of any civil works, ESIA/ESMP will be conducted in a consultative manner that will identify risks, impacts and mitigation measures. Such ESIA/ESMP will be implemented during the course of the activity, and progress/compliance will be reported in periodic progress reports by PIU to the World Bank.

The assessment evaluates the project's potential environmental and social risks and impacts, with a particular attention to those that may fall disproportionately on disadvantaged and/or vulnerable social groups; examine project alternatives; identify ways of improving project selection, siting, planning, design and implementation in order to apply the mitigation hierarchy for adverse environmental and social impacts and seek opportunities to enhance the positive impacts of the project.

The ESS1 is relevant to the project. Potential environmental risks may include modification of natural habitats by localized agriculture and forestry plantations (particularly if non-native species are used), potential spread of invasive tree or shrub species, and construction-related impacts of small civil works such as visitor centers or other tourism facilities, park management buildings, or hiking trails. Project investments in forest and natural resource management will be selected through a multi-stakeholder planning process and will be carefully screened to avoid or minimize any adverse environmental impacts.

#### Potential social impacts.

The project does not anticipate any physical displacement due to direct project interventions and construction works. The project interventions will be implemented in representative sites within the project areas, predominantly on State Forest land. Other lands may be used where interventions are required, provided there are no outstanding issues such as disputed tenure or other rights. The project subcomponents and activities which would involve any physical displacement will not be eligible for financing by RESILAND UZ. This requirement will be ensured through the implementation of the project Environmental and Social Management Framework (ESMF). The PF&RPF is prepared to mitigate risks and impacts from access restrictions to natural resources in and outside PAs caused by RESILAND UZ.

**ESS 2 – Labor and Working Conditions:** ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. ESS2 applies to project workers including fulltime, part-time, temporary, seasonal and migrant workers. The Standard is relevant to the project. The ESS2 requirements has been setup for direct workers, contractors, and subcontractors, as follows:

#### **Direct workers**

A direct worker is a worker with whom the Borrower has a directly contracted employment relationship and specific control over the work, working conditions, and treatment of the project worker. The worker is employed or engaged by the Borrower, paid directly by the Borrower, and subject to the Borrower's day-to-day instruction and control. Examples of direct workers may include persons employed or engaged by the Borrower's project implementation unit to carry out design and supervision, monitoring and evaluation or community engagement in relation to the project.

#### **Contracted workers**

A contracted worker is a worker employed or engaged by a third party to perform work or provide services related to the core functions of the project, where the third-party exercises control over the work, working

conditions, and treatment of the project worker. In such circumstances, the employment relationship is between the third party and the project worker, even if the project worker is working on an ongoing basis on project activities. Contracted workers are those engaged in construction works and infrastructure investments and livelihood support activities.

#### **Community workers**

Some projects financed by the World Bank may include the use of community workers in a number of different circumstances, including where labor is provided by the community as a contribution to the project or where projects are designed and conducted for the purpose of fostering community-driven development. There will be no community worker engagement in any of the sub-projects to be implemented within the scope of UZ RESILAND.

#### **Primary supply workers**

A primary supply worker is a worker employed or engaged by a primary supplier, providing goods and materials to the project, over whom a primary supplier exercises control for the work, working conditions, and treatment of the person. Primary supply workers will be expected consisting of employees of third-party companies who will provide machinery and/or equipment for construction, infrastructure investment component of the project and employees of companies who will provide hardware, security, and cleaning services.

The ESMF includes sections on Environment Health and Safety (EHS) including specific instruments that will need to be prepared either by the client or the contractor prior to commencement of works (ESH checklists, codes of conduct; safety training etc.). Civil works contracts will incorporate social and environmental mitigation measures based on the WBG EHS Guidelines and the ESMF. All civil works contracts will include industry standard Codes of Conduct that include measures to prevent GBV including SEA/SH. The LMP prescribes the inclusion of Code of Conduct in contracts and associated training as well as the setting up a Grievance Mechanism with a special track for processing complaints related to SEA/SH to ensure they are managed in a survivor centric manner. **Within six months after project effectiveness, an action plan will be developed, including mapping of relevant service providers in the Project areas.** The service providers will be made aware of the Project, and similarly, Project stakeholders at various levels will be informed of the availability of service providers. A locally based Grievance Mechanism specifically for direct and contracted workers will be provided. The note, which contains links to the latest guidance for responding to COVID-19, is found as Annex 8 to this ESMF.

**ESS 3 – Resource and Efficiency, Pollution Prevention and Management:** ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations. At the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle.

The Standard is relevant to the project. The design of guest houses should consider water resources, water saving measures and how they are connected to a sewerage system, to the extent technically and financially feasible, that avoid or minimize water usage and water pollution so that the project's water use does not have significant adverse impacts on communities, other users and the environment. The risk of use or handling of toxic materials during renovation of science and technical institutions, should be monitored and avoided through following the ESMPs included in the contracts for civil works. For instance, asbestos can be generated from old roofs, water and heating systems and should be stored and disposed accordingly. Renovation equipment should not involve use of asbestos and any other hazardous material.

**ESS 4 – Community Health and Safety:** This standard recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already subjected to impacts from climate change may also experience an acceleration or intensification of impacts due to project activities.

ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. ESS4 is relevant to the project. The project will ensure safety of local residents and workers during the building renovation works by adopting adequate OHS protocols following WBG EHS Guidelines. Seclusion of construction area by putting up fence, mitigation measures to control excessive noise and dust levels, and secure access to the area in the building for students, teachers and research staff use will be ensured through a robust mitigation and management plan in the ESMF which has been prepared. Presence of any sensitive receptors close to renovation sites will be identified during screening of environmental impacts and necessary mitigation measures will be provided in the site-specific ESMPs. Building's structural integrity and access of disabled population to the buildings should also be assessed.

The scale of construction is however small so that footprint currently limited to the boundary walls is not expected to spill over across communities beyond the boundary walls. The SEP will also ensure widespread engagement with communities in order to disseminate information related to community health and safety, particularly around social distancing, high risk demographics, self-quarantine, and mandatory quarantine. As specified in the ESMF, the project involves minor civil works, which require labor force to be supplied mostly locally, - it is anticipated that due to the nature and scope of rehabilitation activities the level of labor influx will be insignificant so the associated risks will be low and manageable. Within six months after project effectiveness, an action plan on SEA/SH risks prevention will be developed, including mapping of relevant service providers in the Project areas. The service providers will be made aware of the Project, and similarly, Project stakeholders at various levels will be informed of the availability of service providers. In addition, the project will ensure the following actions:

- Risk Assessment
- Community engagement/ consultations
- Service provider mapping
- Conduct IA capacity assessment
- Include GBV sensitive approaches in GRM
- Develop an Action plan including an Accountability and Response Framework, as part of project ESMP
- Consider having a GBV specialist in the Implementing Agency
- Consider having a GBV specialist in the supervision consultant's team.

**ESS 5 – Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement:** ESS5 recognizes that project-related land acquisition and restrictions on land use can have adverse impacts on communities and persons. Project-related land acquisition or restrictions on land use may cause physical displacement (relocation, loss of residential land or loss of shelter), economic displacement (loss of land, assets or access to assets, leading to loss of income sources or other means of livelihood), or both.

ESS5 does not apply to voluntary, legally recorded market transactions in which the seller is given a genuine opportunity to retain the land and to refuse to sell it and is fully informed about available choices and their implications. However, where such voluntary land transactions may result in the displacement of persons, other than the seller, who occupy, use or claim rights the land in question, ESS5 will be applied.

Experience and research indicate that physical and economic displacement, if unmitigated, may give rise to severe economic, social and environmental risks: production systems may be dismantled; people face impoverishment if their productive resources or other income sources are lost; people may be relocated to environments where their productive skills are less applicable and the competition for resources greater; community institutions and social networks may be weakened; kin groups may be dispersed; and cultural identity, traditional authority, and the potential for mutual help maybe diminished or lost. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented.

The selected beneficiary institutions and SMEs must own the premises. Therefore, under the proposed project no land acquisition and no new building construction is expected. As mentioned above, the project does not anticipate any physical displacement due to direct project interventions and construction works. The project interventions will be implemented in representative sites within the project areas, predominantly on State Forest land. Other lands may be used where interventions are required, provided there are no outstanding issues such as disputed tenure or other rights. Any project subcomponents and activities which would involve any physical displacement will not be eligible for financing by this project. This requirement will be ensured through the implementation of the project ESMF. To mitigate the risks and impacts from access restrictions to natural resources in and outside PAs caused by project activities. A PF&RPF has been prepared to facilitate community participation in and outside of Protected areas and aims to enable the affected communities to participate in the design of project components; to ensure their livelihoods will not be negatively affected as a result of project implementation; to identify and provide them with alternative sources of livelihood and necessary support, and to actively involve them in the implementation and monitoring of relevant project activities. Once site-specific project components are defined and the necessary information becomes available, site specific Action Plans will be prepared, and adopted, communicated and implemented, where needed, to mitigate the livelihood impacts of planned project activities. Subprojects will be assessed through the ESMF and will be monitored during supervision.

**ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources:** It recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. Biodiversity is defined as the variability among living organisms from all sources including inter alia terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species, and of ecosystems. Biodiversity often underpins ecosystem services value by humans. Impacts on biodiversity can therefore often adversely affect the delivery of ecosystem services. It has the following objectives: (1) to protect and conserve biodiversity and habitats, (2) to apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity, (3) to promote the sustainable management of living natural resources and (4) to support livelihoods of local communities, including indigenous peoples, and inclusive economic development.

EES6 uses habitats as the basis for describing sensitivity around impacts on biodiversity and recognizes three types of habitats: modified, natural and critical habitats. “Habitat” is defined as a terrestrial, freshwater, or marine geographical unit or airways that supports assemblages of living organisms. Modified habitat are habitats that may contain a large proportion of plant and/or plant species of non-native origin, and/or where human activity has substantially modified an area’s primary ecological functions and species composition. Natural habitats are areas with viable assemblages of plants and/or animal species or largely native origin and/or where human activity has not essentially modified an area’s primary ecological functions and species composition. Critical habitat is a highly sensitive area with high biological importance or value that meets a number of criteria as described in ESS6 (para 23). It’s important that these three categories of habitats can exist within any “legally protected and internationally and regionally recognized areas of biodiversity value”. Assessments undertaken by the Borrower shall identify the types of habitats in project areas and the consideration of risks and impacts to the habitats from project activities. ESS6 requires differentiated risk management approach to habitats based on their sensitivity. For areas of critical habitats, the Borrower will not implement any project activities that have any potential adverse impacts unless a number of requirements are met (ESS6, para 26). For activities with potential impacts to modified or natural habitats, the Borrower shall apply mitigation hierarchy (avoid- reduce- mitigate-compensate) as well as GIIP, with special attention to risks on natural habitats where feasible technical and financial alternatives shall be studied and principles of “no-net -loss” or “net gain” achieved for any adverse impacts on biodiversity (ESS6, para 22).

Additionally, the Borrower should not intentionally introduce any new alien (non-native) species to project areas, unless this is carried out in accordance with the existing regulatory framework. Due to the significant threat to biodiversity caused by highly invasive non-native species, they can’t be introduced intentionally within the project. A risk assessment should be undertaken to determine the potential of invasive behavior of the species (as part of environmental and social assessment).

With regards to the commitment to sustainable management of living natural resources, ESS6 also includes provisions around commercial agriculture and forestry plantations and afforestation by which the Borrower should locate such projects on land that is already converted or highly degraded (excluding the land that is converted in anticipation of the project).

Tourism-focused Project investments, such as this project, may lead to large increases in the number of people visiting environmentally sensitive areas, both within and outside of National Parks as well as in other protected areas. This may lead to adverse environmental impacts involving littering and informal waste dumps; disturbance to wildlife (including threatened species); informal, excessive NTFP harvesting; wildfire risks; and induced new development (such as vacation home construction). Since the current Project aims to develop regional ecotourism, meaning potential increase in human access to previously remote natural areas, the Project team should assess and mitigate (as needed) possible environmental impacts. To address such threats: (1) more planning and investment should be put into the management of National Parks, particularly where detrimental human influences are known to severely affect wildlife populations around the protected area edges; (2) the level of restrictions to illegal activities, such as hunting or logging, should be enhanced through increased guard presence and regulation enforcement; (3) people should keep their distances. Although some species or individual animals will become used to human presence at close range, many others won't; and (4) balancing recreation with conservation means opening some areas to human use and keeping others entirely or mostly undisturbed.

**ESS 7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.** Not relevant as there are no such social groups in the project area.

**ESS 8 – Cultural Heritage.**

This standard is relevant, due to the presence of natural monuments and archaeological sights in some of the project areas at large, for example in Jizzax region. These can include some protected sites, canyons, grottos, the fortress remains situated at altitude, etc.

However, the project by design doesn't expect to conduct any activities on them or near them, hence significant impact is not expected. Nevertheless, screening will be undertaken as per the ESMF (Screening form) of sub-projects for proximity to known sites taking into account that cultural heritage also takes many other forms. Some of it may be visible, and many others may not be identifiable without consultations. The site-specific assessments will determine the baseline condition of proposed project locations and further assess any potential risks and impacts on and restriction of access to cultural heritage (tangible and intangible). The assessment will be informed through engagement with communities, including women and girls, to identify spaces of cultural value and significance to them.

The ESMP should include a "chance find" procedure to be followed for proposed activities. The chance finds procedure will need to be informed through engagement with key stakeholders, taking into consideration views of communities including women and girls, and included in the site-specific management plans. In general the following rules need to be followed and reflected in site-specific ESMPs:

- (a) do not disturb any chance find further until an assessment by competent professionals is made and actions are identified;
- (b) notify relevant stakeholders, including neighbouring communities and authorities of found objects or sites by cultural heritage experts;
- (c) fence-off the area of finds or sites to avoid further disturbance;
- (d) conduct an assessment of found objects or sites by cultural heritage experts including consultations with neighbouring communities;
- (e) identify and implement actions consistent with the requirements of the ESS 8 Cultural Heritages and national law; and
- (f) when needed, to train project personnel and project workers on chance find procedures.

**ESS 9 – Financial Intermediaries.** Not relevant as there will be no involvement in project activities.

**ESS 10 – Stakeholder Engagement and Information Disclosure:** This ESS recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Considering the serious challenges associated with COVID-19, dissemination of clear messages around social distancing, high risk demographics, self-quarantine, and, when necessary, mandatory quarantine is critical. Meaningful consultation, particularly when public meetings are counter to the aims of the SEP, and disclosure of appropriate information assume huge significance for ensuring public health and safety from all perspectives – social, environmental, economic, and medical/ health. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

The client will engage with stakeholders throughout the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design. The nature, scope and frequency of stakeholder engagement will be proportionate to the nature and scale of the project and its potential risks and impacts. In consultation with the Bank, the Borrower will develop and implement a Stakeholder Engagement Plan (SEP) proportionate to the nature and scale of the project and its potential risks and impacts. Meaningful consultation, particularly when public meetings are counter to the aims of the SEP, and disclosure of appropriate information assume huge significance for ensuring public health and safety from all perspectives – social, environmental, economic, and medical/ health.

In this backdrop, the project has prepared a SEP which serves the following purposes: (i) stakeholder identification and analysis; (ii) planning engagement modalities viz., effective communication tool for consultations and disclosure; and (iii) enabling platforms for influencing decisions; (iv) defining roles and responsibilities of different actors in implementing the Plan; and (v) a GRM. Project preparation has included a detailed mapping of the stakeholders. Individuals and groups likely to be affected have been identified. Risk-hot spots on the international borders as well as in-country have been delineated. Mapping of other interested parties such as government agencies/authorities, NGOs and CSOs, and other international agencies have also been completed. Drawing upon their expectations and concerns, a SEP has been prepared by the Government of Uzbekistan and disclosed publicly (<http://www.urmon.uz>),. The SEP will be updated during implementation. The PIU has also developed and put in place a GRM to enable stakeholders to air their concerns/ comments/ suggestions, if any.

The SEP has been prepared, and individuals and groups likely to be affected (direct beneficiaries) have been identified. They include: the SCF, SCEEP, khokimiyat, local people, Private Sector Firms and Business structures, workers, contractors, who will benefit directly from improved accessibility, infrastructure and services. Mapping of other interested parties such as government agencies/ authorities and CSOs, which may differ between subprojects, will be done during implementation. Given the highly diverse stakeholder profile and that their expectations and orientation as well as capacity to interface with the project are different, the SEP has been developed which identified and will continue to identify impediments during implementation as well, if any, at reaching out to stakeholders and reflect/ build capacity of the client in engaging with stakeholders. The client has also developed GRM to enable stakeholders air their concerns/ comments/ suggestions, if any.

Public Disclosure Requirements: ESCP, SEP, and draft ESMF need to be fully prepared, consulted and disclosed before the project appraisal, which is planned for January 2022.

## **2.7. THE WORLD BANK GROUP ENVIRONMENTAL HEALTH AND SAFETY (EHS) GUIDELINES AND OPERATIONAL POLICIES.**

**Operational Policy 7.50- Projects on International Waterways** is applicable to this Project because the Project will finance activities that may draw on water from the Amu Darya and Syr Darya Rivers and/or their tributaries, which are considered international waterways. The exception to the riparian notification requirement according to paragraph 7(a) of the Policy applies because activities are limited to use of water from existing schemes and will appreciably impact quality or quantity of water flows to other riparians. The exception to the notification requirement was approved by the Regional Vice President of the World Bank.

The EHS Guidelines<sup>7</sup> are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP) and are referred to in the ESF. The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The World Bank Group requires borrowers to apply the relevant levels or measures of the EHS Guidelines. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects will be required to achieve whichever is more stringent.

In the case of the Uzbekistan Resilient Landscapes Restoration Project, the General EHS Guidelines apply. The implementing agency will pay particular attention to the following General EHS Guidelines:

- EHS Section 1.5 – Hazardous Materials Management;
- EHS Section 1.6 - Waste Management;
- EHS Section 1.8 - Contaminated Land;
- EHS Section 2.5 – Biological Hazards;
- EHS Section 2.7 – Personal Protective Equipment (PPE);
- EHS Section 2.8 – Special Hazard Environments;
- EHS Section 3.1 - Water Quality and Availability;
- EHS Section 3.3 - Life and Fire Safety (L&FS);
- EHS Section 3.5 – Transportation of Hazardous Materials;
- EHS Section 3.6 – Disease Prevention;
- EHS Section 4.0 - Construction and Decommissioning

**World Bank Interim Guidance on COVID-19 Considerations.** The World Bank has issued an interim guidance note for World Bank projects. The note, which contains links to the latest guidance for responding to COVID-19, is found as Annex 8 to this ESMF.

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<sup>7</sup> <http://documents.worldbank.org/curated/en/157871484635724258/Environmental-health-and-safety-general-guidelines>

### 3 BASELINE DATA

#### 3.1. GEOGRAPHICAL CONTEXT

The geography of the project activities will be nationwide. This chapter describes physical and biological environment and socio-economic baseline in 6 project locations (6 regions of Republic of Uzbekistan). Republic of Uzbekistan has 12 regions (regions) and one autonomous Republic of Karakalpakstan, bordering Kazakhstan in the north, Kyrgyzstan and Tajikistan in the east, Turkmenistan in the west and Afghanistan in the south. Andijan, Fergana, Namangan, Bukhara, Jizzakh, Kashkadarya, Khorezm, Navoi, Samarkand, Surkhandarya, Syrdarya, Tashkent regions (Figure 3.1).

Uzbekistan is a landlocked country, strategically located in the heart of Central Asia and with a total area of 447.4 square kilometers. The country has the largest population in Central Asia - 33,89 million as of 2021<sup>8</sup>, which is growing annually at about 1.7 percent in recent years. About 63 percent of the population is concentrated in rural areas. It is the only country bordering Kazakhstan, Turkmenistan, Afghanistan, Tajikistan and Kyrgyzstan.

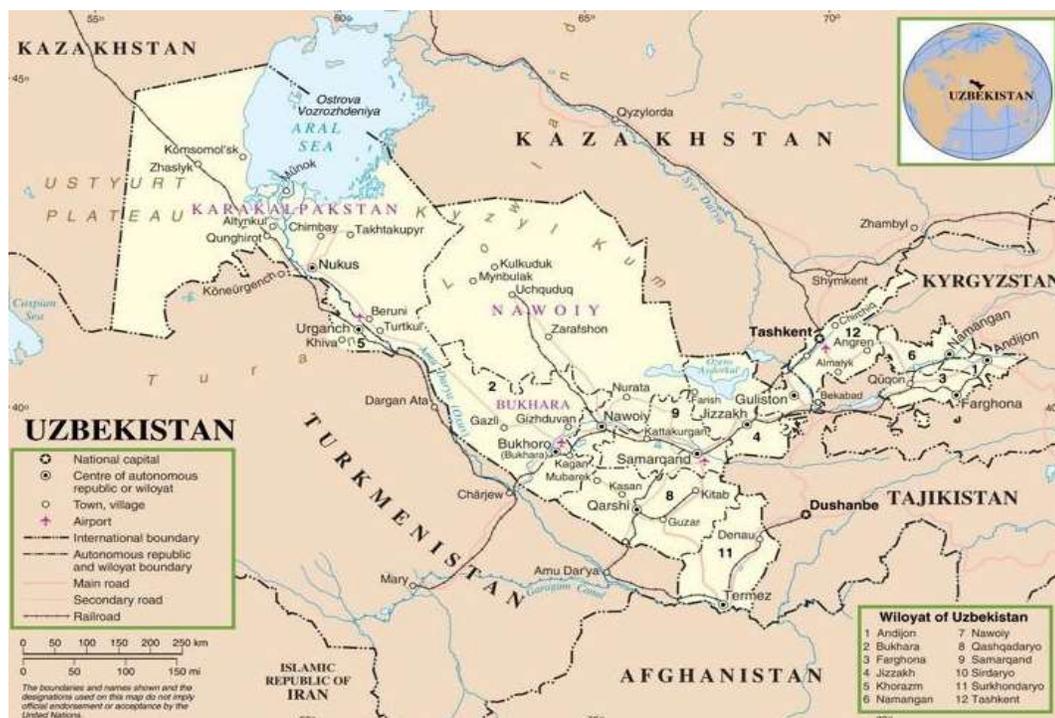


Figure 3.1 Physical map of Uzbekistan.

The physical environment of Uzbekistan is diverse, ranging from the flat, desert topography that comprises almost 80% of the country's territory to mountain peaks in the east reaching about 4,500 metres above sea level. The south-eastern portion of Uzbekistan is characterized by the foothills of the Tian Shan mountains, which rise higher in neighboring Kyrgyzstan and Tajikistan and form a natural border between Central Asia and China. The vast Kyzyl-Kum Desert, shared with southern Kazakhstan, dominates the northern lowland portion of Uzbekistan. The most fertile part of Uzbekistan - the Fergana Valley - is an area of about 21,440 square kilometres directly east of the Kyzyl-Kum and surrounded by mountain ranges to the north, south, and east. The western end of the valley is defined by the course of the Syr Darya, which runs across the north-eastern sector of Uzbekistan from southern Kazakhstan into the Kyzyl-Kum. Although the Fergana Valley receives just 100 to 300 millimetres of rainfall per year, only small patches of desert remain in the centre and along ridges on the periphery of the valley (due to extensive irrigation systems).

<sup>8</sup> <https://www.worldometers.info/world-population/uzbekistan-population/>

Water resources supply is becoming an issue in some parts of Uzbekistan. The vast plains that occupy two-thirds of Uzbekistan's territory have little water, and there are few lakes. The two largest rivers feeding Uzbekistan are the Amu Darya and the Syr Darya, which originate in the mountains of Tajikistan and Kyrgyzstan, respectively. These rivers form the two main river basins of Central Asia; they are used primarily for irrigation, and several artificial canals have been built to expand the supply of arable land in the Fergana Valley and elsewhere. A shallow lake, Sarygamysh Lake, sits on the border with Turkmenistan.

An important feature of Uzbekistan's physical environment is the significant seismic activity that dominates much of the country. The mountain areas are especially prone to earthquakes.

Uzbekistan's climate is classified as continental, with hot summers and cool winters. Summer temperatures often surpass 40°C; winter temperatures average about -2°C, but may fall as low as -40°C. Most of the country is arid, with average annual rainfall amounting to between 100 and 200 millimetres and occurring mostly in winter and spring. Between July and September, there is little to no rainfall.

According to the nature of the surface, the territory of the country is divided into a large Northwestern part with a flat terrain and a smaller southeastern foothill and mountainous part. Deserts and semi-deserts (including the Kyzylkum desert and the southeastern part of the Ustyurt plateau) cover almost 85 of the country. They occupy the northwestern, northern and central parts of Uzbekistan. Mountains and foothills occupy about 13% of the country in the east and southeast. Approximately 2% of the country's territory is occupied by alluvial and steppe plains of the country's area are alluvial valleys.

Taking into account climatic variants the territory of Uzbekistan includes 22 categories of geosystems at the level of types of landscapes - 10 flat and 12 mountainous. Natural landscapes with varying degrees of anthropogenic disturbance account for 82% of the country's territory. Transformed by man landscapes make up 18% - this is arable land, settlements, industrial enterprises, etc.

The flora of Uzbekistan includes more than 4,800 species of vascular plants belonging to 650 genera and 115 families and has an index of endemism of about 8%. Relict endemics make up 10-12% of the total number of endemic species. The animal world of Uzbekistan is characterized by species richness and diversity. The fauna of invertebrate animals includes about 14,900 species (850 - protozoans, 61 - ringed worms, 1179 - roundworms, 533 - flatworms, 223 - mollusks, 12000 - arthropods). The modern fauna of vertebrates is represented by 5 classes and includes 715 species - 84 species of fish, 3 species of amphibians, 60 species of reptiles, 461 species of birds and 107 species of mammals. Endemics make up about 8.8% of the total number of terrestrial vertebrate species of the country. The highest level of endemism is characteristic of the fauna of reptiles - up to 50% of all species of the class. The mammal class is less endemic - 15 % and a small number of endemics is noted for the bird class - 1.8 %<sup>9</sup>.

Due to the intensified processes of nature management in the country, many plant and animal species have experienced a strong anthropogenic impact, which has led to a significant reduction in their ranges and numbers associated with the loss of typical habitats. As a result of anthropogenic impact on natural ecosystems, 87 animal species associated with aquatic and near-water ecosystems, 46 animal species of desert ecosystems and 43 animal species of mountain ecosystems are in threatened condition. At present, some of these species are on the verge of extinction or have disappeared completely. The numbers of many of them have not yet reached a critical level, but they are steadily declining. All such species are considered to be at high risk of extinction in the in the wild. Such species are included in the Red Book of the Republic of Uzbekistan (2009), the Red List of the World Conservation Union (IUCN), as well as in the Appendices of the Convention on International Trade in Endangered Species (CITES). 130 species (subspecies) are included into different categories of rare and threatened vertebrates. 107 of them are included into the Red Data Book of the Republic of Uzbekistan (2009), 71 - into the IUCN Red List. In addition, 87 species of vertebrates are included CITES Appendices. The Red Data Book of the Republic of Uzbekistan includes 24 species of

<sup>9</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

mammals (25 with subspecies), 48 bird species, 16 reptile species, 17 fish species (18 with subspecies), three species of annelids, 14 mollusc species (with subspecies - 15), 59 arthropod species (with subspecies - 60), 321 species of higher plants and 3 fungi species<sup>10</sup>. The Regulations on the Red Book of the Republic of Uzbekistan, inclusion in it of a species means the prohibition of its extraction and imposes on the relevant government agencies the obligation to protect rare species and their habitats.

### 3.1.1 Mountain ecosystems of Uzbekistan

Uzbekistan is home to the western-most outliers of the western Tian Shan (Chatkal, Pskem, Ugam and Kuramin ranges) and Pamir-Alai (Gissar, Turkestan and Zarafshan ranges) system. The western Tian Shan lies north of the Fergana Valley. Several short, but high and steep ranges running south-west to north-east meet the southern sides of ranges running westward and north-westward. The highest peak is in the Chatkal range (4,503 metres), and the predominant elevations vary between 2,300 and 3,200 metres. To the south of the country, the western Tian Shan range meets the Pamir Alai. The Pamir Alai borders the Fergana Valley in the south, and extends chiefly east and west. Located on the border between Uzbekistan and Tajikistan, the highest peak is in the Gissar range (Khazret Sultan at 4,643 metres).

Collectively, these mountainous areas span an area of about 9,600,000 ha, and account for approximately 21% of the country's area. In the foothills and plains at the base of the mountainous areas, montane semi-desert areas have usually developed. They are characterized by ephemeral vegetation growth that die out at the beginning of summer; and perennial drought-tolerant grasses and shrubs. The fauna includes reptiles such as Central Asian tortoise, Turkestan gecko, takyr toad agama, desert monitor, and several lizard and snake species. The foothills and plains of the mountainous areas are heavily impacted by agricultural development activities.

The most common vegetation of the mountainous areas is the mountain steppe, which occurs at elevations between about 1,000 m and 2,600 m. Subalpine meadows of mixed grasses and cereals extend up to almost 3,000 m on the moist northern slopes, but on southern slopes they are usually replaced by mountain steppes. Short-grass alpine meadows may occur at altitudes up to 3,700 metres. At higher elevations, the level areas and gentle slopes are occupied by sparse and short vegetation, with mosses and lichens found in the areas of the glacial zone that are free of soil cover. The montane semi-desert areas, mountain steppe and sub-alpine meadows are subject to significant pressures from livestock grazing.

