**REPUBLIC OF TAJIKISTAN**

**TAJIKISTAN RESILIENT LANDSCAPE RESTORATION PROJECT**

**DRAFT**

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

**July 2021**

ABBREVIATIONS AND GLOSSARY

|  |  |  |
| --- | --- | --- |
| ALRI |  | Agency for Land Reclamation and Irrigation |
| CC |  | Civil Code |
| CEP |  | Committee of Environmental Protection |
| DCM |  | Decree of the Cabinet of Ministries |
| DDR |  | Diligence Report |
| DMS |  | Detailed Measurement Survey |
| DSEI |  | Draft Statement of the Environmental Impact |
| EHS |  | Environment, Health and Safety General Guidelines |
| EHSG |  | World Bank Group Environmental Health and Safety Guidelines |
| EIA |  | Environmental Impact Assessment |
| ES |  | Environmental Specialist |
| ESA |  | Environmental and Social Assessment |
| ESIA |  | Environmental and Social Impact Assessment |
| ESF |  | World Bank Environmental and Social Framework |
| ESMF |  | Environmental and Social Management Framework |
| ESMP |  | Environmental and Social Management Plan |
| ESS |  | World Bank Environmental and Social Standard |
| FS |  | Feasibility Study |
| GoT |  | Government of Tajikistan |
| GRM |  | Grievance Redress Mechanism |
| H&S |  | Health and Safety |
| HH |  | Household |
| IFIs |  | International Financial Institutions |
| IP |  | Indigenous People |
| IR |  | Involuntary Resettlement |
| LAR |  | Land Acquisition and Resettlement |
| LC |  | Land Code |
| LMP |  | Labor Management Procedures |
| MoA  MINT |  | Ministry of Agriculture  Ministry of Industry and New Technologies |
| MHSPP |  | Ministry of Health and Social Protection of Population |
| NGO |  | Non-governmental organization |
| OHS |  | Occupational and Health and Safety |
| OP |  | Operational Policy |
| PAP |  | Project Affected Persons |
| PCB |  | Polychlorinated Biphenyl |
| PCR |  | Physical Cultural Resources |
| PIU |  | Project Implementation Unit |
| PMP |  | Pest Management Plan |
| POM |  | Project Operational Manual |
| PPE |  | Personal Protective Equipment |
| RAP |  | Resettlement Action Plan |
| RPF |  | Resettlement Policy Framework |
| RT |  | Republic of Tajikistan |
| Regional |  | Regional Working Groups |
| SEE |  | State Environmental Expertise |
| SEI |  | Statement of the Environmental Impact |
| SEP |  | Stakeholder Engagement Plan |
| SIA |  | Social Impact Assessment |
| SS |  | Social Specialist |
| TOR |  | Terms of Reference |
| USD |  | United State Dollar |
| TJS |  | Tajik Somoni |
| WB |  | World Bank |
| WBG |  | World Bank Group |

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* **Executive Summary**

This Environmental and Social Management Framework (ESMF) is prepared for the Tajikistan Resilient Landscape Restoration Project. The World Bank-funded Project is implemented by the Committee of Environmental Protection (CEP) and the Agency for Land Reclamation and Irrigation (ALRI) of the Republic of Tajikistan. The purpose of the ESMF is to outline expected environmental and social risks and impacts of the project and to provide a system for monitoring and managing such impacts during project implementation. Additionally, this framework describes institutional roles and responsibilities for managing environmental and social risks 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.** Land degradation and unsustainable use of natural resources pose considerable constraints for rural development. In mountainous areas, the conversion of steep slopes to cereal production has contributed further to land degradation, which, in turn, affects forests and rainfed agriculture. Climate change will likely exacerbate the intensity and spread of land degradation in the country. Another significant but understudied risk relates to air pollution (and resultant health risks). Rural poverty remains concentrated in communities dependent on natural resources – particularly on land, forest, pasture, water resources and agriculture. At least 10% of Tajikistan’s population is living on degraded lands while soil erosion affects about 70 percent of arable land. In the agriculture sector, wasteful irrigation and/or inadequate drainage, amplify challenges of soil degradation and stagnating yields. Pasture stocks are also rapidly deteriorating, especially in the Khatlon and RRS regions, where pasture makes up 80 percent of the agricultural land. Pasture degradation, partly due to overgrazing, remains a serious threat.

Tajikistan’s limited forest cover (about 3%) is diminishing rapidly due to overexploitation and uncontrolled grazing. For 70 percent of the population, fuelwood is the primary energy source due to an inconsistent energy supply. Additional constraints in the sector include open access to resources, inefficient heating and cooking devices, and lack of land tenure security and forest ownership awareness.

Currently, about 22% of Tajikistan is demarcated as protected areas and recreational zones, with limited use of natural resources or full prohibition of land with valuable ecosystems. Due to inadequate financing and technical capacity, protected areas lack management plans, proper boundary mapping, and measures to prevent or reduce degradation, and opportunities for co-management with stakeholders.

The Project aims to strengthen national and regional integrated landscape management. At the national level, the project aims to increase adoption of sustainable land management, and access to improved livelihood opportunities for rural communities in selected areas. Regionally, the project aims to strengthen collaboration with neighboring countries in key aspects of landscape management. To achieve these objectives, the project will adopt an integrated landscape management approach at the basin scale (at national and more broadly at regional scales), build capacities of agencies, local authorities, farmers and communities and develop an investment framework for landscape restoration.

**Project location**. Project areas/districts have been selected based on a combination of criteria. An initial pre-screening of districts has been conducted using the following criteria - poverty incidence, potential for integrated landscape restoration (incorporating pasture, agriculture, water, forestry, biodiversity), regional and transboundary corridors, and complementarity with government and donor-funded initiatives potential project sites fall in the following river basins: a) Syr Darya including the Zarafshon sub-basin covering seven districts – Asht, B. Gafurov, Shahriston, Istarafshon, Ayni, Panjekent, K. Mastchoh Ayni, Panjekent, and K. Mastchoh (in Sughd oblast, bordering Uzbekistan and the Kyrgyz Republic); b) greater Panj covering four districts – Vanj, Rushon, Shughnon, and Murghab (in Gorno Badakhshan Autonomous oblast, bordering the Kyrgyz Republic and Afghanistan); and c) Lower Kofarnihon covering three districts – Shahrituz , Nosir Khosrov, Qubodiyon (in Khatlon oblast, bordering Uzbekistan and Afghanistan).

**Project potential environmental and social risks and impacts**. Overall, the project will provide a series of positive social and environmental impacts. It would support technical assistance and capacity building activities on improving quality of seeds, all of which would reduce environmental and health risks in agricultural production in the country, while at the same time creating new economic opportunities.

**Environmental risks and impacts.** 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 proposed project activities could have environmental impacts associated with noise, dust, pollution of air, soil and water, solid waste management, biodiversity degradation, health and safety hazards, community health and safety risks, etc. It is expected that environmental risks will be typical for small construction works and the work on the creation of protective plantations and agroforestry demonstration sites. Environmental risks will be temporary in nature and specific areas and can be easily mitigated by applying best building and/or environmentally friendly methods and appropriate mitigation measures. It is expected that they all be typical of small-scale construction/rehabilitation work, temporary in nature and site-specific, and they can be easily mitigated by applying the best construction methods and appropriate mitigation measures.

**Social risks and impacts** related to the physical footprint of the project are predictable and manageable via measures included in the ESMF, the Resettlement Policy Framework (RPF) and Process Framework (PF) of the project. Rural communities and community-based organizations (PUUs, WUAs and FUGs) within the landscapes will be mobilized, trained, and receive grants for community-based pasture management, joint forest management, climate-smart agriculture, and small-scale ecotourism. These communities and groups will benefit from technical and financial support to implement technologies and approaches that improve their livelihoods, increase their resilience, while also contributing to the restoration of ecosystem functions. Within the landscapes’ protected areas (PA), the project will improve the management capacities, and finance PA management and recreation/ecotourism to improve the management as further means of conservation and income generation. Project outcomes are expected to support increased resilience of transboundary landscapes in Central Asia, with regional spillovers on the connectivity and integrity of natural resources across borders, resilience of key national and regional infrastructures, and resilience and livelihoods of cross-border communities. 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. The project does not envisage involuntary acquisition of lands, however may cause restrictions in access to natural resources in legally designated parks and protected areas.

The contextual issues which may impact project implementation and outcomes to be considered during project implementation include: (i) accessibility – to poor and near-poor people, specially, in rural and mountainous areas; (ii) equity challenges due to geographic, socio-economic, and inter regional disparities; (iii) fragility and conflict situation in some border areas; (iv) gender inequity – which could affect outreach to women in general and female headed households, in particular; (iv) adequate and appropriate facilities provision and service quality; and (v) regulation and governance, specially with regard to integrating forestry with other livelihood department activities. This would demand an inclusive information, education and communication (IEC) campaign and technology demonstrations and dissemination.

**Overall project environmental and social risks**. Both the environmental and social risks are assessed as Substantial, making the overall environmental and social risk rating Substantial.

**Relevance of World Bank Environmental and Social Standards (ESSs).** The Project will be implemented in accordance with the World Bank Environmental and Social Framework (ESF) including ten Environmental and Social Standards (ESS). The ten ESSs are: ESS 1) Assessment and Management of Environmental and Social Risks and Impacts; ESS 2) Labor & 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[[1]](#footnote-1). ESSs 1, 2, 3, 4, 5, 6, 8, and 10 are relevant to the project. All investments to be financed by this Project will apply national environmental laws and regulations as well as the relevant World Bank environmental and social standards.

**Environmental and Social Management Framework (ESMF)** respectively, in accordance with the ESS1, has been prepared, which specifies rules and procedures for the activities and subprojects' Environmental and Social Impact Assessment (ESIA) and for preparing adequate Environmental and Social Management Plans (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 in the course of project implementation will be correctly assessed from environmental and social perspective to meet WB's Environmental and Social Standards alongside with Tajikistan's Environmental and Social Laws and Regulations. The ESMF will guide the ESIA process and in this regard 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 conducting subprojects ESIA and/or preparing ESMP or ESMP Checklist including monitoring plans; (iii) mitigation measures for possible impacts of proposed subprojects; (iv) safety measures while bank protection and afforestation, and pasture management interventions ; (v) requirements for preventing risks and impacts related to biodiversity and ecosystem services by introducing new seed varieties[[2]](#footnote-2); (vi) implementation and monitoring arrangements for ESIA/ESMPs; (vii) overview of the capacity of CEP and ALRI for environmental and social risk management and measures to fill any gaps in capacity.

The ESMF serves also to provide details on procedures, criteria, and responsibilities for subproject environmental and social screening, preparing, implementing and monitoring of subproject site-specific ESIAs/ESMPs.

**Integration of the ESMPs into project documents.** All sub-project bidding documents shall include a requirement for implementation of the ESMP/checklist, and the documents shall be attached to the bidding documents and then to the construction contracts. The ESMF requirements will be integrated in the Project Operational Manual while the ESMPs requirements, - in construction contracts for all sub-projects, both into specifications and bills of quantities, and the Contractors will be required to include the cost for ESMP implementation in their financial bids. Based on the ESMF there will be highlighted the roles and responsibilities of all involved parties in the ESA process. Lastly, based on the ESMF and ESMPs requirements, monitoring and evaluation of mitigation/avoidance measures identified in the site-specific review and in the ESMPs will constitute integral part of the subproject implementation, including into them the contracts binding and the contractors will need to carry out the environmental and social obligations during civil works. Furthermore, all contractors will be required to use environmentally acceptable technical standards and procedures during carrying out of works. Additionally, as specified in the ESMF, the contract clauses shall include requirements towards compliance with all national construction, health protection, environmental and social risk mitigation procedures, and rules on environmental and social protection.

**World Bank Implementation Support and ESS Compliance Monitoring.** The Bank's environmental and social specialists will participate in regular implementation support mission to ensure smooth implementation of the Project activities in consistency with this ESMF. The Government of Tajikistan (GoT) is responsible for compliance and monitoring of Project activities with National Laws and Regulations, the World Bank ESF and applicable ESSs, and the World Bank Group Environmental Health and Safety Guidelines (EHSG). Regular (or when required, remote) site visits will be carried out to monitor the Project’s compliance with the ESMF; the site-specific ESIA/ESMPs prepared for Project activities; and the contractors with good construction practices and their contractor’s ESMPs. Additionally, the social specialists will be reviewing the consistency of land acquisition with the requirements of the RPF and Resettlement Action Plans (RAPs) to be prepared for project activities. The Bank task team will provide guidance in preparation and review of the following key environmental and social instruments, such as ESAI/ESMPs, RAPs, RAP Completion Reports, and quarterly progress reports.

**Grievance Redress Mechanism (GRM)**. The Project Grievance Redress Mechanism aims to enable beneficiaries and citizens to register any grievances on all project-related issues of concern. The GRM will operate at the local/district and national level. At the local level, citizens can submit their grievances through project-financed field-based focal points located in seven of 14 project districts. If the grievance has not been considered or the complainant has not received a satisfactory response, s/he may file a grievance to the CEP/IG or ALRI/PMU at the national level. 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.

**Public consultations and information disclosure.** For ESMF development, project sites were visited and a number of meetings were conducted with the main stakeholders. Comments received during public consultations have been reflected in the ESMF. The Stakeholder Engagement Plan (SEP) is an instrument intended to serve as a practical guidance to support public consultation and engagement activities carried out by the CEP and ALRI in relation to the Project development and implementation. The SEP aims to ensure that the engagement activities are conducted effectively, fairly, and in a transparent manner, cover all relevant stakeholders, as well as employ consultation methods that promote active participation and are appropriate within the local context. It requires inform about the project and communicate the relevant environmental and social data; provide useful and clear information for people affected by the project; conduct public consultations; take into account the views expressed during the public consultations in the implementation of the project.

Public Consultation was held in \_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_ before finalizing the ESMF. Public consultation presented the project's objectives, planning activities, anticipated environmental and social impacts and proposing mitigation measures, compensation measures in the event of any impacts, and grievance redress mechanism to participants. Based on suggestions received during the consultation workshop the ESMF, other environmental and social instruments include RPF, RAP, Labor Management Procedures (LMP), and Stakeholder Engagement Plan (SEP) will be updated, finalized and published on CEP’s website and further disclosed on the external WB website.

**II. PROJECT DESCRIPTION**

The Project aims to strengthen national and regional integrated landscape management. At the national level, the project aims to increase adoption of sustainable land management, and access to improved livelihood opportunities for rural communities in selected areas. Regionally, the project aims to strengthen collaboration with neighboring countries in key aspects of landscape management. To achieve these objectives, the project will adopt an integrated landscape management approach at the basin scale (at national and more broadly at regional scales), build capacities of agencies, local authorities, farmers and communities and develop an investment framework for landscape restoration.

The project will build on the GoT’s experience and projects such as Environmental Land Management and Rural Livelihoods Project (ELMARL) and Climate Adaptation and Mitigation Programme for Aral Sea Basin (CAMP4ASB), and other Bank and donor-funded projects on agriculture, forestry, irrigation, disaster risk mitigation, rural economy and tourism development in the country.

An integrated set of green (and gray) infrastructure solutions combined with livelihood development activities will be deployed as both short-term and long-term responses. This combination will aim to enhance the resilience of local communities and ecosystem services to climate risks. In keeping with good practice in landscape management planning, the project will implement a participatory planning process to consider inputs from different stakeholder groups. This approach will allow for coordination and integration of solutions among various government agencies and local stakeholders. Using a community-driven development approach, village and community-based/resource user groups and organizations will take responsibility for the choice, design and management of smaller-scale landscape and livelihood investments. At the same time, the project will work across sectors, e.g., with the Forestry Agency (FA), the Pasture and Reclamation Trust (PRT) of the Ministry of Agriculture, Agency on Land Reclamation and Irrigation (ALRI), Ministry of Energy and Water Resources (MEWR), State Committee on Land Management and Geodesy (SCLMG) and Ministry of Finance (MoF), as well as local administration and organizations (district, sub-district) to incorporate a landscape approach for investment planning and implementation.

Project areas/districts will be selected based on a combination of criteria. An initial pre-screening of districts has been conducted using the following criteria - poverty incidence, potential for integrated landscape restoration (incorporating pasture, agriculture, water, forestry, biodiversity), regional and transboundary corridors, and complementarity with government and donor-funded initiatives. When overlaid on the current arrangements of river basins, potential project sites fall in the following river basins: a) Syr Darya including the Zarafshon sub-basin (in Sughd oblast, bordering Uzbekistan and the Kyrgyz Republic); b) greater Panj including Gorno Badakhshan Autonomous oblast, bordering the Kyrgyz Republic and Afghanistan); and c) Lower Kofarnihon (in Khatlon oblast, bordering Afghanistan) as shown the map of river basins below.

These sites include protected and forest areas that share boundaries with the above countries, along with sub-basins and watersheds that form upper catchments and include tributaries of regionally important rivers.

Map

Description automatically generated

*Figure 1: Project Areas*

**2.1. Project Components**

The project will be implemented over a period of 5 years and its activities will be grouped into the three inter-related components.

***Component 1.*** ***Strengthen Institutions and Policies, and Regional Collaboration.*** This component will finance consulting services, goods and equipment to support the strengthening of national institutional policies and legal frameworks, developing of knowledge and skills of government, communities and other stakeholders for landscape management, and improving the capacities of government partners to operate effectively. Under this component, financing will be provided for activities to support regional collaboration efforts in order to contribute to landscape restoration that benefits both Tajikistan and the wider Central Asia region with which the country shares and contributes critical resources and infrastructure.

**Sub-component 1.1. Strengthen Institutions and Policies*.* *a) Strengthening policy, legal and implementation frameworks.***The project will financeanalysis, revisions and adoption of existing policy, legal and implementation frameworks for forests, pastures, and protected areas (PAs) to help align these with national and international obligations. Areas for potential revision that would support new and innovative approaches to integrated landscape management will also be explored, e.g., for expanding the areas in which joint forest management (JFM) can be implemented. The project will support CEP and partner agencies such as the Institute for Geodesy and Mapping (FAZO - part of SCLMG) in their continuing role of environmental monitoring and reporting on environmental status, including land degradation neutrality, sustainable development goals, etc. This will include a review of Tajikistan’s stated LDN targets, which will be refined based on new information from inventories on the degradation status of the country, including submission of a revised communication document for government approval.

Landscape Restoration Strategy and Action Plan. The project will finance preparation of a national landscape restoration strategy and action plan. This activity will build on the results of the Restoration Opportunities Assessment Methodology (ROAM).[[3]](#footnote-3) Other important inputs into the strategy will include the WBG-supported climate resilience risk assessment of forestry plantations national forest program, water sector reforms and the PA program, as well as the experiences of conducting sub-basin diagnostics and catchment level community action plans. This strategy and action plan seeks to complement on-going river basin planning while still using the basin as an organizing principle and sub-basin as a unit for landscape planning and investments.

Protected Area Strategy and Action Plan. There is no overall national PA strategy and action plan to guide the development and management of the PA system. Similar in scope to the National Forest Strategy and Action Plan, the strategy will define the intentions, priorities and measures for the reform and key development of the country’s PA system for the next 15-20 years.

***b) Institutional Capacity Building****.* The project will finance a range of important and necessary capacity building activities to improve and increase knowledge and skills of staff, as well as equip central and field units with essential equipment, materials, vehicles, and investment to improve working conditions. These activities will be elaborated during preparation and reviewed regularly during implementation to ensure that they remain relevant to staff of the participating institutions. Work in curriculum development by other donors (notably GIZ) will also be incorporated where possible. The project will support: i) on- the-job training of operational and technical staff on landscape restoration, and a range of related topics through short courses, workshops, seminars, etc., on a range of topics to build capacities to engage in landscape restoration; ii) post-graduate studies for qualifying students for study in the region, or elsewhere, in key topics, e.g., landscape management, forest conservation, pasture management; and iii) curricula development for universities in the country to improve formal training.

Rehabilitation and improvement of state forest enterprise (SFE) offices, district-level Pasture Commissions and selected Special PA units. The project will finance the purchase and installation of office and field equipment, as well as vehicles to improve field operations of field and district units. For select offices, the project will finance the purchase of machinery such as tractors for field operations, as well the construction of living quarters for field staff. Initial estimates of requirements from the various government agencies have been prepared and will be elaborated during project preparation.

***c) Strengthening research and knowledge management****.* The project will support a range of analytical and data generation activities to strengthen the country’s research base and knowledge management for landscape management approaches. These activities include: i) research and analytical studies to be carried out in partnership with research and academic institutions on topics such as assessing drivers of land degradation, climate risk assessment, market development and access, PES feasibility assessment and piloting, ecological fiscal transfers; ii) knowledge management through support for platforms, such as Sustainable Land Management Tajikistan (SLMTJ), and dissemination focusing on exchange and learning and similar initiatives, and annual review meetings; and iii) study tours and exchanges within the country, with neighboring countries, and further afield to other countries, building on WBG’s presence in the region and globally, as well as other projects and initiatives.

**Sub-component 1.2. Strengthen Regional Collaboration*.*** The objective of this sub-component is to promote collaboration among Central Asia countries on transboundary landscape restoration given the critical need to address new emerging threats at the regional level, such as the impacts of climate change.This sub-component will help, *inter alia*, to manage shared resources, exploit economies of scale related to regional tourism, and facilitate collective action to address these and other common goals. It will allow countries to come together to address challenges, find regional solutions for challenges faced by multiple countries, and thus promote global public goods.

This sub-component will contribute to Regional Platform for harmonization of policies and capacity building programs related to interventions that provide regional and global public goods. It will support Tajikistan’s participation in the implementation of several key regional activities identified by the five countries in the 2020 10-year Regional Environmental Program for Sustainable Development (endorsed under the auspices of the Interstate Commission on Sustainable Development- [ICSD](about:blank)), including: (i) exchange of experience between interested government agencies, as well as local authorities and communities from the targeted districts of the Central Asia countries, (ii) development of MoUs for facilitating border-crossing for ecotourism in protected areas and unique natural sites, (iii) development of MoUs for using common modern methods of inventory of flora and fauna diversity, and ecosystem condition along transboundary corridors, (iv) development of a joint transboundary management plan for ecological corridors for migratory animals and cooperation agreements for addressing issues of protection of key species and habitats, (v) development of MoUs for using nature-based solutions for landscape restoration; (vi) development of a joint protocol of activities on protection and preservation of sites, as well as potential “Peace Parks”; and (vii) conducting regional fora, conferences, and symposiums on landscape restoration, protected area management, ecotourism, etc., In addition, the sub-component will contribute to the management of a regional level M&E system for RESILAND CA+ to monitor, evaluate, and report on the Program’s regional impact.

The Regional Environmental Centre for Central Asia (CAREC) will execute this sub-component under a contract with the GoT given its regional mandate and capacities. CAREC will partner with other entities, such as FAO, UNDP, UCA, and International Center for Agricultural Research in the Dry Areas (ICARDA), to execute specific activities. CAREC will work with the countries to mobilize political commitment and support for activities that provide regional public goods. It will do so by providing technical expertise, supporting analytical work, including feasibility studies, organizing training, dialogues and regional workshops, serving as a regional platform for sharing data and promoting common policy and practice, and harmonizing with national data platforms such as SLMTJ. CAREC will also be responsible for aggregating results from the RESILAND CA+ national operations against program targets.

**Component 2. Resilient Landscapes and Livelihoods.** Overall, this component will finance works, consulting services, non-consulting services, goods, and grants. Both government institutions and communities will implement a range of landscape restoration investments. To support the selection of investments, assistance will be provided for landscape restoration planning. All planning will encourage women’s leadership, will follow citizen engagement mechanisms, and will be based on good practice principles for a landscape approach when reconciling different and often competing land uses. CEP and Tajik organizations have considerable prior experience in participatory planning with both WBG’s and other donor-support projects. The participatory planning processes will build on lessons learned from the range of past and current projects and programs in rural development, as well as from natural resource management and climate resilience projects[[4]](#footnote-4),[[5]](#footnote-5).The project will finance the preparation of basin and sub-basin diagnostics in the project locations. The purpose will be to identify patterns and types of degradation, as well as boundaries for catchment plans which will place proposed sectoral interventions, such as forest and PA management plans (see above) within the selected landscapes in project districts. Landscape diagnostics will also provide the preliminary scoping for investment under Component 3, with more detailed assessments and analyses conducted as part of the technical design.

Participatory Catchment Community Action Plans (CCAPs) covering five to ten years will be developed. These plans will be more tactical in nature covering catchments identified in the diagnostic key areas for landscape restoration investments to be designed and implemented by government agencies and communities. The CCAPs will be translated into relevant planning instruments for implementation by local bodies, organizations or groups, e.g., pasture user unions, SFEs, FUGs, jamoats, WUAs. These planning instruments will be re-checked for integrity with sub-basin/watershed management principles (as they are unlikely to fully coincide with watersheds). At the level of individual investments operational plans/proposals will be prepared for project financing that flow from the former plans described above. During preparation, the planning approach and guidelines for stakeholders and those providing planning support will be developed as part of the Operational Manual.