The montane forests and shrublands (covering an area of about 400,000ha) alternate with the steppes and alpine meadows. Montane forests are found principally on the northern slopes and range between elevations of about 1,500 and 3,000 metres. Juniper forests constitute the principal mountain forests in the western Tien Shan, the Turkestan Range and the south-western tip of the Gissar Mountains. Juniper trees are widespread on the northern slopes of Turkestan ridge, often forming - along with *Festuca* grasslands - a distinct vegetation belt at altitudes from 2,000 to 3,000 m. At higher altitudes, Turkestan juniper forms low, creeping thickets. Deciduous forests occupy small areas, alternating with steppe and meadow areas or bare rocks, and are concentrated in the western Tian- Shan mountains. They are located at altitudes from 800 m to 2,000 m and contain relict forests of walnut mixed with wild apple, apricot, plum, and other fruit tree species.

The mountainous areas are inhabited by a diverse mix of animals, including several bird species that are characteristic of Chinese and Himalayan faunas. Mammals include fox, wolf, stone marten, Tian Shan brown bear, snow leopard, Argali, Siberian Ibex and wild boar. Reptiles include Chernov's agama, Himalayan and Turkestan agamas, and the shield-headed snake.

The mountainous areas of Uzbekistan are included in both the Mountains of Central Asia biodiversity hotspot - one of Conservation International's 34 global biodiversity hotspots - and the Middle Asian Montane Steppe and Woodlands ecoregion - one of WWF's Global 200 priority ecoregions for global conservation. The montane forests of these mountainous areas are home to fifteen nesting bird-of-prey species of conservation

<sup>10</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

concern (10% of all National Red List bird species). In addition, the forests of western Tian Shan in Uzbekistan host wild relatives of commercially important fruit and nut species, including the Pistachio, Persian Walnut and Sievers Apples.

### 3.2. SOCIO-ECONOMIC CONTEXT

The Republic of Uzbekistan is a unitary, constitutional, presidential republic, comprising 12 regions, 1 autonomous republic, and 1 capital city. The country's official language is Uzbek, spoken natively by approximately 85% of the population. Russian however remains in widespread use.

The population of Uzbekistan is estimated at 33,9 million (2021)<sup>11</sup>. Uzbeks constitute 81% of the population, followed by Russians (5.4%), Tajiks (4.0%), Kazakhs (3.0%), and others (6.5%). The population density in Uzbekistan is 79 per Km<sup>2</sup>. The population density varies significantly, with the population increasing to the east, centered around the fertile areas of the Amu Darya River and the Zarafshan River. About 50% of the population live in rural areas. The country is faced with a young and rapidly growing population - recent estimates suggest that about 34 percent of the population in Uzbekistan is under the age of 14.

Uzbekistan's HDI value for 2019 is 0.720 which put the country in the high human development category—positioning it at 106 out of 189 countries and territories<sup>12</sup>.

Uzbekistan's economy balance robust external and fiscal buffers, low government debt and a record of high growth relative to 'BB' rated peers', The economy expanded 1.6%, supported by manufacturing on the back of the gold mining industry, construction and agriculture. Stable remittance inflows partly supported private consumption. Growth will accelerate to 5% in 2021 and 5.5% in 2022, as fiscal policy will continue to support investment and consumption, and key trading partners recover<sup>13</sup>.

### 3.3. LAND TENURE

The most important categories of land use in Uzbekistan are:

- (i) lands allocated for agriculture (crops and pastures) (45,13%);
- (ii) the lands of the 'forest fund' (24,84%),
- (iii) 'reserved lands' (24,16%) and
- (iv) other land (5,87%)<sup>14</sup>

In total, these land use categories account for more than 42 million ha (~95% of the state territory). According to the Land Code, all land belongs to the state<sup>15</sup>. Therefore, individuals may only enjoy use rights identified with a particular land parcel, which cannot be transferred. A land parcel is a plot with fixed boundaries that is formed during the planning process.

Responsible for more than 25% of total employment and 17% of GDP, agriculture is an important economic sector in Uzbekistan. Agriculture grew by 6.5% in 2015, slightly below the 6.9% recorded in 2014, despite unfavorable weather conditions. Cotton is Uzbekistan's main crop, and accounts for about 40% of the gross value of agricultural production. Cultivable land comprises about 4.4 million hectares, or about 10% of Uzbekistan's total area, which is shared between crops and cattle. Agriculture in Uzbekistan is critically dependent on water. Crop production and most of livestock production (with the exception of the karakul sheep grazing in the desert) is thus mainly confined to irrigated areas.

Agricultural land is allocated to agricultural producers by the state, but without any rights of transfer. Users pay for the use of state-owned land in the form of land tax and lease payments. There are three main categories of agricultural producers in Uzbekistan: (i) an agricultural production cooperative (shirkat) that operates as

<sup>11</sup> <https://www.worldometers.info/world-population/uzbekistan-population/>

<sup>12</sup> [http://hdr.undp.org/sites/all/themes/hdr\\_theme/country-notes/UZB.pdf](http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/UZB.pdf)

<sup>13</sup> <https://www.fitchratings.com/research/sovereigns/republic-of-uzbekistan-04-05-2021>

<sup>14</sup> <https://data.gov.uz/ru/datasets/10319?dp-1-sort=G1>

<sup>15</sup> A "state order" is the arrangement when the state provides most of the inputs for agriculture (such as land, water, fertilizers, machinery, etc) and in return the harvest must be sold to the state at the pre-determined price. Of the amount the state pays to the farmer for the harvest, the farmer should pay back the costs of the inputs to the state

a collective; (ii) an individual farm ('peasant farm') that exists as a private legal entity (normally in the form of a private enterprise); and (iii) a private household plot (dekhan)<sup>16</sup>.

The livestock sector in Uzbekistan is traditionally dominated by rural families, not large commercial farms. Peasant farms currently manage about 5% of livestock in Uzbekistan, while 95% is in household (dekhan) farms. Agricultural enterprises have no role in the livestock sector beyond livestock selection farms, experimental stations, and some specialized karakul sheep operations in the desert.

The overall share of the individual sector (i.e. dekhan farms and peasant farms combined) in livestock farming has reached 95% of cattle and 84% of small livestock (mostly sheep and goats). The average dekhan farm typically has 2-3 head of cattle and 6-7 head of small livestock. The continual increase in livestock herds across the country have not been matched by corresponding increases in the production of feed crops for animals. As a result, most dekhan farmers typically send their cows to graze in the open, on harvested fields, along the roads, and near waterways, remaining largely independent of both feed crop harvests and formal pastures. The area under feed crops per head is declining, and is currently less than 0.05 ha/head (<25% of 1980's levels).

Of the 19 million hectares of pasture land, desert pastures cover more than 80% of the country (generally supporting only sheep) with the remaining pastures (supporting cattle, sheep and goats) split between semi-desert (12%), mountain steppes (5%) and alpine pastures (2%). It is estimated that more than 16 million hectares of pasture land is subject to some form of soil degradation and desertification. Over the last decade, the productivity of pastures has consequently decreased by more than 23%.

### 3.4. PROTECTED AREAS

There are four categories of Protected Areas (PAs) in Uzbekistan: state nature reserves (*zapovedniks*), national parks, conservation areas (*zakazniks*), and natural monuments. However, the protected areas with strict regime and long-term protection (IUCN Category I and II, including national parks, a biosphere reserve, and state nature reserves) cover only 8,171 km<sup>2</sup> or 1.8 percent of the country's territory. It is estimated that total government expenditure on these protected areas amounted to less than \$ 300,000 in 1996, equivalent to 0.003 percent of total government expenditure (NBSAP)<sup>17</sup>.

Accelerating the economic development of the country and the uncontrolled using of natural resource management became a serious issue of further improvement of the territorial protection of biodiversity. In order to save conservation and restoration of natural landscapes, ecosystems, systems of flora and fauna in Uzbekistan, a strategy on the conservation of biological diversity in the Republic of Uzbekistan was developed for the period 2019 - 2028, Annex 1 to the Resolution of the Cabinet of Ministers dated June 11, 2019 No. 484.

According to the Resolution, 207 animal species and subspecies are included in different categories of rare and endangered species, 184 of which are included in the Red Book of the Republic of Uzbekistan (2009), including 24 mammal species, 48 bird species, 16 reptile species, 17 fish species, 3 species of ringed worms, 14 mollusks species, 60 species of arthropods. The Red List of the International Union for Conservation of Nature (hereinafter IUCN) includes 73 species and subspecies of animals whose future is of global concern. 88 species and subspecies of animals are listed in the Annex to the Convention on International Trade in Endangered Species (CITES).

The main threat to biodiversity is the reduction and significant transformation of natural habitats of species. At the same time, rare and endangered, sedentary, autochthonous and endemic species are in the most vulnerable position. Habitats of endangered and globally important species are riparian forests, relict nut and other fruit forests of the Western Tien Shan and Pamir-Alai, wetlands, etc.

<sup>16</sup> The main difference between the 'peasant farm' and dekhan is size: while dekhan farms are about 0.2 ha in size, an average peasant farm is around 15 ha. Another difference is that members of peasant farms are self-employed, while dekhan farms are run by families whose members typically also have a job in some agricultural or non-agricultural organization.

<sup>17</sup> [https://pdf.usaid.gov/pdf\\_docs/PNACN475.pdf](https://pdf.usaid.gov/pdf_docs/PNACN475.pdf)

Over the past decades, as a result of intensive nature management, the ranges and numbers of some species of animals in Uzbekistan have declined, some species are on the verge of extinction or have disappeared completely. Degradation of habitats and direct extermination have affected, first of all, large predatory and hoofed mammals.

One of the important conditions for the development and sustainable of Uzbekistan and meeting requirements of UN Sustainable Development Goals<sup>18</sup> (emphasis to 13, 15, 17 goals) is the creation of a full-fledged network of protected areas (PAs) based on the rich natural heritage to preserve the existing biodiversity.

Currently there are the following PAs<sup>19</sup>:

- seven nature reserves (188,3 thousand ha),
- one complex landscape reserve (628,3 thousand ha),
- two biosphere reserves (111,7 thousand ha),
- three national nature parks (558,2 thousand ha) and
- one national park "Durmen" (32.4 ha),
- 10 natural monuments (3,8 thousand ha),
- 12 wildlife sanctuaries reserves (572,4 thousand ha) and
- Bukhara specialized nursery "Jeyran" ("Persian Gazelle") (1,52 thousand ha) as well as forest and forestry hunting farms (roughly covering the entire State Forest Fund area).

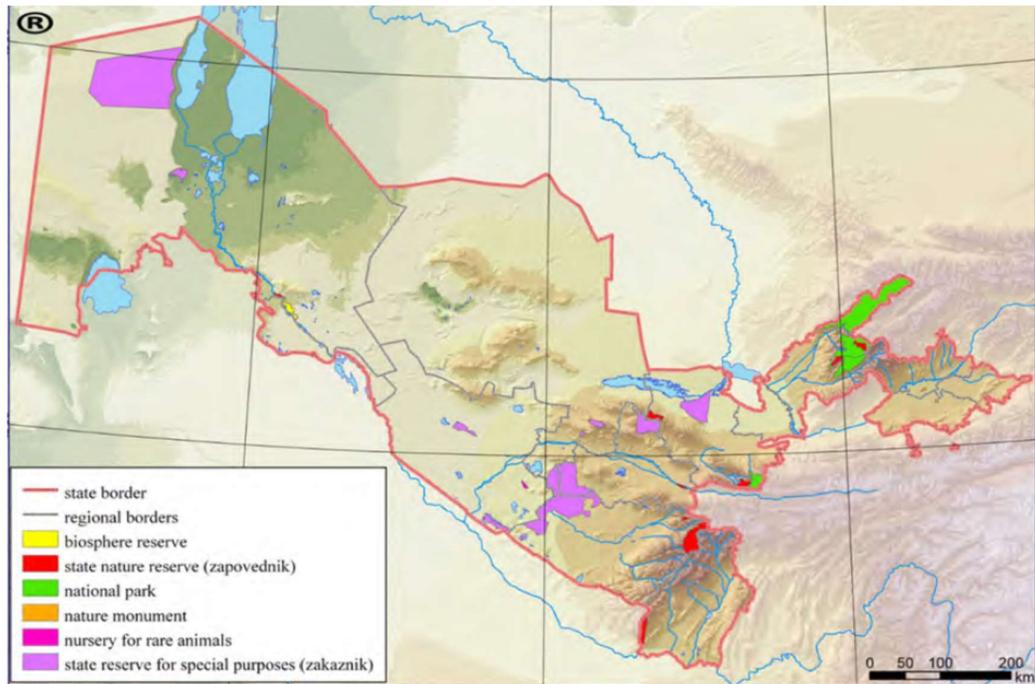
Each of the protected areas has a Statute that sets out the objectives and the requirements to the PA. According to the Statute of leskhoz, sanitary felling and clear-cutting are allowed on the forestry property. But it is not allowed to carry out any activities on the territory of a protected area or a biosphere reserve.

Data of 2020 indicate 2,079,728 ha or 4.7% of the country's total land area under a protective area status. (according to other estimates from UNEP-WCMS database at protectedplanet.net this figure is 5.77%) (see figure 3.3). By comparison, the global average of countries' protected land areas is about 15%, with a currently proposed "30X30" target of 30% to be protected by 2030. Only the Strict Nature Reserves are currently being administered as de jure, wholesome protected areas. As concerns National Parks (like the Zaamin National Park and Zarafshan National Park), they consist of designated strict conservation areas (that match in status with strict nature reserves) however they neighbor with areas designated for "commercial/economic use" and "recreation/ecotourism". Problems occur when the designated boundaries of these zones are breached, and the overspilling activity significantly endangers the ecological areas of influence for critical habitats and ecosystems.

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<sup>18</sup> [https://en.wikipedia.org/wiki/Sustainable\\_Development\\_Goals](https://en.wikipedia.org/wiki/Sustainable_Development_Goals)

<sup>19</sup> Decision of the Cabinet of Ministers of the Republic of Uzbekistan (June 11, 2019, № 484) On Approval of the Strategy for the Conservation of Biological Diversity in the Republic of Uzbekistan for the Period 2019-2028. <https://lex.uz/docs/4372841#4375950>



**Figure 3.2:** Distribution of Protected areas in Uzbekistan

The extent and nature of permitted activities of the commercial or recreational zones bear the risk of reducing or significantly altering the ecological functions of ecosystems that support biodiversity. In this case, environmental assessments and management plans for proposed commercial activities need to include inputs from biodiversity experts and in general, follow more stringent requirements than prescribed by the national environmental procedures.

*Box 3.1 Commercial development activity in Zarafshan National Park and Zarafshan river*

In June 2021, a series of articles were published in the Uzbek online media outlets accusing regional and district authorities of Zarafshan region, the management of Zarafshan National Park of massive violations, unauthorized or excessive tree cutting, mismanagement and resulting desertification and deterioration of habitats surrounding the national park in the last 3 years. Reports also indicated intensified extraction of sand and gravel in the Zarafshan riverbed by multiple actors, which are leading to water scarcity in the region, drop in ground water level, drying out of the plants and extinction of fauna.

Construction activities, noise, pesticide pollution associated with agricultural and recreational tourism activities in the allocated areas of the Zarafshan National Park are said to have been conducted without adequate environmental impact assessments. Authorizations for existing commercial activities are said to follow the top-down agenda for poverty reduction and jobs creation and were issued by local authorities officially or unofficially without proper and expert environmental impact assessments or extensive public consultations. National ecological assessments would have been prepared, but articles refer to inconsistencies in them.

The World Bank team looked into this situation and asked the SFC and the management of ZNP to provide an analysis of allegations in order to determine their root-cause and hear perspectives and statements from responsible departments.

A complex institutional set-up governing the allocation and use of natural resources in Uzbekistan would be the main contributing factor to create circumstances like this. For example, on the issue of river dredging: according to the press statements issued by the SFC and the department of national parks and hunting activities, while ZNP boundaries are very close to the Zarafshan river and many of its sensitive ecosystems depend on river's health, officially the river is not under the management of the national park.

SFC confirmed that the strictly protected zone of the ZNP is under strict surveillance, protection and no unauthorized activities have taken place within its boundaries. In the recreational zone, tree cuttings are authorized based on established procedures of management of dry and old trees and to prevent accidents that can be caused to area guests or infrastructure. ZNP also has designated areas (zones) for commercial activities where entrepreneurs operate based on land lease agreements, however it is hard to control individual investor behaviors causing negative impact on the surroundings. This was indicated as an area where improved governance and information sharing among stakeholders, increased accountability of authorities, additional environmental and social risk management instruments were needed and could be one of focus areas of RESILAND UZ project.

Links to SFC statements:

<https://urmon.uz/uz/13229/>

<https://urmon.uz/uz/12694/>

Links to the articles:

[https://www.gazeta.uz/ru/2021/06/17/zarafshan-national-park/?utm\\_source=push&utm\\_medium=telegram](https://www.gazeta.uz/ru/2021/06/17/zarafshan-national-park/?utm_source=push&utm_medium=telegram)

<https://sv.zamews.uz/post/zarafshanskiy-nacpark-situaciya-trebuet-vnimaniya>

[https://uz24.uz/ru/articles/park?-utm\\_source=telegram.me&utm\\_medium=social&utm\\_campaign=graviy-i-pesok-vazhnee-zhivotnyh-chno-proi](https://uz24.uz/ru/articles/park?-utm_source=telegram.me&utm_medium=social&utm_campaign=graviy-i-pesok-vazhnee-zhivotnyh-chno-proi)

<http://sreda.uz/rubriki/voda/chto-proishodit-v-zarafshanskom-natsionalnom-parke/>

<http://sreda.uz/rubriki/bio/vzvolnovannyy-reportazh-o-rasterzanii-zarafshanskogo-natsionalnogo-prirodnogo-parka-i-ob-otnoshenii-k-protssu-vysokih-komissij/>

In accordance with the Decree of the President of the Republic of Uzbekistan No. PP-4247 of March 20, 2019 "On measures to improve the system of state management in the sphere of protected natural areas" 5 new protected natural areas in the Republic of Karakalpakstan will be created in the period 2019 – 2022.

Along with the creation of new protected areas in the future it is also necessary to pay special attention to the development and better management of existing state reserves, strengthen scientific monitoring and research in the protected areas, and generally adopt a broader approach to PA management as a whole, rather than a multitude of isolated islands.

### **3.5. BIODIVERSITY CONTEXT AND CRITICAL HABITATS**

Ten ESSs have been reviewed and most of them are relevant to the project, including ESS6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources.

According to the definition of ESS 6 under the World Bank ESF (2018), “*Critical habitats*” are any area of the planet with high biodiversity importance or value, including (a) habitat of significant importance to Critically Endangered and/or Endangered species, as listed in the IUCN Red List of threatened species or equivalent national approaches; (b) habitat of significant importance to endemic and/or restricted-range species; (c) habitat supporting globally significant concentrations of migratory species and/or congregator species; (d) highly threatened and/or unique ecosystems; and/or (e) ecological functions or characteristics that are needed to maintain the viability of the biodiversity values as described above in (a) to (d)<sup>20</sup>.

Critical Habitats incorporates to ESS6 represents best practice for implementing protection for people and environment. Under the new ESS6, project cannot be used to support sub-projects that would involve significant conversion or degradation of Critical Habitats.

Defining Critical Habitat and demonstrating net gain with the project and appropriate level of confidence can be challenging, but the key steps are the following:

- **Critical Habitat Assessment** (ESS6 Paragraph 23): assessing the biodiversity importance of an area (e.g. threatened and restricted-range species and ecosystems, protected areas) in comparison to their global distributions or population sizes
- **Mitigation Design** (ESS6 Paragraphs 24 & 25): described in a Biodiversity Management Plan, for impacts on Critical Habitat and Natural Habitat
- **Offset Design** (ESS6 Paragraphs 15-18): design of compensatory offsets for significant residual adverse impacts “after all technically and financially feasible avoidance, minimization, and restoration measures have been considered”
- **Protected Area assessment** (ESS6 Paragraph 26): meeting the requirements for Critical Habitat and Natural Habitat, where appropriate
- **Monitoring and Evaluation Design** (ESS Paragraph 24 & 25): a long-term programme sufficient to assess the status of Critical Habitat and demonstrate biodiversity gains.

Where a project could have significant adverse impacts to critical habitats, it would be only implemented if appropriate mitigation measures are put in place, in accordance with the mitigation hierarchy, to ensure no net loss of biodiversity over the project’s lifespan.

The National Strategy on Biodiversity and Action Plan (2019) distinguishes five major types of ecosystems in Uzbekistan that contain ecological characteristics to support biological diversity:

- deserts and semi-deserts;
- foothills and low mountains;
- mountain ecosystems;
- river and coastal ecosystems;
- wetland ecosystems.

Ecological literature for Uzbekistan mentions the terms “degraded ecosystems” and “natural/wild ecosystems” mentioning that most natural habitats in Uzbekistan have been significantly transformed because of agricultural development. A widespread reduction of habitats and degradation of wild ecosystems from human activity are observed, except outside the territory of strictly Protected Areas (PAs). Significant areas of natural ecosystems underwent changes that caused vanishing or reduction of many species of animals and plants. Irrational use of the natural resources in the last decades has led to decline of ranges and population size; certain species are on the brink of extinction or have completely vanished.

Due to fragmentation and degradation of natural habitats, such animal species as Cheetah (*Acinonix jubatus*) and Turanian tiger (*Panthera tigris*) have vanished; under the threat of extinction are Caracal (*Lynx caracal michaëlis*), Kulan (*Equus hemionus kulan*), Honey badger (*Mellivora capensis*), Saiga antelope (*Saiga tatarica*), etc<sup>21</sup>.

<sup>20</sup> <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards#ess6>

<sup>21</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>

Tugai forests and relictual walnut and wild fruit forests of the Western Tian Shan and Pamir Alai mountains and the wetlands of Uzbekistan are mentioned as endangered natural habitats.

The flora of Uzbekistan is represented by at least 4,500 species of vascular plants and about 8% of the flora comprises endemic species, of which 10-12 % are considered relictual endemics<sup>22</sup>. The fauna of Uzbekistan has an ancient and complex evolutionary history. In addition to the endemic fauna, other species have historically migrated from the deserts and mountains of surrounding territories of Central Asia, and from India, China, and the grasslands of Kazakhstan, as well as from Siberia, southern Europe, and northern Africa.

The Fifth National report on Biodiversity as part of UN Convention on Biological Diversity (2015) identifies 107 species of vertebrates, 77 species of invertebrates, 321 species of plants and 3 species of fungi<sup>23</sup> under the protection of the Republic of Uzbekistan as “rare and endangered”. Among them are 24 mammals, 48 avian, 16 reptiles, 17 fishes, 3 annelids, 12 mollusk, 60 arthropods not found outside of Central Asia. All of these species are considered critically endangered, and vulnerable according to the IUCN and Red Data Book of Uzbekistan. The IUCN listed critically endangered Saiga antelope and Sociable Lapwing, and endangered Steppe Eagle, Saker Falcon, Pallas Fish-eagle and Egyptian Vulture. The Republic of Uzbekistan has identified 6 of these species as either critically endangered or endangered.

It's estimated that most of the project territories, especially territories considered in the Zarafshan and Zaamin Natural Parks, may contain habitats of significant importance to critically endangered and/or endangered animal species. Project areas are potentially critical habitat for the following endangered / rare species (among others): Tianshan brown bear (*Ursus arctos isabellinus*), Turkestan lynx (*Lynx lynx isabellinus*), snow leopard (*Uncia uncia*), Iranian otter (*Lutra lutra seistanica*), relict gopher (*Spermophilus relictus*), red pika (*Ochotona rutila*) (endemic of UZ, KZ, KG, TJ), Bukhara argali (*Ovis vignei bocharensis*) (endemic of UZ, TJ, TM), Sociable Lapwing (*Vanellus gregarius*), xerophytic woodlands of prickly almond (*Amygdalus spinosissima*), pistachio (*Pistacia vera*) and hawthorn (*Crataegus pontica*, *C. turkestanica*), unique relict communities with the Caucasian carcase (*Celtis caucasica*), sumach (*Rhus coriaria*), unaby (*Zizyphus jujuba*), figs (*Ficus carica*), pomegranate (*Punica granatum*), persimmon (*Diospyros lotus*), wild grapes (*Vitis vinifera*), wild oriental plane tree (*Platanus orientalis*) and oriental plane tree (*Platyclados orientalis*).

The project activities can use **Areas of Influence (AoI)**<sup>24</sup> to determine the extent of overlap with the boundaries of critical habitat. The below map shows the boundaries of Key Biodiversity Areas (KBAs, in yellow) according to the IBAT tool occurring within the estimated project corridors (total of 6). These KBAs can be considered as the first proxy to the estimation of the number of Critical and/or Natural Habitats supporting the key ecological functions for the survival and conservation of endangered or vulnerable species.

<sup>22</sup> Many of the endemic species in Uzbekistan include relict species that were preserved after the Tethys sea dried up and an arid climate developed across Central Asia. The mountains of the Pamir-Alai and the western Tian Shan are especially diverse in relictual endemics.

<sup>23</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>

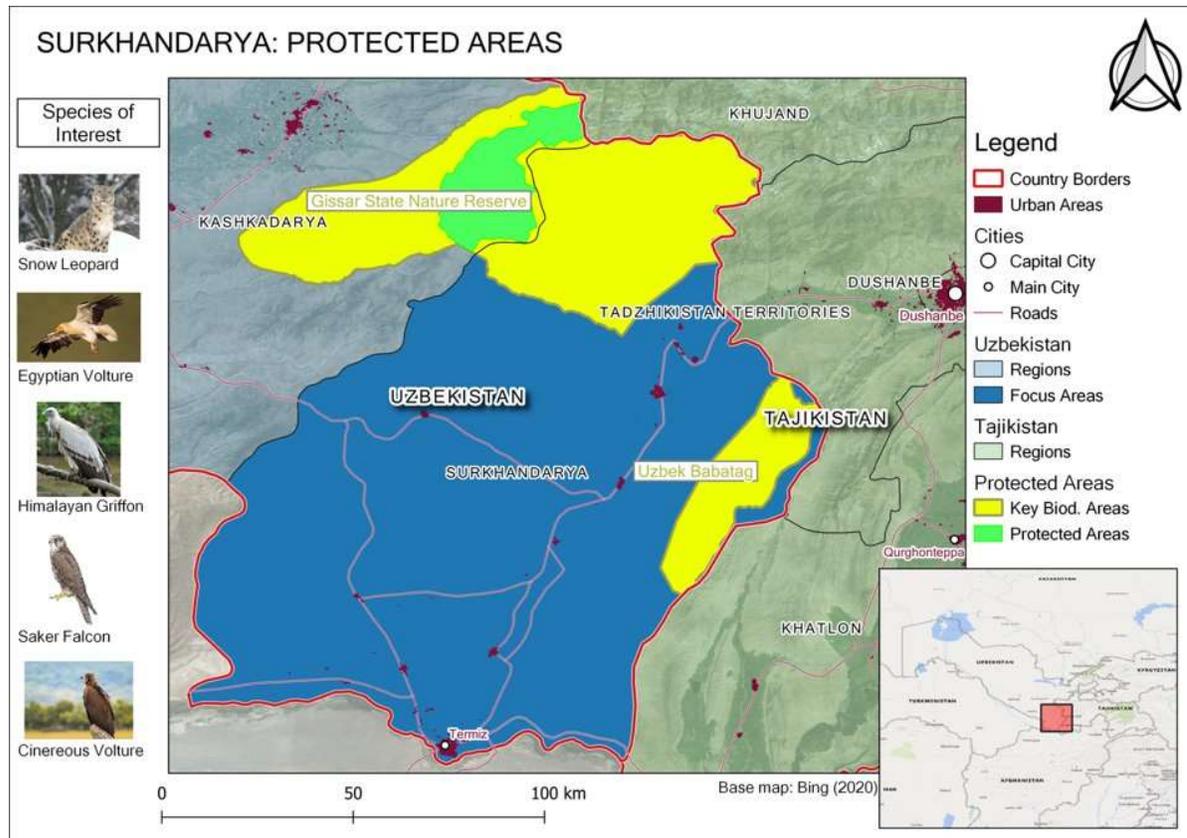
<sup>24</sup> Project's Area of Influence (AoI) is defined by the extent of impact caused by the project and can occur within habitat boundaries. AoI is typically smaller than habitat boundaries (EAA-Ecological Area of Analysis) and generally, mitigation is not required for the scale of the whole habitat (Support Manual for ESS6).



**Figure 3.3 Project areas (6 corridors) in relation to KBAs, Protected Areas (IBAT) and SFF**

Anticipated direct impacts from the proposed project includes: direct loss of both plants and habitat from vegetation clearance during construction; disturbance from dust, noise; soil loss; vehicular collision; hunting and poaching by the workers, habitat fragmentation, disturbance of the nature habitat.

Most of these impacts are expected to have expected and temporary risks and can be readily mitigated through Good International Industry Practice (GIIP). This include the prohibition of workers on hunting and plant harvesting; minimize vegetation clearance and compensate cleared vegetation through replanting, waste management, camp site location away from sensitive areas, single vehicle track policies and prohibit off-road travel, conduct pre-clearance survey to prevent animals from being killed or injured, limit fencing to work compounds, removal of non-native species, dust and noise controls, use of direction and non-UV lighting, coordination with local authorities against wildlife trafficking.



**Figure 3.4. Critically Endangered and Endangered fauna species occurring within the Bobatag project area.**

Current situation in the Zarafshan National Park, project of local authorities, poses significant impacts to the critically endangered *Colletopterum cyreum sogdianum* and *Corbicula fluminalis*, fish *Barbus capito conocephalus*, *Sabanejewia aurata aralensis* and 26 bird species, including the endemic Zarafshan pheasant *Phasianus colchicus zerafschanicus*<sup>25</sup>. The critical situation can be resolved by enhance implementation of the national and international nature protection requirements.