**Sub-component 2.1 Forest Restoration and Sustainable Forest Management.** The Forestry Agency will lead on the technical aspects of this subcomponent, while the financial and procurement management responsibilities will remain with CEP. This subcomponent includes the following key activities.

*National Forest Inventory.* The project will finance a national-level systematic National Forest Inventory (NFI) using a low sampling density. The NFI exercise will employ state of the art methodologies for conducting forest inventories, including geospatial and earth observation data. The NFI will establish key parameters such as the total areas of forest by forest type and ownership (as needed), total standing volumes by species and size class, regeneration, incidence of pests and disease, and the distribution of key indicator species for biodiversity conservation. Other relevant data will also be collected, e.g., evidence of illegal removals, erosion, forest fires, condition/species of pasture, etc., as required.

*Forest management plans.* The project will finance the preparation and implementation of up to 5sustainable forest management plans for SFEs in the project sites. Preparation of the plans will build upon experience of earlier methods [[6]](#footnote-6). Stakeholder engagement is a critical component for development of these plans, providing a more bottom-up and participatory dimension. Based on these activities, 10-year plans will be elaborated, with measures and costs identified for sustainable forest management (including JFM plans) and corresponding maps developed. Development of plans at this scale for forestry will be coordinated with pasture management plans. Sustainable forest management plans will be operationalized through the SFEs’ annual plans. The associated digital data will be stored and maintained in an appropriate database, in alignment with plans already compiled for Khovaling SFE. Required additional development and maintenance of this system will be undertaken by the project.

*Implementation of sustainable forest management plans.* Once the plans have been prepared, SFEs will implement the plans. This will include carrying out silvicultural treatments such as assisted natural regeneration, grazing management, thinning, stand management, fire management, forest protection and so on. Fire stations and fire monitoring could be established in Sharituz district, bordering Uzbekistan’s Babatag Key Biodiversity Area (this can be coordinated and collaborated with Uzbekistan). Activities will include:

* *Afforestation and shelterbelts.* The Forest Agency will carry out afforestation in approximately 5,550ha in the project districts, including 100ha of shelterbelt. Assessments and plans will be needed of proposed locations, species to be planted, and risks and mitigation measures. Further details will be clarified on how these areas may ultimately form the basis of JFM contracts, the legal status (cf. the Forest Code) of such lands, and ownership of the land in which shelterbelts will be established.
* *Fuelwood plantations*. There is potential scope to promote larger-scale fuelwood plantations of fast-growing species both on State Forest Fund (SFF) and non-SFF land, possibly with the participation of the private sector. This type of investment will be investigated during preparation.
* *Forest nurseries*. The project will support semi-modernization measure in a limited number of nurseries in project SFEs.
* *Joint Forest Management*. This participatory forest management approach enables the local population – either individuals or groups – to become involved in forest management and support the rehabilitation of degraded natural forests over the long term. Based on experience[[7]](#footnote-7), the project will look to develop contracts primarily with Forest User Groups (FUGs) rather than individual households. FUGs will sign contracts for the land use rights with the SFEs for a period of 20 years, with the possibility of extension. This arrangement will seek to encourage the FUG members to sustainably manage and rehabilitate their individual forest plot of usually 1-2 hectares. Plans will be developed jointly by the SFEs and the respective tenant for each individual plot, or with the FUG for a consolidated area. The JFM plan will be developed for a five-year period and will specify short- and long-term goals. There are limited SFE capacities to support JFM, with SFE staff needing training themselves. Therefore, technical assistance will be required for the duration of the project and will be provided through a combination of IG specialists and contracted organizations/firms. JFM will be implemented in approximately 2,750ha in the project sites that have potential for JFM. Based on more detailed site assessments to be conducted during project preparation, cost estimates will be adjusted if irrigation is considered necessary.
* *Household-based forest nurseries.* The project will promote the development of private backyard nurseries to bolster seedling supply for JFM and afforestation, and as an income generation activity for rural households. A start-up grant will support nursery establishment procure initial inputs. The average size of such a nursery is expected to be 0.5 to 1.5 ha., and about 375 are expected to be established in the project sites.

**Sub-component 2.2 Integrated Pasture Management and Restoration.** The Pasture Reclamation Trust (PRT) of the Ministry of Agriculture will lead on technical aspects of this sub-component, which includes the following key activities.

*(a) Geobotanical surveys and pasture inventories.* SCLMG has responsibility for monitoring pasture areas under the authority of the PRT. The project will finance cadastral assessment of pasture resources and geobotanical surveys in the project districts, with data digitized for planning and monitoring purposes. Within this activity, the project will pilot the use of ‘smart inventories’ based on updated methods and statistical analysis. Staff at the SCLMG and PRT will conduct the assessments. Outputs will be used for the overall monitoring system for pasture in the country, and in the preparation of pasture management plans (PMPs) that are mandated by the Pasture Law.

*(b) Forage seed demonstration plots*. Establishment of seed demonstration plots for native forage species in two project locations, each covering 100ha. These plots will be under the management of the PRT, and serve to demonstrate the production of forage seeds, as well as to supply suitable seeds for forage production by PUUs and others.

*(c) Pasture/livestock Management Plans.* To help slowing land degradation processes, the project will support sustainable pasture/fodder-based livestock production systems in selected areas. The focus of support will be PUUs, whether these are to be created or existing unions are to be strengthened. Where PUUs are to be created, these will be primarily at village and jamoat levels (and at district level, if needed, depending on resource use regimes). In the project districts, financing will be provided for the development and implementation of up to 70 PMPs by PUUs in line with the requirements of the Pasture Law. The PUUs will be responsible for implementing the plans and will operate at the scale (district, jamoat or village) considered appropriate for the resource use regime. Within specified budget limits, the plans supported by the project will identify and finance investments to support: (a) measures to improve pasture productivity and sustainability, such as protecting areas for regeneration, pasture rehabilitation, improving access to remote pastures, and needs for supplementary fodder production; (b) grazing utilization levels; (c) animal health requirements and breed improvement measures; (d) investment needs; and (e) implementation responsibilities, targets and indicators. PUUs will be required to coordinate PMP preparation and implementation, closely with JFM planning and implementation to ensure that measures are in place to protect forest areas from livestock encroachment and to handle the impact of displacing livestock from JFM lands.

**Sub-component 2.3 Protected Area Management and Biodiversity Conservation.** This subcomponent will be technically led by the SENPA, as part of CEP, and includes the following key activities.

*(a) Priority PA Management Plans*. Management plans will be prepared or updated for selected protected areas. Potential PAs include Tajik National Park and Zorkul Special Reserve in GBAO (which borders the Kyrgyz Republic and Afghanistan), Yagnob National Park in Sughd and State Natural Reserve Tigrovaya Balka in Khatlon (bordering Afghanistan). Management plans are not in place for all PAs, and if they exist, they are outdated. These plans are critical investments for PAs to be managed effectively for the benefit of the country and region. Plans will comprise standard elements, management arrangements, conservation and restoration measures, protection and enforcement, monitoring, education and awareness, stakeholder engagement, ecotourism and recreation, prioritized actions, and associated costs. Planning activities will involve boundary mapping, spatial planning, economic and financial analysis, and stakeholder consultations.

*(b) Implementation of PA management plans.* Support for implementation would include activities such as establishment of monitoring systems and protocols including remote and field-based monitoring, e.g., camera, traps, drones, surveys, etc. Other PA management investments include tourism facilities, signage, protection infrastructure, and plans to restore/protect about 10,000ha in and around PAs. Key activities the project will support include: a) boundary demarcation; b) installation of information panels in places frequently visited by local people and tourists; c) census of Marco Polo sheep, Ibex and Snow Leopard and analyses of their habitats; d) protect and enhance habitat of key species, e.g., Indian goose, Tibetan snowcock, argali, ibex, snow leopard, and Bukhara deer; e) promotion of ecotourism and related activities; and f)publishing booklets, maps with tourist destinations, natural, historical and cultural sites.

**Sub-component 2.4. Community-level Livelihoods.**  The project will provide grants to resource user groups, e.g., WUAs, groups of land users/farmers, rural households as well as to jamoats to implement small-scale livelihood investments.

Organizations will help in the local appraisal of investment proposals, as well as any necessary permissions or technical support from local authorities. Organization/firms will work with jamoat-level government specialists and CEP IG, to assist and train PUUs, WUAs and FUGs to prepare, implement and monitor participatory pasture, on-farm water and JFM plans. In the case of pasture management and JFM, mobilization will include organizing and conducting meetings with various stakeholders such as local authorities, village groups (e.g., mahallas, existing livestock or user groups), village members to inform and obtain consensus for PUU and FUG formation. Guidelines and manuals for the Tajik context exist for providing facilitation and technical support to PUUs, WUAs and FUGs.During preparation, these tools will be reviewed and revised as needed for the purposes of the project and in line with WBG requirements.

*(a) Climate-smart- agriculture.*  The project will support CSA-based livelihoods in two ways, through grants to WUAs and to groups of farmers that form a CSA group. Existing WUAs will be eligible for grants to address degradation issues such as on-farm salination, erosion, and low productivity in ways that can increase income for members and reduce degradation impacts. The focus will be to encourage WUAs to adopt practices such as diversification of agricultural/horticultural crops, adoption of water-efficient crops and varieties, use of efficient irrigation technologies, environmental measures such increasing vegetative cover on irrigation channels and planting of shelter-belts. An alternative in sites where there are no WUAs, is for the project to support to groups of farmers to adopt similar activities. This practice is similar to the Common Interest Groups (CIGs), a modality used in ELMARL. Activities and groups would be prioritized and identified during the CCAP planning process and supported to prepare proposals.

*(b) Nature and community-based tourism.* For households in the vicinity of special protected areas and other natural attractions, community-based nature tourism is an income-generation opportunity. Small-scale tourism activities will be considered as part of CCAPs, particularly in and around PAs where they will align with PA management approaches, and sites with established regional tourism routes and attractions. Investments could include: a) development of homestays and small cafes; b) training of tourism guides; c) development of ecotourism activities, e.g., trekking routes, horse trekking, nature trails; and d) associated products such as handicrafts, promotional materials, interpretation.

*(c) Climate resilient green infrastructure.* The project will provide grants to jamoat authorities for small-scale climate resilient green infrastructure to address problems such as small-scale erosion, landslide, and flood control. Based on catchment assessments and priority issues, jamoats will select appropriate interventions to address these issues. Options for investments include small structures such as stone and concrete diversion ditches, V-shaped and trapezoidal channels for drainage, and other transverse instream structures to be installed to decrease flow velocity, trap sediment, and safely control runoff downstream. Additionally, check dams can be installed in streams and gullies upstream to limit sediment transport and reduce the velocity and quantity of runoff flowing downstream. Wire mesh fences and galvanized trellis walls are common options to stabilize slopes and prevent sediment from entering the creeks to minimize erosion. Grants will also be considered for small-scale infrastructure, e.g., renewable energy (low-cost solar energy), and energy efficiency measures (e.g., improved stoves, insulation) that have potential to reduce pressure on critical resources such as fuelwood.

**Component 3. Flood Resilience through Green and Grey Infrastructure.** This component will pilot **Nature-Based Solutions[[8]](#footnote-8) (**NBS) through integration of green and grey infrastructure to address flood management. It will be implemented bythe Agency for Land Reclamation and Irrigation (ALRI) under the Government of Tajikistan and will fund consulting services, goods, works and capacity building within ALRI, and other relevant RBO, national, district and community authorities.

The project will implement a cross-sectoral approach in two or three pilot catchment areas to demonstrate use of integrated green and grey infrastructure under a large-scale NBS approach. This will aim to reverse upstream land and natural resources degradation thereby increasing slope stability and water retention, increase resilience of infrastructure, and provide flood protection benefits to downstream communities. Three levels of governance (national, district and community) will be brought together, and mobilize and strengthen the capacity of the relevant RBOs to pursue integrated basin management. Specific interventions in the upper catchment areas can include slope stabilization, vegetation of degraded areas, planting of grass and other species, and green and grey retention facilities to help curb erosion, reduce peak flows, and retain materials transported by rivers (soil, rocks, debris, etc.). These will be combined with downstream measures such as floodplain re-naturalization, levee setbacks, floodway creation, strengthening of river embankments and construction of infrastructure to reduce the impacts of floods while creating opportunities for regenerating or creating new riverine habitats. These integrated pilots will demonstrate types of investments that are able to restore ecosystem functions and services and increase resilience of infrastructure, communities and livelihoods to climate risks like floods, mud flows, landslides and gully erosion. Scaling up these NBS requires active facilitation of dialogue and capacity development amongst academia, policy makers, practitioners of conservation and flood/disaster management, and local communities.

Under the pilot nature of the NBS, basin/sub-basin selection, site identification and design will occur during implementation and are considered part of capacity building of ALRI, RBOs and the relevant sub-national authorities. Given that some activities under project Components 2 and 3 will be mutually beneficial and may potentially be roughly divided into upstream (Component 2) and downstream (Component 3) interventions in the same basins/sub-basins, ALRI and CEP will pursue close coordination, particularly during NBS strategy development. This component is organized in two sub-components as follow:

**Subcomponent 3.1 Planning for green and grey infrastructure**

(a) *System-scale strategic planning.* Capacity building of ALRI and other government agencies to support effective planning and implementation of NBS to enhance ecosystem services provision and increase resilience of infrastructure. Built infrastructure alone is increasingly unlikely to provide future water security and resilience against predicted climate change impacts. Capacity building of local stakeholders is also required to help them reduce exposure and vulnerability of people and property to natural disasters, promote better management of land and natural resources, and engage in basin/sub-basin level dialogues and processes.

(b) *Integration of green and gray infrastructure.* Further capacity building of the involved stakeholders, particularly ALRI, to understand the benefits, opportunities and design considerations of integrating green and grey infrastructure to prevent further degradation and loss of natural ecosystems upstream and strengthen the resilience of river embankments, small irrigation dams and flood and sedimentation control structures downstream.

**Subcomponent 3.2 Development of green and grey infrastructure**

c) *Feasibility studies and detailed designs.* Investments in the selected basins/sub-basins will be based on economic analysis, vulnerability assessments, and environmental and social assessments. Green infrastructure will be designed to complement the gray infrastructure and optimize the functionality, cost-effectiveness, and resilience of the integrated natural and built system. To support this, capacity of ALRI, RBOs and other local authorities and bodies in NBS water and sediment retention approaches, slope stabilization, river training, and operations and maintenance of the infrastructure/facilities introduced will be strengthened.

(d) *Implementation and maintenance.* While there is a strong foundation of implementing grey infrastructure, capacity building of ALRI and other government agencies to support effective implementation and maintenance of NBS to enhance ecosystem services provision and increase resilience of infrastructure will be pursued. This will include development of standard operating procedures (SOPs) including scheduling of regular inspections, maintenance, and performance assessment. Local authorities and community organizations will also be mobilized and capacities to support implementation and maintenance as appropriate.

**Component 4. Project Management and Coordination.** This component will finance the operating costs of project management functions to be carried out by the Implementing Group (IG) within the Committee for Environmental Protection (CEP) for both Components 1 and 2, and the Project Management Unit (PMU) within the Agency for Land Reclamation and Irrigation (ALRI) for Component 3. Key functions include procurement, financial management, coordination, reporting, and monitoring and evaluation. The CEP IG and ALRI PMU will also be responsible for ensuring project compliance with environmental and social standards, attention to gender aspects, and citizen engagement for their respective components. The central CEP IG will be supported by project-financed province-level technical units with core staff in key areas such as pasture management, forestry and biodiversity conservation as needed. Similarly, central ALRI PMU shall also engage project financed specialists at local level for field work coordination purposes.

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

**2.2. Project Beneficiaries**

**Primary beneficiaries**. The project’s primary beneficiaries are expected to be rural communities, private farmers and farmer groups, villages and village communities, including women and youth, and resource user groups (e.g., for pasture, forest) interested in adopting landscape restoration practices while improving their livelihoods and job opportunities. Under Components 1, 2 and 3 Government agencies are expected to benefit from technical support and capacity building for integrated landscape planning in ways that attempt to reconcile different land uses at national and regional scales. Staff in these agencies at both central and field-levels will also benefit from investments in improved equipment and infrastructure, improved and more accessible data to support timely decision-making related to landscape restoration. At the regional level, the main beneficiaries are governments of the five Central Asian countries, who will gain knowledge about landscape restoration and other solutions for emerging regional issues, and will be provided with opportunities to create and foster partnerships around these issues of common interest.

***Geographic focus and selection criteria***. Project areas/districts have been selected based on a combination of criteria. An initial pre-screening of districts has been conducted using the following criteria - poverty incidence, potential for integrated landscape restoration (incorporating pasture, agriculture, water, forestry, biodiversity), regional and transboundary corridors, and complementarity with government and donor-funded initiatives. When overlaid on the current arrangements of river basins, potential project sites fall in the following river basins: a) Syr Darya including the Zarafshon sub-basin covering seven districts – Asht, B. Gafurov, Shahriston, Istarafshon, Ayni, Panjekent, K. Mastchoh Ayni, Panjekent, and K. Mastchoh (in Sughd oblast, bordering Uzbekistan and the Kyrgyz Republic); b) greater Panj covering four districts – Vanj, Rushon, Shughnon, and Murghab (in Gorno Badakhshan Autonomous oblast, bordering the Kyrgyz Republic and Afghanistan); and c) Lower Kofarnihon covering three districts – Shahrituz, Nosir Khosrov, Qubodiyon (in Khatlon oblast, bordering Uzbekistan and Afghanistan).

**2.3. The scope and objectives of Environmental and Social Management Framework (ESMF)**

As the technical evaluation (e.g., feasibility studies, detailed designs) are not ready and their specific impacts will be identified during project implementation, a framework approach is adopted. Respectively, in accordance with the ESS1, an Environmental and Social Management Framework (ESMF) has been prepared, which specifies rules and procedures for the activities and subprojects' Environmental and Social Impact Assessment (ESIA) and for preparing adequate Environmental and Social Management Plans (ESMPs). The main goal of the Environmental and Social Management Framework (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 EHSGs requirements alongside with Environmental and Social Laws and Regulations of the Republic of Tajikistan for adequate mitigation residual and unavoidable impacts (if any).

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 Environmental and Social Impact Assessment (ESIA) procedures and guidelines, institutional arrangements, consultation and disclosure procedures.

The ESMF will guide the implementation of project activities by the following:

* Generic guidelines and procedures to avoid, mitigate, or minimize adverse environmental and social impacts of the potential activities.
* A description of implementing arrangements including details on how environment and social risks, will be managed.
* The criteria for determining acceptable environmental and social risks and risk management procedures for the proposed sub-projects.
* Spelling out national rules and procedures for use of agricultural chemicals and pesticides.
* Descriptions of the environmental and social screening or risk management screening processes that will help to define the required site-specific ESF instruments.
* Checklists for preparing site-specific Environmental and Social Impact Assessments/Environmental and Social Management Plans (ESIAs/ESMPs).
* ESMP checklists for the small- and medium scale construction and rehabilitation of office buildings, improvement of resilience of infrastructure (roads, rivers) through slope stabilization and river embankment envisaged by the project.
* Environmental and social monitoring and reporting requirements.
* 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. Guidance for preparing site specific ESIA/ESMPs for larger facilities; and
    3. ESMP checklists for the smaller interventions like facility repair/rehabilitation or improvement of small-scale existing infrastructure.

The policy and regulatory framework consider the compliance with the national laws and 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) will be 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 resettlement impacts, the CEP has developed a Resettlement Policy Framework (RPF). The key objective of the Resettlement Policy Framework is to provide a framework to appropriately identify, address and mitigate adverse socioeconomic impacts that may occur due to the implementation of subprojects.

**III.** **REGULATORY FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT**

**3.1. Tajikistan National Environmental Legislation and Procedures**

Tajikistan has a well-developed environmental legal and regulatory framework. Current environmental legislation in Tajikistan includes statutory acts and laws on the following:

* Protection of the environment;
* Ecological audit and monitoring;
* Protection of flora and fauna;
* Environmental information and education;
* Soil, water, and air quality;
* Biological safety;
* Human health and safety; and
* Waste and chemicals management.

These laws, along with the regulations approved by the Government, create a favorable legal framework for environmental protection and for the use and protection of the country’s natural resources. They also enforce the rights of citizens to environmental safety, organic products, eco-friendly environment, access to environmental information, and the possibility of investing (moral, material, and financial) to improve the ecological situation in the country.

Environmental legislation in the Tajik Republic includes the Constitution and codes and laws on air quality, noise, mineral resources, land management, forests, health and safety, and waste and chemicals management. The *Tajikistan Framework Environment Law* was adopted in 1993, enacted in 1994, and amended in 1996, 1997, 2002, 2004, and 2007, and replaced by a new law in 2011. The *Water Code w*as enacted in 2000 and amended in 2008, 2009, 2011 and 2012. The *Land Code* was enacted in 1996 and amended in 1999, 2001, 2004, 2006, 2008, 2011, and 2012. The *Forest Code* was enacted in 1993 and amended in 1997 and 2008.

Other important environmental legal acts, laws and regulations relevant to the project are listed in Table 1.

*Table 1: Relevant Environment, Health, and Safety Laws in Tajikistan*

| **Law** | **Enacted and Amended** | **Responsible Agency** | **Brief Description** |
| --- | --- | --- | --- |
| ***Law on***  ***Environmental***  ***Protection*** | No.760 enacted on August 2011 | CEP and its subdivisions at the district level | The Law defines the state principles of environmental protection and sustainable social and economic development, guarantees of human rights for healthy and friendly environment, law enforcement strengthening, prevention of negative impact of business and other operations on the environment, management of rational use of nature resource and securing environmental safety. Chapter 6 requires an Environmental Impact Assessment and Chapter 7 specifies requirements for the location, design, construction, reconstruction and commissioning of enterprises, buildings, and other facilities. |
| ***Law on***  ***Environmental***  ***Impact***  ***Assessment*** | No.1448 enacted on 18 July 2017 | CEP and its subdivisions at the district level | The Law establishes the legal and organizational framework for assessing environmental impacts, relationship with state environmental expertise, and the procedures for registering and classifying environmental impacts on the environment. |
| ***Law on***  ***Environmental***  ***Monitoring*** | No. 707 enacted on 25 March 2011 | CEP and its subdivisions at the district level | The Law defines the organizational, legal, economic and social bases for ensuring environmental monitoring in the Republic of Tajikistan and regulates relations between state authorities, self-government bodies of settlements and villages, public associations and citizens in this area. |
| ***Law on***  ***Environmental***  ***Information*** | No. 705 enacted on 25 March 2011 | CEP and its subdivisions at the district level | The Law defines the legal, organizational, economic and social basis for providing environmental information in the Republic of Tajikistan, promotes the right of legal entities to receive complete, reliable and timely environmental information, and regulates relations in this area. |
| ***Law on***  ***Environmental***  ***Expertise*** | No. 818 enacted on 16 April 2012 | CEP and its subdivisions at the district level | This Law defines the principles and procedure for conducting environmental expertise and is aimed at preventing the harmful impact of planned economic and other activities on the environment and related social, economic and other consequences of the implementation of the object of environmental expertise. |
| ***Land Code*** | Enacted in 1996, last amended in  2016 | State Committee on Land Management and Geodesy (SCLMG) and its subdivisions at the district level | Land legislation governs the relations of land use and protection, land use and property relations, which arise from getting (acquisition) or conveying land use rights. |
| ***Law on Special***  ***Protected***  ***Areas*** | Enacted on 26 December 2011, last amended in  2014 | State Institution on  Specially Protected  Natural Areas of  Forestry Agency and its subdivisions in the districts | The Law defines the legal, organizational, and economic principles of specially protected natural areas and establishes the assignments, activity operations, and zoning. |
| ***Law on Plant***  ***Quarantine and***  ***Protection*** | No. 1567 enacted on 2 January 2019 | CEP and its subdivisions at the districts; Ministry of Agriculture (MOA); Forestry Agency  (FA); Tajikistan  Academy of  Sciences (TAS) | The Law defines the legal, organizational, and economic basis for plant quarantine and protection, conducting quarantine phytosanitary measures, handling plant protection products, and is aimed at preserving agricultural products, protecting the health of people, animals, and the environment |
| ***Law on***  ***Protection and***  ***Use of Plants*** | Enacted on 17 May 2004, last amended in  2008 | CEP and its subdivisions at the districts; MOA; and TAS | The Law establishes the state policy on the protection and efficient use of plants; defines legal, economic, and social principles governing the preservation and reproduction of plants. |
| ***Law on protection of plant varieties*** | Enacted on 29 December 2010, last amended in 02 January 2018 | Ministry of Agriculture (MOA); Tajikistan  Academy of  Sciences (TAS) | The Law regulates the legal protection of plant varieties and defines the legal basis for the granting and protection of the breeder’s rights. |
| ***Law of on Pastures*** | Enacted on June 20, 2019 No. 1618  amended in 25.06.2021 No. 1791 | Ministry of Agriculture (MOA); Tajikistan | This Law governs the public relations associated with management, use and protection of pastures. |
| ***Law on collection, conservation, and rational use of genetic resources of cultural plants*** | Enacted on 01 August 2012 | Ministry of Agriculture (MOA); Tajikistan  Academy of Agricultural Sciences (TAAS) | This Law establishes the legal framework for state policy in the field of genetic resources of cultivated plants and their wild relatives, and regulates relations regarding their collection, conservation, research and rational use for the purpose of conducting the agricultural industry, ensuring food, environmental and biological security, carrying out research , breeding, educational activities, as well as ensuring the safety of social, cultural and historical heritage in the interests of the present and future generations. |
| ***Forestry Code*** | Enacted on  2 August 2011 | FA; CEP and its subdivisions at the districts; MOA | The Law regulates the protection, possession, sustainable use, and reproduction of forests in Tajikistan. It defines prohibited activities in protected forest zones and their regimes and conditions when undertaking allowed activities in the utilization zone of forests and their regimes. |
| ***Law on Conservation and Usage of Historical and Cultural Heritage*** | Enacted on  3 March 2006 | Ministry of Culture;  TAS; CEP; FA | The Law provides the legal framework for conservation and use of historical and cultural heritage objects in Tajikistan as being national property of the Tajik people. |
| ***Law on***  ***Subsoils*** | Enacted on  20 July 1994, last amended in 2013 | Geology Head Office; CEP | The Law regulates the use and protection of subsoils for the interest of present and future generations. |
| ***Law on Soil***  ***Conservation*** | Enacted on  16 October 2009 | CEP; CLMG; MOA | The law defines main principles of state policy, legal framework of public authorities, individual and legal entities for the efficient and safe use of soils, preservation of quality, fertility and soil protection from negative impacts and regulates the variety of relationship related to soil protection. |
| ***New Water Code*** | Enacted on April 2, 2020 No. 1688 | CEP, Ministry of  Energy and Water  Resources  (MEWR), MOA;  Geology Head  Office; MOH | The aims of the Water Code are: (i) protection of state water fund and state water fund lands for the improvement of the population’s social condition and environment; (ii) water pollution control, impurity, depletion, prevention, and control of water adverse effects; (iii) enhancement and protection of water objects; (iv) strengthening legality and rights protection of individuals and legal entities in the water management field. |
| ***Law on***  ***Protection of***  ***Atmospheric***  ***Air*** | Enacted in 1995 and amended on  28 December  2012 | CEP; MOH;  Hydrometeorology  Agency | The Law regulates the relations of individuals and legal entities, irrespective of ownership form, with the aim of conservation, rehabilitation of atmospheric air, and securing environmental safety. |
| ***Public Health Code*** | Enacted on 30 May 2017 | MOH | The Code regulates public health relations and aims to implement constitutional rights and health protection of citizens. Chapter 17 of the Code secures sanitary and epidemiological safety |
| ***Law on***  ***Production and Consumption***  ***of Waste*** | No. 109 enacted on  10 May 2002, last amended in 2011 | CEP; MOH; State Unitary Enterprise on Municipal Housing and Utilities (SUEMHU) | The Law regulates the relations arising from the process of waste generation, collection, storage, utilization, transport, and deactivation and landfilling of wastes and state management, supervision and control of waste management. It aims to prevent the negative impact of production and consumption wastes on the environment and human health, and when handling these, their involvement in economic and production turnover as an additional stock source. |
| ***Law on***  ***Inspection of***  ***Economic***  ***Entities*** | No. 1269 enacted on 25 December  2015 | State Inspection of  Technical  Supervision, CEP,  MOLME | The Law establishes the legal basis for conducting inspections, the procedures or conducting them, the rights and  obligations of business entities, officials of  inspection bodies, and is aimed at protecting the health, legal rights, and interests of citizens, the environment, national security, and protection of the activities of the audited business entities, regardless of ownership forms. |
| ***Protection of Population and***  ***Territories from***  ***Natural and***  ***Man-made***  ***Emergencies*** | Enacted on  15 July2004 | Committee for  Emergency  Situations and  Civil Defense (CESCD) and its  structural subdivisions | The Law defines the organizational and legal framework for the protection of the population and persons without citizenship in the territory of the Republic of Tajikistan, as well as the lands, interiors, water, airspace, animals and plants, and other natural resources of Tajikistan; objects of industrial and social purpose; and environment from natural and man-made emergencies. It regulates public relations on prevention, occurrence and development of emergencies, reduction of damages and losses, elimination of emergency situations and timely notification of populations in danger zones during natural and man-made emergencies. |
| ***Law on Wildlife*** | Enacted on  5 January 2008 | CEP; MOA;  Academy of  Sciences; FA | The Law regulates public relations in the protection, restoration, and reasonable use of wildlife; and establishes the legal, economic, and social framework for the protection and restoration of wildlife resources. |
| ***Labor Code of the Republic of***  ***Tajikistan*** | Enacted on  23 July 2016 | MOLME; MOHSPP | The Code regulates labor and other relations and is directly aimed at the protection of the rights and freedoms of the parties in labor relations, securing minimal guarantees of labor rights and freedoms |
| ***Law on Fire Safety*** | Enacted on  20 April 2008, last amended in 2010 | Main Department of the State Fire Prevention Agency  (SFPA) of the  Ministry of Internal  Affairs (MIA) | The Law defines the general legal, economic, social, and organizational principles of fire prevention in Tajikistan; regulates the relations between state authorities, local authorities, organizations, other legal entities irrespective of organizational and legal forms as well as between public entities, officials, and citizens of the Republic of Tajikistan, foreign citizens, and persons without citizenship. |

**3.1.2. Environmental Assessment Framework**

**Framework environment law.** The *Law on Environment Protection No. 208* (2011) states that national environmental policy should prioritize environmental actions based on scientifically proven principles and integrates nature preservation and sustainable resource use with economic development. The Law defines applicable legal principles, protected objects, and the competencies and roles of Government, local authorities, public organizations, and individuals. It also stipulates measures to secure public and individual rights to a safe and healthy environment and requires a combined system of ecological expertise and environmental impact assessment to reach a decision on any activity with potential adverse environmental impacts.

The Law defines environmental emergencies and ecological disasters and prescribes the order of actions in such situations, defines the obligations of officials and enterprises to prevent occurrences and eliminate consequences, and the liabilities of the persons or organizations that damage the environment or otherwise violate the Law. The Law establishes several types of environmental enforcement: state control, ministerial control, enterprise control, and public control. State control is performed by the CEP, the Sanitary Inspectorate of MOHSPP, the Inspectorate for Industrial Safety, and the Mining Inspectorate. Public control is carried out by public organizations or trade unions and can be exercised with respect to any government body, enterprise, entity, or individual.

**State ecological expertise.** The Law on Environment Protection No. 208 (2011), the Law on State Ecological Expertise (2011), and the Procedures on Organization and Performance of Environmental Assessment (2014) stipulate that all types of economic and other activities shall be implemented in accordance with environmental standards and norms and shall have sufficient environmental protection and mitigation measures to prevent and avoid pollution and enhance environmental quality. They define a state ecological expertise (SEE) process that examines the compliance of proposed activities and projects with the requirements of environmental legislation and standards and the ecological security of the society. SEE is a mandatory cross-sectoral process that must be scientifically justified, comprehensive, and objective. It precedes decision making about activities that may have a negative impact on the environment.

Financing of programs and projects and decisions on siting, construction, or reconstruction are allowed only after a positive SEE finding has been issued. If these requirements are violated, the CEP and/or other duly authorized control bodies may terminate construction until necessary improvements are made. SEE for investment projects is the responsibility of the CEP and its regional offices.

**Environmental assessment administrative framework**. The *Law on Environmental Protection* (2011) states that SEE is to be conducted by the State Committee for Environment. A unit in the ministry is entrusted with guiding and managing both EIA and SEE.

**EIA studies**. Preparation of an environmental impact assessment (EIA) study is the responsibility of the project proponent. EIAs are to analyze the short- and long-term environmental, genetic, economic, and demographic impacts and consequences of projects and must meet the standards of other sectors and environmental media line agencies (sanitary epidemiological, geological, water, etc.).

**Environmental clearance**. The CEP is the authority responsible for the state’s review of EIAs and the environmental clearance of civil works.

**3.1.3 Environmental Assessment Requirements of Tajikistan**

Tajikistan does not specify environmental assessment categorization criteria. There are two laws in the country that stipulate all aspects of environmental assessment: (i) *Law on Environmental Protection* (2011); and (ii) *Law on Ecological Expertise*. Chapter V, Articles 3539 of the *Law on Environmental Protection* (2011), introduces the concept of state ecological review (literally, state ecological expertise or SEE), which seeks to examine the compliance of proposed activities and projects with the requirements of environmental legislation and standards and ecological security of the society.

The following activities and projects are subject to state ecological review:

* 1. Draft state programs, pre-planning, pre-project, and design documentation for economic development;
  2. Regional and sector development programs;
  3. Spatial and urban planning, development, and design;
  4. Environmental programs and projects;
  5. Construction and reconstruction of various types of facilities irrespective of their ownership;
  6. Draft environmental quality standards and other normative, technology, and methodological documentation regulating economic activities; and
  7. Existing enterprises and economic entities.

An EIA is a component of the SEE, as set out in the 2011 *Environmental Protection Law* and in the 2012 *Law on State Ecological Expertise*, which comprise both the department within the CEP and the process. Conducting the EIA is the responsibility of the project proponent. The state ecological review,which comprises the process component only for all investment projects, is the responsibility of the CEP and its regional offices. Furthermore, according to the 2012 *Law on State Ecological Expertise*, all civil works, including rehabilitation, should be assessed for their environmental impacts, and the proposed mitigation measures should be reviewed and monitored by the CEP.

According to the 2012 *Law on Ecological Expertise*, ecological expertise is intended to prevent negative impacts on the environment as a result of a proposed activity, forecast impacts from activities that are not considered as necessarily damaging to the environment, and create databases on the state of the environment and knowledge about human impact on the environment.

The *Law on Ecological Expertise* and the *Law on Environmental Protection* envisage two types of ecological expertise: SEE and public ecological expertise, which are not given equal importance. While SEE is a prerequisite for beginning any activity that may have an adverse environmental impact, public ecological expertise becomes binding only after its results have been approved by a SEE body.

The SEE body is authorized to invite leading scientists and qualified outside specialists to participate in the review. Approval should be issued within 30 days, unless the project developer agrees to an extension, and remains valid for two years, if the decision is positive. For very complicated projects, the term of consideration and approval can be extended till 60 days.

According to the *Law on SEE,* the public ecological expertise of economic activities or other activities, the implementation of which can negatively impact the environment or population living in the relevant area, can be carried out by any public organization and citizen. They have the right to send the proposals to the responsible government bodies concerning environmental issues of implementing planned activities and to receive information on the results of the conducted SEE from relevant responsible bodies. The materials reflecting the public expertise delivered to the experts’ commission should be taken into consideration in the preparation of the conclusion of SEE and decision making on the realization of the SEE object. Public ecological expertise is carried out under the state registration of application of public organizations. The registration can be done by local executive authorities (within seven days) in place where the expertise activities are planned. Public organizations, which are organizing the SEE, should inform the population of the initiation of the expertise and its results.

The legal and regulatory system for EIAs also includes:

* 1. Procedure of EIA (adopted by the *Resolution of the Government of the Republic of Tajikistan No. 509* of 1 August 2014);
  2. Procedure to implement SEE (approved by the *Resolution of the Government of the Republic of Tajikistan No. 697* of 3 December 2012);
  3. Guidelines on the composition and order of development of content and structure of the documentation to be submitted for review (SEE), as well as coordination and approval of all projected budget or investment estimations, design drawings or documentation that must be developed in coordination with the SEE, buildings and structures and EIA chapters, Strategic Environmental Assessment (SEA) and feasibility documents; and
  4. List of objects and types of activity for which preparation of documentation on EIA is mandatory (adopted by the *Resolution of the Government of the Republic of Tajikistan No. 253* of 3 June 2013).

The elaborated existing normative legal base is intended for determination of legal basis for project implementation and their compliance with state requirements for environmental protection and mitigation of environmental impact.

In the Republic of Tajikistan, the organizations with most responsibility for environmental monitoring and management are the CEP, the Sanitary Inspectorate of MOHSPP, the Inspectorate for Industrial Safety, and the Mining Inspectorate. An environmental licensing system exists in relation to handling hazardous waste and mineral extraction. An environmental permitting system regulates the use of natural resources.

The *Environmental Protection Law* states that a SEE should be conducted by CEP, which is the authorized state environmental protection body. The CEP has a comprehensive mandate that includes policy formulation and inspection duties. It has divisions at the *oblast* (region), city, and *rayon* (district) levels in the form of Departments of Environmental Protection within the *khukumat* (local administration) at each city or *rayon/district*.

**3.1.4. EIA Procedure**

Governing laws and activities subject to state ecological (or environmental) expertise (SEE) that may involve an EIA or activities subject to SEE may involve the conduct of an EIA.

The following impact types are considered in EIA:

* 1. *Direct impact*, immediately influenced by the main and subsidiary types of planned activities within the territory of the site;
  2. *Indirect* impact influenced by intermediate (secondary) factors emerging as a result of project implementation; and
  3. *Cumulative impact,* which is of specific nature and emerges within the project implementation period.

EIA are reviewed by the state environment expertise in conformity with the assessment objective and classification up to 60 days.

The decision on determining the appropriate procedure for SEE of EIA documents is taken by the authorized agency within a period of not more than 10 days after submission of the documents for registration. The decision on SEE related to EIA documents is obligatory for implementation by the Client for any planned economic or other activity.

There are four categories of environmental impact of facilities subjected to SEE and EIA: I, high risk; II, medium risk; III, low risk; and IV, local impact. Requirements and terms of SEE and EIA differ according to the category of a facility.

**3.2. Key National Social Legal Provisions and Citizen Engagement**

*Law on Freedom of Information* is underpinned by Article 25 of the Constitution, which states that governmental agencies, social associations and officials are required to provide each person with the possibility of receiving and becoming acquainted with documents that affect her or his rights and interests, except in cases anticipated by law.

Per the *Law on Public Associations*, a public association may be formed in one of the following organizational and legal forms: public organization, public movement, or a body of public initiative. Article 4 of this law establishes the right of citizens to found associations for the protection of common interests and the achievement of common goals. It outlines the voluntary nature of associations and defines citizens’ rights to restrain from joining and withdrawing from an organization. August 2015 amendments to this legislation require NGOs to notify the Ministry of Justice about all funds received from international sources prior to using the funds.

*Law on Public Meetings, Demonstrations and Rallies* (Article 10) bans persons with a record of administrative offenses (i.e. non-criminal infractions) under Articles 106, 460, 479 and 480 of the Code for Administrative Offences from organizing gatherings. Article 12 of the Law establishes that the gathering organizers must obtain permission from local administration fifteen days prior to organizing a mass gathering.

*Land Code* contains basic provisions on land acquisition for public and state purposes. The Code allows the state to seize the land from land users for the needs of projects implemented in the interests of state and at the state scale, and describes methods, system and order of protection of rights and interests of persons whose land is subject for withdrawal for the purposes of the project, and provides for the complex of compensatory measures to cover the land users’ losses. The Regulation about an order of compensation of the land users’ losses and losses of agricultural production, approved by the Resolution of the Government of the Republic of Tajikistan # 641, dd. 30th December, 2011, establishes concrete and detailed order of reimbursement of the land users’ losses.

*Law on Physical and Legal Entity Addresses* contains legal provisions on established information channels for citizens to file their complaints, requests and grievances. Article 14 of the Law sets the timeframes for handling grievances, which is 30 days from the date of receipt.

*Labor Code* prohibits forced labor (Article 8). The Labor Code also sets the minimum age at which a child can be employed as well as the conditions under which children can work (Articles 113, 67, and 174). The minimum employment age is 15, however, in certain cases of vocational training, mild work may be allowed for 14-year old (Article 174 of the Labor Code). In addition, there are some labor restrictions on what type of work can be done, and what hours of work are permissible by workers under the age of 18. Examples of labor restrictions include: those between 14 and 15 cannot work more than 24 hours per week while those under 18 cannot work more than 35 hours per week; during the academic year, the maximum number of hours is half of this, 12 and 17.5 hours, respectively. These limitations are consistent with the ILO Convention on Minimum Age. In addition, Law on Parents Responsibility for Children’s Upbringing and Education makes parents responsible for ensuring their children not involved in heavy and hazardous work and they are attending school.

**3.4. National Sectoral Legal Framework**

Tajikistan also has key policies and strategies which detail road maps for the country’s short-term and long-term development.

The National Development Strategy 2015-2030 prioritizes the development of “green economy,” and the Medium-term development program for 2016-2020 focuses on achieving the SDGs and adopting adaptation measures to climate change as transition to green economy. For the transition, forestry and agriculture are recognized as two of the key sectors. Some of the conditions identified for green economy include efficient economic management, careful use of natural resources and involvement of civil society institutions in monitoring, control and use of natural resources[[9]](#footnote-9).

Table 2: Government policies and agreements relating to seed and seedling certification, production, and imports[[10]](#footnote-10).

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Policy** | **Purpose** | **Responsible Authorities** |
| 1. | The Strategy for the Development of the Forest Sector for 2016-2030 | Sustainable development of the forest sector to ensure a balance of ecological, economic and social functions of the forest, the implementation of which contributes to the solution of important aspects of the forest reform of Tajikistan. | Forestry Agency under the Government of the Republic of Tajikistan |
| 2. | Resolution “On Regulation about the Food Security Committee under the Government of the Republic of Tajikistan” of December 29, 2017, No595 | Stipulates that the Committee has control over importation of pests and diseases and control over the import, transit and export of GMOs. | Food Safety Committee |
| 4. | Governmental Decree No. 793 validating the Program of Development of Gardening and Viticulture for 2016 – 2020. (2015) | Allocation of investments in the sector. | Multi-departmental |
| 5. | Governmental Decree No. 724 Validating Programs of the Development of the Pasture of the Republic of Tajikistan for 2016 – 2020. (2015) | Improving the condition of grazing pastures and the provision of fodder crops (derived from seed). | Ministry of Agriculture |
| 6. | Strategic Programme for Climate Resilience. (2015) | Strategy for climate change including agriculture and sustainable land management. | Government |

**3. Key National Legal Provisions for Pest management in Tajikistan and regulation of agrochemicals usage.**

*Integrated pest management.* Currently there is no in place a Government policy on IPM to provide the framework and environment for promoting the development and implementation of integrated pest management strategies for cotton sector. Consequently, at present, there is a complete lack of governmental support with regard to development and implementation of alternative methods for pest management especially because of lack of budgetary resources.

Pesticides and fertilizers handling, use, transportation and storage are regulated by a number of legal documents (*see table 3*).

*Table 3: Laws and regulations related to agrochemicals usage in Tajikistan*

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| --- |
| * Law on Environment Protection (2011); * Law on Ecological Expertise (2012); * Law on the Factories Quarantine Law (N5, 12.05.2001), of 2001, revised in 2003. * Law on Production and Safety Implications of Pesticides and Agro-chemicals law dated April 22, 2003. * The Decree on Factory Quarantine (N38, 4.02.2002) concerning creation of the Government Inspection (service) on factories quarantine of 2002. |

The *Law on Environment Protection* indicates the necessity of applying the minimum permissible standards of agro-chemicals in agriculture and forestry to ensure compliance with the minimum permissible amounts in food, soil and water. The specially adopted law in the domain (Law on Production and Safety Implications of Pesticides and Agro-chemicals) prohibits use of biologically and environmentally persistent pesticides and products known to be carcinogenic, mutagenic, teratogenic, embrio- and gonadotoxic in compliance with the International List of potentially toxic chemicals of the UN Environmental Program. This law also regulates distribution, use, and disposal of pesticides.

The *Law on Ecological Expertise (2012)* and the Resolution on the Establishment of the Commission for Chemical Safety (2003) set up the legal framework for the registration and use of pesticides and other chemicals. These substances and compounds should undergo mandatory State testing in laboratories and production (field) facilities to assess their biological, toxicological and environmental characteristics. If the testing results are positive, the substance or compound must be registered with the Commission for Chemical Safety and included in the List of Chemical Substances and Biological Compounds that are permitted for Use. The Commission manages the system of registration, testing and control of pesticides[[11]](#footnote-11). It is chaired by a deputy Prime Minister and includes representatives of, among others: the Committee for Environmental Protection, the Ministry of Health and social protection of population and the Ministry of Agriculture. A working group prepares the meetings of the Commission. The Commission approves a list of pesticides upon application from producers or distributors. A new list of chemicals is being prepared.

*Quarantine[[12]](#footnote-12).* In 2001, a technical review workshop on Union of Independent Governments (countries of former Soviet Union) and Baltic’s countries published data about quarantine and phytosanitary conditions in the countries of the former Soviet Union. The agreement about coordination in field of factories quarantine for indicated above countries was signed on November 13, 1992 in Moscow. In 1997 during the 6th Conference countries agreed to accept a unified list of pests to be quarantined, to common quarantine rules for import, export and transit of goods, and provide information data about distribution of pests on countries territory. Not much changed since then. In 2001 Government of Tajikistan enacted a Factories Quarantine Law (N5, 12.05.2001), and in 2002 – a decree on measures on factory quarantine (N38, 4.02.2002) – for Government Inspection (service) on factories quarantine.

**3.5. International Treaties and Obligations**

Under the Republic of Tajikistan unified (monist) legal system, international agreements and treaties, once ratified or acceded to by the Government, have the same force as national legislation.

Tajikistan is party to several international environmental conventions and protocols. It has passed state laws to implement the terms of these international conventions, with the provision that, *“If an international treaty to which Tajikistan is a party is inconsistent with this law, then the provisions of the international treaty shall prevail.”*

**International environmental conventions.** In recognition of its global responsibilities, Tajikistan is a party to several international environmental conventions. The major ones are shown in Table 4.

*Table 4: Relevant International Environmental Conventions*

|  |  |
| --- | --- |
| **International Convention** | **Year of Accession** |
| UN Convention on Biological Diversity (CBD), 1997. Related updates to the CBD are: Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 2004; Nagoya  Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, signed in 2011 and ratified in 2013. | 1997 |
| UN Framework Convention on Climate Change, 1998; A related update is the  Kyoto Protocol accessed on 29 December 2008 and entered into force on 29 March 2009. | 1998 |
| UN Convention on Combating Desertification (UNCCD) | 1997 |
| Vienna Convention for the Protection of the Ozone Layer, 1996 and updated by the Protocol on Substances that Deplete the Ozone Layer (Montreal), 1998; London Amendments to Montreal Protocol on Ozone Depleting Substances, 1998; Copenhagen Amendments to Montreal Protocol on Ozone Depleting Substances, 2009; Montreal Amendments to Montreal Protocol on Ozone Depleting Substances, 2009; Beijing Amendments to Montreal Protocol on Ozone Depleting Substances, 2009. | 1996 |
| Convention on International Trade in Endangered Species of Fauna and Flora (CITES) | 2016 |
| Stockholm Convention on Persistent Organic Pollutants (POPs) (ratified 2007); Related updates: 2009 amendments listing 9 new POPs, 26 August 2010; 2011 amendment listing endosulfan, 27 October 2012; and 2013 amendment listing HBCD, 26 November 2014. | 2007 |
| UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage | 1997 |
| Aarhus Convention (joined 2001); A related update is the Kiev Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information on 21 May 2003. | 2003 |
| Bonn Convention on the Conservation of Migratory Species of Wild Animals (joined 2001); A related update is the Bukhara Deer Memorandum, 2002. | 2001 |
| International Convention for the Protection of New Varieties of Plants UPOV Convention (1961), as revised at Geneva (1972, 1978 and 1991) | 2012 |

Other relevant international agreements ratified by Tajikistan are:

* 1. *Occupational Safety and Health Convention*, 1981
  2. *Working Environment (Air Pollution, Noise and Vibration) Convention*, 1977

**3.7. World Bank's Environmental and Social Standards and their requirements**

The World Bank is committed to supporting Borrowers in the development and implementation of projects that are environmentally and socially sustainable, and to enhancing the capacity of Borrowers' environmental and social frameworks to assess and manage the environmental and social risks and impacts of projects. To this end, the Bank has defined specific Environmental and Social Standards (ESSs), which are designed to avoid, minimize, reduce or mitigate the adverse environmental and social risks and impacts of projects. ESSs define the material standards of protection, procedural requirements, and individual rights of the project-affected communities, which borrowers must comply with and whose fulfilment the World Bank supports and works with borrowers to ensure compliance during implementation. The standards carry over numerous environmental and social requirements.