### 3.6. BACKGROUND OF PROJECT AREAS

The geographic focus of the Project is six transboundary corridors that traverse Uzbekistan and Tajikistan, and project-financed activities will take place on the Uzbekistan side. The corridors span across degraded border areas within the regions of:

- *Jizzakh*, including the Zaamin National Park/PA in Zaamin district;
- *Samarkand*, including the Zarafshan National Park/PA in Jomboy and Bulungur districts;
- *Surkhandarya*, including the Bobatag/Key Biodiversity Area and Uzun forest in Uzun and Shurchi districts;
- *Namangan*, including the Pop forest in Pop district;
- *Syrdarya*, including the Qolqansir forest in Syrdarya district; and
- *Kashkadarya*, including the Kitab and Shakhrisabz forests in Kitab and Shakhrisabz districts.

<sup>25</sup> <http://sreda.uz/rubriki/voda/chto-proishodit-v-zarafshanskom-natsionalnom-parke/>

**Table 3.1:** Project Area information

Project areas	Area size, ha	Number of plant/ vertebrate species included into the Red Data Book of Uzbekistan (2009) <sup>26,27</sup>
Zaamin National Park/PA	659,746.15	35 plants /14 vertebrates
Zarafshan National Park/PA	2,462	5plants /88 invertebrate's, 26 mollusks, about 200 vertebrates, 5 endemic birds
Bobatag Biodiversity Area; and Uzun forest	204,123.68	14 plants/ 13 vertebrates, 11 birds, 10 reptiles
Pop forest	694,813.29	24 plants/ 11 vertebrates
Qolqansir forest	13,526.27	About 200 tugai plants/ 1 endemic fish
Kitab and Shakhrisabz forests	53,7	6 unique species of plants, 13 RBD plants/ 3 fish, 2 amphibia's, 14 reptiles, 128 birds, 21 mammalian

### 3.6.1. Jizzakh region

**Geography and topography.** The Jizzakh region is located in the central part of the Republic of Uzbekistan between the Syrdarya and Zarafshan rivers, it borders in the north, northeast with the Republic of Kazakhstan and the Syrdarya region of Uzbekistan, in the southeast with the Republic of Tajikistan, in the west and southwest with the Navoi and Samarkand regions of Uzbekistan. The total area is 2117.9 thousand hectares, of which about 12% of the area is sown land, almost 8% of the territory is covered by forest, more than 35% of the territory is pastures. Central, northern and northwestern provincial parts are located in Starver Steppe and Kyzylkum desert. The region is framed by spurs of Turkestan Ridge (Malguzar) from the south, and from the west – by spurs of Nuratin Ridge, which separated from Turkestan Ridge by narrow Valley of Sanzar river.

**Climate.** By its natural and climatic conditions, the Jizzakh region belongs to the zone of sharply continental climate - summer is hot and dry, the winter is relatively mild. The average temperature in January is + 1°C, + 4°C, in July + 26°C, + 28°C degrees. Up to 400-500 mm of precipitation falls during the year, the vegetation period lasts 240-260 days, relative humidity is 78-80%, in the summer - 20-40%.

**Surface water and ground water resources.** The main waterways of the region are Zaaminsu, Sanzar river and Eski Tuyatartar Canal. Besides numerous mountainous watercourses such as Achisay, Jalair, Ravat and others flow down from the slopes of Turkestan and Nuratin Ridges. The region has some water reservoirs and lakes; the largest of them is Aydar-Arnasay system of lakes (AASL) that covers an area of more than 350 thousand hectares. AASL is located in two administrative regions – Jizzakh and Navoi. There are more than 25 fish species in the reservoirs of Jizzakhregion, 8 of them have a commercial value. In the mountainous and foothill areas of the region, more than 200 spring-type springs with cold water have been recorded. The most famous springs: Kattatoy, Avliye ota and others.

**Soils.** The south of the region is represented mainly by soil types such as typical brown and low carbonate, dark and light gray soils; in the east - gray earth meadow; in the north of the region, semi-fixed and non-fixed sands prevail.

**Biodiversity, ecological and cultural heritage.** There are two protected areas in Jizzakh region: Zaamin Natural park and Zaamin National Park<sup>28</sup>, formerly Guralash Preserve, on the western slopes of the Turkestan Range well known for its unique fauna and flora. There are many rare forms of animals (14) and plants (18), inscribed in the Red Book of the Republic of Uzbekistan<sup>29</sup>. Mountain-forest and high-mountain ecosystems, including juniper forests; 1192 species of higher plants, including 19 - Red Book of Uzbekistan; 156 species

<sup>26</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>

<sup>27</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

<sup>28</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>

<sup>29</sup> <https://whc.unesco.org/en/tentativelists/5289/>

of vertebrates, including 12 species included in the Red Book of Uzbekistan<sup>30</sup>. Brown bear and Turkestan silage are listed in *the International Union for Conservation of Nature*. Brown bear, Turkestan lynx, mountain goat, stork, black stork, hawk, eagle, small eagle, falcon, bald falcon, falcons are included in the Red Book of the Uzbekistan<sup>31</sup>. Among the natural monuments or protected archaeological areas, there are Tamerlane Gate (the road laid in the mountains and forming a "gate" of rocks), Khoja Nuriddin XIX madrasa, Gubdinota spring (XIX-XX centuries) and others. In the Zaamin district in the depths of the picturesque canyon Chortagna, in the headwaters of the Yettikachi river lie the ruins of the ancient fortress Muk (Myk, Mug). The ruins of the fortress are at an altitude of about 2000m and consist of four objects called Myk I, I I, III and IV. Written sources from the 10th c. indicate that in Ustrushana iron was worked in Mink province and in the city of Mirasmand.

**Socio-economic conditions.** Jizzakh region was founded on December 29, 1973. The administrative center of the region is Jizzakh city. The region is divided into 12 administrative districts: namely Arnasay, Bakhmal, Dustlik, Farish, Gallaorol, Jizzakh, Mirzachul, Pakhtakor, Yangiabad, Zaamin, Zafarobod, Zarbdor. The main sectors of agriculture in the region are cotton growing, grain growing, vegetable growing, horticulture and viticulture, and meat and dairy farming. The main industries are electric power industry, machine building, metalworking, building materials, and light and food industry. The administrative division of Jizzakh region is presented in figure 3.4. The main socio-economic indicators of Jizzakh region are provided in Table 3.2.



**Figure 3.5:** Administrative map of Jizzakh region

<sup>30</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

<sup>31</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

**Table 3.2:** Socio-economic indicators of Jizzakh region

Name		Indicators
Territory, km <sup>2</sup>		21 210
<b>Population</b>		
Population density, per/km <sup>2</sup>		638 000
Total number of people		1 352 400
Women, per		672 100
Men, per		680 300
Urban population, per		634 500
Rural population, per		717 900
<b>Educational institutions</b>		
Primary schools		544
Secondary professional (colleges)		76
Academic lyceums		3
Higher education institutions		2
<b>Medical institutions</b>		
Hospitals		60
State clinics		180
<b>Infrastructure, km</b>		
Transport	Car roads	2540
	Railways	274,1
	Airport	
Social (was commissioned)	Gas pipelines, km	42,6
	Water supply networks, km	317,9

### 3.6.2. Kashkadarya region

**Geography and topography.** The Kashkadarya region is located in the southern part of Uzbekistan, in the basin of the Kashkadarya river on the western slope of the Pamir Alay Mountains. The total area is 2856.8 thousand ha, of which about 24% of the area is sown land, 4% of the territory is covered by forest, more than 50% of the territory is pastures. The region borders on the Samarkand region from the north, the Bukhara region from the north-west, and the Surkhandarya region from the east and southeast. The state border with Tajikistan passes from the north-eastern part, and with Turkmenistan from the western part. The perimeter of the common border is 795 km, of which 400 km pass through mountain ranges.

**Climate.** The climate is sharply continental, partially subtropical, and dry. The mountain ranges bordering the region from the northeast, east and south impede the penetration of cold air masses. Winter is warm. The absolute minimum is -25-29 ° C in the mountains, the absolute maximum is + 47 + 49 ° C. The sum of positive temperatures is 4800-5300 degrees. In the summertime, the winds of the northern rhombuses prevail, the speed of which reaches 4 m / s, and in the spring and autumn time the north-western ones at a speed of 2-3 m / s. In winter, southeast winds blow at the same speed. The number of days in a year with strong winds is 20 days, with strong storms 31 days.

**Surface water and ground water resources.** The main waterway is the Kashkadarya river with numerous tributaries flowing from the mountains. Reservoirs and irrigation canals form oases of irrigated agriculture: Kitabo-Shakhrisab, Guzar-Kamashi and the largest - Karshi oasis. More than 25 species of fish live in reservoirs and lakes, of which 5 species are commercial. In the mountainous and foothill areas of the region, about 140 springs were recorded, the most famous of which are: Karabulak, located 10 km north-east of the town of Kitaba; Khoja Imkon is located on the southeastern outskirts of the village of the same name, east of Kitaba and others. The main left tributaries of the Jindydarya, the brooks of Obi-Safid (Aksu), Hoja-Kurgan, Novobak and others, flow in the territory of the reserve. All these watercourses are fed by snow, rain and ground waters. There also are a number of seasonal streams flowing only for the short period of spring rainfalls. Groundwater forms in cover sediments of the Kashkadarya region, and sub-pressure water forms in the underlying, well-permeable sands. The groundwater level is opened at a depth of 1.5 to 4 m.

Mineralization of groundwater varies widely from 3 to 5 g/l, in places - 10 g/l. According to the chemical composition, groundwater chloride-sulfate and sulfate, including sulfates SO<sub>4</sub> - 3.2 g/l.

**Soils.** The soil cover of Kashkadarya region was formed in the climatic conditions of the desert, and is represented by desert-sandy, takyrl-like, gray-brown soils, complexes of gray-brown, desert-sandy and takyrl-like soils. Under irrigation and the effects of soil moisture with shallow-lying groundwater (less than 3 m), zonal soils transformed and acquired features of hydromorphic soils, partially losing their original properties. Currently, meadow-desert and desert-meadow (depending on the depth of groundwater) prevail on the irrigated part of the region.

**Biodiversity, ecological and cultural heritage.** There is the Kitab National Reserve is situated in Kitab district, Kashkadarya region. It is located on the southwestern spurs of the Zarafshan Range, in the Kashkadarya river basin (on the left bank of the Jindydarya river). Kitab State Geological Reserve is the owner and custodian of the world stratigraphic benchmark. The stratotype was elected by the International Subcommission on Devonian Stratigraphy in 1989 and ratified in 1996 by the International Union of Geological Sciences. Thus, the Zinzilbán section provided the Kitab Reserve with the international status (2004)<sup>32</sup>. The Palaeozoic strata in the territory of the reserve contain most interesting formations providing information on a considerable period in the Earth's geological history covering 130-170 million years. The reserve is also of great importance for the protection of contemporary animals and plants. The Kitab Reserve is 3,938 ha in area. The wild nature in the Kitab Reserve is rich and diverse, with a number of endemic genera and species forming the unique local mountain semi-steppe. The flora of the reserve includes 798 higher plant species, with *Juniperus seravschanica* Kom. being the main species forming the forests of the Kitab Reserve. The Reserve is shelter 19 species of endophytes that are included into the Red Data Book of Uzbekistan<sup>33</sup>. The fauna of the Kitab Reserve includes 168 species of vertebrates, of which 3 are fishes, 16 reptiles, 128 birds and 21 mammals. Brown bear (*Ursus arctos*), black stork *Ciconia nigra*, black vulture *Aegypius monachus* are threatened (Red Data Book listed) species. Besides natural protected areas, there are many archeological monuments, such as: Ak-Saray Palace; Memorial complex "Dorut Tilovat"; Statue of Amir Timur; Dorus Saodat Complex; Mausoleum of Dorus Saodat; Tomb of Tamerlane; Kok Gumbaz Mosque; Mausoleum of Khazrati – Imam; Maidanak observatory; Langar-Ota Sanctuary.

**Socio-economic conditions.** The date of the foundation of Kashkadarya region is January 20, 1943. The administrative center is Karshi city, and the region's 13 administrative districts are: Chirakchi, Dehkanabad, Guzar, Kamashi, Karshi, Koson, Kasby, Kitob, Myrishkor, Muborak, Nishon, Shakhrisabz, and Yakkabog. The administrative division of Kashkadarya region is presented below figure 3.5. The main sectors of agriculture are cotton growing, grain growing, horticulture and viticulture, meat and dairy farming, sheep breeding, and sericulture. The main industries are electric power, fuel (oil and gas), chemical and gas chemical, building materials, light and food industry. The main socio-economic indicators of Kashkadarya region are provided in Table 3.3.

<sup>32</sup> <https://www.cbd.int/doc/nr/nr-06/uz-nr-06-en.pdf>

<sup>33</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>



**Figure 3.6:** Administrative map of Kashkadarya region

**Table 3.3:** Socio-economic indicators of Kashkadarya region

Name		Indicators
Territory, km <sup>2</sup>		28 570
<b>Population</b>		
Population density, per/km <sup>2</sup>		112,5
Total number of people		3 213 100
Women, per		1 589 200
Men, per		1 623 900
Urban population, per		1 383 600
Rural population, per		1 829 500
<b>Educational institutions</b>		
Primary schools		1123
Secondary professional (colleges)		139
Academic lyceums		6
Higher education institutions		2
<b>Medical institutions</b>		
Hospitals		81
State clinics		391
<b>Infrastructure, km</b>		
Transport	Car roads	3396
	Railways	492,7
	Airport	International Airport Karshi
Social (was commissioned)	Gas pipelines, km	23,4
	Water supply networks, km	104,4

### 3.6.3. Namangan region

**Geography and topography.** Namangan region is located in the north-eastern part of the Ferghana Valley of Uzbekistan. It borders in the south with Ferghana, in the southeast - Andijan, in the west with the Tashkent regions of Uzbekistan, in the north there is a state border with Kyrgyzstan and Tajikistan. There are 11 districts in Namangan region. The territory of the region is 7.44 thousand km<sup>2</sup>. The relief of the area is heterogeneous. Its spurs, which merge with the Adyrs and plains, stretch north of the Chatkal Range. In the north, there is the Kamchik range, in the west and north-west are its spurs - mountains. Part of the land in the Syr Darya floodplain in the south of the region is swampy. Nowadays swamps are drained and turned into fertile fields.

**Climate.** The climate of Namangan region is continental. Summer is hot and long, winter is relatively mild and short. There is wide diurnal fluctuation in temperature, and little precipitation. January temperature in the plains averages 3.5°C, and July – +25°C. Annual density of precipitations in the plains and in the vicinity of mountains is about 100-200 mm, and at the foothills – up to 600 mm. The vegetation period in Namangan region lasts 229 days. It is the longest period with respect to the southern and eastern parts of Ferghana Valley.

**Surface water and ground water resources.** The main water artery of Namangan region is Syrdarya river that is formed within the region by the confluence of Naryn and Karadarya rivers. Podshaotasoy, Chortoqsoy, Namangansoy, Kasansoy, Novasoy, Chodaksoy, Govasoy, and other sais (creeks) flow down to it from the mountains slopes. Kosonsoy, Chortoq, Eski Yer reservoirs were built to regulate the rivers' runoff. There are more than 15 lakes. There are 9 artificial reservoirs with a total displacement of about 601.0 million m<sup>3</sup> in the region. The region has about 90 springs with cold water, the most famous of which are Imom Ota spring located in Parda Tursun settlement, Kengulsoy spring, Chust in Chust city, and Abdullah Bur in the boundaries of Yangi Qourghon settlement.

**Soils.** Sierozem soils predominate: bright sierozems – up to a height of 700-850 m, typical and fuscous sierozems – from 850 to 1,200 - 1,500 m, and chestnut and chernozem-like soils – from above.

**Biodiversity, ecological and cultural heritage.** There are 2 official nature monuments in the Namangan region: Mingbulag (1991 est) and Chust (1990 est). Both monuments are under regional affiliation<sup>34</sup>. Due to unique biodiversity the Angren Plato was proposed for the creation of the OPT. It's in Pap district and is a flattened surface of the relict bottom of the Paleogene Sea, raised over the past few million years to a height of 2500-3000 m. a.s.l. It is located within the Chatkal-Kuramin region and is representative of the Middle Syrdarya district of the Foothill-Mountain subprovince of the Turan physiographic province. This area is a typical and at the same time unique high-mountainous section of the Mountainous Central Asian flora of the South-Western Tien Shan District. All high-mountainous florocenotypes are represented here. Presence of one endemic genus *Kuramosciadium* and 3 endemic species (*Kuramosciadium corydalifolium*, *Allium chorkessaricum*, *A. scharobitdinii*) characterizes flora as unique. 24 species of this area plants recognized as rare and vulnerable, 12 species are listed with status 1, i.e., these species are threatened and included into the Red Book Data of Uzbekistan (2009). Also, there are 2 important ornithological territories (IBA) on the territory of the region: Among natural protected areas, there are protected sites falling into the IUCN's [International Union for Conservation of Nature and Natural Resources] categories III, IV, V. Pursuant to resolutions # 178 and #179 of 13th April 2004 of the Cabinet of Ministers of Uzbekistan, following water conservation zones are located in the territory of Andijan and Namangan regions of Ferghana Valley:

- Water conservation zones of Naryn river in Namangan region;
- Water conservation zones of Karadarya river in Namangan and Andijan regions;
- Water conservation zones of Syrdarya river in Andijan region;

Local hokimiyats, branches of Ministry of water resources, and Forest Administrations are charged with establishing and ensuring security of water conservation zones. Particular damage to the vegetation is caused

<sup>34</sup> <https://www.cbd.int/doc/world/uz/uz-nr-05-en.pdf>

by overgrazing, which has been carried out here for more than half a century. According to FAO report<sup>35</sup> Pop is specialized for the conservation and production of medicinal and aromatic plants.

**Socio-economic conditions.** Founded on March 6, 1941, Namangan region has an administrative center, Namangan city, and the 11 administrative districts of Chartak, Chust, Kasansay, Mingbulak, Namangan, Naryn, Pap, Turakurgan, Uchkurgan, Uychi, Yangikurgan. The administrative division of Namangan region is presented on Figure 3.6.



**Figure 3.7:** Administrative map of Namangan region

The primary socio-economic indicators of the Andijan, Ferghana and Namangan regions are provided in Table 3.4.

**Table 3.4:** Socio-economic indicators of Andijan, Ferghana and Namangan regions

Name	Indicators
	Namangan region
Territory, km <sup>2</sup>	7 440
<b>Population</b>	
Population density, per/km <sup>2</sup>	370
Total number of people	2 752 900
Women, per	1 355 600
Men, per	1 397 300
Urban population, per	1 777 600
Rural population, per	975 300
<b>Educational institutions</b>	
Primary schools	687
Secondary professional (colleges)	110
Academic lyceums	9
Higher education institutions	3
<b>Medical institutions</b>	
Hospitals	1,123

<sup>35</sup> Sustainable management of forests in Mountain and Valley areas in Uzbekistan (FSP) PROJECT CODE: GCP/UZB/004/GFF

Name		Indicators
		Namangan region
State clinics		352
<b>Infrastructure, km</b>		
Transport	Car roads	3,168
	Railways	228.1
	Airport	International Airport Namangan
Social (was commissioned)	Gas pipelines, km	6.6
	Water supply networks, km	272.9

The main sectors of agriculture are grain growing, cotton growing, horticulture and viticulture, meat and dairy farming, and sericulture. The primary industries include the electric power, machine building, metalworking, building materials, and light and food industries.

#### 3.6.4. Samarkand region

**Geography and topography.** Samarkand region is located in the central part of Uzbekistan, in the Zarafshan valley. It borders with the Jizzakh region of Uzbekistan in northeast, Tajikistan in the east, the Kashkadarya region in the south and the Navoi region of Uzbekistan in the west and northwest. It covers an area of 16,400 km<sup>2</sup>.

**Climate.** The Samarkand region is completely located in the Middle Zarafshan climatic region, that extends to the Samarkand and Sanzar-Nurata intermountain basins with facing them mountain slopes. Middle Zarafshan climatic region lays between Kashkadarya (on the south) and Golodnostepskiy (on the north) climatic regions. It borders with Lower Zarafshan climatic region (on the west). Average temperature of January ranges from 0,5° and -1° till -2° -3° degree. Real wintertime lasts 28-71 days. Absolute minimum of temperature is -25°. The average temperature of July is 28°. Absolute maximum of temperature is 42,4°. Annual precipitation rises from 180-280 mm on the west to 425 mm on the east. Winter-spring portion of precipitation reaches 33-44% of annual sum. The region is located between 0,15 HTC (hydrothermal coefficient) contour line on the west and 0,32 HTC contour line on the east. The whole flat part of the region has rich thermal resources from 4500° to 4000°.

**Surface water and ground water resources.** The hydrographic network in the investigated area is represented by the Zarafshan River and its tributaries and a wide network of irrigation canals. The Zarafshan River originates near the node of the site of the Turkestan and Gissar ranges at the altitude of about 2750 m above the sea level of the Zarafshan Glacier. The river stretches from east to west, its length is 750 km. The upper course of the river passes among the mountain ranges, on average it emerges from the gorge and carries water along the wide multi-channel floodplain. In the middle reaches of the Zarafshan River, it divides into Akdarya and Karadarya rivers, which again merge, forming the channel of the Zarafshan River. Within the territory of Uzbekistan, the river has no tributaries. The lower course of the river is lost in the sands in the middle and lower reaches, including in the Samarkand region, the waters of the river are intensively disassembled for irrigation by a network of irrigation canals. The flow of the river within the Zarafshan depression is regulated and greatly changed. More than 60 main canals emanate from large canals like: Dargom, Bulungur, Narpay, Eski-Angar, Big right-bank, Shakhrud and others. Siab, Obi-Mashat, Siabcha canals pass through the city of Samarkand. The chemical composition in the river is formed under the influence of pollution from industrial enterprises entering sewage waters in populated areas, including the cities of Navoi, Samarkand and sinks of farmland. In addition, it should be noted the high level of contamination of Zarafshan along the sleeve of the Karadarya and the Siab collector with nitrites (correspondingly registered maximum concentrations of 0.241 mg/l and 0.586 mg/l at annual average values of 0.167 mg/l), as well as copper compounds (1.3 mkg/l) due to discharge of sewage from sewage treatment plants and unorganized city drains.

**Soils.** The soils of the investigated area are of gray-loamy loamy loess on loess. These soils are significantly modified by irrigated agriculture and completely lost the structure of the profile of serozem, from which they

divorced. They are characterized by greater thickness and monotonous brownish-gray coloration of the humus part of the soil (by soil-worms) and the absence of a carbonate horizon. Characteristic features and properties acquired in the development of serozem-oasis soils are clearly pronounced glowing, an increase in the exchange capacity of the proportion of absorbed magnesium, mobile ferrous forms of iron, and general reserves of humus, nitrogen and assimilable phosphates. Soil-forming rocks of this subtype of serozem soils are mainly loess and loess like loamy rocks. The thickness of the humus horizon is 10-20 cm. These soils are characterized by a high content of silty, the particles are not affected by salinity.

**Biodiversity, ecological and cultural heritage.** There is a Zarafshan National Nature Park (ZNNP) in the Samarkand region. ZNNP was established on the basis of Zarafshan Nature Reserve. According to the decision 82 of the Cabinet of Ministers of the Republic of Uzbekistan dated February 7, 2018 "On the organization of Zarafshan National Nature Park". Zarafshan National Nature Park is located in the southeastern part of Samarkand region on the territory of Jambay and Bulungur districts and consists of two separate sections (upper and lower) located along the Zarafshan river. The main activity of the Zarafshan National Nature Park is the restoration and preservation of populations of Zarafshan pheasant, Central Asian otter, Bukhara deer, protection of other wild birds and animals, as well as all types of tugai vegetation, and especially Asian poplar and valuable medicinal shrub - buckthorn in their natural environment, restoration of natural landscapes, maintaining ecological balance, conducting scientific research, sustainable use of natural resources, development of ecological education and awareness<sup>36</sup>. The flora of the reserve included more than 300 plant species, some of them endemics. Typical plants are sea buckthorn, narrow-leaved elk, Babylonian and Jungarian willows, and spreading comb. Also, there are *endemics* of Central Asia - Kesselring's agowfly, Olivieri's gentian and Korolkova's saffron. Thirteen formations and 46 vegetation associations have been established in the reserve. But after the reserve became a national park, it's all under threat. Riparian forests are being cut down, and in their place are planted cultivated plants, nurseries are being established<sup>37</sup>.

There are 88 species of insects and 26 species of mollusks in the fauna of the reserve. Vertebrates are represented by 245 species. The bird fauna is well studied in the reserve, counting 207 species. The mollusks *Colletopterum cyreum sogdianum* and *Corbicula fluminalis*, fish *Barbus capito conocephalus*, *Sabanejewia aurata aralensis* and 26 species of birds, including the endemic Zarafshan pheasant *Phasianus colchicus zerafschanicus* are included in the Red Book of Uzbekistan from the inhabitants of Zarafshan National Nature Park. However, due to the extraction of gravel and sand from the Zarafshan river bed, which is literally robbed and mutilated, shellfish and fish are on the verge of extinction. Tugai red deer are included in the *IUCN Red List*, Annex II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. One of the main reasons for the decrease in the number of riparian deer in their natural habitat is the economic development of floodplains of desert rivers and their regulation<sup>38</sup>. One of the rare birds (*Critical Habitat*) that live permanently in the territory of the national park is the Zarafshan pheasant. Its feathers are bright and shiny, making it a rare bird species. The pheasant is listed as a "red bird" by the *International Council for Conservation of Nature*.

Samarkand region has a great number of cultural and historical monuments. Among the famous monuments, are: Registan; Ensembles: Khoja Ahrar, Abdi-Darun; Madrassas: Nadir Divan Run, Sherdor, Tilla-Kari; Mausoleums: Bibi Khanum, Mazar Khoji Daniyar, Ak-Saray, Gur Emir, Rukhabad, Mazgum-bobo, Isharthona, Chorsu, Muhammad al-Bikhari, Hodzha Doniyor, Saint Daniel, Kusam Ibn Abbas; Mosques: Mahdumi Khorazmi, Khazret-Khizr, Khodzha Zumrod, Bibi Khanum, Kodzha Nisbatdor; Memorial complex Imam al-Bukhari; Ulugbek Observatory and many others.

**Socio-economic conditions.** Samarkand region was founded on January 15, 1938. The administrative center is Samarkand city. Samarkand region is divided into eight administrative districts: Bulungur, Ishtikhon, Jomboy, Kattakurgan, Koshrabot, Narpay, Nurobod, Okdarya, Pakhtachi, Payariq, Pastdargom, Samarkand, Toyloq, and Urgut. The administrative division of Samarkand region is presented in figure 3.7.

<sup>36</sup> <http://sreda.uz/rubriki/voda/chto-proishodit-v-zarafshanskom-natsionalnom-parke/>

<sup>37</sup> <http://sreda.uz/rubriki/voda/chto-proishodit-v-zarafshanskom-natsionalnom-parke/>

<sup>38</sup> <http://sreda.uz/rubriki/voda/chto-proishodit-v-zarafshanskom-natsionalnom-parke/>



**Figure 3.8:** Administrative map of Samarkand region

The main socio-economic indicators of Samarkand region are provided in Table 3.5.

**Table 3.5:** Socio-economic indicators of Samarkand region

Name		Indicators
Territory, km <sup>2</sup>		16 770
<b>Population</b>		
Population density, per/km <sup>2</sup>		226,5
Total number of people		3 798 900
Women, per		1 889 800
Men, per		1 909 100
Urban population, per		1 414 700
Rural population, per		2 384 200
<b>Educational institutions</b>		
Primary schools		1220
Secondary professional (colleges)		162
Academic lyceums		11
Higher education institutions		6
<b>Medical institutions</b>		
Hospitals		87
State clinics		434
<b>Infrastructure, km</b>		
Transport	Car roads	4 084
	Railways	282,9
	Airport	International Airport Samarkand
Social (was commissioned)	Gas pipelines, km	67,9
	Water supply networks, km	340,4

The main sectors of agriculture include cotton growing, grain growing, horticulture and viticulture, meat and

dairy farming, sheep breeding, and sericulture. The main industries include light and food industry, machine building and metalworking, non-ferrous metallurgy, chemical, and building materials.

### 3.6.5. Surkhandarya region

**Geography and topography.** Surkhandarya region is located in the south of the Republic of Uzbekistan in the Surkhan-Sherabad valley. It borders in the south along the Amudarya river with Afghanistan, in the northeast with Tajikistan, in the southwest with Turkmenistan, and in the northwest with the Kashkadarya region of Uzbekistan. The territory of the Surkhandarya region is 20.1 thousand km<sup>2</sup>. The territory of the region is stretched mainly from north to south for almost 200 kilometers, from west to east for 140 kilometers. The central and southern parts are the plain bordered in the north by the Gissar ridge, in the west and northwest by its spurs - Baysuntau and Kugitangtau, in the east - by the Babatag ridge, in the south - by the Amudarya valley.

**Climate.** The climate in Surkhandarya region from dry desert in the South to subtropical in the North (Uzun). Summer is hot and dry, maximum air temperature in the summer months (July-August) reach +48-50 °C, and on the soil surface 60-70 °C. Due to Babatag Mountains and Gissar Range the region is characterized by mild and short winters. Average monthly temperature in January, the coolest month, ranges from 2.1 to 3.3° C. Average absolute minimum recorded temperature in the rayon is between -23 and -25° C. The duration of the frost-free period is 240-270 days (sometimes 300-320 days). Total annual precipitation is low (350-400 mm). Due to high temperature and low humidity the evaporation exceeds precipitation more than ten times at some locations.