The Environmental and Social Framework (ESF) enables the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. It was launched on October 1, 2018.[[13]](#footnote-13) The ESF offers broad and systematic coverage of environmental and social risks. It makes important advances in areas such as transparency, non-discrimination, public participation, and accountability—including expanded roles for grievance mechanisms. It brings the World Bank’s environmental and social protections into closer harmony with those of other development institutions. The ESF consists of:

- the World Bank’s Vision for Sustainable Development

- the World Bank’s Environmental and Social Policy for Investment Project Financing (IPF), which sets out the requirements that apply to the Bank

- the 10 Environmental and Social Standards (ESS), which set out the requirements that apply to Borrowers

- Bank Directive: Environmental and Social Directive for Investment Project Financing

- Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups

The WB Environmental and Social Standards (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.

This ESMF found that 8 ESSs are relevant to the proposed project activities, namely ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8, and ESS 10.

The requirements of these ESSs and their implications for the current project are presented in Table 5 below.

*Table 5: The WB Environmental and Social Standards relevant to the Project*

|  |  |  |  |
| --- | --- | --- | --- |
| **ENVIRONMENTAL AND SOCIAL STANDARDS (ESS)** | **RELEVANCE RATE** | **MAIN REQUIREMENTS** | **ADDRESSING ESSs** |
| ESS 1. Assessment and Management of Environmental and Social Risks and Impacts | Relevant | ESS1 sets out the Borrower’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).  As required by this standard, the ESIA should be conducted based on current information, including a description and delineation of the project and any associated aspects, and environmental and social baseline data at an appropriate level of detail sufficient to inform characterization and identification of risks and impacts and mitigation measures. The assessment evaluates the project’s potential environmental and social risks and impacts, with a particular attention to those that may fall disproportionally 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. | This ESMF prepared by the Project shows that, overall, the project will provide a series of positive social and environmental impacts. The Project will support restoration of degraded landscapes and improve management of pastures, pilot protected areas and forests, land and water management, and will support investments in rural livelihood development and landscape management selected through a multi-stakeholder planning process, and the bulk of which will be designed and managed primarily by communities, farmers, and resource user groups through the small grant program.  Anticipated risks, are expected to be easily mitigable, include dust and minor soil loss during planting, use of pesticides for nurseries or during planting, possible encroachment on natural habitats, issues related to small-scale construction/ rehabilitation of existing facilities (dust and waste disposal etc.).  The project may generate some adverse environmental impacts associated with potential environmental impacts associated with noise, dust, pollution of air, soil and water, solid waste management, biodiversity degradation, health and safety hazards, community health and safety risks, etc. It is expected that environmental risks will be typical for small construction works and the work on the creation of protective plantations and agroforestry demonstration sites. Environmental risks will be temporary in nature and specific areas and can be easily mitigated by applying best building and/or environmentally friendly methods and appropriate mitigation measures.  The construction impacts can be easily mitigated by applying good construction practices and following the provisions of the Environmental and Social Management Plans.  As before project appraisal, it is not possible to identify all activities and the subprojects that will be financed, in accordance with the ESS1, the borrower prepared an Environmental and Social Management Framework (ESMF), which specifies rules and procedures for the activities and subprojects’ Environmental and Social Impact Assessment (ESIA) and for preparing Environmental and Social Management Plans (ESMPs). |
| ESS2. Labor and Working Conditions | Relevant | 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.  Considering specified requirements, the Borrower must develop and implement written labor management procedures applicable to the project. These procedures should set out the way in which project workers will be managed, in accordance with the requirements of national law and this ESS. The procedures should address the way in which this ESS will apply to different categories of project workers including direct workers, and the way in which the Borrower will require third parties to manage their workers in accordance with ESS2. | In compliance with ESS2, the Labor Management Procedures (LMP) have been prepared to describe main labor requirements and risks associated with project implementation and to help the Borrower to determine the resources necessary to address labor issues.  LMP provides an overview of labor use in the project, legislative framework governing labor employment in Tajikistan and a gap analysis with that of the World Bank’s ESS 2, key potential labor risks and mitigations measures, implementation arrangements, roles and responsibilities, and procedures are outlined. Worker grievance mechanism set up and contractor management requirements are presented in the last two chapters.  The Project will encompass the following categories of workers: direct and contracted workers.  *Direct workers.* The Implementing Agencies (IAs), follow the national labor legislation and practices when hiring project staff.  *Contractors.* The Contractors follow the legal provisions of the national Labor Code. IA will also procure services of local service providers/civil works vendors at the national and local level. They will recruit local staff and issue employment contracts and service contracts for the employed people. The Contractors will have to follow Occupation Safety and Health rules.  *Subcontractors* may be involved by contractors to carry out work on the construction of a forest nursery or structures of the irrigation network. Subcontractors are expected to be selected from among local companies. The subcontractor will be guided by national legislation, regulations and the Labor Code of Tajikistan.  All civil works contracts will include industry standard Codes of Conduct that include measures to prevent Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH). A locally based Grievance Redress Mechanism (GRM) specifically for direct and contracted workers will be provided.  It also includes OHS requirements during the COVID-19 pandemic situation and a reference to the WBG’s Environmental Health and Safety Guidelines that do apply to this project. The link can be found here:  [https://www.ifc.org/wps/wcm/connect /topics\_ext\_content/ifc\_external\_corporate\_site/sustainability-at-ifc/policies-standards/ehs-guidelines](https://www.ifc.org/wps/wcm/connect%20/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines) |
| ESS3 Resource Efficiency and Pollution Prevention and Management | Relevant | 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 | The ESMF includes sections on Pollution Prevention and Management with a focus on those issues which might arise while conducting civil works for facilities construction and rehabilitation activities. Assessment of associated with civil works risks and impacts and proposed mitigation measures related to relevant requirements of ESS3, including raw materials, water use, air pollution, hazardous materials, organic and hazardous waste included ESMPs as relevant. |
| ESS4: Community Health and Safety | Relevant | ESS4 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. | To address environmental risks and impacts that might affect community Health and Safety, the ESMF includes assessment of work-related health risks; works and road safety; excessive noise and dust levels, site safety awareness and access restrictions; and labor influx. All these issues were required to be included in the site specific ESMPs to be prepared once the investments are identified. ESMPs required that fencing should be installed around all construction sites and areas where there is a risk to community health and safety. Contractors developed and adhered to Codes of Conduct, including requirements for respectful behavior and interaction with local communities and within work sites, prohibition from engaging in illicit activities, sexual exploitation and abuse, or sexual harassment (SEA/SH), forced or child labor. Additional activities to prevent and mitigate risks of SEA/SH, COVID-19 to be conducted by implementation agency, include establishing GBV sensitive grievance redress mechanism, training and awareness-raising for staff, contractors, and local communities (neighboring sites of construction sites) on SEA/SH risks, available support services, Codes of Conduct to be followed by implementation agency staff and contractors, and available GBV-sensitive grievance redress mechanism. COVID-19 Management plan to be developed as part of HS management plan and followed by Contractors and followed.  The Stakeholder Engagement Plan includes the public awareness and educational campaign before the project activities launch, including community outreach before pesticide use, planning around other, non-project activities that could be affected by massive pesticides (particularly bee keeping, poultry, etc.). Outreach activities will be implemented considering the Covid-19 precautions.  Furthermore, as per requirements of this ESMF, site specific ESMPs will include the necessary measures to ensure efficient waste management and prevent inadvertent spread of animal diseases along with training requirements in this regard. |
| ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement | Relevant | 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. The term “involuntary resettlement” refers to these impacts.  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 project activities may cause restriction on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project. To address this risk, a Process Framework will be developed during implementation to ensure community participation. It will outline the ways local communities, who have a stake, especially in protected areas, may participate in land and natural resources management through informed and meaningful consultations and negotiations to develop and implement perspective plans.  Component 3 will finance resilient infrastructre rehabilittaion, including roads and river banks, which may cause minor economic and resettelement impacts. The CEP has also prepared a Resettlement Policy Framework (RPF) to guide in this regard. The RPF will define the procedures for: (i) acquiring land (after all technical alternatives have been exhausted), (ii) dealing with any residual impacts from land acquisition (i.e. identifying, establishing the valuation of, and compensating people that suffer economic losses or loss of private property), (iii) monitoring and verification that policies and procedures are followed, and (iv) grievance redress mechanisms. Where resettlement-related impacts have been identified, site-specific RAPs will be prepared by the CEP/IG in accordance with the RPF. |
| ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources | Relevant | ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development. Impacts on biodiversity can therefore often adversely affect the delivery of ecosystem services. ESS6 recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support.  All habitats support complexities of living organisms and vary in terms of species diversity, abundance and importance. This ESS also addresses sustainable management of primary production and harvesting of living natural resources.  This standard aims to safeguard natural habitats and their biodiversity; avoid significant conversion or degradation of critical natural habitats, and to ensure sustainability of services and products which natural habitats provide to human society. | This ESS is relevant. The proposed pilot activities in landscape restoration, reforestation, and pasture management are likely to involve sustainable use of natural resources that may include innovative pasture management, forestry, and orchard development. It may also support investment in rehabilitation of existing degraded forests and woodlands to restore protective cover and to make these and other forests more productive.  The project will not finance activities that involve any conversion or degradation of critical natural habitats. The project will also not finance industry-scale commercial harvesting operations.  As the specific locations of pilot activities are not yet known, the ESMF contains criteria prohibiting them in or near protected areas or critical natural habitats. The ESMF also contains checklists and guidance to help the client deal with issues related to ESS 6 for the different types of activities being piloted. Additionally, ESMF criteria will include requirements for detailed mapping and, where necessary, identification of species and habitats. |
| ESS8: Cultural Heritage | Relevant | ESS8 recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. It sets out measures designed to protect cultural heritage throughout the project life cycle. | ESS 8 is relevant, and a precautionary measure, chance find procedure is included in the ESMF and will be part of mitigation measures to be provided in site-specific ESMPs. |
| ESS10: Stakeholder Engagement and Information Disclosure | Relevant | ESS 10 recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. 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. | Stakeholder engagement is an inclusive process conducted throughout the project life cycle. Where properly designed and implemented, it supports the development of strong, constructive, and responsive relationships that are important for successful management of a project’s environmental and social risks.  Stakeholder engagement is most effective when initiated at an early stage of the project development process and is an integral part of early project decisions and the assessment, management, and monitoring of the project’s environmental and social risks and impacts.  A SEP has been developed and includes full stakeholder mapping, outlines the activities and timeframe for engaging with different stakeholder groups throughout the life of the project, defines roles and responsibilities, human resources and budget needed for implementing SEP activities. The SEP has been prepared with inputs from stakeholders with applying of COVID-19 precautionary measures during consultations. |

**IV. NATIONAL INSTITUTIONAL FRAMEWORK**

**4.1. National Institutions involved in the Environment Sector**

In order to create an effective system of governance strategic planning and sustainable socio­economic development of the country and in accordance with Article 69 of the Constitution, the environmental institutional and management system has been established by the GoT which includes various state agencies. Tajikistan's current environmental institutional and management system includes the following institutions:

* Parliament,
* Presidential Administration,
* Committee for Environment Protection (CEP) under the Government of Tajikistan,
* State Committee of Statistics,
* Ministry of Agriculture,
* Ministry of Energy and Water Resources,
* Ministry of Healthcare and Social Protection,
* Ministry of Economic Development and Trade,
* Ministry of Finance,
* Agency for Land Reclamation and Irrigation,
* Tajik Standard Agency,
* Tajik Forestry Agency,
* Tajik Meteorological Service under CEP,
* Tajik Academy of Science and its research Institutes,
* State Enterprise on Protected Areas, and
* other institutions.

A brief description of key institutions and their role within the public administration is provided below:

***The Environmental Protection Agency (EPA)*** of Tajikistan (namely the Committee for Nature Protection of the Tajik Soviet Socialistic Republic) was established for the first time in August 1989. Its mandate included coordination of the activities related to environmental protection among government agencies and the control over natural resource use, land protection, subsoil, forests, water, and other resources. In 1994 EPA's legal status was improved and reorganized into the Ministry of Nature Protection of the Republic of Tajikistan with the same mandate. However, 10 years later due to restructuring of the GoT the Ministry became again a State Committee for Environmental Protection and Forestry (SCEPF) in 2004. The EPA mandate was expanded slightly by including the former Forestry Management agency. In 2006 due to further restructuring of the GoT EPA was merged with the Ministry of Agriculture, which became the Ministry of Agriculture and Environmental Protection. EPA's mandate within the new Ministry was kept the same. During 2008 EPA became the Committee for Environmental Protection (CEP) under the Government of the Republic of Tajikistan.

CEP coordinates all activities related to environmental protection among GoT and oversees natural resources use, land protection, subsoil, forests, water, and other resources. The decisions of CEP are considered mandatory for all legal entities and individuals. Currently CEP has a total of 400 staff of which about 50 in Dushanbe Headquarter.

***The Parliament of Tajikistan*** plays a key role in determining policies, strategies and rules for sectors that may affect and be affected by environmental factors. It consists of two chambers - *(Majlisi Namoyandagon)*, Lower Chamber, and (*Majlisi Oli)*, Higher Chamber. The Parliament involves relevant executive agencies related to environmental and social risk management which overview relevant sectoral legislation with active role in endorsing supporting laws and regulations (sub-laws).

Several committees are of particular relevance:

* The Ecological Committee, which oversees environment-related legislation;
* The Education Committee, which oversees the Law on Environmental Education and laws regarding post-secondary education and professional (vocational) training; and
* Sectoral committees covering environment-sensitive sectors, for example Environmental Committee, which will be essential to integrating environmental and social risk management issues into agriculture, land use, water, and other policies. Parliament's facilities include an information library for members of the Lower Chamber that contains more than 16,500 publications. Among 63 Parliamentarians, 6 are members of the Ecological Committee which work directly on environment-related legislation.

***The Ministry of Agriculture (MoA)*** develops and coordinates agricultural and regional policy, strategic plans, state and sectoral programs in the agricultural sector. Beyond that, the Ministry oversees a significant segment of the economy that is vulnerable to climate change, land degradation, POPs, biodiversity and other areas. The Ministry has a total of 3.583 staff; 104 of them work in the central management unit, in Dushanbe.

MoA also oversees the activities carried out by the Academy of Agricultural Sciences, which serves as the scientific and coordination centre for agrarian science in Tajikistan. The Ministry is also linked with the Tajik Agrarian University consisting of nine faculties. Both of these provide opportunities for applied research and knowledge transfer. The activities of the Academy of Agricultural Sciences are directly relevant to various environmental issues.

***The Ministry of Economic Development and Trade (MEDT)*** is the government agency with task in overseeing the system of state economic planning and forecasting and facilitating the effective implementation of socio-economic development priorities in Tajikistan. One of the main tasks of this Ministry is to develop and implement economic development programs and strategies of the Republic of Tajikistan with the aim of reducing poverty and stabilizing socio-economic conditions. According to governmental regulations, the Ministry of Economy is to be included in all working groups that develop sustainable strategies, plans and budgets. Representatives of the Ministry are headed the editing group to prepare the country's National Development Strategy and the Poverty Reduction Strategy. The Ministry also monitors the implementation of the two strategies. Among its other roles, MEDT is one of the co-executive bodies of the National Action Plan for Climate Change Mitigation.

***The Ministry of Finance*** aside from economic and financial functions is responsible to review and approve the budgets of state agencies including those related to the environment and climate change.

***The Ministry of Industry and Innovative Technology*** is involved with environmental issues despite its role as Designated National Authority for Clean Development Mechanism projects conducted under the Kyoto Protocol of the UNFCCC in Tajikistan. The Ministry is responsible for data flow coordination, monitoring, and analysis under the National Development Strategy process.

***The Ministry of Energy and Water Resources*** is responsible for the water policy in the country. It is involved in almost all emerging policies in the country, including the discussion of program action plans focusing on the environmental protection. The Ministry is participating in the development of the national water strategy based on the Millennium Development Goals. The National Water Strategy includes the development of energy sources without negative environmental impact. The activities of the Ministry are interlinked with the construction of hydropower plants and their reservoirs in areas related to trade-off between development and environmental issues with the strategic purpose of: a) providing the necessary flow regulation during the fluctuation and changes in water volume; b) reducing the negative impacts of silt on existing reservoirs; and c) reducing the potential negative impacts of construction of new reservoirs.

According to the Public Health Law, the ***Ministry of Health and Social Protection*** provides sanitary-epidemiological services to the public. It conducts the state sanitation-epidemiological supervision, carries out activities on environmental safety, environmental protection and sanitation as well as develops national industry health norms, regulations and hygiene standards. The Ministry has an affiliated research institute, the Institute of Epidemiology and Sanitation, and it also manages about 73 sanitary- epidemiological observation stations. The State Epidemiological Service is an independent agency participating in a WHO regional project on health and climate change. The project team has drafted a Strategy for Health and Climate Change.

The Ministry of Education and Science deals with environmental issues because of its mandate under the Law on Environmental Education, which instructs it to develop and carry out environmental education projects. The Ministry oversees schools, which can serve as effective entry points for awareness about climate change issues.

***The Ministry of Transport*** is responsible for the implementation of transportation policy. The environmental impact of the transport infrastructure, as well as transport traffic. At the same time the impact of the climate change on the state of road infrastructure is considered considering roads and bridges washout by mudflows and avalanches. Additionally, the Ministry is relevant to environmental issues because of its participation in the development of a National Strategy for Sustainable Transport.

***The State Committee for Land Use, Geodesy, and Cartography*** was established in 2011 and is responsible for developing land use policies and reforms. It is one of the main agencies being responsible for the enforcement of the Land Code. The Committee's functions include:

* Monitoring of land resources;
* State control on efficient use and conservation of land;
* Introduction of land inventory;
* State registration to legal land use;
* Promotion of rational ways of the land use;
* Definition of land tax and land use fees for violation of land legislation;
* Participation in decision-making regarding the rehabilitation of degraded land; and
* The preparation of documents for the distribution of land among various executive agencies.

In addition, the Committee oversees two institutes that conduct applied research relating to land use change, including land use inventories and mapping. The Committee has a main office in Dushanbe with approximately 70 staff and district level offices with nearly 200 staff.

***The Committee for Emergency Situations and Civil Defense*** is the government agency with the task for disaster risk reduction and response and coverage of climate-induced natural disasters. The Committee conducts reviews and analysis of disaster risk assessment in light of climate change, and it has a department that focuses on evacuation and re-settlement. In terms of facilities, the Committee has its headquarters in Dushanbe and representatives in every region and district of the country. The Committee has its own training facilities, and it offers in-service training for its employees. It also has its own chemical-radiometric laboratory. It participates in several CIS-wide initiatives to share good practice, and it has previously used international experts on an extended-term basis through technical assistance projects with good results.

***The Agency of Land Reclamation and Irrigation (ALRI)*** is responsible for sustainable operation of the national irrigation system and the land reclamation. It also monitors the use of water resources, being responsible for the distribution of water to farmers for agricultural purposes and provides data on water consumption to the Committee of Environmental Protection. Finally, the Agency is in charge of the operation and infrastructure maintenance of irrigation and rural water supply. It has offices in Dushanbe and also oversees the Institute of Water Improvement.

***The Academy of Sciences*** is the main source of scientific information and data that possesses highly-qualified specialists and researches. Fifteen research institutes including the Institute of Water Problems, Hydropower, and Ecology are operational under the umbrella of the Academy. The institute has the capacity to develop long term action plans in different sectors of the economy, and Academy researchers are involved in developing the National Action Plans on biodiversity and climate change mitigation. The Academy includes institutes that conduct researches related to the environment (climatology, glaciology, hydrology, radiation safety, hydropower, biodiversity conservation and water resource management); fourteen institutes are located in Dushanbe, and 1 is located in GBAO.

**4.2 National Institutions involved in Social Risk Management**

Identified government institutions to be engaged in the project implementation are outlined in [Table 6](#Ref522429841) below. They are divided into categories based on at what administrative level(s) the institutions represent: national, oblast, and district authorities.

*Table 6: Relevant Government Institutions*

| **Institution Category** | **National level** | **Oblast (region)** | **Rayon (district)** | **Role and Engagement** |
| --- | --- | --- | --- | --- |
| Government Administrations | Cabinet of Ministers | Governor’s office | District and town administrations, including chairman’s office | Approvals and strategic planning  Land management issues and child/forced labor monitoring |
| Line Ministries and Agencies | Ministry of Agriculture (MoA) | Oblast Agricultural Department | District Agricultural Department | Support with implementation of project activities related to pasture management |
|  | Labour Inspection under the Ministry of Labour, Migration and Employment | Regional Department | District Department | Controls compliance to occupational safety norms and rules, labor conditions and rights |
| The State Committee for Architecture and Construction (SCAC) | Chief Oblast Architect | Chief District Architect | Controls compliance to the construction standards for social infrastructure and Local Master Plans |
| State Committee for Land Management and Geodezy | Regional Department for Land Management and Geodezy | District Department for Land Management and Geodezy | Land Certification Issues |
| Women and Family Affairs Committee | Regional/Oblast Department for Women and Family Affairs | District Office for Women Affairs | Support women engagement and GBV prevention and Gender Action Plan implementation support |

**V. BASELINE INFORMATION**

**5.1. Physical Resources**

**Topography and geology.** Tajikistan has a mountainous terrain that accounts for 93% of its land area. Its rugged topography ranges from a few hundred meters to 7,000 meters above sea level (masl). China borders the Eastern Pamir Plateau and Uzbekistan borders the Fergana Basin in the north Kyrgyzstan Border. The main elements of Tajik geography are the following: the Kuramin Mountain Range and the Mogoltau Mountains, Fergana Depression, Hissar-Alai Mountains (the South Tian Shan), the depressed area in southwestern Tajikistan (Tajik depression), and Pamir. Altitudes range from 300-7,495 meters above sea level (masl) (Figure 1). The modern relief of Tajikistan is the result of activities of alpine tectonic movements of the earth surface and the denudation process. The majority of plain territories in the country are the broad areas of river valleys or the vast depressions between the mountains. Most of the country’s population is concentrated in these particular areas along with the main fields of industrial and agricultural production of the country.

*Figure 1: Elevation Map of Tajikistan*

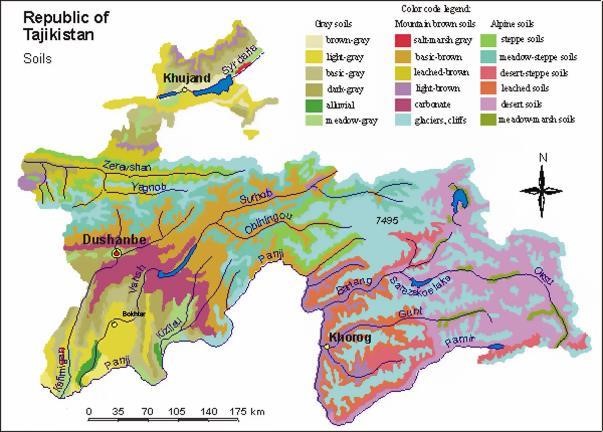


**Seismicity.** Tajikistan is located near the border between the Eurasian and the Indian plates, a region where relatively large earthquakes occur.It is a country of intense tectonic movements and high seismicity. According to records of the International Institute of Seismology and Earthquake Engineering, there have been seven earthquakes with a magnitude of over 6.5 with epicenter in Tajikistan since 1900. There are many earthquakes near the Afghanistan border in southern Tajikistan. Earthquakes are dependent on many factors: geotechnical conditions, nature of the soil, presence of groundwater, landforms, etc. Major seismic zones in Tajikistan are with 7, 8, and 9 degree seismic intensity on the MSK-64 scale[[14]](#footnote-14). In each of these zones, earthquakes at the mentioned levels are possible. Most southern districts are in seismic Zones 7 or 8. Northern districts are in Zone 8, except for Mastchoh District, which is in Zone 7. Dushanbe, the districts of Republican Subordination, and Gorno-Badakhshan Autonomous Region (GBAO) are in Zone 9.

**Soils.** As a typical alpine country, Tajikistan has vertical variability of soil cover. Three major vertical belts of soil distribution can be found in the country: (i) gray soils of valleys and idle fields; (ii) brown soils of middle belts of mountains; and (iii) soils of highlands. There is a distinguished gradient from the more humid northern part of the study area to the very dry southern part. The soils of the study area are highly productive, with much of the area used for agriculture. In the dry southern part of the subproject area, agricultural use is, however, only possible when soils are irrigated. Soil erosion is a major environmental concern throughout the country due to seismic activity, steep slopes, the fragility of soils, and human activities such as inappropriate livestock management, the removal of protective vegetative cover, and poor water management practices.

Soil profiles are typically loess, loamy sands, and loamy soils, occasionally bench gravel of the upper quaternary age, classically formed through wind deposition over arid or semi-arid areas. Soils are brown-gray, light gray. The humus layer of the loess and loamy sands is fairly fertile and agriculture is possible. For these soils to be converted into agricultural use, they require irrigation and the mineral fertilizers (Figure 3).

*Figure 2: Soil Map of Tajikistan*



**Air quality.** The problem of air quality is one of the basic ecological issues of industrial and urbanized areas in Tajikistan. The main stationary sources of air pollution in Tajikistan are mining, metallurgy, chemical industries, buildings, mechanical processing, light industries, heat and power generation, and agriculture.

In 2005, the share of motor transport emissions was 170,300 tons (t) or 83 % of the total amount of pollutants released into the atmosphere. Motor transport is the main source of substances accumulating in the atmospheric surface layer. Products of fuel combustion are released to the atmosphere and generate smog. Old vehicles with increased toxic gas emissions comprise 30-40% of the total number of vehicles for road transportation. The exhaust emissions include about 200 chemical components and dangerous substances such as carbon monoxide, nitrogen oxide, hydrocarbons, lead, etc.

Typically, a vehicle with an internal combustion engine using 1,000 liters (l) of fuel emits about 200 kilograms (kg) of carbon monoxide, 20 kg of nitrous oxides, 1 kg of ash and solid particles, and 200-400 g of lead components. In urban conditions, emissions from road transport potentially rise because of frequent changes in operation mode and traffic jams. Illegal burning of leafage, street litter, and household wastes contributes to the pollution of urban atmospheric air. It is dangerous as leaves absorb harmful elements and heavy metals, such as lead, while household wastes contain rubber, plastic, and other organic substances that emit 40 harmful and toxic components when burning. The emission of harmful substances into the atmosphere potentially affects many natural and societal objects not depending on the pollution source and distance. As a result of air pollution, cultural values, vulnerable ecosystems, agricultural lands, and population might be damaged.

**Climate.** Tajikistan has three major climate zones: continental, subtropical, and semiarid, with some desert areas. The climate changes drastically according to elevation, however. The location of the country in the middle of Eurasia, its remoteness from oceans and seas, and proximity to deserts predefine its climate, which can be characterized as continental, with considerable seasonal and daily fluctuations in temperature and humidity. The climate in the central and southwest regions of Tajikistan is characterized by rather hot summers and mild winters. The cold period lasts for 90-120 days, and the warm period, 235-275 days. Of the annual precipitation, 75-85% occurs from December to May. The country‘s very complicated relief structure, with huge variations in elevation, creates unique local climates with great temperature differences, as shown in Figures 35-37. The country's capital, Dushanbe, and Khatlon provinces, are classified as having a continental climate, where it is hot and dry from June to September in the plains with a maximum temperature exceeding 35˚C. On the other hand, snow is observed from December to February with minimum temperatures below 0˚C.

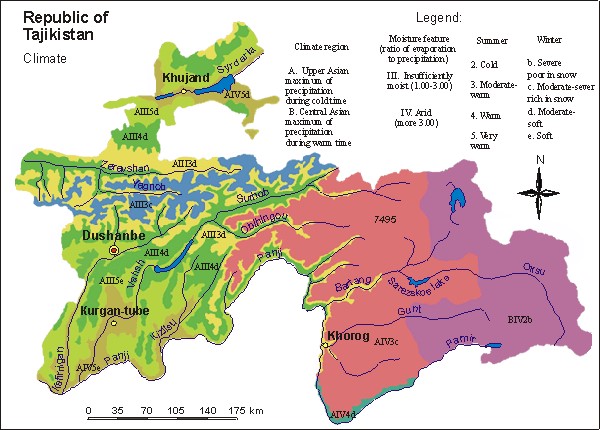
**Wind.** Tajikistan is characterized as having few strong winds from large-scale lows, such as typhoons, although there are relatively many seasonal winds with dust. The wind speed is similar to that in South Asia at about 40 m/sec (mps). The wind direction and average wind speed in the subproject areas are shown in Table 9.

*Table 7: Wind Direction of the Cardinal Points and Average Wind Speed (m/sec*)

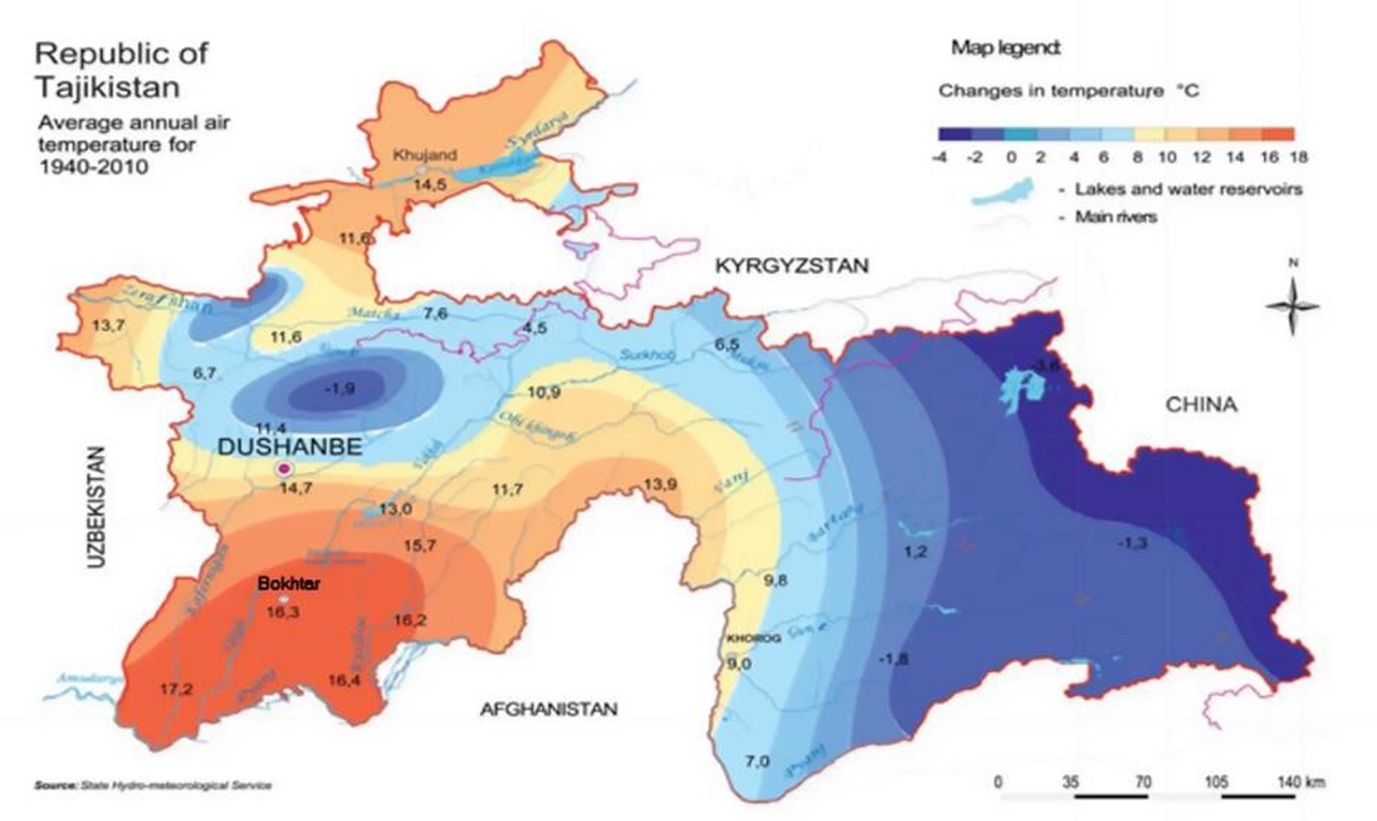
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Location / Wind Direction** | **N** | **NE** | **E** | **SE** | **S** | **SW** | **W** | **NW** |
| Dushanbe | 1.9 | 1.5 | 1.9 | 1.8 | 1.6 | 1.6 | 1.9 | 1.7 |
| Khujand | 2.2 | 4.6 | 4.5 | 2.2 | 3.1 | 5.7 | 3.9 | 2.1 |
| Bokhtar | 1.6 | 1.4 | 1.6 | 2.2 | 2.0 | 1.6 | 1.5 | 1.6 |

Source: Construction Climatology (MKC 23-01-2007, Table 10).

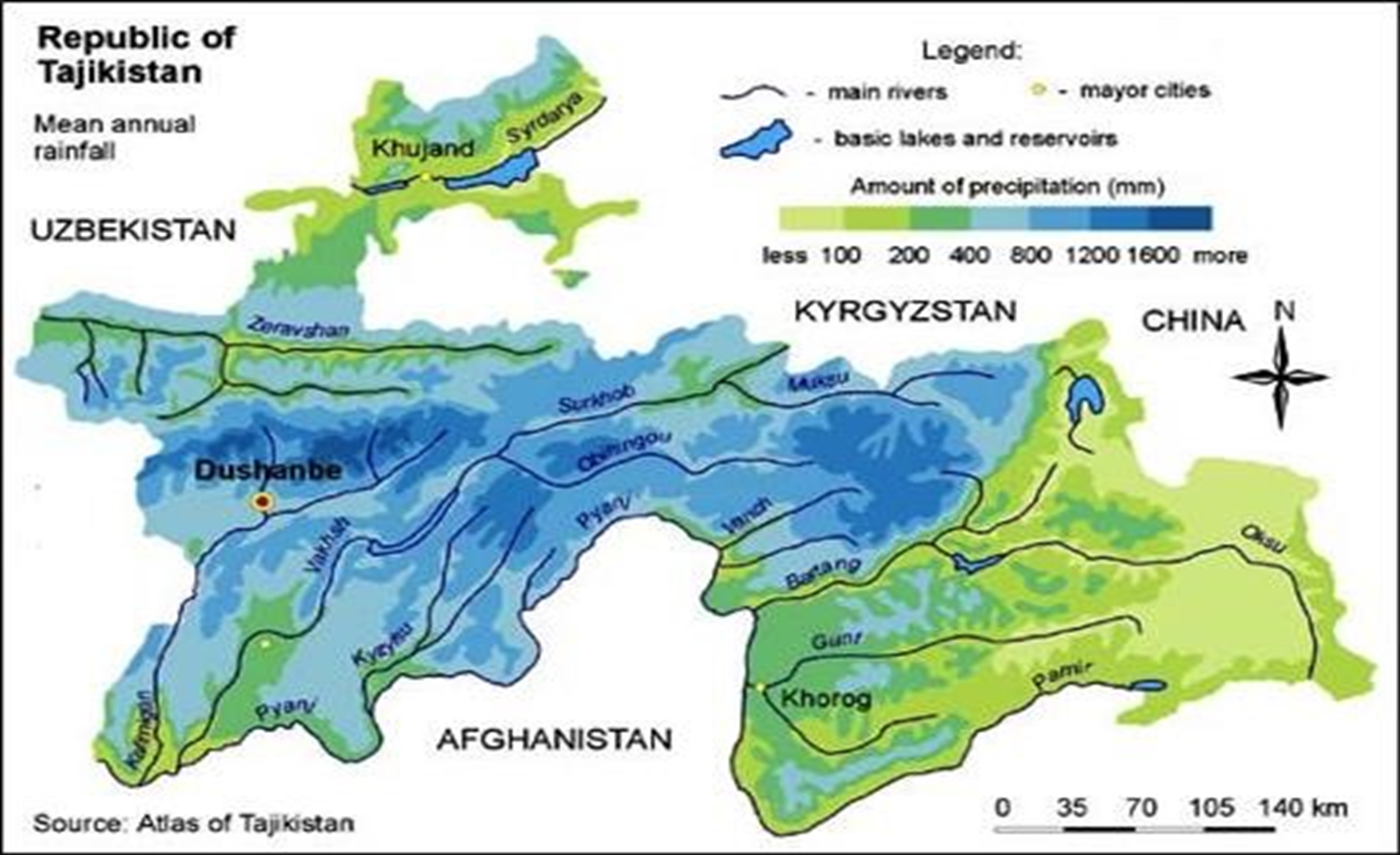
*Figure 4: Climatological Map of Tajikistan*



*Figure 5: Average Annual Temperature Map of Tajikistan*



*Figure 6: Mean Annual Precipitation in Tajikistan*



**Hydrology.** The rivers of Tajikistan are important sources of fresh water for the Aral Sea. The glaciers and permanent snow feed the rivers of the Aral Sea basin with over 13 cu km of water a year. The major rivers are: (i) Syr Darya with a total length of 2,400 km, which flows for 195 km across the Fergana Valley in the north; (ii) Zaravshan, which runs through central Tajikistan; and (iii) Kafirnigan, Vakhsh, and Panj rivers, all of which together drain more than 75% of Tajikistan’s territory. Groundwater reserves are extensive in the Gissar valley. Aquifers are located at depths of 5-40 m, generally.

**5.2. Ecological Resources**

While Tajikistan is home to a wide diversity of animals, birds, vegetation, and habitats, biodiversity in the subproject areas is low as the subprojects are located in urbanized areas. No important, rare, endangered, or protected species or critical habitats are found in the project affected areas. Urban vegetation includes ornamental trees and shrubs (e.g., sycamore, elm, plain trees, *ligustigum*, maple, poplar, pine, *microbiota spp*., cedar, Chinese rose, Russian silverberry, etc.) and orchard/garden fruit-bearing species (e.g., mulberry, apple, fig, apricot, cherry, walnut, pomegranate, grape, Pontic hawthorn, Albert’s pearl bush, and dog rose). No protected or biodiversity-rich areas exist within the vicinity of the subproject areas.

**Floral communities.** The Hissar Valley is characterized by rich vegetative cover. The vegetation of the Vakhsh Valley can be attributed to the desert and steppe (300-800 masl) belt and the low-mountain (800-1,300 masl) belt, as well as the river valley belt. The Vakhsh River with its tributaries form three floodplain terraces. The surrounding hills and mountains are of relatively low elevation, ranging from 1,000-1,500 masl, on average. The highest peak is Mundy-Tau at 2,227 masl. The natural vegetation consists mainly of short meadow grass and sedges as well as other herbaceous vegetation. Some are planted to almonds and pistachios. Natural vegetation has been severely destroyed or altered by the influence of anthropogenic factors. Vakhsh Valley is the most important region of Tajikistan for agricultural cultivation, with cotton as the predominant crop.

**Fauna.** The fauna of Tajikistan is characterized by a great genetic diversity. Mountain fauna are richer than in the plains and contain a substantial number of European-Siberian and East Asian elements. The fauna of the hot, lowland deserts comprise plenty of Indo-Himalayan, Ethiopian, and Mediterranean species. Figure 7shows the distribution of rare mammals in Tajikistan.

*Figure 7: River Basins in Tajikistan*

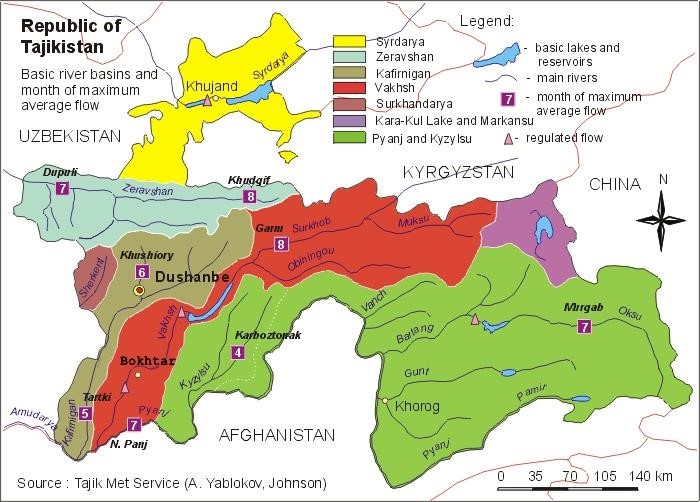


Figure 8: River Network in Tajikistan



Figure 9: Vegetation of Tajikistan

**Изображение выглядит как карта

Автоматически созданное описание**

Figure 10: Distribution Map of Rare Mammals in Tajikistan

Изображение выглядит как карта

Автоматически созданное описание

**5.3. Land Resources and Management Practices**

Tajikistan’s total land area is 141,380 square kilometers, of which less than 7 percent is arable. Approximately 412,000 hectares of Tajikistan is forested, constituting nearly 3 percent of total land area.[[15]](#footnote-15)  Most stands of forests are sparse and fragmented. According to the Global Forest Watch, as a result of reforestation, from 2001 to 2012 the country gained 143 hectares of tree cover. Government source indicates that as of 2019, the country developed and performed rehabilitation work on about 1714 hectares of forest land. The majority of forest land managed by the state is set aside for grazing, even though grazing has been shown to threaten forest resources.[[16]](#footnote-16) There are unclear responsibilities and jurisdictions, lack of reliable forest data, weak administrative, managerial and law enforcement capacities, and lack of sustainable forest management schemes.[[17]](#footnote-17) Table 8 below represents land resources available in target districts.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Table 8: Land Resources by Districts, hectares*** | | | | |  |  |
|  |  |  |  |  |  |  |
| **Region/** | **District** | **Arable lands, ha** | **Pasture lands, ha** | **Forest lands, ha** | **Forest nurseries, ha** | **Availability of Resource Management Plans** |
| **Basin** |
| Sughd/ | Asht | 11338 | 133888 | 644470 | 0 | Pasture Management Plan |
| Syr Darya | B. Ghafurov | 20494 | 80342 | 1329 | 4 | n/a |
|  | Shahriston | 16648.1 | 53541 | 28396 | 17711 | n/a |
|  | Istarafshon | 25168 | 20806 | 15112 | 16 | n/a |
|  | Ayni | 1441 | 141459 | 177472 | 0 | n/a |
|  | Panjekent | 18901 | 132156 | 108066 | 663 | n/a |
|  | K. Mastchoh | 2571 | 79310 | 54462 | 0 | n/a |
| Khatlon/Vakhsh | Shahrituz | 9630 | 107544 | 407 | 29 | n/a |
| N. Khisrov | 7164 | 55409 | 18548 | 0 | n/a |
| Qubodiyon | 13393 | 89209 | 28565 | 0 | n/a |
| GBAO/ | Vanj | 1145 | 12091 | 58833 | 0 | n/a |
| Panj | Rushon | 1392 | 21636 | 4173 | 0 | n/a |
|  | Shughnon | 1689 | 48180 | 2931 | 2 | n/a |
|  | Murghab | 0 | 511078 | 87770 | 0 | n/a |

*Source: Social Assessment, NGO Znaniye, 2021*

Government of Tajikistan (GoT) has adopted participatory approaches to natural resources management, particularly forest and pasture management. In forestry, the 1993 Forestry Code expressly permitted leasing to individuals, although the instrument was rarely used. Through the efforts of development partners (notably GIZ) this approach was developed in the last 10 years whereby formal 20-year contracts are agreed between individual households and the relevant State Forestry Enterprise (SFE) to restore and maintain forest cover. In return for their commitment to maintain the re-established forest, the beneficiaries are entitled to a share of the yield of timber and non-wood forest products. The process is now fully piloted and ready for upscaling. Outside of SFE land, Dekhan farms are also receptive to tree planting efforts to support food security and supply fuelwood and shelter. The approach was widely supported with the implementation of the Agriculture Reform Program of Tajikistan 2012-2020 that aimed at scaling-up successful practices in joint pasture and forest management focusing on rehabilitation, conservation and rotational use is crucial to success in the sector. Similarly, Pasture Law 2013 delegates management of pasture to local communities.

The Joint Forest Management (JFM) approach in Tajikistan focuses strongly on the participation of local communities in forest management. This participatory forest management approach enables the local population – either individuals or groups – to become involved in forest management and support the rehabilitation of degraded natural forests over the long term. Earlier JFM approaches in the country focused on contracts with individual households. The Forest Code adopted in 2011 specifically provides for the participation of local people in JFM and since 2018 the required subsidiary regulations and by-laws are now also in place. The SFEs are now obliged to support JFM and report on its implementation. The forest agency, forest enterprises and forest users in the previous project areas have gained a comprehensive understanding of JFM and are now able to share this approach more widely within and beyond the target areas, paving the way for full national rollout.

The Pasture Reclamation Trust (PRT) of the Ministry of Agriculture of the Republic of Tajikistan is responsible for pasture management supervision. For this purpose, PRT works in close cooperation with Pasture User Unions (PUUs) being established with the funding and support of international partners. A large number of PUUs are not yet fully legalized, have no registration at the tax authorities and do not fully functional. Pasture User Unions (PUU) develop usually a 5-year Pasture Management Plans (PMPs), and, become collectively responsible of the management of pasture. A PMP normally comprises of the following: (i) a pasture map, (ii) a carrying capacity and stocking rate calculation, (iii) a plan for rehabilitation of infrastructures, and (iv) a pasture rotation plan. There are around 430 active PUUs in the country. PUUs are proving to be an appropriate and potentially cost-effective system for the management of pasture, but some areas for improvement and challenges remain; their operationality remains limited by issues of land tenure which do not provide a conducive environment for PUUs to operate optimally.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Table 9. Resource Management Groups in Target Areas*** | | | | | | | |
| **Water Basin/Region** | **District** | **WUA** | **PUUs** | **FUGs** | **JFM** | | **WBO** |
|  | # of HHs | Hectares |
|  | Asht | 17 | 0 | 0 | \_ | \_ |  |
|  | B Gafurov | 22 | 0 | 0 | 95 | 203.72 |  |
| Sughd | Shakhristan | 3 | 0 | 0 | 4 | 14020 |  |
|  | Istaravshan | 22 | 0 | 0 | 14 | 88.9 | 1 |
| Syrdarya | Ayni | 1 | 5 | 0 | 48 | 38.77 |  |
|  | Panjikent | 13 | 0 | 0 | 82 | 211.01 |  |
|  | K Mastchoh | 0 | 3 | 0 | 5 | 16 |  |
| Khatlon | Shahritus | 10 | 0 | 0 | \_ | \_ |  |
| Vakhsh | N. Khusrav | 5 | 0 | 0 | \_ | \_ | 1 |
|  | Kabadiyan | 11 | 0 | 0 | \_ | \_ |  |
|  | Vanj | 4 | 0 | 0 | 220 | 1022 |  |
| GBAO | Rushon | 0 | 0 | 0 |  |  | 1 |
| Pyanj | Murghab | 2 | 6 | 0 |  |  |  |
|  | Shughnon | 0 | 0 | 0 | 671 | 2945 |  |
|  | TOTAL | 110 | 14 | XX | 1139 | 18,545.4 |  |

*Source: Social Assessment, NGO Znaniye, 2021*

There are only 14 Pasture User Unions, 110 Water User Associations and no FUGs in the target areas. The total number of beneficiaries of the JFM is 1139 households, managing over 18 thousand hectares of forest area.

Land degradation is also a threat in protected areas. Currently, about 22% of Tajikistan is demarcated as protected areas and recreational zones, with limited use of natural resources or full prohibition of land with valuable ecosystems. Due to inadequate financing and technical capacity, protected areas lack management plans, proper boundary mapping, and measures to prevent or reduce degradation, and opportunities for co-management with stakeholders. Responsibility for monitoring and preventing land degradation is fragmented across sectoral ministries and agencies; expert capacity exists in the State Committee for Land Management and Geodesy to make, obtain and analyze remote sensing data, but a robust assessment is not possible without key geobotanical expertise and community involvement. Thus, no official synoptic map products (covering the territory of the Republic of Tajikistan) are available around land degradation, nor is there any data sharing platform to publish such maps.

The project will cover four protected areas, including the following:

***Table 10. Protected Areas in Target Areas***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of PA** | | **Location** | **Year of foundation** | **Area**  **(thousand ha)** | **Tasks of the organization** |
| State Nature Reserve “Zorkul” | Murgab district, GBAO | | 14.03.2001 | 87.7 | Conservation of rare animals, including the Bukhara mountain sheep, the Pamir mountain sheep (arkhar) and Indian goose. |
| Yagnob Nature Park | Ayni district, Sughd Oblast | | 2.05.2019 | 57.0 | Protection and preservation of natural and cultural folk monuments. |
| Regional Administration of Tajik National Park in GBAO | Murgab, Vanj, Rushan, Shugnan districts, GBAO | | 20.07.1992 | 2200.0 | Preservation of natural ecosystems and rare animals, including snow leopard, Pamir mountain sheep (Arkhar). |
| State Nature Reserve  “Tigrovaya Balka” | Dusti and Jaykhun districts, Khatlon Province | | 4.11.1938 | 49.7 | Preservation of riparian forests and rare fauna, including Bukhara deer. |

**5.4. Social and Economic Characteristics**

**5.4.1 Population**

The Republic of Tajikistan is one of the countries with a rapidly growing population; in 2019, it reached 9.1 million people (49% of them are women, 40.6% are children under 18 and 66% are young people under 30). The average permanent population in Tajikistan has increased from 6.1 million., people (2000) to 9.1 million people (2019), or 49 percent. About 74 percent of the population lives in rural areas. The population of Tajikistan is very young.