**Surface water and ground water resources.** The Central and southern parts of the region are flat. In the North is the Hissar range, in the West and North-West are its spurs — Baisuntau (4425 m) and Kugitangtau mountains (3139 m), in the East is the Babatag ridge (up to 2290 m), in the South — Amu Darya valley river<sup>39</sup>. There are 10 rivers in Surkhandarya. The average volume of water resources is about 4270 billion m<sup>3</sup>. per year. The main rivers are Amu Darya, Surkhandarya and Tupalang. There are 5 artificial reservoirs in the region with a total displacement of about 1155.8 million m<sup>3</sup>. The main rivers are the Surkhandarya, Sherobod, Tupalang, Sangardak, and other rivers. The Termez city lies on the right bank of Amudarya river, which is the main surface water source. Annual run-off of this river varies from 3,050 m<sup>3</sup> /sec to 1,410 m<sup>3</sup> /sec, reportedly. Water salinity level is 0.5-0.7 g/l. Turbidity (weighted particles load) is approximately 5 g/l, of which 40% are sand particles (1.0 to 0.05 mm). Average sediment transport is 2 to 4 kg/m<sup>3</sup>, with summer peaks up to 10 kg/m<sup>3</sup>. The main hydro-geographical network consists of manmade irrigation and drainage canals. All irrigated croplands in the rayon are served by this irrigation system, which is fed from Amudarya river. Underground water of the South Surkhandarya ground water deposit is used for water supply of Termez district. The water salinity is 0.4 g/l.

**Soils.** Surkhandarya region occupies the extreme southern position within Uzbekistan. The system of mountain ranges separates the region from the eastern and northern parts of Central Asia. The best contact of air flows occurs from the west and south. All this determines the specific climate of the region. At the same time, natural conditions are very diverse within the region. There are areas with a mountainous, semi-desert climate. According to the adopted soil-climatic zoning scheme, the zones of light brown high mountain soils, mountain-brown soils, gray soils (dark, typical, light) in the vertical zoning system and an arid zone in the latitudinal zoning system are distinguished within the boundaries of the Surkhandarya region.

**Biodiversity, ecological and cultural heritage.** The hot climate allows for cultivation of different kinds of plants in the region. Cotton is the most widely cultivated crop. Cotton plantations occupy almost 50 percent of the territory. There are districts where fruits and vegetables such as grapes, lemons and apricots are cultivated. The region is the only place in the country where sugarcane is cultivated. Surkhan mountain-forest state nature reserve (est 1987) is located in Surkhandarya province, Termez and Sherabad districts. In general, Surkhandarya region has unique and rich flora, the presence of 20 endemic and 20 sub-endemic species characterizes the flora as relic and unique. In addition, 45 species are included in the 4th. edition of the Red

<sup>39</sup> <https://invest.gov.uz/regional-map/surhandarinskaya-oblast/>

Book of Uzbekistan<sup>40</sup>. The highest number of rare species is recorded in the territory of the Surkhan nature reserve (39) after the Ugam-Chatkal national park (61). Fauna of the region represents with 16 rare and globally threatened vertebrate species (subspecies) and endemics. Bukhara mountain sheep - *Ovis vignei bochariensis* (endemic subspecies - UZ TM TJ). Endemics of Central Asia: Central Asian tortoise - *Agryonemys horsfieldii* (UZ KZ TM KG TJ IR), black-eyed lizard - *Eremias nigrocellata* (UZ TM TJ IR AF)<sup>41</sup>.

Babatag district of Surkhandarya district was proposed for the creation of protected areas. District, represented by the landscape of lowland arid type, is representative for the Turan physico-geographical province. The territory of Babatag is located in the depth of Babatag mountain massif, it is distant from large populated settlements, large industrial and mining enterprises. However, in the west, the Babatag Range is bordered by densely populated developed areas of the Surkhandarya valley. The vegetation cover is mainly represented by medium transformed phytocenoses. The main threat for flora and vegetation of the territory is intensive cattle grazing and felling of trees and bushes.

Special attention should be paid to the presence of 9 *endemic* plants: (*Astragalus pseudoeremophysa*, *Oxytropis tyttantha*, *O. pseudorosea*, *Capparis rosanowiana*, *Salvia insignis*, *Cousinia adenophora*, *C. platystegia*, *Cousinia candicans*, *Echinops babatagensis*) and 5 subendemic species (*Allium giganteum*, *Allochrysa tadschikistanica*, *Anemone bucharica*, *Cercis griffithii*, *Astragalus bucharicus*). These 14 species are included in the 4th edition of the Red Book Data of Uzbekistan. The same time vulnerable plant communities include relict cenoses of pistachio and variegated strata. Unique relict vegetation of gypsiferous strata, ephemerum, petrophyton, shiblyak, juniper, high-mountain steppes, tragacanth are presented here<sup>42</sup>. There are some cultural and archeological monuments in Surkhandarya region, such as: Fayaz-tepe, Karatepa Complexes; Sultan Saodat Memorial and Cultural Complex; Cockildor hanaka; Airibaba; Dzharkurgan minaret; Kirk-Kyz Fortress; Mausoleum of Hakim at-Termezi; Buddhist stupa Zurmala and others.



**Figure 3.9.** *Eremias nigrocellata*<sup>43</sup>

<sup>40</sup>[https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/2012\\_11\\_13\\_surkhan\\_zapovednik\\_visitor\\_center\\_concept\\_final.pdf](https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/2012_11_13_surkhan_zapovednik_visitor_center_concept_final.pdf)

<sup>41</sup>

[https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/2012\\_11\\_13\\_surkhan\\_zapovednik\\_visitor\\_center\\_concept\\_final.pdf](https://www.umweltbundesamt.de/sites/default/files/medien/1411/beratungshilfe/2012_11_13_surkhan_zapovednik_visitor_center_concept_final.pdf)

<sup>42</sup> [https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789\\_Recommendations\\_for\\_protected\\_areas\\_system\\_development\\_in\\_Uzbekistan\\_In\\_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf](https://www.researchgate.net/profile/Natalya-Beshko/publication/321418789_Recommendations_for_protected_areas_system_development_in_Uzbekistan_In_Russian/links/5a20e6f90f7e9b4d19280edc/Recommendations-for-protected-areas-system-development-in-Uzbekistan-In-Russian.pdf)

<sup>43</sup> [https://en.wikipedia.org/wiki/Eremias\\_nigrocellata](https://en.wikipedia.org/wiki/Eremias_nigrocellata)

**Socio-economic conditions.** Surkhandarya region was founded on March 6, 1941. The administrative center is Termez city. Surkhandarya region is divided into 13 administrative districts: Angor, Denov, Jarkurgan, Kizirik, Kumkurghon, Muzrabot, Oltinsoy, Sariosiyo, Sherobod, Shurchi, Termez, and Uzun. The administrative division of Surkhandarya region is presented in figure 3.9.



**Figure 3.10:** Administrative map of Surkhandarya region

The main socio-economic indicators of Surkhandarya region are provided in Table 3.6.

**Table 3.6: Socio-economic indicators of Surkhandarya region**

Name		Indicators
Territory, km <sup>2</sup>		20 100
<b>Population</b>		
Population density, per/km <sup>2</sup>		127,9
Total number of people		2 569 900
Women, per		1 271 800
Men, per		1 298 100
Urban population, per		910 600
Rural population, per		1 659 300
<b>Educational institutions</b>		
Primary schools		855
Secondary professional (colleges)		116
Academic lyceums		4
Higher education institutions		
<b>Medical institutions</b>		
Hospitals		57
State clinics		268
<b>Infrastructure, km</b>		
Transport	Car roads	2 827
	Railways	368,7
	Airport	International Airport Termez
Social (was commissioned)	Gas pipelines, km	
	Water supply networks, km	235,6

The main sectors of agriculture include cotton and grain growing, horticulture and viticulture, sheep breeding, and sericulture. The main industries include electric power, fuel (oil and gas), light and food industry.

**Cultural heritages.** There are two historical places located within 1,000 meters radius to the project site: (i) the Buddhist temple complex Fayaztepa, and (ii) the Mausoleum of Hakim at-Termezi. On the elevated coast of the Amu Darya, in the south-west of the Old Termez settlement, there is an architectural monument which is the mausoleum of the “sage from Termez” - Hakim at-Termezi. To celebrate the 2,500th anniversary of the city in 2001, the appearance of the mausoleum was almost completely restored, which symbolizes the revival of Islamic values. Hakim at-Termezi is now considered the patron saint of this city, and its mausoleum has become a place of worship for Muslims around the world. The distance between this historical complex and project site is more than 1,000 m.

### **3.6.6. Syrdarya region**

**Geography and topography.** Syrdarya region is situated in the east of the country, on left bank of Syrdarya river at its outflow point from Ferghana valley. It borders in the north with Kazakhstan and in the south with Tajikistan. In physical and geographical terms, the Syrdarya region in the south is surrounded by the Turkestan ridge, in the north and east - by the Chatkal ridge. From the west, it borders the Kyzylkum desert and the Starving Steppe and is open for the penetration of warm air masses, which affects the climate.

**Climate.** The climate of Syrdarya region is sharply continental, with relatively mild winters and long hot summers. According to observations over the past 10 years, the average annual air temperature is + 15.8°C, the average maximum temperature of the hottest month of July is + 36.7°C, and the minimum –1.6°C. The sharp continentality of the climate is characterized by a large temperature amplitude: the absolute maximum is in the range + 42.9- + 44.0°C, the minimum is -15.5-16.9°C. The prevailing wind directions are southeast and east-southeast, with a repeatability of 16.5 and 13.0%, respectively. The average annual wind speed is 2.7 m/s. Most often, weak winds (0-1 m/s) and winds with a speed of 2-3 m/s are recorded, the repeatability of which reaches 38.2 and 36.8%. The repeatability (10.2 and 6.2%) of high wind speeds of 4-5 m/s and 6-7 m/s is great. The first autumn frosts occur mainly at the end of October - beginning of November. The duration of the frost-free period averages 260-270 days. About 390 mm of precipitation falls, 80% of which falls on winter-spring time.

**Surface water and ground water resources.** Hydrographical network of Syrdarya region is represented by the section of Syrdarya river, which is neighboring with Tashkent region from Bekabad town up to the site below the inflow of Main Flood Collector (MFC), irrigation canals and collectors. There are no own natural waterways in Syrdarya region. Inflow of transboundary river waters to Syrdarya is equal to 240 cub.m/s and outflow to Kazakhstan area - 225 cub.m/s. Main water supplies to the territory of the region are accomplished by canals springing from Farkhad Dam, South Golodnosteppe canal and Dustlik canal (named after Kirov). Via main Dustlik canal water is delivered to supply Syrdarya region and it partially flows to Kazakhstan. General water consumption of Syrdarya region consists of 2,700 – 3,800 mln. cub.m/year. In flat areas of Syrdarya region the ground waters are laid in the depth from 0.5 – 1.0 m to 3-4 m. In foothills the depth of ground waters bedding is varying from 2 to 5 m. In spring period ground waters are very close to the surface, sometimes they rise. Most deep level they take in autumn and winter. Ground waters are strongly mineralized and they rise up causing in soil salinization. Distribution of irrigated lands according to location of ground waters is shown below separately by each project rayon. Underground waters. Main volume of fresh waters is concentrated in the northern and eastern site of the region in Syrdarya river valley. Underground waters are confined to quaternary and upper-pliocene sediments. Reserves of 5 deposits of fresh underground waters are established on the territory of Syrdarya region: Syrdarya, Central-Gulistan, Upper-Pliocene, Khavast and Dustlik.

**Soils.** Light grey desert soils and in some areas brackish ones prevail in Tashkent-Golodnosteppe depression. Typical grey soils are widespread by periphery part of the depression. Meadow and meadow-swampy soils are developed in the bottom of Syrdarya river. Typical and dark grey soils prevail within foothill plains and low-hill terrains of Western Tien-Shan, light and typical grey soils – within foothills of Turkestan ridge. Loamy light grey soils of plains are irrigated and used for farming. Gristly eroded light grey soils, clayey and loamy, are formed on loess, mostly irrigated or can be used for irrigation, their less part is used for dry-farming land and pasture. Meadow soils are used for farming since long ago.

**Biodiversity, ecological and cultural heritage.** Currently the most part of Syrdarya region is occupied by agricultural land. Arable lands occupy 256,061 ha, technical cultures crops (mainly cotton), grain and legumes – 75,360 ha and 66,988 ha accordingly. As a representative of ancient lake Qolgansir lake was proposed for protective areas. It is located on the left bank of Syrdarya river at its inflow into Chardara reservoir. It has an important scientific meaning. The main threat - reduction of water inflow, unorganized tourism littering and destruction of the banks. The Syrdarya river basin is characterized by riparian forest (tugai). The Tugai forest of Central Asia is a globally endangered ecotype resulting from a very specific combination of bio-geographic and climatic conditions. The Tugai forests fall within the WWF Global 200 list (Eco-region 134) and are undoubtedly of significant global biodiversity value<sup>44</sup>. Forest zone is consisting of field-protective plantings along the roads and between the fields, plantings in parks and populated areas: Lombardy poplar (*Populus nigra*) – the most wide-spread species in forest shelter belts. Planted trees and bushes in parks and dwelling settlements differ by their diversity and include among others the following: (Acer), plane tree (*Ulmus*) willows (*Salix*), elms (*Acer*), plane trees (*Ulmus*), willows (*Salix*), mulberry plantations, gardens and vineyards. At the distance of 500 and over meters from left bank of Syrdarya river the following trees and bushes are growing: bluish poplar, oleaster, Californian poplar, Bolle's poplar, southern willow, grey poplar, white poplar, ashtree, elm, arbor vitae, juniper, pine, weeping willow, planetree; bushes: wild tamarisk, wild horn-head, dog rose of medicinal plant kind, cane, Great Club-rush, gisha, licorice medicinal, mint, caper, wormwood. Tamarisk bushes of collector-drainage network are the places of cuckoo nesting, on slopes of drainages and on edges of developed sites, where bushes of carelinia and tamarisk are kept, scrub robin and many other species are nesting: black-headed gull, morwennol and slenderbilled gull. On left-bank of Syrdarya river the following species of animals and birds are inhabiting: small glassy ibis, white stork, white heron, rare species, yellow heron rare species, small golden eagle, sparrow hawk, pheasant, 9 species of duck, 2 species of teal, little owl, raven 2 species, coot, doves 3 species, viper, water snake 4 species, lizard, reed bunting, quail, wild boar, turtle, muskrat, jackal, vixen, hare, badger, nutria, mouse, hedgehog, bat, snowcock, 2 species of geese, 4 species of cormorants, hoopoe, my-lady's-belt, skylark, blue tit. Following species of fish are found in Syrdarya river and off-takes: carp, crucian carp, soma, mudfish, carp, zander, barbel, asp, redeye, Caspian roach, grass carp, pike, sabrefish, bream, Turkestan barbel. The Mirzachul forestry enterprise established plantations in the rights of way of canals on an area of 550 ha. The works on fixing the most dangerous shifting sands, threatening irrigated lands of Tashkent, Samarkand and Fergana regions started in 1924<sup>45</sup>.

**Socio-economic conditions.** The date of the foundation of Syrdarya region is February 16, 1963. The administrative center is Gulistan city. Syrdarya region is divided into 9 administrative districts: Akaltyn, Bayaut, Gulistan, Khavast, Mekhnatabad, Mirzaabad, Saikhunabad, Sharof Rashidov, and Syrdarya. The administrative division of Syrdarya region is presented in figure 3.10.

<sup>44</sup> <https://www.thegef.org/project/conservation-tugai-forest-and-strengthening-protected-areas-system-amu-darya-delta>

<sup>45</sup> [https://www.iufro.org/fileadmin/material/science/spps/spdc/Keep\\_Asia\\_Green/WS\\_20-IV/Uzekistan.pdf](https://www.iufro.org/fileadmin/material/science/spps/spdc/Keep_Asia_Green/WS_20-IV/Uzekistan.pdf)



**Figure 3.11:** Administrative map of Syrdarya region

The main socio-economic indicators of Syrdarya region are provided in Table 3.7.

**Table 3.7:** Socio-economic indicators of Syrdarya region

Name		Indicators
Territory, km <sup>2</sup>		4 280
<b>Population</b>		
Population density, per/km <sup>2</sup>		193,9
Total number of people		829 900
Women, per		413 200
Men, per		416 700
Urban population, per		354 800
Rural population, per		475 100
<b>Educational institutions</b>		
Primary schools		298
Secondary professional (colleges)		49
Academic lyceums		3
Higher education institutions		1
<b>Medical institutions</b>		
Hospitals		33
State clinics		144
<b>Infrastructure, km</b>		
Transport	Car roads	161,5
	Railways	1 447
	Airport	
Social (was commissioned)	Gas pipelines, km	0,9
	Water supply networks, km	67,7

## 4 POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS

Forest degradation has been ongoing for at least one century in Uzbekistan. The most notable root causes have been<sup>46</sup> (i) the expansion of agricultural land (for example, irrigated land grew from 2.2 million to 3.6 million hectares during 1913 – 2008, which notably had a major direct impact on the limited amounts of tugai forest and; (ii) the increase in the livestock population (cattle, sheep and goat numbers grew between 300-400 % during the period 1916 – 2008). This has affected all forest land, notably desert and mountains, and has greatly reduced the possibility of natural succession or regeneration. Notably, this has greatly reduced the ability of forests to store and sequester carbon and leads to loss of carbon in forest ecosystems.

Implementation of this project allows to make lands less vulnerable and to promote climate-resilient integrated landscape management of drylands and mountain ecosystems. Among other benefits, restoring the degraded landscape will help to reduce the impact of flooding, land and mudslides in the rural areas. Other activities financed by the project include terracing, agroforestry, and bioresources engineering solutions plus more effective watershed management.

The project areas are located in the different climatic areas, like drought-ridden, mountains with water deficit and economically depressed areas of rural regions, which have some of the highest levels of absolute and relative poverty in the country. The project is expected to have a positive impact on employment and livelihoods, farming, and added value chain activities. There is hope that the project will open new prospects for local communities in the development of agribusiness and private forest breeding, namely agroforestry.

The domestic and export market for project areas has untapped potential to generate revenue from the sale of fresh and/or processed food and other products derived from the establishment of agroforestry demonstration sites. Industry interventions are designed to directly and indirectly reach the most vulnerable groups, such as women and young people, who are the beneficiaries of the expected improvements in overall economic conditions. In addition, the design of the project's activities will directly target vulnerable groups in a number of ways:

It is planned to incentivize communities within the corridors to engage in landscape restoration and management practices by enhancing resilient livelihoods and improving the incomes of beneficiaries in target areas. It will do so by providing financial and non-financial services to existing and new enterprises. The project will target beneficiaries primarily from low-income households and will include family enterprises, farmer/community groups, small entrepreneurs, and vulnerable members of communities, including women, youth, and persons with disabilities in villages.

The capacity-building development of degraded landscapes will help further the development of agribusiness and private forestry and will support the beneficiaries. Given low potential and willingness of farmers and local communities to participate in the development of private forestry, financial and technical assistance will be provided under the project and training workshops on the introduction of innovative agroforestry technologies, including environmental education will be conducted.

### 4.1. POTENTIAL ENVIRONMENTAL RISKS AND IMPACTS

In accordance to WB's classification, environmental risks and impact may include: (i) those defined by WB's Environmental, Health, and Safety Guideline (EHSG); (ii) those related to community safety (including safe use of pesticides), (iii) those related to climate change and other transboundary or global risks and impacts, (iv) any material threat to the protection, conservation, maintenance and restoration of natural habitats and biodiversity; and (v) those related to ecosystem services and the use of living natural resources, such as fisheries and forests.

In the medium to long term, the project is expected to bring significant environmental benefits such as reforested degraded lands, improved soil retention and water flows, reduced dust and salt migration, improved conservation and sustainable use of biodiversity in selected ecosystems. Risks to the environmental

<sup>46</sup> Botman E. Forest rehabilitation in the Republic of Uzbekistan. *IUFRO World Series* 2009 Vol.20 No.4 pp.253-299 ref.40

and human health can be significant, but expected to be known, temporary and predictable, avoidable or reversible through site-specific assessment, management measures and investment.

The main potential environmental risks and adverse impacts as well as potential mitigation measures which may occur in the context of the project are presented in the Table 4.1 below, grouped under components and their related activities under which they are anticipated.

**Table 4.1: Project Environmental Risks**

<b>Anticipated adverse environmental risks and impacts from sub-component activities</b>	<b>Potential mitigation measures and proposed ESF instruments</b>
<b>Component 1. Strengthen Institutions and Policies, and Regional Collaboration</b>	
Subcomponent 1.1 Environmental and Social risks are not properly assessed or integrated within sectoral policy documents for the Forest Landscape management	➤ Project to consider conducting Environmental and Social Impact Assessments (ESIAs) with the elements of Strategic Environmental Assessment (SEA) <sup>47</sup> in parallel with the development of a unified policy
Subcomponent 1.1. Omission risks related to relevant environmental and social safeguard provisions and international guidelines in the policy harmonization processes and protocols, such as transboundary management plans for ecological corridors for migratory animals; protocols for using nature-based solutions; protocols for activities on protection and preservation of Key Biodiversity areas, etc.	➤ Prior review and consultations for draft policy or protocol documents, consultations with the relevant environmental assessment authorities, preparing Environmental and Social Impact Assessments (ESIAs)
Subcomponent 1.1. Environmental risks linked with strengthening applied research in support of resilient landscape management, for example derived from the use of pesticides on plots; construction waste & occupational risks from small-scale construction; others	<ul style="list-style-type: none"> <li>➤ Environmental screening to determine the scale of impacts and category of impact</li> <li>➤ Avoid pesticides or mineral fertilizers or reduce, if possible</li> <li>➤ Use good quality, less harmful pesticides, proper application and management of pesticides on site, avoid over contamination</li> <li>➤ Applying water-efficient irrigation practices on the plots</li> <li>➤ Avoiding or reducing the production of dust, excess soil, hazardous waste, ensure proper handling of any waste from the plots. Etc.</li> </ul> Develop and follow site-specific Environmental and Social Management Plans (ESMPs)
Subcomponent 1.2 Environmental and occupational health risks related installation of equipment	➤ Develop and implement ESMP checklists
<b>Component 2. Enhance Resilient Landscape Management and Livelihoods</b>	
Sub-component 2.1. Environmental risk related to the modification of natural habitats or impacts from localized agriculture and forestry plantations (soil disturbances, noise, water pollution, biodiversity losses, land degradation, waste).  The risk of potential spread of invasive tree or shrub species.	<ul style="list-style-type: none"> <li>➤ Environmental screening to determine the scale of impacts and category of impact, and no new conversion of natural habitat screening</li> <li>➤ Respect commercial and non-commercial land use delineations</li> <li>➤ Depending on scale and risk category, develop and follow ESIAs or/and site-specific Environmental and Social Management Plans (ESMPs)<sup>48</sup></li> <li>➤ Select native or naturalized, non-aggressively invasive species of trees or plants ((following a shortlist shown below)</li> </ul>

<sup>47</sup> Current environmental assessment legislation in Uzbekistan doesn't include the concept of Strategic Environmental Assessment (SEA), and Uzbekistan is not yet party to the Convention on the Strategic Environmental Assessment (2003). There have been efforts to plan for a gradual reform the environmental assessment system, including integrating and introducing SEA concept in Uzbekistan.

<sup>48</sup> The definitions and distinctions of environmental and social assessment instruments and procedures used in accordance with WB ESF and national regulatory framework of Uzbekistan is provided in Section 6 of the ESMF.

	<ul style="list-style-type: none"> <li>➤ Use sustainable, context-appropriate agriculture practices</li> <li>➤ Avoid pesticides or mineral fertilizers or reduce, if possible</li> <li>➤ Use good quality, less harmful pesticides, proper application and management of pesticides on site, avoid over contamination</li> <li>➤ Applying water-efficient irrigation practices on the plots</li> <li>➤ Respect land delineations, buffer zones with strictly protected areas or critical habitats</li> </ul>
<p>Subcomponent 2.1 Environmental risks related to the rehabilitation of watersheds from tree-based restorative/protection interventions</p>	<ul style="list-style-type: none"> <li>➤ Water harvesting: Proper storage of water is done with pro- vision for use in dry seasons in low rainfall areas. It also helps in moderation of floods.</li> <li>➤ Afforestation and Agroforestry: In watershed development, afforestation and crop plantation play a very important role. They help to prevent soil erosion and retention of moisture. In high rainfall areas woody trees are grown in between crops to substantially reduce the runoff and loss of fertile soil. According to Good Practices it recommended planting trees in combination with appropriate grasses or along with maize or wheat to achieve the above objectives.</li> <li>➤ Mechanical measures for reducing soil erosion and runoff losses: Several mechanical measures like terracing, bunding, bench terracing, no-till farming, contour cropping, strip cropping etc. are used to minimize runoff and soil erosion particularly on the slopes of watersheds.</li> <li>➤ Scientific mining and quarrying: Due to improper mining, the hills lose stability and get disturbed resulting in landslides, rapid erosion etc. Contour trenching at an interval of 1 meter on overburden dump, planting some soil binding plants and draining of water courses in the mined area are recommended for minimizing the destructive effects of mining in watershed areas.</li> <li>➤ Public participation: Peoples involvement and cooperation including the farmers and locals is the key to the success of any watershed management programme, particularly the soil and water conservation. The communities are to be motivated for protecting a freshly planted area and maintaining a water harvesting structure implemented by the government or some external agency (NGO) independently or by involving the local people. Properly educating the people about the campaign and its benefits or sometimes paying certain incentives to them can help in effective peoples participation.</li> </ul>
<p>Sub-component 2.1 Environmental risks pertaining to maintaining forest health by sanitary felling of trees in Protected areas (allowed by the national regulations) It is possible that such method may be hostile and ecologically questionable with respect to, for example, removing too many snags or fallen logs (which provide important wildlife habitat).</p>	<ul style="list-style-type: none"> <li>➤ Refer to the SFC manual of forest health issues with respect to authorized tree felling</li> <li>➤ The size, shape and location of logging areas shall be based on an analysis of such things as topography, timber type, forest regeneration, logging economics, fire control, wildlife production, soil protection, property lines; aesthetic appeal and water quality maintenance;</li> <li>➤ Slash Disposal. In those areas where slash treatment is necessary for protection or regeneration, methods including, but not limited to the following, shall be</li> </ul>

	<p>used: a. Scattering of slash accumulations; b. Piling or windrowing of slash; c. Mechanized chopping or compaction of slashing;</p> <ul style="list-style-type: none"> <li>➤ Unstable slash accumulations shall be treated to prevent their entry into waterways.</li> <li>➤ Streamside buffer strips shall be protected from fire damage where slash is disposed of by burning.</li> </ul>
<p>Sub-component 2.2 Environmental risks related to small construction or rehabilitations works funded by matching grants</p>	<ul style="list-style-type: none"> <li>➤ Environmental screening to determine the scale of impacts and category of impact, and no new conversion of natural habitat screening</li> </ul>
<p>Subcomponent 2.2 Environmental risks linked with unsustainable small-scale agroforestry practices on fruit trees, herb production plots, such as the excessive use of pesticides, etc.</p> <p>Risks related to the overharvesting of NTFPs including medicinal plants.</p>	<ul style="list-style-type: none"> <li>➤ Develop and follow site-specific Environmental and Social Management Plans (ESMPs)</li> <li>➤ Assess overharvesting risks, based on whether the Project activity will rely on or promote new or increased harvesting of wood or any type of NTFP, taking into account the regeneration capacity of the resource being harvested</li> <li>➤ Establish written agreements between SCF and the leshoz or harvesting community with harvesting restrictions (such as harvest limits, number of harvest permits (if applicable), or the season or method of take) and defined penalties for non-compliance</li> <li>➤ Specify compliance monitoring and enforcement procedures and responsibilities, to be incorporated within all relevant written agreements, including Operations Manual, grant agreements, land lease documents, etc.</li> </ul>
<p><b>Component 3. Enhance Protected Areas and Nature-Based Tourism (supporting *activities in the recreational parts of Zaamin and Zarafshan National Parks (Protected Areas of Uzbekistan))</b></p>	
<p>Subcomponent 3.1 and 3.2</p> <p>Environmental risks related to construction or renovation works on buildings (visitor centers), hiking trails, small roads, etc. and procurement and installation of equipment: dust, noise, problems of access, community security/safety, construction waste, pollution of surface water near construction, asbestos containing waste, etc.</p>	<ul style="list-style-type: none"> <li>➤ Careful consideration of construction or rehabilitation sites, consideration of alternatives</li> <li>➤ Environmental screening to determine the scale of impacts and category of impact, including sensitive/critical habitat screening and identification</li> <li>➤ Respect commercial and non-commercial land use delineations</li> <li>➤ Respect buffer zones with regards to strictly protected area territories</li> <li>➤ Depending on scale, develop and follow ESIA's or/and site-specific Environmental and Social Management Plans (ESMPs) including PMPs if needed</li> <li>➤ If needed<sup>49</sup>, develop Biodiversity Management Plan (BMP) within the frames ESIA's/ESMPs</li> <li>➤ Avoid blocking of community access near construction sites, provide with community Health and Safety measures</li> <li>➤ Fencing of construction site, regular cleaning from construction waste</li> <li>➤ Occupational Health and Safety considerations for workers on site</li> <li>➤ Code of Conduct for personnel and workers working near sensitive habitats (see below)</li> <li>➤ Construction methods, design specifications that include considerations for sensitive habitats (see below)</li> </ul>

<sup>49</sup> According to ESS6 (p.68), the Borrower will avoid adverse impacts on biodiversity and habitats and if avoidance of adverse impacts is not possible, the Borrower will implement measures to minimize adverse impacts and restore biodiversity in accordance with the risk mitigation hierarchy. Where significant risks and adverse impacts on biodiversity have been identified, the Borrower will develop and implement a Biodiversity Management Plan.

The Project will support the construction of new visitor centers in both the Zaamin and Zarafshan National Parks. The new visitor centers are expected to help attract, inspire, and educate a growing number of tourists in both parks. Other project investments in the Zaamin and Zarafshan National Parks will be defined in accordance with the updated Management Plans and are expected to include:

- i. additional visitor facilities such as new or rehabilitated hiking trails, scenic viewpoints, observation platforms, picnic areas, and campgrounds;
- ii. PA management infrastructure such as small park buildings (headquarters, ranger outposts, staff housing, etc.) and improved physical demarcation or signage;
- iii. equipment that could include vehicles, field equipment, and office equipment; and
- iv. incremental recurrent costs for PA management activities specific to project implementation, such as office and field supplies, field rations, fuel, support for park auxiliaries (such as community volunteers) if any, boundary maintenance, and equipment maintenance during the expected five-year project life.

Potential assumed environmental issues from civil works to local area and/or communities will be limited by temporary and may include: (i) increased pollution from construction waste; (ii) the formation of dust, noise and vibration due to movement of construction machines and mechanisms; (iii) the risks associated with this due to improper disposal of construction waste (iv) improper restoration of construction sites upon completion of work.

All these potential environmental impacts will be easily detected, and will have minimal impact, and can be effectively prevented, minimized, or mitigated by implementation of ESMP in labor contracts that contractors shall take under close supervision of SCF.

#### **4.1.1. Additional information about commonly occurring environmental impacts**

Soil and water pollution. As a result of leakage of fuel and lubricants from machines and construction equipment and stored waste, petroleum products and chemicals can contaminate the soil, penetrate groundwater or drain into surface water reservoirs. Maintenance and care of equipment and machinery near natural streams can lead to water pollution.

Impact on biodiversity. During the forest planting and construction work, soil processing (deep ploughing, cultivation, harrowing) and earthworks will be carried out, which can damage the vegetation cover and lead to the vegetation clearance. Moving and storage of construction materials, removing surplus, waste and building rubbish can disrupt wildlife, including affecting natural habitats.

Risk of introducing aggressive invasive species. Most of the habitats in project areas (except the territory of the strictly Protected Areas) are expected to be already fragmented or degraded habitats as a result of human activity or involving a number of introduced plant or tree species in the past. These fragmented habitats are expected to overlap with areas of Critical Habitats (in areas where they extend beyond Protected Area boundaries or as separate subsets of sensitive habitats). In the process of choosing specific project sites for localized agriculture and forestry plantations, areas for shelterbelt afforestation, or restoration of forests there is a risk for potential aggressive spread of the existing invasive trees or shrubs or the risk of introduction of new (alien) aggressively invasive tree or plant species. The project is not expected to introduce or relocate any of the fauna species. Uzbekistan has a long history of introducing and naturalizing non-native tree and plant species that are used in forestry or agroforestry. In 2018, Uzbekistan estimated 228 naturalized alien species<sup>50</sup>.

To mitigate the risk the project identified a list of recommended local or naturalized invasive tree and plant species (see below). As confirmed with the senior forester of the SFC, these species have non-aggressive

<sup>50</sup> The Global Register of Introduced and Alien Species dataset for Uzbekistan can be consulted at URL: [https://www.gbif.org/species/search?offset=20&rank=SPECIES&dataset\\_key=498fc188-a018-4133-808c-6302e80c68b9&origin=SOURCE&status=ACCEPTED&advanced=1](https://www.gbif.org/species/search?offset=20&rank=SPECIES&dataset_key=498fc188-a018-4133-808c-6302e80c68b9&origin=SOURCE&status=ACCEPTED&advanced=1) (accessed August 2021)

invasive characteristics. It's likely that the project will mostly draw species from this list as part of its interventions.

**List of plant or tree species pre-identified for project activities based on the experience of the SFC:**

- for agroforestry (commercial plantations): Almond (*amygdalus communis*), Pistachio (*pistacio vera*) – recommended for 600 + metres altitude
- for inter- cropping in agroforestry (livelihood support: cash food or non-food crops or woodfuel): Persian shallot (*allium stipitatum*), Ferula (*ferula tadjicorum/ferula kuchistanica*)
- Timber plantations: Pawlownia (*paulownia tomentosa*)
- Reforestation, shelterbelts and pasture enrichment: Pines (*pinus silvestris, pinus pallasiana*), ash tree (*fraxinus Sogdiana, pensylvanica*), poplar tree (*populus uzbekistanica*), kochia, Ailanthus, wild fruit tree (*pyrus /cerasus*), juniper (*juniperus*), acacia tree (*robinia pseudoacacia*).
- Tugai restoration: tugai poplar (*populus pruinoase*)

Noise, vibration and temporary air pollution. The dust will form as a result of logging and construction work, mechanical agrotechnical tending, transportation of construction materials/waste and movement of tractors, tree-planting machinery and heavy vehicle. Strong increase in noise and vibration is expected when planting, construction, transporting materials, operation of construction equipment, in particular, in earthworks, pneumatic drilling and operation of construction cranes. Noise and vibration will cause concern among local residents if the work is carried out in close proximity to residential areas.

Construction refuses and waste. During the construction of trails, different tourism facilities (visitor centers) and forest nursery it is assumed that the amount of waste and garbage will be a little, as excavated wells will be created manually from concrete and brick, and maintenance buildings of the forest nursery will be built using modular structures. The following possible types of wastes that may be generated during construction work have been formed: (i) construction rubbish and waste as a result of transportation, recycling, compressor operation, jackhammers and other construction equipment; (ii) soil and stones, cut trees, bushes, household waste, outdated equipment and materials; (iii) hazardous waste - construction rubbish containing asbestos plaster, asbestos slate, mineral wool plate and Ruberoid roofing felt, worn tires, filters and oils of construction equipment and transformer substations. Construction waste will be removed in a timely manner and properly transported to special sites in local landfills. Hazardous waste will be removed and disposed of carefully to avoid further impact on the health of workers and surrounding communities.

Civil works construction. The construction of trails, small buildings, and other civil works can also have significant environmental impacts, both short-term and long-term. To help ensure adequate mitigation of such impacts during Project implementation, the following environmental management criteria should be taken into consideration:

- a. *Design and technical specifications* that specifies what the civil works will include and should address (i) environmentally significant design features (such as non-reflective windows to minimize bird collisions); (ii) the specific locations of the facilities to be built (including trail alignments); and (iii) construction materials to be used and/or avoided (for example, no wood, sand, or gravel extracted from protected areas);
- b. *Construction methods* clarify how the works will be built. These cover topics that include (i) location of ancillary facilities (construction camps, equipment staging areas, quarries, borrow pits, waste disposal sites, etc.); (ii) temporary fencing around work areas and excavations; (iii) training and sensitization of workers; (iv) time-of-day, seasonal, and other work restrictions; (v) minimizing clearing of natural vegetation; (vi) no washing of vehicles or machinery, changing of lubricants, or other contamination of waterways; and (vii) proper solid and liquid waste disposal; and,
- c. *Code of Conduct* for all Project personnel and visitors. In addition to good social behavior, health, and safety requirements, the Code of Conduct cover environmental good practice requirements including prohibition of hunting, fishing, bush-meat purchase, wildlife capture, vegetation burning, off-road driving, speeding, free-roaming pets (that threaten or conflict with wildlife), and outdoor loud music. Additionally, inappropriate interactions with local people and transparent enforcement of penalties for non-compliance should also be carefully addressed during the implementation. As a result, adequate

field supervision by qualified personnel, along with transparent penalties for noncompliance, is needed.

Human factor. Also, it should be taken in account the human factor during project implementation lifetime. There are common landscape degrading factors like grazing can happened, livestock routs, skid roads, soil compaction and poor management of the main and secondary roads, authorized and unauthorized uses of the forest dwellers, and illegal cuttings, uncontrolled tourism etc.

As an example of the Statute Zaamin’s National Park, the Park is divided into 3 areas: the reserve (3,542 ha), the recreation zone (20,211 ha) and the economic zone (68 ha). Any changed of zone can be made based on the ecological expertise. According to the Park’s Statute following activities prohibited at the protected and recreation zones: cutting trees and brushes (except of planned pruning for maintenance and sanitary purposes), activities leading to changes in the hydrological and hydrogeological regime, to soil erosion, damage to flora and fauna, road or engineering activities, hunting to wild animals, fishing, destruction of bird nests, waste storage or burial. On the part territory, it is prohibited to use living organisms for the purpose of their acclimatization, which can harm the flora and fauna.

According to the article 9 of the Law No. 710-II "On Protected Natural Areas": State control in the field of protection and use of protected natural areas State control in the field of protection and use of protected natural areas is carried out by the State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection and local government bodies.

Chance finds - some of the project cities may be located in places where presence a chance of finding archeological heritage. It is expected that during construction and renovation of small-scale facilities which would involve excavations, movement of earth, or other changes in the physical environment, during which unexpectedly might be found cultural tangible and intangible resources. To address this issue all such subprojects' ESMP, will have special clauses in all contracts for civil works on “chance finds procedure” which will set out how chance finds associated with the subproject will be managed.

In general, the following rules need to be followed and reflected in site-specific ESMPs:

- (a) do not disturb any chance find further until an assessment by competent professionals is made and actions are identified;
- (b) notify relevant authorities of found objects or sites by cultural heritage experts;
- (c) fence-off the area of finds or sites to avoid further disturbance;
- (d) conduct an assessment of found objects or sites by cultural heritage experts;
- (e) identify and implement actions consistent with the requirements of the ESS 8 Cultural Heritages and national law; and
- (f) when needed, to train project personnel and project workers on chance find procedures.

#### **4.2. POTENTIAL SOCIAL RISKS AND IMPACTS.**

Project interventions will require extended interface with the local communities and government bodies. It is likely that project will have to address potential conflicts in order to bring together differing perspectives. This would mean that the project will have to develop appropriate strategies and implementation plans to ensure that the local communities are provided with an opportunity to participate in decision making and derive full benefits. Main social risks are potential changes of land-use practices and restriction of access to pastures and forest land, and forest products traditionally used by local communities of targeted landscapes as a result of the development and implementation of integrated land use plans and implementation of management plans of protected areas. Contextual risks include the competing interests and demands of different land and water users, and the need to consider trade-offs between different stakeholder interests, avoid elite capture and social exclusion. On the social exclusion risk, there are concerns about ensuring vulnerable and disadvantaged groups primarily from low-income households including family enterprises, farmer/community groups, small entrepreneurs, and vulnerable members of communities, including women, youth, and persons with disabilities in villages will benefit from the project, specifically from component 2.

Thus, the project will need to ensure in-depth stakeholder involvement during subproject design, planning, and implementation. The project will apply appropriate stakeholder engagement strategies to ensure that the local communities are provided with an opportunity to participate in decision-making and derive full benefits.

*Physical and Economic Displacement.* The project does not anticipate any physical displacement due to direct project interventions and construction works. The project interventions will be implemented in representative sites within the project areas, predominantly on State Forest land. Other lands may be used where interventions are required, provided there are no outstanding issues such as disputed tenure or other rights. The project subcomponents and activities which would involve any physical displacement will not be eligible for financing. However, there is a possibility of restriction of access to pastures, forests, and other natural resources located on lands owned by leskhoz.

*Access Restrictions.* There is a possibility of restriction of access to pastures, forests, and other natural resources located in protected areas of targeted landscapes. A PF&RPF is prepared to facilitate community participation within/outside protected areas and aims to enable the affected communities to participate in the design of project components; to ensure their livelihoods will not be negatively affected as a result of project implementation; to identify and provide them with alternative sources of livelihood and necessary support, and to actively involve them in the implementation and monitoring of relevant project activities.

*Exclusion of locations.* Choosing one location for agroforestry demonstration sites over others to attract investment in agribusiness and infrastructure for farmers and local communities can lead to some risk of dissatisfaction of stakeholders. In this regard, extensive consultations with public and private stakeholders on the location for the construction of the forest nursery and agroforestry sites will be conducted following the Project's SEP. Representatives of SCF, PIU and local authorities should organize a campaign to inform the public about grants for agroforestry demonstration sites among the target groups. The PIU will use existing information channels (local administrations of districts and rural districts, media, non-governmental organizations, mailing lists, social networks) to reach potential participants.

*Exclusion of vulnerable groups.* Some individuals or groups have limited access to a variety of opportunities and resources, such as women and young people having weak links with government because of their remoteness, lack of education or lack of interest in public life. Other participants may also suffer social isolation. The main contributors include income, employment status, social class, personal habits and appearance, religion and political affiliation. The risk will be prevented and/or reduced by conducting outreach and awareness-raising campaign in line with the project SEP. Training programs are expected to target younger groups of population who will be given priority access to these programs. Women, including those who head households, are expected to benefit from the support provided on account of investments in agribusiness as part of ESMF. They will be provided with technical assistance in the establishment of agroforestry demonstration sites and subsequent support during the implementation.

The risk of exclusion will be addressed to a large extent through SEP supplemented with community mobilization and an effective communication campaign. Disadvantaged and vulnerable groups under the project are likely to include farmers in remote areas and women groups, especially women engaged in seasonal agricultural work, female-headed households and women farmers who by virtue of constraining social norms and social networks may find it harder to obtain information about the project benefits. SEP will envision measures to ensure that disadvantaged and vulnerable groups have equal opportunity to obtain information and benefit from project activities, as well as have channels for grievance and redress if negatively affected. Such activities will include tailored awareness and information campaigns including targeting women and mahalla-level meetings which community members of all backgrounds and remote areas can join, distributing information materials through multiple channels such as media, social media, and mahalla leaders, emphasizing the rules and principles of equity and non-discrimination for example in relation to employment opportunities in all training and consultation activities.

*Labor risks* will be associated with labor influx, child and/or forced labor, inequity and discrimination in employment and terms and conditions, and lack of ability to organize favorable working environment. The project proposes rehabilitation of some small/ medium scale infrastructure of leskhoz buildings, protected

areas, and improvement of access to remote pastures; therefore, the majority of contractors are expected to be from the local vicinity. The expectation is that the majority of labor will be locally hired with the exception of a few skilled workers. The labor camps will be small in size and no residential labor camps are anticipated at this stage. Therefore, the labor influx risk is considered low. The risk of child labor/forced labor is also rated low, taking into account the requirements of the ESF as well national requirements, young people below the age of 18 but above the age of 16 years old may be employed to carry out work that is assessed as not hazardous and that the assessment is undertaken prior to commencement of the work and that monitoring takes place on health working conditions, hours of work and the other requirements of the Bank under ESS2 as well as meeting national requirements.

The special attention shall be paid to ensure that working atmosphere is community friendly and all labor management practices are in accordance with the provisions of ESS 2 – all workers will be hired fairly without discrimination. There is a risk that the current practice of unaccounted working hours and lack of compensation for overtime will continue. The PIU will track the staff working hours by completing the timesheets and restricting overtimes. The SCF has prepared LMP, which outline the type of project workers, labor conditions and associated labor risks, as well as mitigation measures. Provisions are also made to train and hire as many as possible workers from local communities where the activities are taking place.

Community safety. Inadequate lighting and fencing of construction sites inside of settlement areas can be dangerous for pedestrians and vehicles especially during the night-time. Increasing of traffic due to trucks and vehicles movements to construction sites may cause inconvenience for local population as well. In addition, some construction/rehabilitation activities will cause temporary blockage of household access. Untimely and inefficient disposal of solid waste and improper sanitary conditions generated by the construction workers at construction sites and labor camps may cause pollution of the surrounding environment and affect the health of local people. Moreover, a movement of heavy tracks may destroy or deteriorate conditions of roads inside settlements. The ESMF also includes emergency preparedness and response plans to manage natural or man-made hazards/incidents (floods, fires, etc.) in the intervention areas during both implementation and operational stages of the project.

Community Health. The COVID-19 pandemic also presents a risk to the project and the beneficiary communities due to increased interaction with stakeholders and interested parties from outside a particular location. The project will mitigate this risk by strictly following the World Bank Group Interim Note on COVID-19 and related WHO guidelines.

SEA/SH risk is assessed as moderate mostly due to the status of national Gender-Based Violence (GBV) legislation, gender norms, and the rural location of most project activities. All the contracted workers have to take the SEA/SH training and sign the code of conduct. The SEP will also describe the project-specific Grievance Mechanism (GM) which will accept, review, and seek to resolve any project related concerns or feedback, and be easily accessible to project-affected parties and local communities, among other stakeholders. GM will have a channel for addressing SEA/SH complaints to ensure a survivor centric approach which includes the need for confidentiality, privacy, and dignity of the affected persons. Within six months after project effectiveness, an SEA/SH risks prevention action plan will be developed, including mapping of relevant service providers in the Project areas. The service providers will be made aware of the Project, and similarly, Project stakeholders at various levels will be informed of the availability of service providers.

#### **4.3. OCCUPATIONAL AND COMMUNITY HEALTH AND SAFETY RISKS**

*Dangerous production* factors as a result of forest planting and construction work. The immediate impact on the safety and health of people in forest planting and construction work can be caused by a variety of factors, such as: the operation of tree-planting machinery with moving and rotating mechanisms, dust, noise, vibration; work at highs and deep confined space work (wells); the work of cranes and bulldozers; welding and electric shock; health conditions, etc. Work-related injuries associated with forest planting and construction work (rotating and falling structures, etc.), as well as those associated with contaminated drinking water or food products have potential impact on workers' health safety.

*Road traffic.* Every effort will be made to minimize the time spent to transport workers to their place of work, moving tractors, tree-planting machinery, construction vehicles and other special transport to prevent any incidents or damage to property. Drivers will be warned to drive with extreme caution. Speed limits in work zones and traffic with heavy machinery will also be regulated. Proper traffic organization will also prevent negative impact to the highest extent possible.

*Health.* The COVID-19 pandemic also presents a risk to the ESMF and the beneficiary communities due to increased interaction with stakeholders and interested parties from outside a particular location. The ESMP will mitigate this risk by strictly following the World Bank Group Interim Note on COVID-19 and related WHO guidelines.

## 5 ENVIRONMENTAL AND SOCIAL SCREENING

### 5.1 ENVIRONMENTAL AND SOCIAL SCREENING RULES AND PROCEDURES

According to the ESF, the World Bank classifies all projects (including projects involving Financial Intermediaries (FIs)) into one of four classifications: *High Risk*, *Substantial Risk*, *Moderate Risk* or *Low Risk*. Each project has to comply with both national Environmental and Social regulatory framework as well as WB ESSs.

The WB ESF recognizes the following instruments as best practice in organizing environmental and social assessment and management:

- **Environmental and Social Impact Assessment (ESIA)** – is an instrument to identify and assess the potential environmental and social impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures<sup>51</sup>. In some cases, for small-scale project a *partial ESIA* could be conducted in order to assess its location relative to the protected areas or presence of habitats. Indicative outline of ESIA is presented in Annex 3.
- **Environmental and Social Management Plan (ESMP)** – is an instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental and social impacts, or to reduce them to acceptable levels; (b) the actions needed to implement these measures. Example of ESMP is presented in Annex 4.
- **ESMP Checklist** – simplified ESMP which as a rule used for construction and for reconstruction activities with more typical impacts. Example of ESMP is presented in Annex 5.
- **Pest Management Plan (PMP)** – Special plan which is applied for activities related to use, handling and storage of pesticide and herbicide in a manner avoiding/minimizing impact on human health and environment. Example of PMP is presented in Annex 6.
- **Biodiversity Management Plan (BMP)** – prepared as a standalone document or a part of ESIA. BMP is a plan specifically developed to provide a concise outline of actions and mitigation measures against likely impacts of biodiversity (flora and fauna). It identifies key biodiversity issues that require control, assigns responsibilities for impact monitoring and management, and establishes a biodiversity monitoring system.
- **Process Framework & Resettlement Policy Framework (PF&RPF)** is prepared to provide a framework to appropriately identify, address and mitigate adverse social risks and impacts that may occur due to the implementation of subprojects that involve access restrictions to natural resources within and outside of Protected Areas.
- **Labor Management Procedures** - identify main labor requirements and risks associated with project implementation and helps the IA to determine the resources necessary to address labor issues.
- **Stakeholder Engagement Plan** - defines a program for stakeholder engagement, including public information disclosure and consultation, throughout the entire project cycle.

Besides these WB's ESA tools, national environmental documentations must be prepared as part of national Environmental Impact Assessment. Content of national environmental documentation is presented in further paras. The project will finance development of Protected Areas Management Plans (PAMP) and Landscape Management Plans (LMP) which all will need to be guided by the ESF instruments developed for the project.

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<sup>51</sup> WB ESS 1: Assessment and Management of Environmental and Social Risks and Impacts, Annex 1, (a)

## 5.2. NATIONAL ENVIRONMENTAL ASSESSMENT PROCEDURE

The national environmental assessment system in Uzbekistan is mainly centered on state environmental review, a procedure for reviewing the impacts of proposed activities by national environmental authorities. The national environmental assessment procedure and instruments differ from the instruments proposed by the WB ESF. The EIA system in Uzbekistan does not fully conform with the E(S)IA system requirements used in developed countries, for example the national EIA system doesn't include social impact assessment requirements, doesn't contain detailed Environmental and Social Management Plan (ESMP) or Monitoring Plan with costs of mitigation measures. Public disclosure and local consultations of EIAs are also not systematically conducted, whereas it is a mandatory requirement of WB ESS 10.

A harmonized approach will be followed with respect to the choice and application of environmental assessment instruments, with the application of stricter requirements by WB ESSs where such requirements do not exist in the national environmental assessment. The following table compares risk categories as defined in the Resolution of the Cabinet of Ministers (CM) No. 541 on the State Environmental Expertiza - SEE (an EIA) and the World Bank classification:

**Table 5.1:** Risk category comparison table between WB ESF and Uzbekistan

<b>WB ESF (High, Substantial, Moderate, and Low risks)</b>	<b>Uzbekistan (I-IV)</b>
High risk	Category I - "high risk of environmental impact" (SEE is conducted by the national CSEE within 20 days, all EIA materials are required)
Substantial risk	Category II (SEE is conducted by the national CSEE within 15 days, all EIA materials are required)
Moderate risk	Category III "low risk of impact" (SEE is conducted by regional branches of CSEE within 10 days, all EIA materials are required) Category IV- "local impact on environment" (SEE is conducted by regional branches of CSEE within 5 days, only a questionnaire form is required)
Low risk	Some of the Category IV (as above) or not listed in Annex 1 of the Resolution of the CoM №541 from 2020

The preparation of national environmental assessment documentation is mandatory for activities (projects) listed in the respective regulation. The Annex to the Resolution No. 541 provides a list of types of activities (projects) that are subject to mandatory environmental assessment. The Resolution prescribes that public consultations are mandatory for EIAs for Category I and Category II activities.

Category I and II normally cover hazardous impact, large-scale enterprises, plants, factories, complexes, technologies, buildings, facilities, structures and other types of activities of national or inter-regional scale. Some of the Category I activities overlap with the IFC Exclusion list activities (Annex 1).

- Airports
- Water reservoirs and dams
- Water pipelines of national and inter-regional significance
- Chemical complexes and plants
- Storage facilities of toxic chemicals of national significance
- Enterprise for the production of tobacco products
- Etc.

Category II activities are activities such as:

- Underground water intake facilities of interregional significance
- Highways, bridges /power lines/ landfills of national, regional and Tashkent city significance
- Enterprises of the construction industry
- Enterprises of radio engineering and electronic industry
- Etc.

For the full list of Category III and Category IV under Resolution No 541 see Annex 7.

The national environmental assessment procedure follows the following stages:

- (1) based on the preliminary project description prepare the Draft Statement of the Environmental Impacts (DSEI) which should be presented to the State Ecological Expertise (SEE) for its review and approval. The content of DSEI document for project category IV projects is different from content of DSEI developing for category I-III projects.
- (2) during projects implementation and before its commissioning – when needed (this is specified in the decision of the SEE on the DSEI), - prepare the Statement of the Environmental Impacts (SEI); and,
- (3) before commissioning the project (only for category I-III projects (Uzbekistan)) prepare Statement on Environmental Consequences (SEC). Preparation of SEC is not needed for the projects belonged to category IV projects.

EIA for activities that are not explicitly included in the Annex to the Resolution No.541 are performed by the initiative of the project owner or project beneficiary. In such cases, local or national SEE authorities could be inquired about the scope of EIA assessment (following the steps below) and a decision can be made upon receipt of formal response on the matter. Resolution 541 indicates that “*The types of activities not included in this list are subject to state environmental expertise, which determines which category this type of activity belongs to, on the basis of materials submitted by the expert council under the State Committee for Ecology, or as a result of a field study*”.

The process described in 4.4.3 below is in consistence with this requirement.

### 5.3. NATIONAL SOCIAL ASSESSMENT PROCEDURE

There are some differences/gaps in the preparation ESS documents. The main aspects of gaps and its harmonized framework are given in Table 5.3.

**Table 5.2:** Comparative table Social framework requirements and Uzbek national social legislation

ASPECTS	WB	UZBEK NATIONAL	HARMONIZED FRAMEWORK
ESS 2: Labor and Working Conditions			
A. Working conditions and management of labor relations	Written labor management procedures - Terms and conditions of employment  Non-discrimination and equal opportunity  Worker’s organizations  Elaborate Labor Management Plans including Contractor’s ESMP warranted	- Written employment contract required, including procedures and employment conditions - No provision for Labor Management Plans.	LMP developed for the project. Terms and conditions in the LMP are consistent with national law.
B. Grievance mechanism for workers	GRM should be in place for direct and contracted workers	- No project specific GRM is warranted. - However, it is allowed to apply to: a) conciliation commission; b) Labor Inspection under the Ministry of Employment	SCF will develop GRM for its workers (Direct workers) as per this LMP.

		and Labor Relations; and c) court	
C. Minimum age of workers	Persons 14-18 are prohibited from work considered hazardous, that will interfere with their education or be harmful to their health or development (physical, mental, spiritual, moral, or social).	- Employment permissible for 16 plus age, but for non-hazardous work, with limited hours, and guardian permission.	National law will be followed. No direct and contracted workers under 18 will be recruited for works considered hazardous .
<b>ESS 5: Land Acquisition, Restriction on Land Use and Involuntary Resettlement</b>			
Screening and Categorization	WB carry out project screening and categorization at the earliest stage of project preparation when sufficient information is available for this purpose.	According to legislation there are no categorization in Resettlement documents.	Categorization will be made based on the nature/ severity of impacts so as to decide on the instruments.
Compensation Entitlements	A. PAPs with formal title have to be compensated for lost land/other assets. B. PAPs with legalizable title have right to be compensated for lost land and assets after the EAs helps them in legalizing their assets. C. PAPs with no legal title are compensated for lost non-land assets.	A. PAPs with formal title are compensated for lost land/other assets.  B and C. PAPs with legalizable or no legal title: Legalizable are not distinguished and considered non-legal Non-legal PAPs have no right to be compensated for land and non-land assets.	A. Same in principle / application. B and C. WB policies will apply as outlined in the PF&RPF.
Procedural mechanisms	A. Information disclosure. Resettlement-related documents to be timely disclosed in the PAP language. B. Public consultation. Meaningful public consultations are to be held with the PAPs. PAPs should be informed about their entitlements and options, as well as resettlement alternatives. C. Grievance procedure. A Grievance Redress Mechanism (GRM) is to be established for each project. Information on GRM to be	A. Information disclosure. No disclosure requirement exists. B. Public consultation. Matters of local importance to be publicly discussed with local authorities. But no requirement to consult directly the PAPs. C. Grievance Procedures. Each state agency/ministry must follow to detail instructions (approved by government) on registering and reviewing the concerns and claims from citizens.	Systematic and direct consultations and grievance redress as provided in the SEP and PF&RPF.

	communicated to the PAPs.		
<b>ESS 10: Stakeholder Engagement and Information Disclosure</b>			
A. Engagement during project preparation	Identify and analyze stakeholders, including disadvantaged or vulnerable  SEP required, with detailed requirements for disclosure, timing of consultations, measures for disadvantaged or vulnerable, etc.  Disclosure of information early to allow consultation on design  Consultation to allow ongoing two- way communication throughout project life cycle	No requirement to analyze stakeholders  No formal plan required  Early disclosure required	SEP is developed and will be implemented during the project implementation.
B. Engagement during project implementation and external reporting	Engagement and disclosure of information to continue throughout implementation, following SEP	No specific requirements	Implementation of SEP will be monitored under the project
C. Grievance Redress Mechanism	Establish and implement prompt, effective, culturally appropriate, and discreet grievance mechanism. No limit on legal remedies.	Law “On Physical and legal entities” provides rights and describes procedure for appeal resolving	Project specific GRM will be operationalized for the project with consideration specificity of the project and national legislation.