***Table 11: Population of Tajik regions based on census and latest official estimates***

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Capital** | **Area A (km²)** | **Population Census 1979-01-12** | **Population Census 1989-01-12** | **Population Census 2000-01-20** | **Population Census 2010-09-21** | **Population approx. 2019-01-01** |
| Tajikistan | Dushanbe | 141,400 | 3,801,357 | 5,109,000 | 6,127,493 | 7,564,502 | 9,126,600 |
| Dushanbe | Dushanbe | 100 | 500,966 | 605,135 | 561,895 | 724,844 | 846,400 |
| GBAO | Khorog | 62,900 | 126,783 | 160,860 | 206,004 | 205,949 | 226,900 |
| Sughd | Khujand | 25,200 | 1,194,683 | 1,558,158 | 1,871,979 | 2,233,550 | 2,658,400 |
| Khatlon | Bokhtar | 24,700 | 1,220,949 | 1,701,380 | 2,150,136 | 2,677,251 | 3,274,900 |

The most densely populated district among the target sites is Istaravshon in Sughd region, while Murghab district being the largest mountainous site by the territory is the least populated area. The population of largely populated districts of Qubodiyon, Shahrituz, Panjekent, Istaravshon, B. Ghafurov and Asht range between 100,000 and 380,000 people. Share of women in the target sites is 50% in average, while youth population at the age of 14-29 is around 34% in average. Please see Table 11 below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Table 12: Population by Targeted Districts (people)*** | | | | | | | |
| **Region/Basin** | **District** | **Population** | **Females** | **Youth ages 14-29** | **Population Density** | **# of Jamoats** | **# of villages** |
|  |
|  | Asht | 172162 | 85547 | 58170 | 61.7 | 9 | 50 |  |
|  | B. Ghafurov | 383900 | 192200 | 130700 | 144.3 | 12 | 120 |  |
| **Sughd/** | Shahriston | 45084 | 22420 | 15700 | 366 | 2 | 18 |  |
| **Syr Darya** | Istarafshon | 278600 | 137900 | 92500 | 405.5 | 10 | 69 |  |
|  | Ayni | 85033 | 42462 | 28700 | 16 | 8 | 62 |  |
|  | Panjekent | 311270 | 151294 | 104600 | 84.1 | 14 | n/a |  |
|  | K. Mastchoh | 26651 | 13171 | 9883 | 7.1 | 2 | 54 |  |
| **Khatlon/Vakhsh** | Shahrituz | 133000 | 66100 | 28454 | 86.7 | 5 | n/a |  |
| Nosir Khisrov | 40643 | 20305 | 15876 | 49.1 | 3 | 31 |  |
| Qubodiyon | 188340 | 96054 | 60300 | 104.5 | 7 | 43 |  |
| **GBAO/Panj** | Vanj | 37078 | 17313 | 18611 | 7.8 | 6 | 57 |  |
| Rushon | 26214 | 10369 | 4930 | 7.2 | 7 | 43 |  |
| Shughnon | 39781 | 19410 | 16228 | 0.11 | 7 | 65 |  |
| Murghab | 15895 | 8012 | 4745 | 0.4 | 6 | 11 |  |

*Source: Social Assessment, NGO Znaniye, 2021*

Given the importance of agriculture for the water basins, natural resources such as land and water have historically been amongst the most important factor in Sughd region development. The size of the population depending upon these resources is consequently a key political security, and environmental issue. The Syr-Darya basin is one the most populous areas in the target areas. High population densities increase the risk of depletion of natural resources, and thus competition and even conflict for their control. Rural overpopulation and increasingly young population put the whole region under demographic pressure. The situation is aggravated by the lack of jobs and opportunities in general, especially in marginalized areas.

**5.4.2 Economy**

Agriculture is the main economic activity in regions where the majority of the population lives in rural areas. The main crops and agricultural products are cotton, cereals, oilseeds, potatoes, carrots, onions, cucumbers, cabbage, melon, vine, milk, wool, honey and eggs. Vegetable gardens and small farms are also considered an important part of the local economy. These include apples, peaches, apricots, almonds, pears, pomegranates, mulberries, and walnuts grown in homesteads in addition to crops. Cotton makes an important contribution to both the agricultural sector and the national economy. Cotton accounts for 60 percent of agricultural output, supports 75 percent of the rural population, and uses 45 percent of irrigated arable land. Cotton is a cash crop that is widely grown in the project's target areas, but it involves high levels of irrigation and chemicals, while many local farmers make small profits from its sale (compared to intermediaries and dealers). With the declared freedom to cultivate agricultural land has declined dramatically, giving way to other crops preferred by farmers. The irrigation infrastructure inherited at the end of the Soviet era suffered from a lack of investment in routine maintenance, which led to the gradual loss of cultivated land and damage to embankments, water intakes, and canals.

About 45 percent of the country's irrigated land is located in the Khatlon region. Cotton is the main crop grown in the area and accounts for 60 percent of the country's cotton crop. Its industry is represented by 334 enterprises specializing in chemical production, production and processing of agricultural and food products, as well as steel production. The Sughd region has 38% of the irrigated land in the country, together with the Khatlon region, they make up 83% of all irrigated land in Tajikistan. Its industry is represented by 459 enterprises. Sughd region has important industries such as uranium deposits, reservoirs, textile enterprises, gold mining and coal mining plants. The province's production rate is 31.5% of the country's total industrial output. About 44% of rice yield accounts for Zeravshan (Panjekent, Ayni and K. Mastchoh districts), Syr-Darya and the Ferghana valleys in Sughd oblast In the North of the country, apricots, pears, plums, apples, cherries, pomegranates, figs and nuts are produced. Crops grown mainly include grain, wheat, barley, maize, rice, beans, potatoes, vegetables, fruits, grapes, forage, etc. The soils are mainly gray-brown serozems (gray soils), brown-carbonate and ermine. The regions of Republican subordination are engaged in the production of construction materials and agricultural products, mainly vegetables and fruits.

Tajikistan is renown as being the centre of diversity for a large number of grain cereals, legumes, vegetables and melons, spices, and fruit. It is also considered a source of unique accessions of wheat, pistachio, apricots, pears, spinach, apples, pomegranate, and figs4. With the drive towards maximizing crop production and the subsequent monocropping, the diversity of accessions used by farmers has decreased to the extent that some have been lost while others are in danger of being lost. Without proper maintenance of the genetic resources additional consequences could include the loss of diversity. Maintaining variety diversity is essential in supporting crop breeding programs in the future[[18]](#footnote-18).

The ten major crops by planting area account for 86% of the total planting area and include wheat, cotton, barley, apples, potatoes, grapes, watermelons (includes melons), onions, maize, and tomatoes, all of which, with the exception of some apples and grapes, are generally propagated from seed. Overall wheat and cotton account for 53% of the total area cultivated.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Table 13: Agricultural Capacity of Target Districts*** | | | | | | | | | | |  |  | |  |
| Region/ | District | Total Area, km2 | Land Use Area, ha | Agri Land, ha | Сrops area, ha | Рotato, ha | Grain products, ha | Cotton prod, ha | Grain, ha | Vegetable prod, ha | Fruit prod, ha | Total # of farm | | # of female farms |
| Basin |
| Sughd/ | Asht | 2790.1 | 279001 | 138083 | 14102 | 573 | 2565 | 6002 | 1198 | 770.1 | 18816 | | 700 | 535 |
| Syr Darya | B. Ghafurov | 2651.7 | 115699 | 40492 | 29992 | 480.9 | 10070 | 7741 | 6075 | 2206 | 10500 | | 7732 | 157 |
|  | Shahriston | 114.3 | 114263 | 17608 | 16648 | 2100.2 | 13381.1 | 0 | 9453 | 278.3 | 960 | | 3135 | 800 |
|  | Istarafshon | 687 | 56583 | 31427 | 25168 | 3036 | 20689.8 | 15 | 8021.5 | 3082.5 | 6259 | | 9254 | 68 |
|  | Ayni | 5200 | 515819 | 3686 | 2900 | 780.9 | 1371 | 0 |  | 135.01 | 786 | | 1201 |  |
|  | Panjekent | 3700 | 28644.3 | 28644.3 | 80690 | 4939.5 | 7106.6 | 0 | 10057.1 | 2776.2 | 3.283 | | 9329 | 4329 |
|  | K. Mastchoh | 3683 | 346390 | 7065.2 | 2438 | 2834 | 244.4 | 0 | 207 | 52.1 | 4627.2 | | 77 | 61 |
| Khatlon/Vakhsh | Shahrituz | 1500 | 152537 | 15989 | 14143 | 521 | 4635 | 5380 | 1520 | 1734 | 1846 | | 2200 | х |
| Nosir Khisrov | 819 | 715200 | 9904 | 8783 | 136 | 3418 | 3234 | 3596 | 595 | 1121 | | 1095 | х |
| Qubodiyon | 1085 |  |  | 22174 | 740 | 4509 | 7575 | 1486 | 2054 | х | |  |  |
| GBAO/ | Vanj | 4430 | 4443047 | 3627 | 1493 | 476 | 414 | 0 | 169 | 188 | 1050 | | 69 | 55 |
| Panj | Rushon | 5870 | 11362 | 13746.29 | 1655.29 | 272 | 462 | 0 |  | 137 |  | | 4041 | 1219 |
|  | Shughnon | 4560 | 24346 | 2247 | 2084 | 410 | 996 | 0 | 12 | 163 | 163 | | 88 | 70 |
|  | Murghab | 37200 | 511078 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |

*Source: Social Assessment, NGO Znaniye, 2021*

Permanent pastures make up most of the remaining agricultural land area, and these constitute about 3.2 m ha. Within the livestock sector, pasture utilizing animals (sheep, cattle, horses, goat and yaks) dominate consistent with the pasture-based nature of their production systems. Pig and poultry industries which rely heavily on grain production are small in comparison and have diminished greatly since independence. There is also a significant peri-urban sector where fattening cattle/sheep and dairy cows are kept in household yards. Feeds supplies are sourced locally, and fattened cattle/sheep and milk are sold in local markets.

After independence, the grain imports stopped, and the system became unsustainable without them. This combined with the civil war and changes in farm and livestock ownership, brought about large reductions in animal numbers, especially in the sheep flock and beef herd. Livestock numbers declined dramatically up to 1999 and have recovered somewhat since. Most of the country’s livestock are held in the household sector. In 2014, 94% of dairy cows, 87% of beef cattle, 69% of sheep and 82% of goats were in this sector. The household sector has also been responsible for most of the growth in livestock numbers since 1997. This is despite only having a tiny proportion of the country’s land. The poor availability of land for most of the animals of the country to graze or for conservation of hay/silage for their winter diets is the root cause of the very poor nutrition of these animals, and the low productivity that results directly from their poor nutrition.

In general, animal productivity in Tajikistan is very low. Milk yield of dairy cows have been reported to be as low as 1-2 kg/day; calving interval is 17-18 months, beef cattle can be up to four years old before slaughter, and carcass weights are small—lambs are usually 1.5 years old before they are slaughtered. Furthermore, the wool industry has virtually disappeared. The picture that emerges is one of a major animal feed deficit, wide-scale animal health problems, poor knowledge of husbandry and management practices among farmers, and perhaps most importantly of all, a sector constrained by land availability and tenure. Animal productivity of target districts is outlined in Table 14 below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***Table 14: Livestock Capacity of Target Districts*** | | | |  |  |  |
| Region/ Basin | District | Сattle, heads | Sheep/Goats, heads | Horses, heads | Yaks, heads | Pasture/livestock Management Plans Yes/NO |
|  |
| Sughd/ | Asht | 41063 | 153933 | 572 | 0 | Yes |
| Syr Darya | B. Ghafurov | 297094 | 216235 | 1141 |  | commission for the regulation of pasture use |
|  | Shahriston | 18110 | 63071 | 843 | 0 | No |
|  | Istarafshon | 55581 | 106134 | 660 | 0 |  |
|  | Ayni | 32514 | 131869 | 197 |  | commission for the regulation of pasture use |
|  | Panjekent | 83784 | 198276 | 909 | 64 | No |
|  | K. Mastchoh | 142751 | 126824 | 265 | 905 | No |
| Khatlon/Vakhsh | Shahrituz | 42118 | 87054 | 1090 | n/a |  |
| Nosir Khisrov | 18580 | 44412 | 455 | n/a |  |
| Qubodiyon | 49078 | 114381 | 1256 | n/a |  |
| GBAO/ | Vanj | 15576 | 37400 | 7 | n/a |  |
| Panj | Rushon | 10379 | 44193 | 3 | 873 | No |
|  | Shughnon | 20261 | 34840 | 27 | 2560 | No |
|  | Murghab | 20559 | 82388 | 72 | 20559 | No |

With over half the target sites located at an altitude of 3,000 meters or more, much of the country’s geography is extremely challenging for sustainable farming.  Mountainous terrain divides the country and makes travel and transport extremely difficult, limiting internal and external trade.

Besides agriculture, the target areas are involved in mining, construction, cotton, and food processing.

***Table 15: Key Economic Areas of Target Districts***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region/** | **District** | **Key economic producing areas** | **Number of enterprises (cotton/food processing)** | **# of another SMEs** | **Total # of SMEs** |
| **Basin** |
| Sughd/ | Asht | agriculture/industry | 34 | 146 | 180 |
| Syr Darya | B. Ghafurov | agriculture/industry | 17 | 570 | 587 |
|  | Shahriston | agriculture/construction | 14 | 2335 | 2349 |
|  | Istarafshon | agriculture/construction | 0 | 50 | 50 |
|  | Ayni | agriculture/construction/mining | 11 |  | 11 |
|  | Panjekent | agriculture/industry/mining | n/a | 4347 | 4347 |
|  | K. Mastchoh | agriculture/construction | 1 | 15 | 16 |
| Khatlon/Vakhsh | Shahrituz | agriculture/construction | 5 | n/a | 5 |
| Nosir Khisrov | agriculture/construction | 1736 | 3 | 1739 |
| Qubodiyon | agriculture/construction | Not available | n/a | 0 |
| GBAO/ | Vanj | agriculture/construction | 2 | 20 | 22 |
| Panj | Rushon | Agriculture | 1401 | 2 | 1403 |
|  | Shughnon | Agriculture | 18 | 54 | 72 |
|  | Murghab | Trade | n/a | 12 | 12 |

*Source: Social Assessment, NGO Znaniye, 2021*

Based on the available data, the most economically developed districts are considered Penjikent, Ayni, Rushon and Nosiri Khisrav. There are many joint stock companies with foreign shareholders engaged in extraction of gold, and other precious metals in the districts of Zerafshan valley.

**5.4.3 Migration and Employment by Gender**

Most Tajik people are forced to combine subsistence agriculture, labor migration and shuttle trade in order to earn a living. People try to find different ways of earning income by working in villages or elsewhere as a driver, a day laborer, shopkeeper, tailor, obstetrician, shepherd, etc. The labor market at the local and district level is very limited, and the pay for temporary work is very low. Therefore, the most significant way to generate income is labor migration- mainly to Russia. The increase in migration since independence has created both challenges and opportunities for women. According to the interviews, the wives of migrant workers assume the role of head of household after the departure of their husbands and make most of the decisions. From numerous individual examples, it can be said that migration also led to an increase in the number of female headed households (abandoned or divorced women) in Tajikistan. The right to make individual decisions in households, for example, concerning agricultural production, remains with men, and it is granted based on age, merit and experience. Women do most of the domestic and agricultural work in rural areas, in particular in areas where there is a migratory outflow among men. The proportion of officially registered labor migrants averages 5% in the Khatlon region and over 10% in the target regions of GBAO.

A different level of migration is observed in the villages, where it makes up about 10% of the working population of villages. Mostly local residents migrate to the Russian Federation. Most migrants (over 90%) are men who go abroad for seasonal work. There are also people who leave for several years, or, as they are often called, long-term migrants. Despite the fact that only 10-15% of the total population of villages migrate, they send relatively high incomes to their households. The level of labor migration and its growth is associated with unemployment, which reaches 60% of the total working population of the community.

Significant unemployment has led to large-scale migration, especially among men who leave women to manage their households, which makes them responsible for supporting their families, as well as for other household duties and caring for children. By the age of 25 years, 70% of women become inactive, which means that they do unpaid work at home, compared with 20% of men who also become inactive by this age. Over 43% of Tajik women do unpaid housework, work in the garden or care for other family members compared to 9% of men. The proportion of households managed by women is growing, often due to labor migration. A third of men aged 20 to 39 years emigrate for most of the year or more, and about 41% of men divorce their Tajik wives after leaving the country. According to the results of the divorce proceedings, about 80% of Tajik women are denied property rights and alimony. Women are forced to cope with the situation by performing, in addition to their traditional roles of caring for children and senior family members, traditionally male responsibilities, such as maintaining and maintaining the household, caring for fields and animals. These additional responsibilities limit their participation in education and income-generating activities outside the home. In addition, women's paid employment is hampered by a significant decline in the number of preschool educational institutions, especially in rural areas, which is the result of the collapse of the socialist system and the civil war in the country.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Table 16: Migration and Employment Data by the Districts, people*** | | | | | | | | |
| **Region/**  **Basin** | **District** | **# of HHs** | **# of female headed HHs** | **# of migrants** | **# of employed people** | **# of females employed** | **# of unemployed** | **# of female unemployed** |
| Sughd/ | Asht | 34765 | 975 | 7036 | 34764 | 15644 | 429 | 129 |
| Syr Darya | B. Ghafurov | 64800 | 2800 | 13594 | 22541 | 11200 | 435 | 320 |
|  | Shahriston | 9144 | 519 | 1959 | 8179 | 4031 | 425 | 208 |
|  | Istarafshon | 48088 | 4055 | 3770 | 47900 | 23854 | 696 | 252 |
|  | Ayni | 17402 | 1694 | n/a | n/a | n/a | n/a | n/a |
|  | Panjekent | 98768 | n/a | 3557 | 5463 | 1911 | 1911 | n/a |
|  | K. Mastchoh | 4364 | 482 | 356 | 7560 | 3628 | 2150 | 1032 |
| Khatlon/Vakhsh | Shahrituz | 26210 | n/a | n/a | 64253 | 18105 | n/a | n/a |
| Nosir Khisrov | 8781 | 4900 | 20 | 7642 | n/a | 134 | 56 |
| Qubodiyon | 30996 | 949 | 15034 | 6311 | 2227 | 298 | n/a |
| GBAO/ | Vanj | 4261 | n/a | 4411 | 14069 | 2753 | 2753 | 645 |
| Panj | Rushon | 5382 | 716 | 6017 | 7801 | n/a | 371 | 138 |
|  | Shughnon | 6135 | 725 | 8003 | 11270 | 720 | 417 | n/a |
|  | Murghab | 3666 | 644 | 2636 | 3185 | 1787 | 3986 | 2132 |

*Source: Social Assessment, NGO Znaniye, 2021*

Social Assessment conducted showed that almost every household had at least one family member working abroad. Number of officially registered unemployed people is very low, as the actual figures are much higher.

**5.4.6 Poverty and Vulnerability**

Despite various efforts to promote growth and development in Tajikistan, the country is still hampered by high levels of poverty and limited economic opportunities. In [Tajikistan, 27.4% of the population lives below the national poverty line in 2018.](https://twitter.com/intent/tweet?url=http%3A%2F%2Fwww.adb.org%2Fcountries/tajikistan/poverty&text=In+%23Tajikistan%2C+27.4%25+of+the+%23population+lives+below+the+national+%23poverty+line+in+2018.+%23PovertyTajikistan&via=ADB_HQ) There are significant variations in the poverty rates among the regions with poverty being predominantly the rural phenomena. The average poverty rate for urban areas is 21.5%, while the same indicator for rural areas was 30.2% in 2018. By regions, the lowest poverty rate is in Sughd, which is 17.5%, and the highest is 33.2% in the Districts in Republican Subordination, while in GBAO the poverty rate was 27.7%.[[19]](#footnote-19)

Poverty rates fluctuate considerably during any given year resulting from the availability of the employment and remittance income. Job creation was slow and unable to keep pace with a fast-growing population.

The issue of the working poor continues to be one of the dominant features of poverty in Tajikistan. Half of the employed in the domestic labor market are poor. Almost 80 percent of the working poor live in rural areas. Low labor incomes and high prevalence of temporary work arrangements, informality (no labor contract), and unpaid work are the main reasons there are so many working poor.

Migration, mostly in the form of temporary work abroad, has become one of the key strategies for households to cope with poverty. The analysis indicates that a quarter of households have at least one migrant abroad. In households that have migrants, remittances account for as much as 35 percent of household consumption—and even more for the households in the lower deciles of the consumption distribution. The Tajikistan migration model is one of predominantly seasonal low-skill migration, with 96 percent of the migrants heading to Russia, and of those, 55 percent worked in the construction sector, and another 30 percent in other low-skill jobs.[[20]](#footnote-20)

Against a background of high poverty and low employment, Tajikistan runs a rudimentary social protection (SP) system dominated by old-age and disability pensions. The largest program in terms of coverage is the old-age pension, which is received by one-third of households. Total social assistance spending is very low—at 0.5 percent of GDP it is the lowest in the ECA Region—and programs are small in size and benefit coverage. Less than 1 percent of households receive any of the smaller social assistance benefits, such as the gas and electricity compensation. To improve the SP system and its impact on poverty, the Government of Tajikistan introduced a targeted social assistance to achieve a higher coverage of the poor and vulnerable, though they are considered very small payments.

**VI. PROJECT ENVIRONMENTAL AND SOCIAL IMPACTS**

The project will have positive impacts as it is expected to increase the adoption of effective agricultural and natural resource management practices, including, but not limited to, aforestation; agro-forestry; watershed management and watercourse buffer zones; windbreaks; pasture and rangeland management; and climate smart irrigation. 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 project also has a cross-boundary dimension through promoting regional activities in cross-border landscape management and data sharing with the neighboring countries. .

The proposed project activities could have environmental impacts associated with noise, dust, pollution of air, soil and water, solid waste management, biodiversity degradation, health and safety hazards, community health and safety risks, etc. It is expected that environmental risks will be typical for small construction works and the work on the creation of protective plantations and agroforestry demonstration sites. Environmental risks will be temporary in nature and specific areas and can be easily mitigated by applying best building and/or environmentally friendly methods and appropriate mitigation measures. It is expected that they all be typical of small-scale construction/rehabilitation work, temporary in nature and site-specific, and they can be easily mitigated by applying the best construction methods and appropriate mitigation measures. The project will support investments in rural livelihood development and landscape management selected through a multi-stakeholder planning process, and the bulk of which will be designed and managed primarily by communities, farmers, and resource user groups through the small grant program. Issues of social inclusion, especially vulnerable and disadvantaged groups and the dependence of their livelihoods from selected resources are assessed through social and environmental assessment and considered in the project design to ensure that stakeholders have equal access to project benefits.

A summary of potential environmental and social risks and impacts during the implementation of the project that, along with the recommended mitigation measures, is presented in Table 10 below. The proposed measures can be used to develop site specific ESMP for selected sub­projects.

**6.1. Potential environmental impacts and risk**s

The project will generate a series of environmental impacts and risks:

*Soil and water pollution.* As a result of leakage of fuel and lubricants from tree-planting 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. If temporary settlements of developers are established on the construction site, pollution can be caused by sanitary conditions in settlements. The project will invest in improving the quality of sanitary conditions in the areas where workers take food and rest. Inadequate management and operation of sanitation facilities can lead to increased stream and groundwater pollution. In the event of an accidental spill, immediate cleaning will be carried out. All cleaning materials must be stored in a safe place on the site where hazardous waste can be disposed of. The surface water treatment plan should be carefully planned during the feasibility study to meet the discharge water quality standard. A sedimentation basin, neutralization tank, and standby tank should be prepared for inundation. The plan is included in site-specific environmental management plans.

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, renovation of buildings, etc. In particular, the risk of dust pollution will increase in windy weather. The magnitude of the impact will increase when construction/rehabilitation works are carried out in the vicinity of a populated area. Given the nature of most of the works, this impact is expected to be short-term, low-risk and can be mitigated by implementing the measures recommended in Table 13. However, additional measures (most often watering, installation of a dust screen) may be required for subprojects involving the dismantling of existing buildings. Particular care should be taken when coming into contact with toxic asbestos dust, which may occur when removing thermal insulation or roofs containing asbestos gaskets. Personnel should wear protective masks. Adverse impacts can be prevented by applying best construction practices and appropriate mitigation measures.