#### 5.4. HARMONIZED ENVIRONMENTAL AND SOCIAL ASSESSMENT STAGES FOR THE PROJECT

The project will use both national and WB ESF recognized environmental and social assessment instruments, taking the more stringent requirement approach where these instruments do not overlap:

##### Stage 1- Screening:

Any subproject investment will undergo an environmental and social screening to determine the risk category of activities – HR, SR, MR or LR, according to WB ESF and I, II, III, IV category according to the national framework (against Annex 2 list to the Resolution No. 541). As a rule, category HR projects will not be financed under the project. To determine the category of the project an environmental and social screening process need to be performed. For the purposes of this project, an activity could be classified as a Category HR project if it, for example:

- Creates a significant, identified adverse impact on the Critical Habitat (s) for one or more species that cannot be mitigated using Biodiversity Management Plans, that incorporates No Net Loss or Net Gain approach or other recognized mitigation measures (ESS6);

- Converts new land (not already used for the same purpose and/or not degraded-ESS6) for agricultural or forestry plantations (that would lead to a net loss of Natural Habitats or Critical Habitats)
- Activity not consistent with the valid Management Plans for the protected areas;
- Might cause harm to an area of international importance or cultural heritage and archaeological sites identified by UNESCO and/or the Government of Republic of Uzbekistan;
- Introduces new (alien), aggressively invasive plant or tree species or creates conditions for aggressive invasiveness for the existing naturalized or local plant or tree species threatening native species or ecosystems.

It is expected that most of the subprojects will be in categories SR, MR, LR, by the WB ESF and Category III, IV by the national framework (in rare cases, possible Category II.SR subprojects that include more sensitive and less predictable impacts can be categorized as higher Substantial Risk subprojects (h-SR).

*Social screening.* Social screening is also a mandatory procedure according to the WB ESF for the identification of possible involuntary resettlement in accordance with ESS 5 of the World Bank. The PIU undertakes screening of each proposed subproject for which it will provide funding. The social screening serves to ensure that the process for screening remains simple and concise - a sample of the Social Screening Form is attached in Annex 2. Specific questions based on each activity of the project might be added as seen relevant by external consultants and the PIU Social Specialist. The list of project activities that have potential physical and economic displacement issues will be excluded – RESILAND UZ will not finance any activities which may require permanent physical displacement. The PIU will take the central coordinating role for collecting, integrating and filing the inputs and feedback from the screening process into the decision making on project activity.

For project activities which involve access restrictions to natural resources within and outside of protected areas the provisions of the PF&RPF will apply. The PF/RPF is prepared to facilitate community participation within and outside of protected areas and aims to enable the affected communities to participate in the design of project components; to ensure their livelihoods will not be negatively affected as a result of project implementation; to identify and provide them with alternative sources of livelihood and necessary support, and to actively involve them in the implementation and monitoring of relevant project activities.

### **Step 2 – Subprojects Environmental and Social Impact Assessment instruments**

If the subproject activity doesn't have a clear category under the national environmental assessment framework, the project owner or beneficiary can inquire about the necessary requirement with the regional branch of SCEEP in parallel with conducting environmental screening. The results of the screening should indicate the subproject -specific assessment and management instruments leveraging on both national and WB ESF instruments. In this case, the following comparative framework can be followed between risk categories and instruments:

**Table 5.3:** Identification of appropriate ESA instruments according to defined risk categories

<b>Risk Category (WB ESF and National)</b>	<b>ESF instruments</b>	<b>Corresponding national instruments</b>	<b>WB ESF instruments and National instruments can be integrated (Y/N)</b>
<i>High Risk – Category I, II</i>	<i>Not financed</i>	<i>Not financed</i>	<i>Not financed</i>
high -Substantial Risk – Category III (in exceptional cases, Category II)	ESIA or partial ESIA  If needed, Social Audit	DSEI, positive conclusion of the SEE and SEI	N (should be prepared separately)
Substantial Risk – Category III	Partial ESIA or ESMP (incl. PMP or any other specific plan instrument)  If needed, Social Audit	DSEI, positive conclusion of the SEE and SEI	N (should be prepared separately)
Moderate Risk – Category III, Category IV	ESMP or ESMP checklist (incl. PMP or any other specific plan instrument)	DSEI, positive conclusion of the SEE, and SEI	Y
Low Risk – Category IV or not listed	ESMP checklist (incl. PMP or any other specific plan instrument)	N/A	Y

After conducting the initial screenings, SCF PIU Environmental and Social Specialists should be able to assign a risk category to subprojects and indicate the list of mandatory instruments to be prepared by the subproject initiator or the beneficiary. Special attention should be paid to the identification of habitat sensitivity, land use patterns in proposed project territories using real-life data, site visits, virtual tools and maps and consultation with experts.

### **Step 3- Disclosure and public consultation**

Once the ESA documentation is prepared, these documents are subject to mandatory public consultation (inclusive, but on a scale proportionate to identified impacts). An announcement should be made at least two calendar weeks prior to the planned consultation workshops/meetings. The announcement should include the name of the project, the objective of the consultation process and contact number (phone, email).

During the public consultation process, ESIA and/or ESMP documents will be distributed to all interested parties and local population, by posting them on the web sites/Telegram channels/news outlets and/or by submitting them to the local community notice boards. Minutes of public meetings will be kept and will be included in the final versions of documents. During the consultation gatherings, SCF-PIU E&S specialists and project initiators/beneficiaries will present the ESIA/ESMP (project, its location and implementation schedule, overview of the ESA process, and any conclusions on impacts, proposed mitigation measures and benefits). These data should be defined as preliminary or intermediate, indicating that input from participants can still be applied to project planning. Participants will be invited directly (not by order) to submit comments and corrections to what is presented. Adequate and convenient contact information will be provided for use by participants. Minutes of the consultation and the decisions made should be recorded by the SCF-PIU dedicated personnel and made available for all participating stakeholders. ESA documents, in particular site-specific ESMPs should be published electronically and on-site and available to all affected parties.

### **Step 4 – Integration of ESIA requirements in the procurement and bidding process**

All sub-project bidding documents shall include a requirement for implementation of the ESIA or ESMP/checklist (in addition to the Positive Conclusion recommendations of the SEE, if any), and the documents shall be attached to the bidding documents and then to the construction contracts or other relevant implementation agreements.

### Step 5 – Implementation support to Environmental and Social Monitoring

SCF-PIU/Regional Environmental and Social Specialists will carry out regular monitoring of sub-projects during construction and operation to ensure that ESMP/checklists are properly implemented. If SCF-PIU/Regional Environmental and Social Specialists notices any problems in implementation, it will inform the relevant authorities and contractor and agree with him on corrective action to be taken. The PIU will present its findings to the WB in the project progress report twice a year or more frequently and bring issues to the attention of the WB as necessary. The WB project team will also visit the sub-project sites as part of the project implementation supervision, as agreed.

### Gender mainstreaming

In 2020, the SCF developed a comprehensive Gender Strategy and a Roadmap for 2021-2022, which prescribes actions and targets for addressing key gender gaps in the forest sector.<sup>52</sup> Identified gaps are related to women’s access to finance<sup>53</sup>, information, and business development skills, including market linkages. These gaps are addressed in the project design, particularly under sub-component 2.2. A summary of the key gender gaps in the sector, Project actions, and indicators used to measure progress is available in Table 5.4. The PIU will include a gender specialist who will help to further mainstream gender considerations during implementation. This will help the SCF meet and strengthen its gender strategy targets in alignment with the WBG Gender Strategy. The Project will ensure Grievance Mechanisms are easily accessible to women to ensure women’s participation as members at all levels.

**Table 5.4:** Summary of key gender gaps in forestry and actions

Key Gender Gap	Project Action
Access to finance	Sub-component 2.2: Providing women with access to local financial services (matching grants) and diversifying income with forest and non-forest-related job opportunities. Helping the establishment and registration process of women nature-based businesses. Helping women businesses establish linkages with commercial banks, private sector associations, and other development programs that provide credit-based financial services.
Access to information	Sub-component 1.3: Developing a regional online database on sustainable landscape management and restoration available to female government and non-government audiences Sub-component 2.1: Equally engaging women in land use planning for greening activities and in Project-supported landscape management activities
Insufficient business development skills, including market linkages	Sub-component 2.2: Supporting women entrepreneurs to register their businesses and provide them with business boosting development packages that include support for business development plans, registration processes, leadership skills, mentorship support, etc. Carrying out market assessments to identify demand-driven livelihood activities, providing business training, and supporting business plan development for women businesses.

<sup>52</sup> Adoption of this strategy is also necessitated by national legislation: Constitution and laws of the Republic of Uzbekistan ‘On Guarantees of Equal Rights and Opportunities for Women and Men’ (ZRU No. 562 dated 02.09.2019) and ‘On Protection of Women from Harassment and Abuse’ (ZRU No. 562 dated 02.09.2019) in accordance with the Decree of the Prime Minister of the Republic of Uzbekistan No.07/2-107 dated 20.04.2020 and with the Article 12 of the Law of the Republic of Uzbekistan ‘On Guarantees of Equal Rights and Opportunities for Women and Men’.

<sup>53</sup> Women-owned MSMEs represent 23 percent of all businesses in Uzbekistan and face an estimated financing gap of US\$2.7 million (<https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26101>).

## 6 INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

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

**National Steering Committee.** A National Steering Committee (NSC), as an overarching governance body, will be established to ensure effective coordination among relevant central and decentralized agencies. The NSC will be chaired by the SCF and its members will be assigned representatives of relevant ministries and State committees including: the Ministry of Agriculture, Ministry of Economy and Poverty Reduction, Ministry of Mahalla and Family Affairs, State Committee on Ecology and Environmental Protection, Ministry of Tourism and Sports, and project regions. The key functions of the NSC will be to review and approve annual work plans and budgets, monitor project progress, ensure effective institutional coordination, resolve any high-level issues, and support high-level decision making.

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

The PIU will hire at least one Environmental Specialist and one Social specialist (E&S specialists) who will supervise the overall EMSF implementation and coordinate the subproject environmental and social screenings, ESAs, ESMPs and other documents. The E&S Specialists will also inform and report to the PIU director and the WB team about environmental and social issues, OHS incidents, implement solutions and monitor performance. They will be responsible for interaction with relevant regulatory agencies, their regional branches, local authorities, contractors, and other responsible parties as relevant to the environmental and social assessment of subprojects. The PIU can hire additional, region-based E&S specialists or consultants to help screen, assess and monitor impacts at the regional level. Under component 1, the following entities will be actively involved in the design, revision of enabling forestry sector policies - SCF, SCF's institute UrmonLoyikha, international organizations and experts, such as FAO, KFS, KGGTF, CAREC, UNDP, ICARDA and other.

Depending on the design and the initial stocktaking and scoping exercise for sector-level policies, the PIU director, the E&S specialists and the World Bank together will determine the need and scope for policy driven ESIA following the logic of strategic impact assessments and hire international or national consultants to conduct such assessment. For subproject activities under component 2 and 3, in parallel with request for funding, subproject initiators or beneficiaries (ex. Government agencies, international organization, *leshozes*, private sector, individual entrepreneurs, citizens, community groups, etc.), under the requirement from SCF-

PIU, should complete the Environmental and Social Screening forms (Annex 2, Part 1 and 2) to determine the scale of impacts and relevant ESA documentation. In this case, E&S Specialists can organize field visits with the help of regional PIU to verify environmental and social impact information and conduct necessary data collection, measurements as relevant. Subsequently, subproject initiators or beneficiaries, under the oversight of the PIU will be responsible for developing/commissioning relevant ESA documents (DSEI/ESIA, ESMP, etc.) and obtaining the appropriate permits prior commencement of any activities.

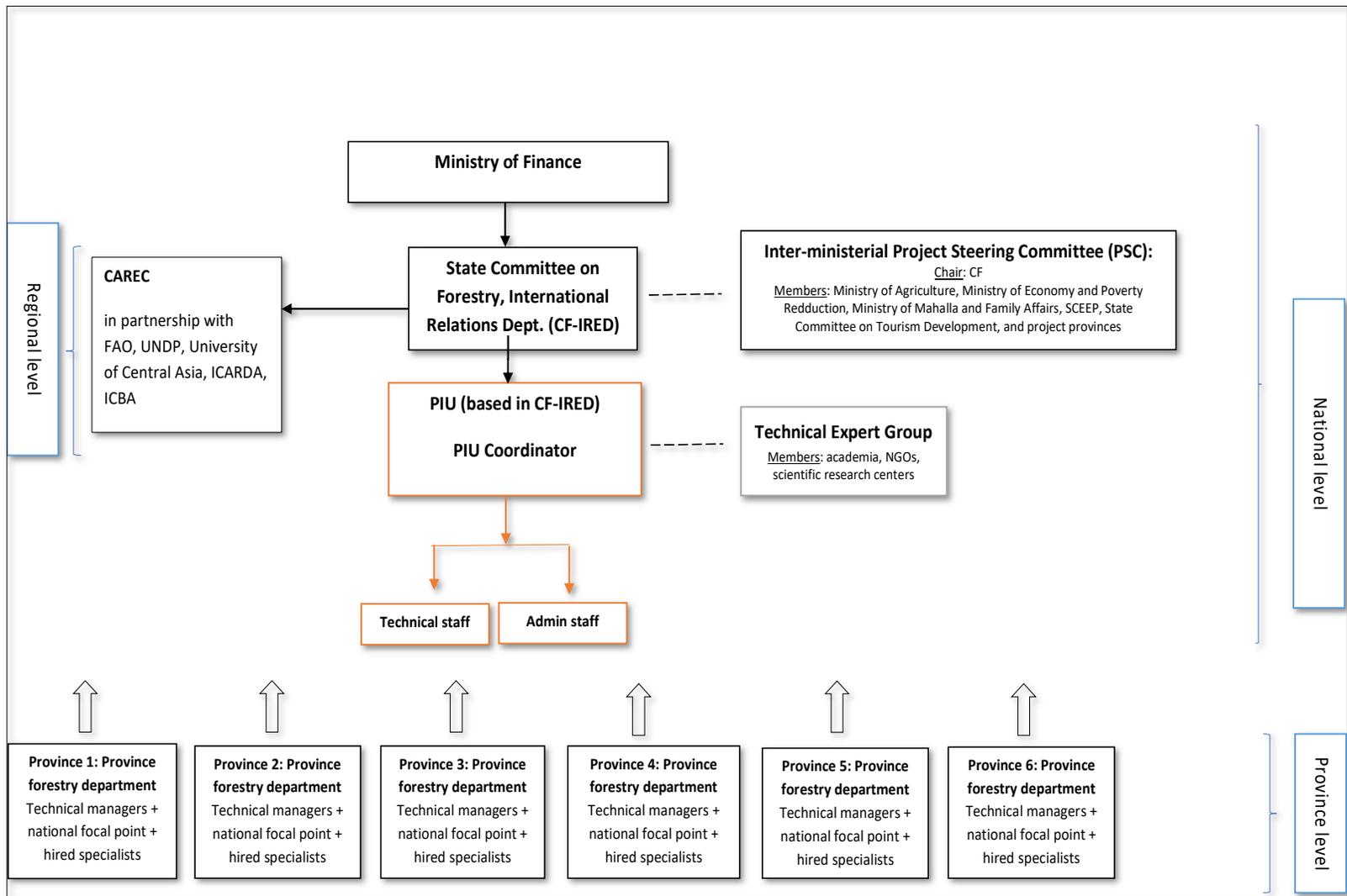
**Regional PIUs** will be established within the SCF departments of project regions, each comprising at a minimum a technical manager, a national focal point, and technical specialists. Regional PIUs will coordinate region-level activities and report on their progress to the national PIU.

**Technical Expert Group (TEG).** The PIU will receive technical guidance from a TEG composed of specialists from within and outside the SCF-IREC, including academia, NGOs, scientific research centers, etc.

**Regional activities will be executed by the Regional Environmental Centre for Central Asia (CAREC) through a contract with the GoU.** CAREC will execute sub-component 1.2, and, as needed, will subcontract other entities for execution of specific activities, potentially including FAO, UNDP, UCA, ICARDA, and ICBA.

**Table 6.1.** Involved parties in the Environmental and Social assessment

Subcomponents	Involved parties	Relevant ESA items under SCF-PIU coordination
Sub-component 1.1 Strengthen Institutions and Policies	SCF, SCF's Institute Urmonloyikha Consultants: KFS (Korean Forestry Service) Korean Green Growth Trust Fund (KGGTF), FAO-Uzbekistan	Integration of Environmental and Social principles and standards, requirements into policies Possibly, Environmental and Social Impact Assessment (ESIA) with strategic impact considerations.
Sub-component 1.2 Strengthen Regional Collaboration	CAREC, FAO, UNDP, the UCA, ICARDA, and ICBA	n/a
Sub-component 2.1 Enhance Forest-based Landscape Restoration and Management	SCF and <i>leshozes</i> , private sector, individual entrepreneurs	ESIA (partial ESIA) DSEI ESMP (incl. specific management plans) ESMP checklist
Sub-component 2.2 Enhance Protected Areas and Nature-based Tourism	The Forest Research Institute, SCEEP, The Ministry of Tourism and Sports, International Union for Conservation of Nature (IUCN), Private sector, individual entrepreneurs	ESIA (partial ESIA) DSEI ESMP (incl. specific management plans) ESMP checklist
Component 3 Enhance Forest-based Livelihoods and Value Chains	SCF, Local khokimiyats Mahalla Citizen Assemblies, Community groups	ESIA (partial ESIA) DSEI ESMP (incl. specific management plans) ESMP checklist



**Figure 6.1: Project Institutional Arrangements**

## 6.1. ESF INSTITUTIONAL CAPACITY BUILDING ACTIVITIES

The implementation of the ESMF requires specific knowledge for beneficiaries and operators engaged in the different phases of the project implementation. The project will support relevant trainings on knowledge and information on topics such as the ESMF implementation, ESMF/ESMP reporting, World Bank ESF and EHS Guidelines, management of hazardous materials and etc. For this purpose, before the civil works will start, the PIU will hire a Consultant with knowledge on the environmental and social management requirements for Republic of Uzbekistan, along with substantial knowledge on World Bank ESSs and safeguards policies and requirements which will provide ESA training. The training will include the basic requirements of the WB and National regulations, rules and procedures, as well as case studies in this regard. The training activities will continue also during the project implementation when the consultant will provide on the job training regarding environmental and social monitoring and supervision. The Project's capacity building on environmental and social aspects will cover three main directions:

**i) PIU's and Regional offices capacity** on ESMF implementation during sub-projects selection process and sub project construction stages – the hired Consultant will provide respective training for PIU and Regional offices staff and SSs on WB ESF requirements, ESMF, ESMP, SEP, LMP, PF&RPF implementation and further assistance in monitoring of these instruments.

**ii) Beneficiaries' Capacity/viloyat/district hokimiyats/private sector (impact assessment service providers)** - on development of ESIA, ESMP, SEP and LMP. Since the program will be implemented during several years, the Consultant will provide training for local authorities and other actors involved in preparation of ESA reports and conduction per national EA environmental and social assessments. The training will be dedicated to harmonization of process of WB's ESIA and national ESA. The target will be to educate EA developers and specialist from local environmental agencies to prepare the documents which meet WB ESSs as well.

**iii) PIU's, Regional PIUs', local governments and contractors.** SEA/SH training and awareness-raising / implementation of SEA/SH action plan

A separate training shall be organized prior start of works by the Contractors under the supervision of PIU E&S specialists on OH&S requirements for workers covering such issues as diseases prevention, fire safety, requirements of work in sensitive habitats/ around wildlife, emergency preparedness, SEA/SH risk prevention. Such trainings should be done on regular basis during the duration of works.

The tentative plan of capacity building and training plan is presented below.

**Table 6.1 Preliminary ESF Training Plan**

	<b>The name of the training</b>	<b>Time and estimated duration</b>	<b>Target group</b>	<b>Arranger</b>	<b>Estimated cost, USD</b>
1.	Review of WB ESSs and their implementation during the project cycle. National environmental requirements for project preparation and implementation	During the first year of the Project implementation Duration - 0.5 days	PIU Staff, including regional project offices	Consultant	1,000
2.	Implementation of ESMF, ESMP, PF&RPF, LMP, SEP, GRM	Prior to selection of sub-projects Duration - 2 days	PIU Staff, including regional project offices	Consultant	3,000

Uzbekistan Resilient Landscapes Restoration Project

3.	SEA/SH training and awareness-raising / implementation of SEA/SH action plan	Half-day workshops at the regional level at the beginning and in the middle of the project	SCF, Leskhoz staff, Contractor and Supervisor, Local government/ mahallas/ community members	Consultant	2,000 per activity, total 12,000 for 6 regions
4.	OH&S requirements for workers covering such issues as diseases prevention, fire safety, requirements of work in sensitive habitats/ around wildlife, emergency preparedness, SEA/SH risk prevention	Before the start of the works	Contractor staff	Contractor budget	-
5.	E&S Performance Reporting	During the first year of the Project implementation Duration - 0.5 days	PIU Staff, including regional project offices, Leskhoz	Consultant	500
	<b>TOTAL</b>				<b>16,500</b>

## 6.2. ESMF IMPLEMENTATION BUDGET

Implementation of ESMF is included in the preliminary budget for the Project with an estimated cost shown below. Costs associated with the coordination of ESMF implementation by the PIU SCF will be fully costed after final design.

**Table 6.2:** Budget for ESMF including SEP (estimate)

ESF Activities	Unit Cost, (USD)	Q-ty	Total cost (USD)
Environmental specialist	1,500	60 months	90,000
Social development (stakeholder engagement and communication) specialist	1,500	60 months	90,000
Gender Specialist with strong experience on GBV	1,500	60 months	90,000
Capacity support trainings (various topics), excluding the first year	2,200	6 trainings	13,200
<b>Sub-component 2.1</b> Enhance tree-based landscape restoration and management ESIA/ESMPs for interventions with protective or restoration benefits	5,000	5,000 for ESMPs per 6 regions during project duration	30,000
<b>Sub-component 2.2</b> Enhance Resilient Livelihoods and Value chains Environmental risks related to small construction or rehabilitations works funded by matching grants or Environmental risks linked with unsustainable small-scale agroforestry practices on fruit trees, herb production plots, such as the excessive use of pesticides, etc.	5,000	5,000 for ESMPs per 6 regions during project duration	30,000
Specialized in-depth site-specific Social Impact and/or livelihood restoration plan assessments as part of ESIA/ESMPs (mostly related to Sub-component 2.2)	7,000	5	35,000
<b>Sub-component 3.1</b> Specialized ESIA/ESMPs (incl. BMP if needed) for activities inside/affecting Protected Areas (National Parks) and/or Critical Habitats	15,000	2 for Zaamin and Zarafshan National Parks	30,000
<b>Subcomponent 3.2</b> Specialized ESIA/ESMPs (incl. BMP if needed) for nature-based tourism investments in or near SFF or national park lands	12,000	per 6 project regions	72,000

Travel expenses of ESF PIU staff (cost per year)	1,000	Per year x 6 regions	30,000
Communication materials (leaflets, posters, PR kits)	5,000	6 regions + 1 center	35,000
Project press conferences	1,000	2 times	2,000
Hotlines for GM / GM boxes and Information desk			10,000
Subtotal			557,200
Contingency (approx. 5%)			27,860
<b>Total</b>			<b>585,060</b>

## 7 PUBLIC DISCLOSURE AND CONSULTATIONS

During the time of project preparation, as of June 28, 2021, the Government of Uzbekistan toughened quarantine restrictions in the country following the increase in number of new COVID-19 cases from Delta variant. Tashkent has become a red zone and road travel from other regions was limited from June 28 to July 12. Social and catering venues have limited hours of operations and caps for the number of visitors. It was advised to restrain from face-to-face meetings, observe social distancing and maintain medical mask wearing.

The project ESMF summary and SEP summary were first disclosed on 20th September 2021 on urmon.uz website. A letter of invitation was also sent on 14<sup>th</sup> September 2021 to conduct virtual public consultations. Public consultations, compliant with current COVID-19 restrictions, have started virtually on September 24, 2021, with regional branches of SCF, specialized entities within SCF (UrmonLoyikha, the Forest Research Institute, etc.), Ministry of Tourism and Sports, The State Committee of Ecology and Environment Protection, Ministry of Agriculture. During consultations was presented the anticipated risk and impact categories of the project and described the process of Environmental and Social assessment and management according to the WB ESF standards and national legislation. There was discussed environmental and social impacts of the project, as following: risks that may occur as a result of changes in water bodies and landscapes; potential spread of invasive tree or shrub species; change of natural habitats; risks associated with excessive harvesting of non-timber forest products or timber forest products ect. Also, it was discussed the project impact to farmers and peasants, livestock owners or communities.

The initial community public consultations were conducted in the Zaamin National Park area in Jizzakh region, Zarafshan National Park area in Samarkand region, Pop forest area in Namangan region, Bobotog area in Surkhandarya region and Kitab area in Kashkadarya region. Based on suggestions received during stakeholder and PAP consultations, the ESMF, SEP and LMP are updated and published on the WB website prior to project Negotiations and will be subsequently published on SCF website in ENG and upon translation to local language(s). Minutes of public consultation workshops are presented in Annex 9.

Closer consultation workshops with other interested parties, community members, local makhalla citizens, community activists as identified in SEP should be made in stages prior the design of specific subproject

interventions under Components 2 and 3. Disclosure and public consultation is a mandatory requirement of the environmental and social assessment procedures as described in Section 4.

## **8 GRIEVANCE MECHANISM**

### **8.1. DESCRIPTION OF GRIEVANCE MECHANISM**

The PIU will ensure that a grievance mechanism (GM) for the project is in place, in accordance with ESS10 as early as possible in project development to address specific concerns about compensation or livelihood restoration measures raised by displaced persons (or others) in a timely manner. Where possible, the GM will utilize existing formal or informal grievance mechanisms suitable for project purposes, supplemented as needed with project-specific arrangements designed to resolve disputes in an impartial manner.

The main objective of a GM is to assist to resolve complaints and grievances in a timely, effective and efficient manner that satisfies all parties involved. Specifically, it provides a transparent and credible process for fair, effective and lasting outcomes. It also builds trust and cooperation as an integral component of broader community consultation that facilitates corrective actions. Specifically, the GM:

- Provides affected people with avenues for making a complaint or resolving any dispute that may arise during the course of the implementation of projects;
- Ensures that appropriate and mutually acceptable redress actions are identified and implemented to the satisfaction of complainants; and
- Avoids the need to resort to judicial proceedings.

The PIU will set up a project specific GM to address citizen complaints and requests related to the Project. Day-to-day implementation of the GM and reporting to the World Bank will be the responsibility of the PIU, specifically, the Social Specialist as the key nodal officer for GM in the PIU. Project will encourage receiving complaints by a variety of channels, including anonymous complaints, at different levels – details. The system and requirements (including staffing) for the grievance redress chain of action – from registration, sorting and processing, and acknowledgement and follow-up, to verification and action, and finally feedback – are incorporated in the GM. To ensure management oversight of grievance handling, the PIU M&E will be responsible for monitoring the overall process, including verification that agreed resolutions are implemented.

### **8.2. GRIEVANCE RESOLUTION PROCESS**

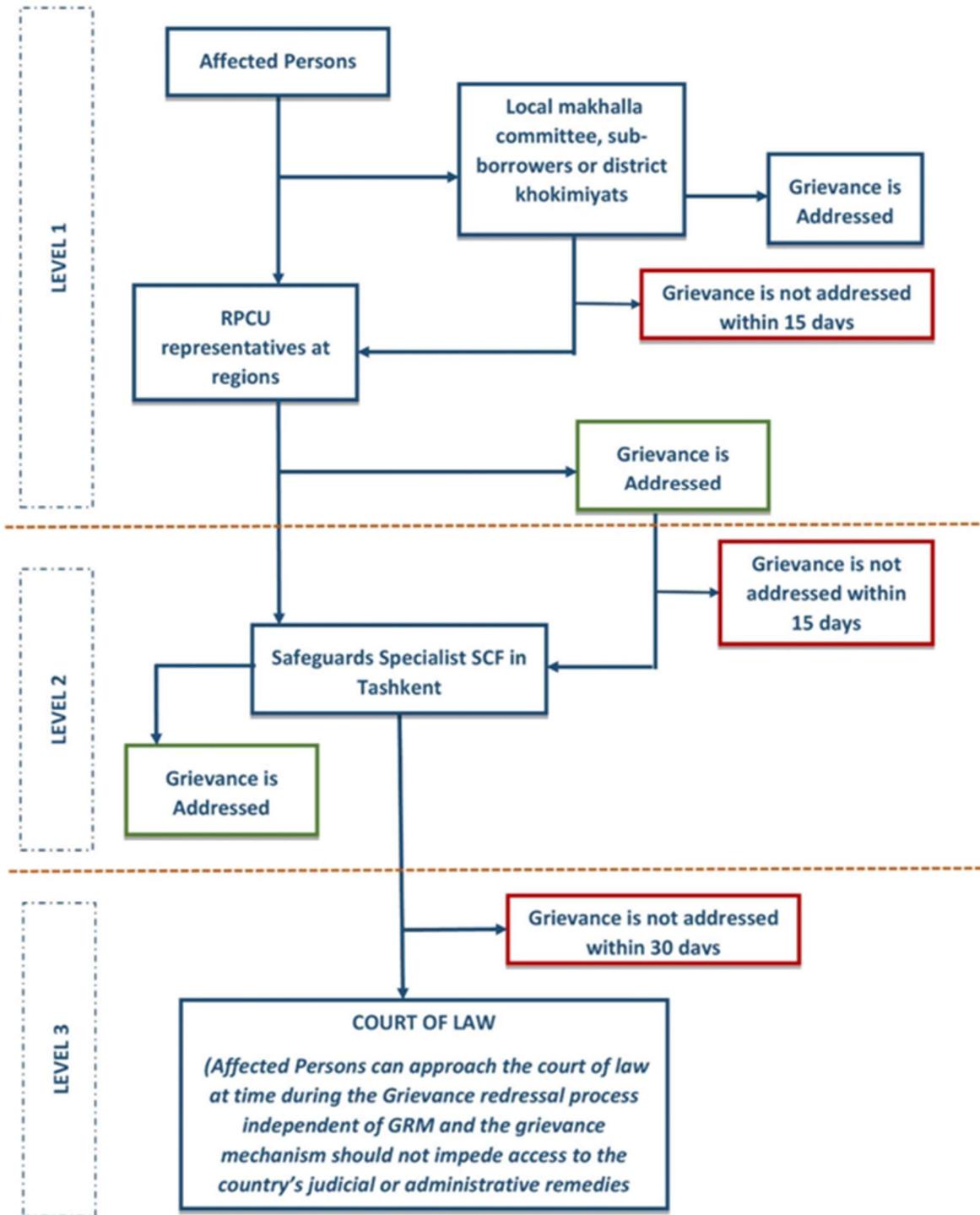
Grievances are received both in written (printed) or through e-mails. Each grievance should be recorded in the grievance logbook, citing the name of applicant, date of submission and a specific reference number. After registering the complaint within 30 minutes the same day, or at earliest if received by the end of the working day, this should be reviewed by the SCF or deputies, and if it is received from regional offices, then manager responsible for the management of that region. Within 5 working days after submission of the complaint, detailed communication should be sent to the sender with the status of the complaint signed by the head of the company or deputies. SCF employees may also meet with the Head of the SCF or deputies in special allocated time with their complaints or proposals.