*Noise and vibration pollution****.*** 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. Noise levels are not expected to exceed the established limits during project activities. Noise pollution can be mitigated by using recommended measures. Given the specific nature of the project, vibration is not expected to affect human health and structural integrity as there will be no significant vibration generation activities. Sanitary Norms CH 2.2.4/2.1.8.562-96 are used in Tajikistan to ensure acceptable noise levels for residential areas. These rules and regulations establish permissible noise parameters for residential and public buildings and residential development of inhabited areas created by external and internal sources and the noise level should not exceed 55 dB(A) during the day and 45 dB(A) at night.

*Construction refuse and waste.* During the construction of wells 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 authorized landfills. Hazardous waste will be removed and disposed of carefully to avoid further impact on the health of workers and surrounding communities. Waste disposal sites should be carefully selected at the construction site, and waste classification and recycling rules should be prepared in environmental management plans.

Waste Management Plan will be prepared to adequately handle all types of waste generated during Project implementation.

***Pollution with asbestos dust*** - asbestos dust generating during demolishing of old roofs from rehabilitated/re- innovating buildings may cause a serious risk for health of people living in houses next or close to construction sites.

For such cases prior conduction construction works, contractor will have to develop a special Asbestos Management Plan in template provided in Annex 1. The Asbestos-Containing Materials Management Plan (ACMMP) describes and evaluates the risk of contractors (and others) encountering asbestos-containing material (ACM) at the Project construction sites during the implementation stage of the project; and it provides a procedure for dealing quickly and safely with any ACM that may be found. The WB ESS 3: Resources Efficiency and Pollution Prevention requires that WB-funded projects apply pollution prevention and control technologies and health and safety measures that are consistent with international good practice, as reflected in international standards such as the IFC/World Bank Environmental, Health and Safety General Guidelines (2007). If national legislation differs from these standards, the borrower is required to achieve whichever is more stringent. The only regulation of Tajikistan on asbestos, the regional multi-state agreement, Interstate Standard GOST 12871-93 signed by Tajikistan, regulates interstate trade and transport of chrysotile asbestos. However, the procedure does provide clear description of handling ACM, therefore, the ACMMP follows the World Bank Guidelines

***Chance finds*** - some of the project cities are located in places where presence a chance of finding archeological heritage. It is expected that during construction of agro-logistic centers, new laboratories on borders which would involve significant excavations, movement of earth, or other changes in the physical environment, during which unexpectedly might be found physical cultural 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.

**6.2. 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. However, since all works will be carried out mainly in developed areas, a significant negative impact on biodiversity or natural habitat is unlikely.

**6.3 Potential Social Impacts and Risks**

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.

The contextual issues which may impact project implementation and outcomes to be considered during project implementation include: (i) accessibility – to poor and near-poor people, specially, in rural and mountainous areas; (ii) equity challenges due to geographic, socio-economic, and inter regional disparities; (iii) fragility and conflict situation in some border areas; (iv) gender inequity – which could affect outreach to women in general and female headed households, in particular; (iv) adequate and appropriate facilities provision and service quality; and (v) regulation and governance, specially with regard to integrating forestry with other livelihood department activities. As a result, the following issues become relevant in the context of the project:

**6.3.1 Resettlement Impacts**

*Access restrictions*. The second and third components involve civil constructions, related to repairs and rehabilitation. At the implementation stage there will be some social consequences caused by construction. Construction work within the framework of some local infrastructure projects may result in a not significant restriction of access to houses, land, or other private or public property. Construction and / or reconstruction may also cause certain inconvenience to the population. The site specific ESMP prepared as part of the project should include, if necessary, measures to mitigate these potential adverse impacts and risks.

The project activities may cause restriction on land use and access to natural resources that cause a community or groups within a community to lose access to resource usage, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project. To address this risk, a Process Framework will be developed during implementation to ensure community participation. It will outline the ways local communities, who have a stake, especially in protected areas, may participate in land and natural resources management through informed and meaningful consultations and negotiations to develop and implement perspective plans.

*Land Acquisition*. Improvement of access roads and small dams and required civil works are unlikely to involve involuntary resettlement, since the major civil works will be limited to existing and functioning infrastructures and footprints of the existing facilities. However, minor changes in existing alignment to increase the efficiency of existing infrastructure may require additional land and have impacts on livelihoods or source of income of the community. Since locations are not defined yet, the CEP/PIG has prepared a Resettlement Policy Framework (RPF) to guide activities in this regard. The RPF defines the procedures for: (i) acquiring land (after all technical alternatives have been exhausted), (ii) dealing with any residual impacts from land acquisition (i.e. identifying, establishing the valuation of, and compensating people that suffer economic losses or loss of private property), (iii) monitoring and verification that policies and procedures are followed, and (iv) grievance redress mechanisms. Where resettlement-related impacts will be identified, site-specific Resettlement Action Plans (RAPs) would be prepared by the CEP/PIG in accordance with the RPF. Project activities that will cause physical and/or economic displacement will not commence until site specific RAPs or abbreviated RAPs (ARAPs) acceptable to the Bank will be consulted upon and implemented.

**6.3.2 Social Exclusion Risks**

*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 Stakeholder Engagement Plan (SEP). Representatives of CEP, ALRI and local authorities should organize a campaign to inform the public about grants for agroforestry demonstration sites among the target groups. Developers 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 Project. 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 Stakeholder Engagement Plan (SEP) supplemented with community mobilization and an effective information and education campaign (IEC). Disadvantaged and vulnerable groups under the project are likely to include communities in remote areas and women groups, especially 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.

**6.3.3 Labor Risks**

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.

In rural areas, where child labor is widely seen as support for parents who find themselves in their spare time without disrupting school attendance, the risk of child labor/forced labor is considered to be limited, as based on the national legislation the contractors have to comply with the minimum age of employment and mutually agreed written contracts. However, according to the Tajik Labour Code, the persons between 14 and 16 years old may also be employed with reduced working hours, for employment that is not considered heavy or hazardous, and with parental permission and outside the school hours. For civil works no child labour is allowed; for agricultural works farmers might engage their 14 above children at home plots outside the school hours, however the agricultural workers are not considered the project workers as per ESS2 definition.

The 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. 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 special window to address SEA/SH complaints such as to ensure privacy and dignity of the affected persons.

The CEP/PIG in collaboration with ALRI PMU has prepared Labor Management Procedures (LMP), which outlines the type of project workers, labour conditions and associated labour risks, as well as mitigation measures. Provisions will be also made to train and hire as many as possible workers from local communities where the activities are taking place.

**6.3.4 Health and Safety of Workers and Community**

*For workers* - Safety and health non-compliance may create a risk for construction workers. The Contractors will have to follow Occupation Safety and Health rules, which include among others strictly implementation established norms and procedure H&S which depends on type on conducting works, usage of PPE, training activities and monitoring. In addition, all workers need to be introduced to working procedure with hazardous materials (such as asbestos materials, etc.). Contractors have to provide workers with appropriate living conditions: safe water supply, washing conditions, rooms for rest and etc.

*For community* - 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.

**6.3.4 Institutional Capacity to Comply with new ESF**

*Insufficient capacity to apply ESSs* *at national and local levels* (participatory planning, project management and supervision). Considering that the implementing agencies and line ministries have limited experience in applying ESSs, and local authorities and local construction organizations do not have experience in implementing ESSs, training seminars will be held on environment and social procedures related to the project (reduction of environmental risks, environmental and social screening and environmental and social management plans) as outlined in the Environmental and Social Commitment Plan.

**Table 17: Potential Environmental and Social Impacts and Mitigation Measures**

| **No** | **Project components**  **And activities** | **Impact Description** | **Impact Severity** | **Expected**  **Environmental and Social Risks and Impacts** | **Significance before Mitigation** | **Mitigation Measures** | **Significance after Mitigation** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **COMPONENT 1: STRENGTHEN INSTITUTIONS AND POLICIES, AND REGIONAL COLLABORATION** | | | | | | | |
| 1 | Subcomponent 1.1 Strengthen Institutions and Policies | No environmental impact  Ineffective and unsystematic stakeholder engagement | - | Limited coverage of non-state actors by IEC | Moderate | Stakeholder Engagement Plan will be developed, implemented and reported. | negligible |
| Rehabilitation and improvement  of SFE offices, district-level Pasture Commissions and selected Special PA units  (i) civil works, such as the construction and/or rehabilitation office buildings, other facilities  (ii) procurement of office furniture, field and laboratory equipment, vehicles and farm machinery  (iii) consultancy services  (iv) capacity building and capability development of technicians, and other associated personnel through participation in individually targeted training | Impact from cutting/clearing of trees and other vegetation | Low | Trees and vegetation at the site | Moderate | Cutting of trees will be undertaken as per approved design and only upon approval. The cutting of trees will be avoided as much as possible and damage to vegetation minimized. | low |
| Impact on historical and archaeological sites such as damage to relics and artefacts during the conduct of the works | Low | Archaeological artefacts and cultural heritage sites | Low | Contractor will ensure that the workforce is briefed that in the event of accidental finds of relics, they should immediately cease any works in the area and promptly report the find to their supervisor. | negligible |
| Temporary disruption of existing community roads, pathways, and access | Low | Residents and owners of commercial/ businesses in the surrounding areas | low | Walking access will be maintained to the affected properties and access routes. Particular attention will be given to ensuring safety along roads and paths used by locals. The contractor will be required to immediately rehabilitate the excavated areas and any damaged road and path sections. | negligible |
| Air pollution from dust (PM10 and less) and air emissions from earthworks and movement of vehicles posing nuisance and health risk to nearby communities. | Moderate | Residents and owners of commercial/ businesses in the surrounding areas | Moderate | * The contractor will be required to cover materials with tarpaulin or other suitable materials while in transit to avoid spillage of materials. * Earthen roads, particularly roads near residences, commercial and agricultural business areas will be moistened during dry and dusty conditions. * Speed limits will be imposed on construction vehicles. * Construction equipment and vehicles will be regularly maintained to control air emissions during vehicle operation | Minor |
| Noise and Vibration from operation of construction equipment causing excessive noise, resulting in nuisance to the communities. | Low | Workers and residents and owners of commercial/ businesses in the surrounding areas | Moderate | * Construction activities, particularly operation of noise generating equipment, will be limited to daytime. * Noise suppression devices will be installed in noise generating equipment. * Drivers will be required to minimize blowing of horns and to comply with speed limits. | negligible |
| Contamination of the soil and nearby water courses may result from the utilization of hazardous materials. Improper handling, storage or utilization of hazardous materials poses a significant health risk to the workers and residents of nearby settlement areas; | Moderate | Workers and nearby residential areas, aquatic and terrestrial ecosystems | Substantial | * Ensure that safe storage of fuel, other hazardous substances consistent with national and local regulations to prevent soil and water contamination. * Fuel storage tanks to be on impervious surface with bund to catch spills, bund shall have holding capacity of 110% of tank capacity. Fuel tanks etc shall not be located within 50 m of a water course. * Ensure all storage containers are in good condition with proper labeling; * Used oil and other residual toxic and hazardous materials shall be disposed of in an authorized facility off-site; * Ensure availability of spill clean­up materials (e.g., absorbent pads, etc.) specifically designed for petroleum products and other hazardous substances where such materials are being stored; Spillage, if any, will be immediately cleared with utmost caution to leave no traces, Spillage waste will be disposed at approved disposal sites. | Minor |
| Generation of construction waste such as excavated soil | Low | Project site land | Low | * Contractor to develop and implement Waste Management Plan * Surplus excavated material/cut soil from construction will be used as backfill material for low-lying portions per site development plan | negligible |
| Generation of construction wastes such as solid wastes, inert construction wastes, during construction will result in the pollution of land and receiving water bodies. | Low | Land and any nearby receiving body of water (drainage channels) Exceedance of local capacity to treat or dispose of such waste | Low | * Appropriate segregation bins or areas for construction wastes will be provided. * The storage of all hazardous materials including fuels will be secure and controlled. * Recyclable construction wastes, such as wood, steel, and scaffoldings, will be reused or sold to junk shops. * Solid waste will be collected and disposed in the approved disposal site in the city. | negligible |
| Impacts on community health and safety such as from accidents risks to surrounding communities from vehicles transiting territory adjacent to the residential buildings near the site. | Low | Local residents | Moderate | * Contractor to develop a Traffic Management Plan. * Signage and appropriate speed limits * Requiring suppliers that delivery vehicles transporting construction materials are maintained in a safe operating condition, loads are to be secured and all loads with fugitive materials (e.g. excavated soil and sand) are to be covered with tarpaulins. * All drivers and machinery operators act responsibly. | negligible |
| Occupational health and safety hazards from operating and using heavy machinery, refueling hazards, traffic accident hazards | Moderate | Construction workers, contractors, suppliers | Moderate | * The contractor will be required to implement the construction health and safety plan in accordance with the World Bank EHS * Guidelines (<http://www.ifc>. org/ehs guidelines) as a minimum standard. Contractor will appoint an EHS officer to ensure implementation of the plan. * Workers will be provided with a safe working environment including conduct of safety induction, safety equipment appropriate for the task in which they are employed, medical and first aid facilities provided together with a person qualified in first aid. | negligible |
| Labor risks, including child/forced labor, labor influx, SEA/SH | Low / Moderate | Project workers and communities | Low | * All contractors will be required to comply with LMP. * All civil works contracts will include standard Codes of Conduct that include measures to prevent SEA/SH. * The Contractors will sign written labor agreements with all contract workers, including Code of Conducts to be part of their labor contracts; | NS |
| Increased exposure to dangerous pests during preparation and application of the pesticide spray solutions and during cleaning-up of spraying equipment. | Substantial | Foresters or communities’ members who perform manual labor in areas treated with pesticides can also face major exposure from direct spray, drift from neighboring fields, or by contact with pesticide residues on the vegetation or soil. | Substantial | The Pest Management Plan acceptable to the Bank to be prepared, consulted upon and implemented during project implementation will address these issues. | low |
| Low absorption capacity among project beneficiaries, as large farms are better off | Substantial | Social exclusion | Substantial | Stakeholder Engagement Plan provides guidance to, and enable the, national, regional and local actors to address the barriers (if any) and ensure that all the diverse individuals and groups access, specially the poor and vulnerable sections participate in, and derive benefits, from the project. Technologies to be developed will be more friendly for diverse range of beneficiaries/farmers. | Moderate |
| Covid19 virus outbreak | Substantial | Construction workers, contractors, suppliers | Substantial | * Check the health certification of worker before joining the site and hold briefing at the beginning to discuss on Covid-19 virus. * Assign focal point to implement and monitor prevention measures (appoint medical staff) * Restrict entry to all visitors during the epidemic * If a worker or any other individua feels ill, they must stay home. * Take the temperature of all personnel and ensure they wash their hands before entering the construction site. * At the construction site, all people must:   + Avoid handshakes, hugs and nay other forms of close contact   + Maintain a minimum distance of 2 meters at all times   + Avoid touching face without washing hands   + - The contractor must provide in sufficient quality liquid soap, alcohol-based gel, dry hand-wash agent, disposable towels and tissues; located stations for hand washing at various point of the site; closed containers or bags for disposable towels and tissues; masks, disposable gloves and protective glasses; remote or tape thermometers. | low |
| Impact on community health and safety from access and intrusion of unauthorized personnel. | Moderate | Local people | Substantial | Watchmen/security personnel will be hired to secure the facilities on a 24-hour basis. This will minimize the safety risks to the community. | NS |
|  | Equipping facilities | Packaging materials waste | Moderate | Local people | Substantial | * Separation of waste into recyclable and non-recyclable; * Recyclable waste shall be passed out / sold to relevant organizations; * Non-recyclable waste shall be disposed at municipal landfills; * Avoid the waste storage outside the territory of the facility; * Ensure timely disposal of all waste (within 1 day). | low |
|  | Subcomponent 1.2 Strengthen Regional Collaboration | No environmental impact  Ineffective and unsystematic stakeholder engagement | - | Limited coverage of non-state actors by IEC | Moderate | * Stakeholder Engagement Plan will be developed, implemented and reported. | negligible |
|  | Subcomponent 1.3 Multiplication  (i) civil works, such as the construction and/or rehabilitation of storage facilities, office and laboratory buildings, greenhouses, irrigation and other facilities  (ii) procurement of office furniture, field and laboratory equipment, vehicles and farm machinery  (iii) consultancy services  (iv) capacity building | The same as for Component 1.2 |  |  |  |  |  |
| Packaging materials waste | Low | Local people | Low | * Separation of waste into recyclable and non-recyclable; * Recyclable waste shall be passed out / sold to relevant organizations; * Non-recyclable waste shall be disposed at municipal landfills; * Avoid the waste storage outside the territory of the facility;   Ensure timely disposal of all waste (within 1 day). | negligible |
| No environmental impact |  |  |  |  |  |
| Procurement of seedings and planting materials may cause introduction of alien invasive species | Low | Local biodiversity | Moderate | Acquisition from certified vendors  Acquisition of locally adapted and climate resilient varieties  Quarantine of planting materials |  |
| **COMPONENT 2: RESILIENT LANDSCAPES AND LIVELIHOODS** | | | | | | | |
|  | Subcomponent 2.1: Forest Restoration and Sustainable Forest Management  (i) technical assistance for the preparation of forest management plans, environmental and social impact assessments and;  (ii) Implementation of sustainable forest management plans  (iii) consultancy services  (iv) capacity building activities workshops and conferences*.* | The same as for Component 1.2 |  |  |  |  |  |
| No environmental impact |  |  |  |  |  |
| Soil erosion: | Moderate | Land | Moderate | * Plowing across the hillslope * Horizontal tillage * Avoid the creation of new terraces, as this is due to the loss of the topsoil, etc. | Low |
| Natural habitat and loss of biodiversity | Low |  | Moderate | * Avoid the use for crop production of natural or semi natural steppe areas intended for grazing. * Avoid cutting down trees and other natural vegetation, etc. if possible. * Minimize the loss of natural vegetation / vegetation protection during construction work. | Low |
| Packaging materials waste | Low | Local people | Substantial | * Separation of waste into recyclable and non-recyclable; * Recyclable waste shall be passed out / sold to relevant organizations; * Non-recyclable waste shall be disposed at municipal landfills; * Avoid the waste storage outside the territory of the facility;   Ensure timely disposal of all waste (within 1 day). | negligible |
| Resettlement impacts | Moderate | Small scale land acquisition and/or temporary land acquisitions | Moderate | * Site-specific RAPs acceptable to the Bank will be prepared, consulted upon and implemented by the MoA/PIU in accordance with the RPF | Low |
|  | Generation of organic waste and how it will be handled; | Moderate |  | Substantial | * Generation of organic waste and how it will be handled; | low |
| Ensuring ODS are not used for refrigeration facilities being constructed; | Moderate |  | Moderate | * Ensuring ODS are not used for refrigeration facilities being constructed; | low |
|  | Subcomponent 2.2: Integrated Pasture Management and Restoration  (i) Surveys, inventories;  (ii) Consultancy services  (iii) Establishment of forage seed demonstration plots.  (iv) Pastures rehabilitation  (iii) Capacity development, workshops and conferences*.* | No environmental impact |  |  |  |  |  |
| Soil erosion: | Moderate | Land | Moderate | * Plowing across the hillslope * Horizontal tillage * Avoid the creation of new terraces, as this is due to the loss of the topsoil, etc. | Low |
| Land, habitat and ecosystem degradation | Moderate | Land, biodiversity | Moderate | * Land, habitat and ecosystem degradation * Do not exceed the carrying capacity of pastures (on degraded lands it is 0.3-0.5 c / ha; on good lands - 1.5 c / ha); avoid overgrazing. * If possible, create artificial pastures or improve the sowing of fodder plants. * If possible, protect pasturelands for their restoration, subsequent use, etc. 5) Do not graze livestock in natural areas in early spring and late autumn, etc. |  |
|  |  | Faulty use of pastures. Overloading pastures; lost productivity | Moderate | Consequences of pasture degradation: -loss of fodder base and animal production distress; -loss of original mountainous landscapes; -impoverished biodiversity and genetic resources; - soil erosion. | Moderate | * Pasture monitoring to timely detect faulty use of pastures. * Community Pasture Management plans should include grazing plans which define the number of livestock and period of grazing for pasture areas based on an assessment of the condition and carrying capacity of pasture areas. * Introduction of environmentally justified pasture rotation with the observed load close to optimal. | Low |
|  | Subcomponent 2.3: Protected Area Management and Biodiversity Conservation  (i) Preparation or update of selected protected areas management plans: boundary mapping, spatial planning, economic and financial analysis, and stakeholder consultations  (ii) implementation of PA Management plans with key activities: tourism facilities, signage, protection infrastructure. | No environmental impact |  |  |  |  |  |
| The same as for Component 1.2 |  |  |  |  |  |
|  | Sub-component 2.4. Community-level Livelihoods   * Provision of grants to resource users to implement small-scale livelihood investments; * Consultancy services, capacity building, workshops and consultations with stakeholders*.* | The same as for Component 1.2 |  |  |  |  |  |
| Soil erosion: | Moderate | Land | Moderate | * Plowing across the hillslope * Horizontal tillage * Avoid the creation of new terraces, as this is due to the loss of the topsoil, etc. | **Low** |
| Land, habitat and ecosystem degradation | Moderate | Land, biodiversity | Moderate | * Land, habitat and ecosystem degradation * Do not exceed the carrying capacity of pastures (on degraded lands it is 0.3-0.5 c / ha; on good lands - 1.5 c / ha); avoid overgrazing. * If possible, create artificial pastures or improve the sowing of fodder plants. * If possible, protect pasturelands for their restoration, subsequent use, etc. 5) Do not graze livestock in natural areas in early spring and late autumn, etc. |  |
| No environmental impact |  |  |  |  |  |
|  |  |  |  |  |  |
| **COMPONENT 3: FLOOD RESILIENCE THROUGH GREEN AND GREY INFRASTRUCTURE** | | | | | | | |
|  | Subcomponent 3.1: Planning for green and grey infrastructure  (i) Capacity building of to support effective planning and implementation of NBS  (ii) Capacity building of local to help them reduce exposure and vulnerability of people and property to natural disasters | No environmental impact |  |  |  |  |  |
|  | Subcomponent 3.2: Development of green and grey infrastructure  (i) Feasibility studies and detailed designs of green and grey infrastructure  (ii) civil works, such as the construction and/or rehabilitation of resilience infrastructure and other facilities  (iii) procurement of office furniture, field and laboratory equipment, vehicles and machinery | No environmental impact |  |  |  |  |  |
| The same as for Component 1.2 |  |  |  |  |  |
| Economic impact on surrounding communities  SEA/SH risks on female community members | Low to Moderate | Resettlement impacts  Community Safety Risks |  | Social Screening is required during and after technical designs finalization. Resettlement Action Plans will be developed and implemented, if needed  SEA/SH training held for civil workers engaged in rehabilitation works. | Low |
| **COMPONENT 4: PROJECT MANAGEMENT AND COORDINATION** | | | | | | | |
|  | The objective of this component is to support project management, coordination, M&E, citizen engagement, and implementation of environmental and social framework instruments and fiduciary aspects of the project. | Insufficient capacity to apply ESSs at the national and local levels | Substantial | Implementing agency, line ministries, local authorities and local contractors have limited experience in implementing ESSs | Substantial | E&S Risk Management Capacity Building Training Plan will be developed and implemented | low |

**VII. ENVIRONMENTAL AND SOCIAL ASSESSMENT RULES AND PROCEDURES**

According to WB ESF each project has to comply with national Environmental and Social regulatory framework and WB Environmental and Social Standards (ESS). The next para provides guidance on actions required for environmental and social assessment in accordance with national legislation and WB ESSs. To conduct Environmental and Social Assessment the following tools could be applied:

**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. In some cases, for small scale project Partial ESIA could be conducted in order assess its location relative to the protected areas or presence of habitats. Indicative outline of ESIA is presented in Annex 2.

**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 3.

**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 4.

**Resettlement Action Plan (RAP)** – Site-specific plan aimed to minimize and compensate the resettlement impacts associated with civil works planned within the project activities. Example of RAP is enclosed in the RPF.

**Organic Waste Management procedures** for managing organic waste related to agricultural production, transport, and storage.**Process Framework** (PF) is required given the potential to restrict access to natural resources as a result of anticipated investments in land use planning. The purpose of the PF is to establish a process of informed and meaningful consultations and negotiations with members of potentially affected communities. The PF defines the procedures to allow project affected persons (PAPs) to participate in the determination of measures necessary to mitigate or minimize the impacts of restricted resource access. The PF provides guidelines for the development of Action Plans during project implementation.

**Social Inclusion Plan** **(SIP)** to be prepared a part of the POM will provide guidance to, and enable the, national, regional and local actors to address the barriers (if any) and ensure that all the diverse individuals and groups access, specially the poor and vulnerable sections participate in, and derive benefits, from the project. Outline for SIP is presented in Annex 7.

**Gender Action Plan (GAP)** is to ensure that the project will serve women’s strategic and practical needs. Ensure that women are given an opportunity to participate in the project and are represented in key planning and management structures. Scope of the GAP will be restricted to the project’s boundaries and as mapped around key seed production centers and value chain facilities. For GAP outline please refer to Section 5.3.4

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.

**7.1. Environmental assessment procedure**

**7.1.1. Main stages of national EA procedure**

*Basic EA Laws.* There are two laws in the country that stipulate all aspects of the EA: (a) Law on Environment Protection; and (b) Law on Ecological Expertise and (с) Law on the Environmental Impact Assessment. The Chapter V, Articles 35-39 of the Law on Environment Protection (2011), introduces the concept of state ecological review (literally, state ecological “expertise” – SEE) which seeks to examine the compliance of proposed activities and projects with the requirements of environmental legislation and standards and ecological security of the society. The mentioned laws stipulate the mandatory cross-sectoral nature of SEE, which shall be scientifically justified, comprehensive, and objective and which shall lead to conclusions in accordance with the law. SEE precedes decision-making about activities that may have a negative impact on the environment. Financing of programs and projects is allowed only after a positive SEE finding, or conclusion, has been issued. The following activities and projects subject to state ecological review: a) draft state programs, pre-planning, pre-project, and design documentation for economic development; b) regional and sectoral development programs; c) spatial and urban planning, development, and design; d) environmental programs and projects; e) construction and reconstruction of various types of facilities irrespective of their ownership; f) draft environmental quality standards and other normative, technology, and methodological documentation that regulates economic activities; g) existing enterprises and economic entities, etc. The laws stipulate that all types of economic and other activities shall be implemented in accordance with existing environmental standards and norms and shall have sufficient environmental protection and mitigation measures to prevent and avoid pollution and enhance environmental quality. The EA studies analyzing the short- and long-term environmental, genetic, economic, and demographic impacts and consequences shall be evaluated prior to making decisions on the sitting, construction, or reconstruction of facilities, irrespective of their ownership. If these requirements are violated, construction will be terminated until necessary improvements are made, as prescribed by the Committee for Environmental Protection and/or other duly authorized control bodies, such as sanitary, geological, and public safety agencies.

*Environmental Impact Assessment.* An Environmental Impact Assessment (EIA) study is a component of the State Ecological Expertise, as set out in the 2011 amendments to the Environmental Protection Law. In 2012 the new Law "On Environmental Expertise" was adopted. In pursuance of this law, the Government subsequently adopted the following:

* the Procedure of environmental impact assessment (adopted by the Resolution of the Government of the Republic of Tajikistan as of 01.11.2018 №532): Guidelines on the composition, order of development, coordination and approval of design estimates for construction of facilities, buildings and structures and EIA chapters, SEA and feasibility documents;
* A List of objects and kinds of activity for which preparation of documentation for environment impact assessment is mandatory (adopted by the Resolution of the Government of the Republic of Tajikistan as of 01.11.2018 №532). The List is very extensive: it contains 180 types of activities, grouped according to four environmental impact categories: from A (in Cyrillic sounds A) "high risk" to Г (in Cyrillic sounds G) "local impact"). If the facility/activity is not included in the list, then it is not required to pass either an EIA or a SEE.

The EIA is the responsibility of the project proponent. The Procedure for carrying out the EIA (Government Resolution No. 532 of 2018) establishes general requirements for the contents of the EIA documentation. The State Ecological Expertise for all investment projects is the responsibility of the Committee for Environmental Protection under Government of Tajikistan (CEP) and its regional offices. Furthermore, according to the 2012 Law on the State Ecological Expertise, all civil works, including rehabilitation, should be assessed for their environmental impacts and the proposed mitigation measures reviewed and monitored by the CEP. The Law “On Ecological Expertise” and the “Procedure on Environmental Impact Assessment” of 2013 lays down the principles of performing the EIA in Tajikistan.

Together with a detailed project description, the EIA study is the basis to go for the environmental permit and must be submitted to the Committee. As a rule, the Committee prepares an expertise to the project within one month. In preparation of this expertise, all subdivisions that might be involved in the project do participate. With this expertise, the permission is given, is not given or given with requirements and obligations that must be followed by the company during construction and/or during operation. If the Committee concludes that an environmental permit cannot be given because e.g. limit values are exceeded or other environmental aspects are not sufficiently mitigated, the developer can change its design and submit the impact assessment again.

*Types of Ecological Expertise.* According to the 2011 Law on Ecological Expertise, ecological expertise is intended to prevent negative impacts on the environment as a result of a proposed activity, forecast impacts from activities that are not considered as necessarily damaging to the environment and create databases on the state of the environment and knowledge about human impact on the environment. This Law and the Law on Environment Protection envisage two types of ecological expertise – State ecological expertise and public ecological expertise, which are not given equal importance. While State ecological expertise is a prerequisite for beginning any activity that may have an adverse environmental impact, public ecological expertise becomes binding only after its results have been approved by a State ecological expertise body. The State Ecological Expertise is authorized to invite leading scientists and qualified outside specialists to participate in the review. Approval should be issued within 30 days, unless the project developer agrees to an extension, and remains valid for two years, if the decision is positive. For very complicated projects the term of consideration and approval can be extended till 60 days. According to the Law on SEE the public ecological expertise of economic activities or other activities implementation of which can negatively impact the environment of population which live in relevant area can be carried out by any public organization and citizen. They have right to send the proposals to the responsible government bodies concerning environmental issues of implementation planned activities; to receive information on results of conducted state ecological expertise from relevant responsible bodies. The materials reflecting the public expertise delivered to the experts’ commission should be taken into consideration under preparation of conclusion of state ecological expertise and decision making on realization of expertise object. The public ecological expertise is carried out under the state registration of application of public organization. The registration can be done by local executive authorities (for 7 days) in place where the expertise activities are planned. The public organizations which are organizing this expertise, should inform the population of initiation of expertise and then on its results.

*Screening categories.* The laws on Environment Protection and EE stipulate the Government will approve a list of activities for which the full Environmental Impact Assessment is mandatory. The List of 2018 contains 180 types of activities, grouped according to four environmental impact categories (from (A) "high risk" to (Г (in Cyrillic)) "local impact"). The current system of environmental impact assessment does not provide for any preliminary assessment of the project to decide on the need for an EIA (screening), nor to define the scope of the issues covered and the content of EIA materials as specific procedural steps. The List of objects and activities for which the development of EIA materials is required is very detailed and, in the opinion of government bodies, for this reason there is no need to procedurally consider the issue of carrying out an EIA in each specific case.

*EA administrative framework.*The Environmental Protection Law states that a SEE should be conducted by the CEP, which is designated as a duly authorized state environmental protection body. It has a comprehensive mandate that includes policy formulation and inspection duties. The CEP has divisions at oblast (region), city and rayon (district) level, in the form of Departments of Environmental Protection (DEPs), within the Hukumat (local administration) at each city or rayon. A small unit in the ministry is entrusted with guiding and managing both EIA and SEE. EIA preparation is the responsibility of the proponents of public- and private-sector projects, who, in addition to complying with various environmental standards, procedures, and norms, shall meet the standards of other sectors and environmental media line agencies, such as sanitary-epidemiological, geological, water, etc.

*Public participation.*Article 12 of the Environment Protection Law proclaims the right of citizens to live in a favorable environment and to be protected from negative environmental impacts. Citizens also have the right to environmental information (Article 13), as well as to participate in developing, adopting, and implementing decisions related to environmental impacts (Article 13). The latter is assured by public discussion of drafts of environmentally important decisions and public ecological reviews. Public representative bodies have an obligation to take into consideration citizens’ comments and suggestions. The Law on the EE also provides the rights to the citizens to conduct a Public Environmental Expertise (art. 7). On 17 July 2001 Tajikistan acceded to the 1998 Aarhus Convention, the provisions of which have priority over domestic law that also stipulates the rights for Public EE. The public has the right to request public hearings to be carried out. For category "A" and "B" projects, the authorized state body should develop a stakeholder engagement plan with the possibility of conducting consultations and taking into account the opinions of citizens.

In Tajikistan disagreements are resolved through Jamoats' (Hukumats') grievance mechanism or appeal to court. A grievance redress mechanism (GRM) capable of receiving and facilitating the resolution of affected persons' concerns and grievances related to the project is required as a formalized way for the PMUES to identify and resolve concerns and grievances.

*Environmental norms and standards.* Norms are set for air and water pollution, noise, vibration, magnetic fields and other physicalfactors, as well as residual traces of chemicals and biologically harmful microbes in food. The exceeding of their thresholds results in administrative action, including financial sanctions. Several ministries determine environmental quality standards, each in its field of responsibility. Forexample, admissible levels of noise, vibration, magnetic fields and other physical factors havebeen set by the Ministry of Health and social defense of population.

*Implementation and compliance.*Several legal acts establish liability for violations of environmental laws, which can be enforced by several State bodies. In particular, the 2010 Code of Administrative Violations establishes administrative liability for organizations, their officers and individuals for a range of violations, from the careless treatment of land to violation of the rules for water use or water protection or failure to comply with a State ecological expertise. The administrative sanctions for environment related violations can be imposed by the administrative commissions of hukumats, courts, the CEP’s inspectors, the Veterinary Inspectors of the Ministry of Agriculture, and the State Committee for Land Management and Geodesy. The most common administrative sanction is a fine of up to 10 minimal monthly salaries for individuals and up to 15 minimal salaries to officers of organizations. The 1998 Criminal Code covers crimes against ecological safety and the environment, such as violations of ecological safety at work, poaching, and spoiling land, violation of rules for the protection and use of underground resources. The maximum fine is up to 2,000 minimal monthly salaries and the maximum sentence is up to eight years in prison.

When detecting violations of environmental legislation, the CEP authorities apply penalties in accordance with the following articles of the Administrative Code of the Republic of Tajikistan. Namely:

* Article 223. Violation of standards, rules, regulations, instructions and other environmental requirements for the protection of the environment and the rational use of natural resources;
* Article 224. Release (discharge) of polluting substances into the environment with excess of standards or without a permit, waste disposal, physical and other harmful effects
* Article 232. Violation of environmental protection requirements during transportation, disposal, use, disposal (dumping) industrial, household and other wastes into the natural environment.

The fines can only be witnessed by the local CEP authorities

**7.2. Social assessment procedures**

Social screening is a Mandatory Procedure for the identification of possible involuntary resettlement in accordance with ESS 5 of the World Bank. The Implementing Agency will undertake social screening of each proposed subproject.

The social screening is the one of the key steps in identification of further resettlement planning in the projects. The social screening serves to ensure that the process for screening remains simple and concise. A version of the Social Risk Screening Form is attached in Annex 7. Specific questions based on each activity of the project might be added as seen relevant by external consultants and the PIU Social Development Specialist. The list of project activities that have potential resettlement issues will then be subjected to a comprehensive sensitization and consultation process with the potentially impacted communities and the outcome of this process would be documented for each subproject.

The list and the outcome of the consultative process for each site/project activity on the list would then be sent to the respective implementing agencies in the jurisdiction mandated to confirm, approve, disapprove, refer for further consultation and/or take a final decision on each proposed site/ project activities. Carrying out the screening process in this way is designed to give it the integrity and transparency it needs to allow all stakeholders to have confidence in the process.

For project activities that do not have any resettlement issues and do not trigger ESS 5, the provisions of a RPF / social provisions of the ESMF does not apply and the reference is the Environmental Focus of the Environmental and Social Management Framework ESMF.

The screening and categorization of impact on involuntary resettlement will be initiated by PIG either with its own social specialist and other relevant staff or, if there are no such skills, with the help of external consultants. The social screening report will be prepared by the Consultant or PIG’s Social Development Specialist and reviewed by authorized person of the Implementing Agencies and PIG/PMU Director for clearance. The Social Development Specialist and Director at the PIU will finally endorse the social screening and confirm the necessity to develop the Resettlement Action Plan for the proposed sub-project as described in the project’s RPF.

Resettlement Action Plan (RAP)is a resettlement instrument (document) to beprepared when subproject locations are identified. RAPs contain specific and legally binding requirements to be abided by to resettle and compensate the affected party before implementation of the project activities causing adverse impacts. Outline of the RAP is enclosed Annex 6 of the RPF.

**VIII. INSTITUTIONAL ARRANGEMENTS AND CAPACITY FOR ESMF IMPLEMENTATION**

**8.1. Project Coordination**

The project will have two Implementing Agencies (IA), namely the CEP and Agency for Land Reclamation and Irrigation (ALRI). The CEP mandate is to coordinate policies and investments on sustainable natural resource management, climate change mitigation and adaptation, environmental monitoring, and awareness. The functions of ALRI relate to coordination of national policy and legal regulation in the reclamation of land, use and conservation of water facilities and water resources. Together the two IAs will promote key aspects of landscape restoration efforts in the country and support a range of activities to address drivers of degradation and capitalize on opportunities to enhance sustainable land management.

**Project Steering Committee (PSC)** will be established during project implementation and will include representatives of Forest Agency, Pasture Reclamation Trust, Protected Areas Enterprise, ALRI, Ministry for Energy and Water Resources, State Committee for Land Management and Geodesy, Committee of Emergencies, Ministry of Finance and Economy, University of Central Asia (UCA) and representatives of PUUs and FUGs. Chaired by [insert], the PSC will provide oversight and guidance on project management and ensure coordination of project activities among various agencies. PSC will also provide strategic guidance on policy decisions on landscape management. A Project Management Committee (PMC) will provide a technical level support and coordination and will be co-chaired by the IG and IU coordinators. PMC will include Project Director, two coordinators, focal persons from the two IAs, project partners and other technical institutions relevant for project implementation and additional technical staff from IG and IU as necessary. Details of these arrangements will be provided in the Project Operations Manual (POM).

**CEP Functions in Implementation**. The overall responsibility for project management will be with CEP and its Implementation Group (IG). The IG will be responsible for project coordination and will act as the lead agency given its mandate on natural resource management, environmental monitoring and climate change. The CEP IG will responsible for fiduciary management, environmental and social risk management, contract management and monitoring and evaluation and supervision of implementation of project activities under Components 1, 2 and their respective portion of 4. The IG will manage the Project Designated Account in the Central Bank and be responsible for overall project reporting to the World Bank.

**CEP Central and Field Support**. At the central unit of the IG, staff will comprise: Project Director Chair), IG Director, project field coordinator and component coordinators. The project will support procurement, financial management, monitoring and evaluation (M&E) specialists, technical specialists (e.g., forestry, pasture, PA management, water resources, agriculture), and environmental and social/gender Specialists. Implementation will also be supported through project-financed field-based focal points located in seven of the 14 project districts. These field-based personnel will provide critical liaison with ALRI project field-based specialists, local government and beneficiaries. The appointed Project Director and the component coordinators will be civil servants who will be supported by local specialists.

**ALRI Central and Field Support.** The second project Implementing Agency will be the Agency for Land Reclamation and Irrigation (ALRI) under the Government of Tajikistan, which is responsible for irrigation, drainage, and flood management. A Project Management Unit (PMU) in ALRI will be the contracting agency for the design and works of large-scale nature-based infrastructure and related land-based investments that will be supported under Component 3 on Landscape Restoration with Nature-based Solutions Pilots. The PMU will be staffed with a coordinator, a civil engineer, environmental and social risks specialists, and procurement and financial management specialists. Additionally, there will be a limited number of project-supported field-based technical specialists.

**Other Key Project Partners**. The CEP as the lead IA for the Project will be supported by and work closely with various beneficiary agencies: (i) Forest Agency for activities related to National Forest Inventory, forest management planning, afforestation, and Joint Forest Management (JFM); (ii) Pasture Reclamation Trust (in the Ministry of Agriculture) for pasture inventory activities and plans, and geobotanical surveys; and (iii) Protected Areas Enterprise for projected areas management planning and investments; and iv) the State Committee for Land Management and Geodesy, primarily with its mapping unit, FAZO for natural resource inventories and general GIS services. Cooperation between the CEP and these agencies will be set out in Memoranda of Understanding that define the roles and responsibilities of each institution and will be signed by project negotiations.

**8.2. ESF Institutional Capacity Building Activities**

The ESF instruments requires special knowledge from the beneficiaries and all project participants at each stage of the project. To ensure the effective implementation of the project and a clear understanding of the requirements for environmental and social risks managements to comply with the new WB ESSs, an ESF Training Plan is proposed under this project. The program provides training in both general environmental policy principles of the World Bank, relevant national legislation, and in certain specific aspects relevant to this project. It is planned to conduct training and provide information on such topics as the introduction of ESMF, reporting on ESMF/ ESMP, as well as on specific topics such as the use of pesticides in agriculture, integrated pest management, handling, storage and dispose of chemicals.

CEP has experience in implementation of investment projects funded by various IFIs. Under these projects sets of training were provided as a part of capacity building. Nevertheless, taking into account specificity of the project, a wide range of planning activities it is essential to increase capacity of implementation agency to comply with the new ESSs requirements.

For the said purpose, prior to commencement of construction work, CEP will hire a Consultant with knowledge of the national environmental and social management requirements, as well as substantial knowledge of the provisions and requirements of the World Bank's ESSs, who will develop training materials and trainings themselves. The training will include key WB requirements, national rules and procedures for E&S risk management, as well as case studies in this regard. All developed training materials, after the first series of trainings by the Consultant will be transferred to the Implementing Agency for further application.

During discussions with stakeholders it was revealed that it would be helpful to harmonize content of national Environmental Assessment procedures and Content of the EA report with WB requirements for ESMP. Particularly, inclusion of ESMP in the national EA report would simplify process of environmental documents preparation.

The proposal for capacity-building of the Project on environmental and social risk management will cover the following activities:

*Table 18: Preliminary ESF Training Plan*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **The name of the training** | **Time and estimated duration** | **Target group** | **Arranger** | **Estimated cost** |
| 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 | IG Staff, including regional project offices, PTC | Consultant | 1,500 US dollars |
| 2. | Implementation of ESMF, ESMP, RPF, ARAP/RAP, LMP, SEP, GRM | Prior to selection of sub-projects  Duration - 2 days | IG Staff, including regional project offices, PTC | Consultant | 2,000 US dollars |
| 3. | Implementation of ESMF, ESMP, social screening | Prior to selection of sub-projects  Duration - 2 days | Local stakeholders in three regions | Consultant | 3,000 US dollars |
| 4. | Integrated pest control and management | Prior to the sub-projects’ implementation  1 day and during project implementation | E&S Specialists of IG, field focal points, Resource users, PTC | Consultant, PIU | Per 1,000 US dollars at the beginning and in the middle of the project.  Total 6,000 US dollars for 3 regions |
| 5. | GBV training and awareness-raising / implementation of GBV action plan | Half-day workshops at the regional level at the beginning and in the middle of the project | CEP, ALRI staff  Contractor and Supervisor  Local government/ mahallas/ community members | Consultant, PIU | 1,000 USD per each activity,  Total 6,000 USD for 3 regions |
| 6. | E&S Performance Reporting | During the first half year of the Project implementation  Duration - 0.5 days | IG Staff, including regional project offices, PTC members | Consultant | 1,500 US dollars |
|  | TOTAL |  |  |  | 17,000 USD |

**IX. MONITORING AND REPORTING ACTIVITIES**

**9.1. General requirements for environmental and social monitoring and reporting**

Environmental and social monitoring during the implementation of sub-projects shall contain information on key environmental and social aspects of sub-projects, their impact on the environment, social consequences of impacts and the effectiveness of measures taken to mitigate the consequences. This information allows the IG/ Local District Officers (LDOs) to monitor the performance of implementation of environmental measures, assess the effectiveness of mitigation measures, and allow timely implementation of corrective action(s) that need to be observed how often, where and by whom monitoring shall be carried out.

Monitoring of the implementation of environmental measures shall be carried out by IG Environmental Specialist and LDOs. Representatives of the Committee of Environment Protection may also be involved in monitoring. The aim is to verify the main points of compliance with the ESMF, the progress of implementation, the scope of consultations and the participation of local communities. The standard checklist prepared during the evaluation studies will be used for the activities report. In the medium term of the project implementation and at the end of the project, an independent audit will be carried out in the field of environmental, social, health and safety. The audits are necessary to ensure that (i) the ESMF has been properly implemented and (ii) mitigation measures are identified and implemented accordingly. The audit will be able to identify any amendments to the approach to the ESMF to improve its effectiveness.

Monitoring for social risk management measure part will be done on the continuous basis by the PIG/PMU Social Development Specialist to ensure, that there is no any unanticipated impact during construction works on land, productive assets, illegal users, people's livelihood, assess to the assets etc. Monitoring will also cover health and labor issues, as well as stakeholder engagement activities. If some issues are identified, the mitigated measures will be proposed in the progress reports or separate Corrective Action Plans (CAP) (details are presented in the below section on the Environment and Social reporting).

**9.2. Environmental and Social Monitoring**

To ensure implementation of the environmental measures specified in the ESMP, the monitoring shall be carried out as follows:

* *Visual monitoring* - *during the construction stage of the sub-projects* Environmental and Social Specialists shall continually monitor the performance of ESMP. This will be achieved through monthly inspections of construction / reconstruction projects by specialists throughout the whole construction period. The Specialists have the right to suspend work or payments if the contractor breaches any obligation on ESMP implementation. For monitoring, it is recommended to use special check lists, that can be compiled based on ESMP with the attachment of photos from the monitoring site.

*For functioning facilities,* the ESF Specialists shall verify the timeliness of the contractors' reporting on discharges to water bodies, air emissions and solid waste, which the contractors shall submit on a periodic basis to the regional ecology and environment protection committees.

* *Instrumental monitoring of environmental quality*, such as air and water quality. Taking into consideration the types of activities that will be implemented within the framework of this Project, instrumental monitoring may not be carried out. However, in the case of complaints of violations or inconveniences from the local population, instrumental measurements of air or water quality shall be carried out by the IG through the hiring of a certified laboratory. In case of national standards exceeding, the contractor shall be obliged to take additional measures to reduce the detected exceedances to meet the standards.

Environmental and social issues included in the mitigation framework are monitored by designated specialists through the IG. Although the environmental and social impacts are expected to be not significant, the potential negative impacts on the environment are planned to be prevented or mitigated during the construction and operation phases. Monitoring is based on impact / mitigation / monitoring issues as defined in the ESMP and/or ESMP checklists of subprojects. Observation monitoring will be carried out through weekly audits of the environmental performance by contractors throughout the construction period. The IG has the right to suspend work or payments if the Contractor is in breach of any of its obligations to implement an ESMP.

Separately, the World Bank experts will also annually visit certain sites to monitor the compliance. As has been mentioned above, in the case of non-compliance, LDOs /IG/PMU Social Specialists will investigate the nature and cause(s) of the non-compliance and, if necessary, decide what is necessary to ensure the compliance with the sub-project or financing shall be suspended.

**9.3. Environmental and Social Performance Reporting**

Environmental and social performance, including monitoring, shall be properly documented and reported. In accordance with national legislation for the facilities under construction each contractor shall keep a log with information on EHS training for workers and another log for the registration of accidents during construction works. In the case of instrumental monitoring, the original records of the results of the required instrumental environmental monitoring (air and water quality) shall also be stored in a separate file for records.

*For sub-components related to construction / rehabilitation*, it is recommended that contractors, with the assistance of the IG, develop a format (checklist) for site inspection to optimize the environmental and social supervision process before commencement of the works. The format can be in the form of a checklist with a list of mitigation measures to be implemented at construction sites, the status of their implementation and some explanations on the status of implementation, as required. On monthly basis the contractor will present short reports on ESMP implementation. The list of measures that are checked by the E&S Specialists when visiting the site shall correspond to the measures specified in the ESMP for the controlled sub-project. Information on the results of the monitoring on the construction / rehabilitated facilities shall be submitted to the Local Officers to the IG on a quarterly basis. Based on received from the Local Officer's reports on semiannually basis the IG will prepare a brief report on ESMF and ESMPs implementation to be included in the regular progress reports to be submitted to the WB.

Monitoring reports during the project implementation will provide information on key environmental and social aspects [[21]](#footnote-21) of the project activities, especially regarding environmental impacts and the effectiveness of mitigation measures. Such information will allow the IG and the World Bank to evaluate the success of measures to mitigate the consequences within the framework of project supervision, and allow, if necessary, to take corrective actions.

The sub-projects ESMP monitoring section will provide:

* details of monitoring measures, including parameters to be measured, methods used