The proposed Grievance Redress procedure is not limited by only above mentioned SCF internal GM, but traditionally consists of 3 levels of complaints submission. The proposed mechanism helps complaint handling system to be functional, transparent and responsive, and where appropriate, strengthen government systems. In this mechanism beneficiaries and citizens can register a grievance on any issue within any infrastructure.

The Project Affected Persons (PAPs) may submit their grievances first to the local mahalla office, contractors, PFIs or directly to the sub-borrower. The grievance could be submitted both ways: (i) officially with indication of applicant contact information, and (ii) anonymously by dropping complaints into special boxes. It is

recommended that each entity involved in project implementation will need to maintain logs for registration of grievances and a Box for receiving complaints including anonymous ones.

If the grievance has not been considered or the PAP has not received a satisfactory response, he/she may file a grievance to the RPCU. Regional Specialist will keep a record of the grievances received. This will be done by applying multiple absorption channels such as mail, email, phone, project website, personal delivery. Currently, citizens are actively using mobile networks, so the project will open special groups in Telegram and Facebook applications.



**Figure 8.1:** GM Process

After collection of grievances, need to be categorized, assigned priority, and routed to the appropriate entity. The reason is that various types of grievances typically require different follow-up actions—for example, some grievances can be resolved by means of a simple explanation or apology, while others may require more extensive investigations. Grievances that cannot be resolved at one level of the system should be referred to a higher level and/or an outside entity for verification and further investigation according to a clearly defined timetable then it shall be transferred to the PIU in Tashkent, where it shall be considered and decided how the

grievance can be satisfied. If a grievance is not resolved at this level, or the applicant is not satisfied with the decision, the grievance shall be transferred to the Economic Court of the Republic of Uzbekistan.

When a grievance is made, the Regional Specialist shall acknowledge its receipt in a communication that outlines the grievance process; provides contact details and, if possible, the name of the contact person who is responsible for handling the grievance; and notes how long it is likely to take to resolve the grievance. Complainants should then receive periodic updates on the status of their grievances.

Every grievance shall be tracked and assessed if any progress is being made to resolve them. It is expected that project will receive many grievances and should ideally have an electronic system for entering, tracking, and monitoring grievances. The project monitoring and evaluation information system should also include indicators to measure grievance monitoring and resolution.

At the final stage each GM users shall be informed about the results of investigations and the actions taken to increase users' trust in the system. In addition, the generalized report will be developed considering type of complaints and actions taken. This reports and feedback will be sent to complainant directly (if his or her identity is known) and/or posting the results of cases in project website, telegram groups or local newspapers. The project should also inform GRM users about their right to an appeal if they are dissatisfied with the decision, specifying both internal and external (e.g., judicial review, ministries) review options.

Information about the GM will be publicized as part of the Public/community communication (e.g. through websites, social media). Brochures and posters will be displayed in public places offices, project offices, SCF outlets and notice boards, etc. Information about the GM will also be posted online on the SCF website. The overall process for the GM will be comprised of six steps, as described below.

**Step 1: Uptake.** Project stakeholders will be able to provide feedback and report complaints through several channels: contacting PIU by mail, telephone, email, social media, sms and telegram messaging.

**Step 2: Sorting and processing.** Complaints and feedbacks will be compiled by the Social Specialists at PIU and recorded in a register. These are assigned to the respective individuals / agencies to address. They are expected to discuss/ deliberate with the complainant and arrive at a resolution, within 15 days of receipt.

**Step 3: Acknowledgement and follow-up.** Within seven (7) days of the date a complaint is submitted, the responsible person/ agency will communicate with the complainant and provide information on the likely course of action and the anticipated timeframe for resolution of the complaint. If complaints are not resolved within 15 days, the responsible person will provide an update about the status of the complaint/question to the complainant and again provide an estimate of how long it will take to resolve the issue.

**Step 4: Verification, investigation and action.** This step involves gathering information about the grievance to determine the facts surrounding the issue and verifying the complaint's validity, and then developing a proposed resolution, which could include changes of decisions concerning eligibility for mitigation, assistance, changes in the program itself, other actions, or no actions. Depending on the nature of the complaint, the process can include site visits, document reviews, a meeting with the complainant (if known and willing to engage), and meetings with others (both those associated with the project and outside) who may have knowledge or can otherwise help resolve the issue. It is expected that many or most grievances would be resolved at this stage. All activities and the other steps will be fully documented, and any resolution logged in the register.

**Step 5: Monitoring and evaluation.** Monitoring refers to the process of tracking grievances and assessing the progress that has been toward resolution. The PIU will be responsible for consolidating, monitoring, and reporting on complaints, enquiries and other feedback that have been received, resolved, or pending. This will

be accomplished by maintaining the grievance register and records of all steps taken to resolve grievances or otherwise respond to feedback and questions.

**Step 6: Providing Feedback.** This step involves informing those to submit complaints, feedback, and questions about how issues were resolved, or providing answers to questions. Whenever possible, complainants should be informed of the proposed resolution in person (communicating by telephone or other means).

If the complainant is not satisfied with the resolution, she/he will be informed of further options, which would include pursuing remedies through the World Bank, as described below, or through avenues afforded by the Republic of Uzbekistan legal system. On a monthly basis, the PIU will report to SCF on grievances resolved since the previous report and on grievances that remain unresolved, with an explanation as to steps to be taken to resolve grievances that have not been resolved within 30 days. Data on grievances and/or original grievance logs will be made available to World Bank missions on request, and summaries of grievances and resolutions will be included in periodic reports to the World Bank.

Grievance Logs will include at least the following information:

- Individual reference number
- Name of the person submitting the complaint, question, or other feedback, address and/or contact information (unless the complaint has been submitted anonymously)
- Details of the complaint, feedback, or question/her location and details of his/her complaint.
- Date of the complaint.
- Name of person assigned to deal with the complaint (acknowledge to the complainant, investigate, propose resolutions, etc.)
- Details of proposed resolution, including person(s) who will be responsible for authorizing and implementing any corrective actions that are part of the proposed resolution
- Date when proposed resolution was communicated to the complainant (unless anonymous)
- Date when the complainant acknowledged, in writing if possible, being informed of the proposed resolution
- Details of whether the complainant was satisfied with the resolution, and whether the complaint can be closed out
- Date when the resolution is implemented (if any).

The SCF will offer its district and local channels. The PIU will enable (i) local level offices, (ii) district level as GM focal points. By this arrangement, the project will be able to address effectively and efficiently all grievances raised at grass root level, which will have countrywide scattered pattern including those in remote areas. To manage the project GM, it will include following successive tiers of extra-judicial grievance review and resolution:

- The first tier will be the village local self-governments at the grassroots, who are responsible for helping members of the community and other social work (conflict resolution, overall community upkeep, etc.). They have the primary responsibility for identifying the households and/or individuals requiring social assistance. Unresolved grievances will be elevated to Grievance Redress Commission (GRC).
- PAPs will have an option of submitting grievance to PIU directly. This will be the second tier, which will form a GRC under leadership of PIU and includes one or more senior district and local level office managers and one village leaders. GRC will resolve issues that could not be resolved by local government or those that came directly. The GRC will deal with issues before referring to the legal recourse.

**Table 8.1.** Grievance Redress and Feedback Mechanism

To whom is the complaint filed	Form of submission	Complaint management procedure	Time for consideration of complaints
<b>THE FIRST LEVEL</b> <b>Office of local SCF offices</b> Address: Tel.: Fax: E-mail address: Officer responsible for maintaining the GM Log:	Verbal Written In electronic format	1. Local SCF offices register complaint/proposal in the Log for registration of complaints and proposals; 2. Maintain and monitor the process of reviewing and responding to complaints; 3. Monthly they are reporting in writing to the PIU, to the Social Specialist on the status of work with complaints.	3days
<b>THE SECOND LEVEL</b> <b>GRC at PIU level</b> PIU SCF: Address: Tel: Fax: E-mail address: Officer responsible for maintaining the GM Log:	in written form in electronic form	1. PIU office registers a complaint in the Log for complaints and proposals; 2. Maintain and monitor the process of reviewing and meeting the complaints; 3. Consideration of the complaint may require additional verification of the issue, including collection of additional documents. 3. Report on a monthly basis in written to the SCF (depending on the nature of the issue) on the status of work with complaints.	5 days  15 days

### 8.3. MONITORING AND REPORTING ON GRIEVANCES

The PIU will be responsible for:

- Analyzing the qualitative data on the number, substance and status of complaints and uploading them into the project databases established by PIU;
- Monitoring outstanding issues and proposing measures to resolve them;
- Preparing quarterly reports on GM to be shared with the WB.

Biannual reports to be submitted to the WB shall include section related to GM which provides updated information on the following:

- Status of GM implementation (procedures, training, public awareness campaigns, budgeting etc.);
- Qualitative data on number of received grievances (applications, suggestions, complaints, requests, positive feedback), highlighting number of resolved grievances;
- Quantitative data on the type of grievances and responses, issues provided and grievances that remain unresolved;
- Level of satisfaction by the measures (response) taken;
- Any correction measures taken.

### 8.4. GRIEVANCE UPTAKE CHANNELS

A grievance can be submitted through the following channels:

**Table 8.2.** Channels for accessing information and submitting grievances

Description	Contact details
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Grievance Redress Committee – 1 <sup>st</sup> tier	district and local SCF offices
Grievance Redress Committee – 2 <sup>nd</sup> tier	Project Implementation Unit
Grievance Redress Responsible person at SCF	Islamov Zafar Tahirovich
Address:	Universitet street, building #2, 100163, Tashkent, Uzbekistan
Telephone:	+99871 2630756, +99871 2630824
Hotline:	+99871 2630756
Fax:	+99871 2630756
E-mail:	<i>murojaat@urmon.uz</i>
Web-platform:	<i>https://urmon.uz/</i>
Social media platforms:	
Anonymous complaints are also entertained by any of the above channels	

### 8.5. EXISTING GM AT SCF

Along with the World Bank requirements on development and implementation of grievance mechanism for each Bank finance project, a grievance redress procedure is also required according to national legislation. In Uzbekistan a grievance redress procedure is regulated by the law “On Citizens’ Applications” and the “Law on the order of submission of appeals of physical and legal entities” (#378, December 03, 2014). Moreover, the SCF provides an internal grievance mechanism for physical and legal entities to raise reasonable workplace concerns. The grievance mechanism procedures are described in the following local regulations - Law of the Republic of Uzbekistan “About appeals of individuals and legal entities” #445 dated on 11.09.2017.

### 8.6. WORLD BANK GRIEVANCE REDRESS SYSTEM

Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may also complaints directly to the Bank through the Bank’s Grievance Redress Service (GRS).<sup>54</sup> A complaint may be submitted in English, Uzbek or Russian, although additional processing time will be needed for complaints that are not in English. A complaint can be submitted to the Bank GRS through the following channels:

- By email: *grievances@worldbank.org*
- By fax: +1.202.614.7313
- By mail: The World Bank, Grievance Redress Service, MSN MC10-1018, 1818 H Street Northwest, Washington, DC 20433, USA.
- Through the World Bank Uzbekistan Country Office in Tashkent: 107B Amir Timur Street, Block C, 15th floor, 100084, Tashkent, Uzbekistan, *tashkent@worldbank.org*, Tel. +998 71 120-2400

The complaint must clearly state the adverse impact(s) allegedly caused or likely to be caused by the Bank-supported project. This should be supported by available documentation and correspondence to the extent possible. The complainant may also indicate the desired outcome of the complaint. Finally, the complaint should identify the complainant(s) or assigned representative/s and provide contact details. Complaints submitted via the GRS are promptly reviewed to allow quick attention to project-related concerns.

In addition, project-affected communities and individuals may submit complaints to the World Bank’s independent Inspection Panel, which will then determine whether harm occurred, or could occur, as a result of the World Bank’s non-compliance with its policies and procedures. Complaints may be submitted to the

<sup>54</sup> <https://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>

Inspection Panel at any time after concerns have been brought directly to the World Bank's attention, and after Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## 9 CONCLUSION

During achievement of the Project targets the SCF as implementation agency and PIU will be responsible for the compliance of ESMF. Based on the SEP the PIU will liaise with relevant agencies which are currently involved in environmental protection management and social aspects and will be responsible for preparing relevant environmental and social documents and furnishing information to the SCF and the WB as well as addressing environmental and social risks/impacts.

During the forest planting and construction work, soil processing and earthworks will be carried out, which can damage the vegetation cover and lead to the vegetation clearance. Moving and storage of construction materials, removing surplus, waste and building rubbish can disrupt wildlife, including affecting natural habitats.

Also, there is a risk of introducing aggressive invasive species. Most of the habitats in project areas are expected to be already fragmented habitats as a result of human activity. In order to avoid the risk for potential aggressive spread of the invasive plants the project is not expected to introduce or relocate any of the fauna species. To mitigate the risk the project identified a list of recommended local or naturalized invasive tree and plant species. According to the SFC data, these species have non-aggressive invasive characteristics.

*Civil works construction.* The construction of trails, small buildings, and other civil works will be achieved according to the LMP. Constructions can also have significant environmental impacts, both short-term and long-term. To help ensure adequate mitigation of such impacts during Project implementation, the following environmental management criteria should be taken into consideration:

- a. *Design and technical specifications* that specifies what the civil works will include and should address (i) environmentally significant design features (such as non-reflective windows to minimize bird collisions); (ii) the specific locations of the facilities to be built (including trail alignments); and (iii) construction materials to be used and/or avoided (for example, no wood, sand, or gravel extracted from protected areas);
- b. *Construction methods* clarify how the works will be built. These cover topics that include (i) location of ancillary facilities (construction camps, equipment staging areas, quarries, borrow pits, waste disposal sites, etc.); (ii) temporary fencing around work areas and excavations; (iii) training and sensitization of workers; (iv) time-of-day, seasonal, and other work restrictions; (v) minimizing clearing of natural vegetation; (vi) no washing of vehicles or machinery, changing of lubricants, or other contamination of waterways; and (vii) proper solid and liquid waste disposal; and,
- c. *Code of Conduct* for all Project personnel and visitors. In addition to good social behaviour, health, and safety requirements, the Code of Conduct cover environmental good practice requirements including prohibition of hunting, fishing, bush-meat purchase, wildlife capture, vegetation burning, off-road driving, speeding, free-roaming pets (that threaten or conflict with wildlife), and outdoor loud music. Additionally, inappropriate interactions with local people and transparent enforcement of penalties for non-compliance should also be carefully addressed during the implementation. As a result, adequate field supervision by qualified personnel, along with transparent penalties for noncompliance, is needed.

The PIU will set up a project specific GM to address all citizen complaints and requests related to the project. Day-to-day implementation of the GM and reporting to the World Bank will be the responsibility of the PIU. Project would encourage receiving complaints by a variety of channels, including anonymous complaints, at different levels – details. The system and requirements (including staffing) for the grievance redress chain of action – from registration, sorting and processing, and acknowledgement and follow-up, to verification and action, and finally feedback – are incorporated in the GM. To ensure management oversight of grievance

handling, the PIU M&E will be responsible for monitoring the overall process, including verification that agreed resolutions are implemented.

In the medium to long term the project is expected to bring significant environmental benefits such as reforested degraded lands, improved soil and water retention, reduced dust and salt migration, improved conservation and sustainable use of biodiversity in selected ecosystems. Risks to the environment and society can be significant, but predicted, avoided or mitigated through assessment, management measures of the ESMP and investments.

ANNEXES

**ANNEX 1. ENVIRONMENTAL SCREENING FORMS**

**Part 1**

*(to be drafted at the subproject concept stage by subproject initiator or subproject beneficiary together with SCF-PIU E&S specialists with the facilitation of leshoz)*

**Form 1. VISUAL (REMOTE AND/OR PHYSICAL) INSPECTION OF THE PROJECT SITE**

**Date/time of Visit:**

**Brief description of proposed project activity:**

**Province/district:**

**Current activity and site history**

Who is the site contact (name, position, contact information)?

- What is the area of the site to be used for project activities?
- What is the current use/are current users of the site?
- What were previous uses of the site (give dates if possible)?
- Are there any encroachers or illegal users of the site whose livelihoods or assets are going to be affected by the project?

**Environmental Situation**

- Are there sensitive sites nearby (nature reserves, cultural sites, historical landmarks)?
- Are there water courses on the site?
- What is the terrain or slope?
- Does the site experience flooding, waterlogging, salinity or landslides? Are there signs of erosion?
- What are the neighboring buildings (e.g. schools, dwellings, industries) and land uses? Estimate distances.

**Cultural Heritage (incl. natural monuments)**

- **Is the site in proximity to any known sites of cultural heritage significance (archaeological, historical, natural, paleontological, or religious)? If yes, please describe it**
- **Is there any expectation of chance-finds of new objects of cultural or historical significance during civil works? If yes, make sure that site-specific ESMPs include chance find procedures.**

**Licenses, Permits and Clearances**

- Does the site require licenses or permits to operate the type of activity proposed? Are these available for inspection?
- What environmental or other (e.g., health, forestry) authorities have jurisdiction over the site?

**Water Quality Issues**

- Does the proposed activity use water for any purposes (give details and estimate quantity)? What is the source?
- Will the proposed activity produce any effluent? (estimate quantity and identify discharge point)
- Is there a drainage system on site for draining surface (waste?) waters or sewage? Is there a plan available for managing drainage or septic systems?

- How wastewater is managed (surface water courses, dry wells, septic tanks)?

#### **Soils**

- What is the ground surface (agricultural land, pasture, etc.)?
- What type of soils are common for this area (sandy, fertile, etc.)?
- Will the project damage soil during construction or operations?
- Will the project affect the landscape significantly (draining wetlands, changing stream courses)?

#### **Biological environment and sensitivity of habitat**

- Describe vegetation cover on the site, is it naturally occurring or result of cultivation? Note down the type of plants and trees that you are able to identify.
- Has the land or parts of land been previously converted for agricultural crops, fruit trees or other?
- Will the project activity lead to new conversion of land into cultivated land? What is the extent of this change (in ha)?
- Is there information about rare or threatened flora and fauna at or near the site? If yes, would the project have an impact or increase risk to the species?
- Obtain a list of vertebrate fauna and common plants of the site (if available).
- Note potential negative impacts on biota if project proceeds.

#### **Local harvesting or purchasing of natural resources**

- Does the proposed investment rely on or promote new or increased local harvesting of native plant or animal species (including wood and non-timber forest products (NTFPs))?
- If so, are there agreed restrictions (including harvest limits, number of harvest limits, or the season or method of take) to prevent overharvesting or other induced decline in the future availability of this natural resource? If such restrictions are in place or planned, how will the compliance be monitored and who will do the monitoring?
- Does the proposed investment include purchasing natural resource commodities (food, timber and fiber) that are originated elsewhere? If yes, who is the primary supplier? How likely might this contribute to degradation of natural or critical habitats?

#### **Visual Inspection Procedures**

- Try to obtain a site map or make a sketch to mark details.
- Take photos, if permitted.
- Walk over as much of the site as possible, including boundaries, to note adjacent activities.
- Note any odors, smoke or visual dust emissions, standing water, etc.

**Form 2.**

*(to be completed by SCF-PIU E&S specialists based on the information and site visits provided by subproject initiator or subproject beneficiary)*

**1. Sub-project Name:**

**2. Brief Description of the sub-project activity to include:** nature of the project, project cost, physical size, site area, location, property ownership, existence of on-going operations, plans for expansion or new construction.

**3. With the help of information from Form 1, check if the sub-project has chance to be categorized as High-Risk project and be excluded from financing:**

If any “yes” - the sub-project might be categorized as High-Risk Category (not financed).

- a) Creates a significant, identified adverse impact on the Critical Habitat (s) for one or more species that cannot be mitigated using Biodiversity Management Plans, that incorporates No Net Loss or Net Gain approach or other recognized mitigation measures (ESS6);
- b) Converts new land (not already used for the same purpose and/or not degraded-ESS6) for agricultural or forestry plantations (that would lead to a net loss of Natural Habitats or Critical Habitats)
- c) Activity not consistent with the valid Management Plans for the protected areas;
- d) Might cause harm to an area of international importance or cultural heritage and archaeological sites identified by UNESCO and/or the Government of Republic of Uzbekistan;
- e) Introduces new (alien), aggressively invasive plant or tree species or creates conditions for aggressive invasiveness for the existing naturalized or local plant or tree species threatening native species or ecosystems (to be cross-checked against the pre-identified species list in Section 4.1)

Describe any anticipated, significant environmental impacts or risks and how they are to be mitigated (avoided, minimized, restored, or compensated).

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1. If an environmental impact assessment is required, what are the specific issues to be addressed?

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2. Propose sub-project Environmental Risk Category (HR, SR, MR or LR) \_\_\_\_\_ (if project is categorized as HR, no needs to fill next paras – sub-project could not be included into the project)

With the help of the information above and use Table 6.2 of the ESMF to define the risk category of the project:

<b>WB Category</b>	<b>National category (Annex 2, Resolution 541 (2020))</b>
HR	I
high-SR	II-III
SR	III
MR	III-IV
LR	IV or not listed

3. Types of required Environmental Assessment documents (circle round the required). Use Table 6.4 of ESMF to define the required EA document:
  - a) ESIA or partial ESIA together with DSEI incl Positive Conclusion of the SEE and SEI for high-Substantial risk Category sub-projects;

- b) Partial ESIA or ESMP together with DSEI incl Positive Conclusion of the SEE and SEI for Substantial risk Category sub-projects;
  - c) Environmental and Social Management Plan (ESMP) or ESMP checklist for small scale Moderate Risk Category sub-projects – can be integrated with DSEI and SEI;
  - d) ESMP checklist for Low-Risk category subprojects – integrated with DSEI (if required) or standalone document
4. What is the time frame and estimated cost of conducting Environmental assessment?
- 

Conclusion (could the sub-project be included in the program and if yes, under which conditions):

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**Sub-project initiator/ Environmental Screener:  
Environmental Specialist:**

**Date:**

*(attachment: photos and maps of the area, any other relevant data)*

## ANNEX 2. SOCIAL SCREENING FORMS

SCF-PIU will undertake social screening of all site-specific activities by using this form to identify potential social safeguard issues and adopt and implement impact mitigation measures.

**Once site-specific project components are defined and the necessary information becomes available, a specific Action Plan will be prepared where needed to mitigate the livelihood impacts of planned project activities.** In cases where the preliminary assessment indicates that there is the potential for involuntary land taking and resettlement, appropriate preparation will be done for further surveys, studies and consultations with key stakeholders.

- **Sub-Project Description:**
  - Give a brief introduction to the sub-project and its components, their objectives and benefits.
  - Details about existing conditions of the facilities and proposed civil works with scope
  - Available design maps earmarking site and proposed activities in order to explain work.
  - Whether this is purely rehabilitation of existing facilities or will involve any new works.
  - Will this sub-project involve any ancillary impact/ activity away from the work site?
  - Timeline for completion
- **Social Screening format**

Issues	Answer			If yes, actions and documents to be prepared.
	Yes	No	Remarks	
<b>1. Involuntary Resettlement and land acquisition</b>				
Does the subproject require land acquisition for development (public or private, temporary or permanent)?				In accordance with the ESS5. PAPs are entitled to get compensation per RPF/RAP/ARAP to be prepared for the project.
Does the subproject cause private house demolition (including operating and non-operating ones) due to development?				
Does the subproject result in involuntary resettlement of individuals or families?				
Does the subproject result in temporary or permanent loss of crops, fruit trees and facilities?				
<b>2. Employees</b>				
Does the subproject cause unemployment?				Reemployment plan
Does the subproject result in employee transfer?				Job transfer training
Whether the subproject causes the decrease of employee's income				Job trainings
<b>3. Restrictions</b>				
Are people prohibited from using their daily economic resources (such as fishing sites, economic forests, planting land) as a result of project activities?				

Are people restricted of access to natural resources in and outside the proposed protected areas as a result of project activities?				The Plan of Action is to be prepared with mitigation measures based PF-RPF that is prepared for this project
All eligible households affected by access restrictions will be covered by the				Livelihood restoration and development activities
Are there short- or long-term grazing restrictions on SFF lands where tree planting or other landscape restoration is to take place?				The mitigation measures shall follow the objective and requirements stated in ESS5 and ESS6 including livelihood restoration and sustainable management of living resources.
Are community members facing access restriction? will be supported to mobilize themselves in order to identify viable livelihoods activities in a participatory manner. The approach will help to ensure there is equity in the process and that all affected users including vulnerable groups have the opportunity to become involved in and benefit from assistance provided by the Project. Once eligible people for assistance support due to land and resources use limitations are identified in a participatory process, activities will continue as follows:				Livelihood restoration and development activities
Are there non-local community members accessing the areas for illegal purposes such as logging and/or wildlife hunting?				These types of groups are not eligible for project benefits. However, where such users can be identified, the Plan of Action should include mitigation of illegal activities, as outlined in Table 3.1. PF-RPF prepared for this project
Are there households headed by single women with dependents and other vulnerable households?				Livelihood restoration and development activities, including additional cash allowances, extra support in restoring livelihoods and training

• **Estimates of Specific Impacts**

Components of the Sub Project	Private and required In Sq. m.	No of Landowners losing more than 10% of Land area	Governmental and required in Sq. m.	Forestland required in Sq. m.	No of houses affected	No of shops affected	No of other structures affected	No of squatters affected	Public utilities affected

**F. Information on Project affected Persons (PAPs)**

Any estimate of the likely number of affected households that will be affected by the sub project?

No.  Yes. If yes, approximately how many? .....

No. of PAPs losing <10% of their productive assets (land/cowshed/shops) .....

No. of PAPs losing 10% or more of their productive assets?.....

Are any vulnerable households affected?  No.  Yes. If yes, please briefly describe their situation with estimate numbers of PAPs?

What are the needs and priorities for social and economic betterment of vulnerable people who are affected by this project?

.....

**Approved by:**  
Social Safeguards Specialist, PIU

Date:

.....

**Approved by:**  
Project Director, PIU

Date

### ANNEX 3. INDICATIVE OUTLINE OF SUB-PROJECT ESIA/ PARTIAL ESIA

ESIAs and/or ESMPs will be prepared for specific activities depending on the environmental and social screening results and recommendations. For example, before the start of any civil works, ESIA/ESMP will be conducted in a consultative manner that will identify risks, impacts and mitigation measures. Such ESIA/ESMP will be implemented during the course of the activity, and progress/compliance will be reported in periodic progress reports of the project to the World Bank.

#### (a) Executive Summary

- Concisely discusses significant findings and recommended actions.

#### (b) Legal and Institutional Framework

- Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 2655
- Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.
- Identifies and assesses the environmental and social requirements of any co-financiers.

#### (c) Project Description

- Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.
- Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.
- Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

#### (d) Baseline Data

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.
- Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.
- Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.
- Takes into account current and proposed development activities within the project area but not directly connected to the project.

#### (e) Environmental and Social Risks and Impacts

- Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2–8, and any

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<sup>55</sup> ESS1, paragraph 26, states that the environmental and social assessment takes into account in an appropriate manner all issues relevant to the project, including: (a) the country's applicable policy framework, national laws and regulations, and institutional capabilities (including implementation) relating to environment and social issues; variations in country conditions and project context; country environmental or social studies; national environmental or social action plans; and obligations of the country directly applicable to the project under relevant international treaties and agreements; (b) applicable requirements under the ESSs; and (c) the EHSs, and other relevant GIIP.

other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

(f) Mitigation Measures

- Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts.
- Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.
- Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the proposed mitigation measures.
- Specifies issues that do not require further attention, providing the basis for this determination.

(g) Analysis of Alternatives

- Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the “without project” situation—in terms of their potential environmental and social impacts.
- Assesses the alternatives’ feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the alternative mitigation measures.
- For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

(h) Design Measures

- Sets out the basis for selecting the particular project design proposed and specifies the applicable EHSs or if the ESHs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(i) Key Measures and Actions for the Environmental and Social Commitment Plan (ESCP)

- Summarizes key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).

(j) Appendices

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment.
- References—setting out the written materials both published and unpublished, that have been used.
- Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties.

The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.

- Tables presenting the relevant data referred to or summarized in the main text.
- List of associated reports or plans

#### ANNEX 4. INDICATIVE OUTLINE OF ESMP

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures. The Borrower will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements. Depending on the project, an ESMP may be prepared as a stand-alone document or the content may be incorporated directly into the ESCP. The content of the ESMP will include the following:

**(a) *Mitigation.*** The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels.

The plan will include compensatory measures, if applicable. Specifically, the ESMP:

- (i) identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);
- (ii) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;

This may be particularly relevant where the Borrower is engaging contractors, and the ESMP sets out the requirements to be followed by contractors. In this case the ESMP should be incorporated as part of the contract between the Borrower and the contractor, together with appropriate monitoring and enforcement provisions.

- (iii) estimates any potential environmental and social impacts of these measures; and
- (iv) takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

**(b) *Monitoring.*** The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP.

Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

**(c) *Capacity Development and Training***

- To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.
- Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).
- To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

**(d) *Implementation Schedule and Cost Estimates.*** For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

**(e) *Integration of ESMP with Project.*** The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

(v) A list of associated reports such as resettlement plans or social assessments that were prepared for the project.

## ANNEX 5. ESMP CHECKLIST (FOR SMALL SCALE CONSTRUCTION AND RECONSTRUCTION ACTIVITIES)

### PART 1: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (Name and contacts)	WB (Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location	Attachment 1: Site Map [ ]Y [ ]N			
Who owns the land?				
Description of geographic, physical, biological, geological, hydrographic and socio-economic context				
Locations and distance for material sourcing, especially aggregates, water, stones?				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where the public consultation process took place				
INSTITUTIONAL CAPACITYBUILDING				
Will there be any capacity building? [ ] N or [ ] Y if Yes, Attachment 2 includes the capacity building program				

### PART 2: SAFEGUARDS INFORMATION

ENVIRONMENTAL /SOCIAL SCREENING			
	Activity	Status	Triggered Actions
Will the site activity include/involve any of the following??	A. Building rehabilitation	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	B. Minor new construction	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section A below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section B below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section C below
	E. Acquisition of land <sup>56</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section D below
	F. Hazardous or toxic materials <sup>57</sup>	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section E below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section F below
	H. Handling / management of medical waste	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section G below
	I. Traffic and Pedestrian Safety	<input type="checkbox"/> Yes <input type="checkbox"/> No	See Section H below

<sup>56</sup> Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

<sup>57</sup> Toxic / hazardous material includes but is not limited to asbestos, toxic paints, noxious solvents, removal of lead paint, etc.

### PART 3: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
0. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> <li>(a) The local construction and environment inspectorates and communities have been notified of upcoming activities</li> <li>(b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)</li> <li>(c) All legally required permits have been acquired for construction and/or rehabilitation</li> <li>(d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.</li> <li>(e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)</li> <li>(f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.</li> </ul>
A. General Rehabilitation and /or Construction Activities	Air Quality	<ul style="list-style-type: none"> <li>(a) During interior demolition debris-chutes shall be used above the first floor</li> <li>(b) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust</li> <li>(c) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site</li> <li>(d) The surrounding environment (side walks, roads) shall be kept free of debris to minimize dust</li> <li>(e) There will be no open burning of construction / waste material at the site</li> <li>(f) There will be no excessive idling of construction vehicles at sites</li> </ul>
	Noise	<ul style="list-style-type: none"> <li>(a) Construction noise will be limited to restricted times agreed to in the permit</li> <li>(b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible</li> </ul>
	Water Quality	<ul style="list-style-type: none"> <li>(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.</li> </ul>
	Waste management	<ul style="list-style-type: none"> <li>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</li> <li>(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</li> <li>(c) Construction waste will be collected and disposed properly by licensed collectors</li> <li>(d) The records of waste disposal will be maintained as proof for proper management as designed.</li> <li>(e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</li> </ul>
B. Individual wastewater treatment system	Water Quality	<ul style="list-style-type: none"> <li>(a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities</li> </ul>

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<ul style="list-style-type: none"> <li>(b) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment</li> <li>(c) Monitoring of new wastewater systems (before/after) will be carried out</li> <li>(d) Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.</li> </ul>
C. Historic building(s)	Cultural Heritage	<ul style="list-style-type: none"> <li>(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notification shall be made and approvals/permits be obtained from local authorities and all construction activities planned and carried out in line with local and national legislation.</li> <li>(b) It shall be ensured that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted and registered, responsible officials contacted, and works activities delayed or modified to account for such finds.</li> </ul>
D. Land Acquisition	Land Acquisition Plan/Framework	<ul style="list-style-type: none"> <li>(a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the Bank’s Task Team Leader shall be immediately consulted.</li> <li>(b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented</li> </ul>
E. Social Risk Management	Public relationship management	<ul style="list-style-type: none"> <li>(a) Assign local liaison person who is in charge of communication with and receiving requests / complaints from local population.</li> <li>(b) Consult local communities to identify and proactively manage potential conflicts between an external workforce and local people.</li> <li>(c) Raise local community awareness about sexually transmitted disease risks associated with the presence of an external workforce and include local communities in awareness activities.</li> <li>(d) Scheduled works beyond irrigation season to the extent possible in order to avoid/minimize service disruption. Inform local population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate.</li> <li>(e) Limit construction activities at night. When necessary, carefully schedule night work and inform affected community beforehand.</li> <li>(f) Properly mark and fence work site</li> <li>(g) No temporary storage of construction materials and waste occurs within cultivated land plots or any type of private property</li> <li>(h) Allocate areas for temporary storage of construction materials and waste so that free movement of traffic and pedestrians is not hindered</li> </ul>
	Labor management	<ul style="list-style-type: none"> <li>(a) To the extent possible, do not locate work camps in close proximity to local communities.</li> <li>(b) Locate and operate workers’ camps in consultation with neighboring communities.</li> <li>(c) Recruit unskilled or semi-skilled workers from local communities to the extent possible. Where and when feasible, worker skills training, should be provided to enhance participation of local people.</li> </ul>

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<p>(d) Provide adequate lavatory facilities (toilets and washing areas) in the work site with adequate supplies of hot and cold running water, soap, and hand drying devices. Establish a temporary septic tank system for any residential labor camp without causing pollution of nearby watercourses.</p> <p>(e) Raise awareness of workers on overall relationship management with local population, establish the code of conduct in line with international practice and strictly enforce them, including the dismissal of workers and financial penalties of adequate scale.</p>
<b>F. Toxic Materials</b>	Asbestos management	<p>(a) If asbestos is located on the project site, it shall be marked clearly as hazardous material</p> <p>(b) When possible the asbestos will be appropriately contained and sealed to minimize exposure</p> <p>(c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust</p> <p>(d) Asbestos will be handled and disposed by skilled &amp; experienced professionals</p> <p>(e) If asbestos material is to be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site.</p> <p>(f) The removed asbestos will not be reused</p>
	Toxic / hazardous waste management	<p>(a) Temporary storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information</p> <p>(b) The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching</p> <p>(c) The wastes shall be transported by specially licensed carriers and disposed in a licensed facility.</p> <p>(d) Paints with toxic ingredients or solvents or lead-based paints will not be used</p>
<b>G. Affected forests, wetlands and/or protected areas</b>	Protection	<p>(a) All recognized natural habitats, wetlands and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. Other prohibited activities by construction workers and other project personnel include fishing, wild meat purchase, wildlife capture, plant collection, vegetation burning, off-road driving, speeding, free-roaming pets, and outdoor loud music.</p> <p>(b) A survey and an inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided</p> <p>(c) Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control features to include but not limited to hay bales and silt fences</p> <p>(d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.</p>
<b>H. Disposal of medical waste</b>	Infrastructure for medical waste management	<p>(a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to:</p>

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<ul style="list-style-type: none"> <li>▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and</li> <li>▪ Appropriate storage facilities for medical waste are in place; and</li> <li>▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational</li> </ul>
I. Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	<p>(b) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to</p> <ul style="list-style-type: none"> <li>▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards</li> <li>▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.</li> <li>▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement</li> <li>▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.</li> <li>▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.</li> </ul>

**PART 4: MONITORING PLAN**

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<b>Phase</b>	<b>What</b> (Is the parameter to be monitored?)	<b>Where</b> (Is the parameter to be monitored?)	<b>How</b> (Is the parameter to be monitored?)	<b>When</b> (Define the frequency / or continuous?)	<b>Why</b> (Is the parameter being monitored?)	<b>Cost</b> (if not included in project budget)	<b>Who</b> (Is responsible for monitoring?)
During activity <b>preparation</b>							
During activity <b>implementation</b>							
During activity <b>supervision</b>							

## ANNEX 6. PEST MANAGEMENT PLAN

**Pest Management Plan (PMP).** A PMP should be prepared in all cases of significant direct purchasing and usage of pesticides or if significant pest management issues are anticipated in individual subprojects that are to be financed under the project components (e.g. mostly expected from agroforestry plots and nurseries). The content of the PMP should apply to all the activities and individuals working in the project. It should be emphasized also that non-chemical control efforts will be used to the maximum extent possible before pesticides are used. The PMP should be a framework through which pest management is defined and accomplished. The Plan should identify elements of the program to include health and environmental safety, pest identification, and pest management, as well as pesticide storage, transportation, use and disposal. The PMP is to be used as a tool to reduce reliance on pesticides, to enhance environmental protection, and to maximize the use of integrated pest management techniques.

The PMP shall typically contain pest management requirements, outlines the resources necessary for surveillance and control, and describes the administrative, safety and environmental requirements. The Plan should provide guidance for operating and maintaining an effective pest management program/activities. Pests considered in the Plan may be weeds and other unwanted vegetation, crawling insects and other invertebrate pests. Without control, these pests provoke plants' deceases. Adherence to the Plan will ensure effective, economical and environmentally acceptable pest management and will maintain compliance with pertinent laws and regulations.

**Reviewing and approving PMP.** As handling and usage of pesticides and other chemicals might cause harm to the environment and to the farmers' health, in the case of such types of subprojects the beneficiaries have to prepare a PMP that is attached to the subproject proposal, including the following information: (a) types of pesticides and fertilizers and its amount; (b) storage conditions; (c) ways of field usage; (d) measures to be undertaken to control possible hazard scenarios; and (e) responsible person.

The subproject proposal along with the PMP will be reviewed and complemented where necessary by the SCF PIU Environment Specialist who will provide approval. The knowledge on the condition of a natural habitat and inhabiting animal species around the plot (incl. natural enemies of pests- birds, snakes, mammals) should be considered in the PMP based on the findings of the environmental screening, and mitigation measures undertaken to avoid damage or potential lethal outcome for inhabiting animals. PMP should indicate safe way of usage of pesticides (including weather and wind conditions) that do not lead to adverse effects on the surrounding habitat. Principle of co-existence should prevail where possible. These documents are also subject to World Bank prior review for the first two such types of subprojects from each pest user. Based on experience of the SCF, there is an internal manual of the pest management requirements (Manual of control the major pests and diseases of forest tree shrubs. SCF. 2020), and it is anticipated that the use of pesticides and pest management in terms of individual cases would not be significant and could be addressed through training, extension and technical support to improve farmer/users awareness on the safe application, storage and disposal of pesticides and the pest management through extension, training and demonstration in PMP approaches. A PMP can integrate the following elements for successful on-site pest management programme:

1. Correct identification of insect pests;
2. Life history and behaviour of the pest;
3. Natural enemies and weather factors affecting pest population;
4. Pest surveillance will provide above data;
5. Pest forecasting and predicting pest outbreak;
6. Finding out Economic Threshold Level for each pest in a crop;
7. Need and timing of control measure – Decision;
8. Selection of suitable methods of control;
9. Analysis of cost/benefit and benefit/risk of each control measure;
10. Farmer's awareness and participation;
11. Government support;
12. Consumer awareness on use of pesticides free products.

## ANNEX 7. LIST OF ACTIVITIES SUBJECT TO NATIONAL ENVIRONMENTAL ASSESSMENT

Provided for reference. The types of activities not included in this list are subject to state environmental expertise, which determines which category this type of activity belongs to, on the basis of materials submitted by the expert council under the State Committee for Ecology, or as a result of a field study. (Excerpt from Annex 1 to the Resolution of the Cabinet of Ministers 541 dated September,7, 2020).

### Activities related to Category III (low risk) environmental impact (\*\*\*)

1. Highways and bridges of district and city significance (except for the city of Tashkent).
2. Motor vehicle pools.
3. Gas stations and liquid gas filling stations.
4. Oil and petroleum products storage bases of Category III by capacity.
5. Biogas plants, enterprises using biotechnologies (including those to process cocoons).
6. Facilities for the extraction of underground water, as well as the drilling of water intake wells of great importance in the Republic of Karakalpakstan, the provinces and the city of Tashkent.
7. Important water pipelines in the Republic of Karakalpakstan, provinces, the city of Tashkent and districts.
8. Power transmission lines of district and city significance (except for the city of Tashkent).
9. Gas pipelines of district and city significance (except for the city of Tashkent).
10. Hydroelectric power plants with a capacity of 30 MW or lower.
11. Enterprises for processing non-metallic minerals (except for mineral deposits).
12. Livestock farms.
13. Railways of departmental significance.
14. Fur farms (mink, andatra, chinchilla, etc.).
15. Sewage treatment plants with a daily treatment volume of less than 50 thousand cubic meters.
16. Enterprise for the production of carpets.
17. Enterprises for the production and bottling of soft drinks.
18. Enterprises for the production of raw bricks, cinder blocks, pavement tiles and foam slabs.
19. Enterprises for the processing of leather (other than tanning and dyeing).
20. Main canals with a capacity of less than 50 cubic meters of water per second and collectors with a design capacity of less than 20 cubic meters per second.
21. Plants for cattle slaughtering and processing of meat products (including poultry farms).
22. Enterprises for the production of furniture (including workshops).
23. Plants for the production of flour.
24. Warehouses of petroleum products of enterprises and organizations.
25. Landfills for household waste for settlements with a population of less than 100 thousand people.
26. Enterprises for wool processing (including workshops).
27. Plants for processing and (or) incineration of waste of hazard category IV and V.
28. Enterprises for cotton fiber processing.
29. Enterprises for milk processing (including workshops).
30. Enterprises for chemical varnishing of fabrics and paper with an annual production of less than 300 tons.
31. Enterprises for the production of finishing materials used in construction, as well as for the production of lime, gypsum, putty and chalk (excluding the production of ceramic tiles and sanitary ware).
32. Enterprises for the production of rubber products.
33. Enterprises for the production of footwear.
34. Animal feed mills.
35. Enterprises producing solid and liquid soap (including workshops).
36. Enterprises producing napkins, toilet paper, diapers and hygiene products (including workshops).
37. Enterprises producing polymer products and synthetic materials, including detergents and cleaning products (including workshops).
38. Enterprises producing glass products that do not contain toxic substances (including workshops).
39. Porcelain producing enterprises (including workshops).
40. Spinning and weaving factories without dyeing and whitewashing workshops.

41. Enterprises (including workshops) on the packaging of ready-made medicines, as well as food (tea, salt, sugar, etc.).
42. Enterprises producing coal and coal briquettes and warehouses for their storage.
43. Works on reconstruction of irrigated land and improvement of land reclamation.
44. Enterprises to repair and assemble engines and machines, as well as their painting (except for businesses with metal casting and smelting equipment).
45. Fish spawning ponds with an area of more than 30 hectares, as well as a fish processing complex.
46. Markets and shopping malls with more than 150 retail outlets.
47. Enterprises for the assembly and repair of electrical equipment and devices (including workshops).
48. Reservoirs for the collection of flood waters.
49. Works on the reclamation of warehouses of toxic chemicals, including fertilizers, and toxic waste landfills of district significance.
50. Special facilities of law enforcement agencies.
51. Printing houses.
52. Thermal, as well as photovoltaic, wind power plants and incinerators with a capacity of less than 100 MW.
53. Tram and trolleybus fleets.
54. Chlorination plants.
55. Enterprises of dry cleaning and laundries (including workshops).
56. Refrigeration units with a capacity of more than 50 tons.
57. Workshops for the production of calcium carbide.
58. Central laboratories to study products using chemicals.
59. Hunting and fishing farms.
60. Activities for the adaptation of animals to the new climate and hybridization.
61. Enterprises for the production of inert gases (including workshops).

**Activities related to Category IV (local impact) environmental impact (\*\*\*\*)**

1. Points of car service and car washing areas.
2. Cotton spinning workshops.
3. Hunting and fishing farms.
4. Carpet weaving workshops.
5. Flour mills.
6. Workshops for stone processing.
7. Recreational and housing and civil objects.
8. Enterprises for processing and preserving agricultural products (including workshops).
9. Sites for collection of solid household waste.
10. Greenhouses with a heating system (fueled by natural gas, coal and other fuels) (except homesteads).
11. Livestock breeding, horse breeding, sheep breeding, pig breeding and rabbit breeding.
12. Workshops for the assembly and repair of furniture.
13. Warehouses with refrigeration units with a capacity of less than 50 tons, as well as workshops for filling substances that deplete the ozone layer and generate greenhouse gases.
14. Works on laying fiber-optic and other cables, installation of sail antennas for mobile communications.
15. Markets and shopping centers with less than 50 retail outlets.

Note.

1. Classification of projects of international financial organizations according to categories A, B and C (\* - category A, \*\* - category B, \*\*\* - category C, \*\*\*\* - category C+).
2. The types of activities not included in this list are subject to state environmental expertise, which determines which category this type of activity belongs to, on the basis of materials submitted by the expert council under the State Committee for Ecology, or as a result of a field study.
3. If the materials submitted by one customer for the state environmental impact assessment are complex and consist of several objects of different categories of environmental impact and are located at one industrial site, their impact on the environment shall be determined as the highest category.

## ANNEX 8. NOTE ON COVID-19 GUIDANCE

### Preface

In March 2020, the COVID-19 pandemic reached in Uzbekistan, which led to events of lockdown, spikes in infection cases and quarantine measures. As in other countries, the measures taken by the Government are aimed at increasing the level of quarantine measures in the country. In order to reduce the risk of virus transmission, the PIU within the framework of the Enhancing Economic Opportunities for Rural Women of Uzbekistan Project, a grant from the Japan Social Development Fund for the implementation of project activities related to the organization and conduct of events in the COVID-19 pandemic, developed a guide based both on materials issued by the country's authorities<sup>58</sup> and on recommendations reflecting global best practices.

This guide provides recommendations on practical ways to prevent the spread of COVID-19 through measures that contribute to (1) reducing the spread of the virus with physical interactions that cannot be avoided, and (2) minimizing physical interaction between MMFA personnel, between PIU personnel and beneficiaries, and/or between personnel and the general public.

Also, within the framework of the project, MMFA and the PIU will monitor the COVID-19 situation and make changes to project activities to adapt them to existing circumstances. Most of the project can be implemented online and remotely in compliance with the sanitary and hygienic standards approved by the GoU, as well as according to the procedures of the World Bank.

### Main Instructions

- First follow the recommendations of the rules officially issued by the GoU. We also request that the situation be assessed on the basis of recommendations from other competent national government bodies, the World Bank, the World Health Organization (WHO), embassies, national health organizations, and partner organizations.
- Avoid travel during spikes of COVID-19 cases and/or in situations of lockdown and comply with national restrictions, if any.
- Use remote working methods and online communication where possible.
- Information about the pandemic in Uzbekistan is published on the website of the Ministry of Health: <https://coronavirus.uz/uz>, as well as on the Telegram channel <https://t.me/ssvuz>.

### Measures Required

As part of the project, when interactions with others are unavoidable, it is necessary to take the following measures:

- When welcoming people, do not shake hands, find other ways to say hello.
- Don't touch your face.
- Cough/sneeze into your own elbow.
- Use disposable wipes and do not leave used wipes around, dispose of them immediately.
- Always keep a distance of at least two meters between you and someone else. The best way to prevent the spread of the virus is to minimize interactions.
- When organizing meetings and events that will take place in -person, groups should consist of 10 to 30 people.

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<sup>58</sup>Temporary sanitary rules and norms for organizing the activities of state bodies and other organizations, as well as business entities in the context of restrictive measures in connection with the COVID-19 pandemic (new edition), SanPin No. 0372-20.

### COVID-19 Screening Checklist

At admission to event or start of workday, persons responsible for screening can ask the following questions. Screening should be done at the beginning and at the end of the workday.

1. Do you have fever (36.6 0C), do you feel warm, or feel chills?
  - Yes
  - No
  
2. Do you have any of the following respiratory symptoms?
  - Persistent cough (wet or dry)
  - Sore throat Runny nose
  
3. Have you, or someone in your household, had close, unprotected contact with a suspected or known COVID-19 patient (spent longer than 15 minutes within 6 feet of someone who was sick with a fever and cough)?
  - Yes—Go home immediately and self-isolate for 14 days if asymptomatic
  - No—Continue to next question
  
4. If they have subjective or documented fever OR any of the respiratory symptoms OR close contact with COVID-19 patient noted above:
  - They should be asked to go home immediately and self-isolate until they are asymptomatic for 3 days without the use of any medications, and it has been 7 days since the first day of their symptoms (whichever duration is longer)
  
5. If they say no to #1, #2 and #3, they can work but remind them to the following:
  - Wash their hands with soap and water or alcohol-based sanitizer before they start work and frequently throughout the day
  - Practice social distancing, sit and/or stand at least 6 ft from other people, do not shake hands or hug people, and do not share food or drinks
  - Sanitize their work area before they leave
  - Contact their employer and leave work immediately if they start to feel feverish or have respiratory symptoms

## ANNEX 9. MINUTES OF THE CONSULTATIONS

### Uzbekistan Resilient Landscapes Restoration Project (P174135) (UZ RESILAND)

**Venue:** State Committee on Forestry's administrative building, Tashkent Region

**Date:** September 24, 2021

**Public Consultation:** Disclosure the Environment and Social Management Framework

**Presented by:** Sobirjon Umarov, Head of Department Resist of Desertification and Drought

#### Stakeholders:

- The State Committee of Forestry (SCF),
- Zomin National Park (ZNP),
- The State Committee of Ecology and Environment Protection (SCEEP),
- The State Committee for Tourism Development (SCTD),
- Ministry of Water Resources (MWR),
- Ministry of Investment and Foreign Trade (MIFT),
- Chamber of Commerce and Industry (CCI),
- Ministry for Support of Mahalla and Family (MSMF),
- Tashkent State Agrarian University (TSAU) and others.

#### Discussed main topics on the PC:

Project description and its components; potential planning project activities, national environmental, social legislation and relevant WB ESS's requirements. Identified social and environmental risks and mitigation measures. Components of ESMF: SEP and LMP, the role of each stakeholders; labor requirements and risks associated with it, the resources necessary to address labor issues, grievance mechanism, assistance to vulnerable and rural households involved to the project.

#### After the presentation the participants raised the following questions:

#	Questions	Answers
1	SCTD: Is it possible to install turnstiles at the entrances to national parks as part of the project?	The feasibility study of the project is underway and the issue is still open. We are also interested in installing turnstiles and creating a holistic database system for visitors and monitoring of forest plantation.
2	CCI: Whether private entities will be involved in this project?	One of the main requirements of the project component is the involvement of private entities in the implementation of the project. So, private entities can build guest houses or offer other assets. Also, as part of the project we will involve the local population in business activities.
3	SCTD: The expected impact of the project on the local population.	During the initial study, no impact of the project on settlements that are not expected to be relocated was identified. Possible impact of the project on land users, such as farmers and other users. After a detailed project design and completing the Feasibility Study it will be clear exactly what the impact will be. If affected persons are identified, the bank's ES standards will necessarily be implemented.
4	MWR: Whether the project is expected to have an impact on water bodies?	Yes, of course, when creating new forest plantations, which are 30 thousand hectares of industrial forests, 70 thousand hectares of forests, total is 100 thousand ha, we will ask your ministry to provide all possible assistance in the irrigation of seedlings. We are also considering the option of water accumulation in the mountainous areas; such a technique is used in world practice.

**Photos:**



List of attended stakeholders:

**List of attended stakeholders:**



**UZBEKISTAN RESILIENT LANDSCAPES RESTORATION PROJECT  
ЎЗБЕКИСТОН ЛАНДШАФТЛАРИНИ БАҚҚАРОР ТИКЛАШ ЛОЙИХАСИ**

**ИШТИРОКЧИЛАР РЎЙХАТИ/  
LIST OF PARTICIPANTS**

Жой/Place SCF meeting hall

Сана/Data 24/09/21

№	Ф.И.Ш/ Name, Surname	Иш лавозими/ Position held	Телефон/ Telephone	Имзо/ Signature
1.	Заҳрадуллоев Абдуваҳид	Урмон хўжалиги давлат қўмитаси бошқаруви раиси ўринбосари	9 7 2 9	
2.	Ҳасанов Собиржан	Урмон хўжалиги давлат қўмитаси бошқаруви раиси ўринбосари		
3.	Мираҳмедов Миромал	Маҳалла вақирини раҳбариси		
4.	Кенжетайев Шаймурод	Савдо-саноат палатаси раиси	30	
5.	Орипов Сейитжан	Савдо хўжалиги вақирини раиси		
6.	Абдураҳманов Марғабдин	Савдо-саноат палатаси раиси		
7.	Қаримов Марат	"Урмон хўжалиги давлат қўмитаси"нинг ўқитувчиси		
8.	Тулатова Н.	Урмон хўжалиги давлат қўмитаси раиси ўринбосари		
9.	Абдураҳимов М.	2		
10.	Мирзинова Маърифа	WB консалтинг, мутахассис		
11.	Ҳасанов Шаймурод			



12.	Қамралиев Акбар	социолог		
13.	Матиров Фарида	дашт муҳофазат қўмитаси раиси ўринбосари		
14.	Алимулова Умира	Урмон хўжалиги давлат қўмитаси бошқаруви раиси ўринбосари		
15.	Заҳрадуллоев Абдуваҳид	Урмон хўжалиги давлат қўмитаси раиси ўринбосари		
16.	Муҳаммадов Шаймурод	Туризм ва спорт қўмитаси раиси ўринбосари		
17.	Эришев Ахмед	Бишкек хўжалиги давлат қўмитаси раиси ўринбосари		
18.	Шаматов Саидмурод	Урмон хўжалиги давлат қўмитаси раиси ўринбосари		
19.	Парфилов Фарид	Урмон хўжалиги давлат қўмитаси раиси ўринбосари		
20.	Раїмов Мамаибаев	WB консалтинг		
21.	Раҳимов Шаймурод	МЦБТ		
22.				
23.				
24.				
25.				
26.				

## COMMUNITY-LEVEL CONSULTATIONS:

**Public Consultation:** Disclosure of the project’s aim and components and Environment and Social Risks; gathering community level views

**Presented by:** Abduvokhid Zakhadullaev, Head of the International Relations Department, SCF

**Date:** November 2, 2021

**Location:** Zarafshan National Park

### **Participating stakeholders:**

1. The Deputy Director of the Zarafshan National Park- Radjabov Bakhtiyar
2. Head of the Tourism at the Zarafshan National Park – Khamrakulov Olimjon
3. District Hokimiyat, Investment Department – Jabborov Uchkun
4. District Hokimiyat, Investment Department – Saidov Firdavs
5. District Hokimiyat, Tourism and Sport Department – Kamolov Aslamjon
6. Samarkand forestry enterprise (leshoz) – Khurramov Oybek
7. Samarkand forestry enterprise (leshoz) – Jamalov Ziyodulla
8. Mahallya Citizens Assembly from communities surrounding the park
  - a) “Zarafshon MCA” (2 neighboring villages) – Tursunov Kodirjon
  - b) “Olmazor MCA” (2 neighboring villages) – Igamberdiev Otabek
  - c) “Nayman MCA” (5 neighboring villages) – Azimov Iskander

Mr. Abduvokhid Zakhadullaev presented the objectives of the project and planned physical and capacity investments in the Zarafshan National Park area. He stressed that investments would need to be paid back by the management of the ZNP. ZNP Deputy Director and meeting participants reviewed the national park map and discussed on the need to improve the zoning of the areas. Stakeholders noted that human pressure on the areas surrounding the park increased and human settlements are getting closer to the boundaries of the park year by year. It’s known that the livestock from human settlements around the park enter the park’s area for grazing (including the reserve areas), and there are cases of {illegal} woodfuel and NTFP (medicinal plants included) collection from the protected zones. This is exactly what the fencing of the zones would prevent, however it is acknowledged by the park authorities that cooperation with the surrounding residents is key to achieving the protection goal and that grazing area alternatives should be provided to the population who depend on this resource for livelihoods. The representatives of the tourism and sports department from the district hokimiyat noted that authorities count on further developing the eco-tourism potential of the area.



**Date:** November 3<sup>rd</sup>, 2021

**Location:** Zaamin National Park, District school 8

**Public Consultation:** Disclosure of the project's aim and components and Environment and Social Risks

**Presented by:** Abduvokhid Zakhadullaev, Head of the International Relations Department

**Participating stakeholders:**

1. Representatives of Duoba Village Citizens Assembly surrounding ZNP (see participants list below)

Mr. Abduvokhid Zakhadullaev presented the community with the project, its objectives and the role communities can play for the project. He stressed that the project focuses on reforestation and restoration of forested areas by heavily planting new trees.

Questions and answers from the members of the community

Where the planting will happen?	First, we will plant inside the Zaamin National Park, far from the houses, to make the young trees grow.
We need livestock grazing opportunities – this is our livelihood	Uncontrolled grazing or overgrazing (on State Forest Land) is affecting ecosystems, causing the loss of grasslands and the degradation of lands. However, we understand the livelihoods importance and the project will provide with alternatives
We want fruit trees, and jobs related to fruit collection  We noticed (as a community) that the grazing capacity has decreased by half.	Water and irrigation are main issues We need to approach it (look at it) as a system
Don't just do afforestation as a general approach. Why not have entrepreneur-based afforestation? We should also inventory all livestock and think about allocating special areas for grazing.	This is a good idea.
If we wanted to build a hotel, can we get credit for that?	Guesthouses can be considered.
My daughter's hobby is weaving- and we want to build a shop and sell handicraft to tourists.	This is a good idea.
We should open guide and language school to teach local population language skills so that they can become guides.	This is a good idea.

Photos:



List of attended stakeholders:

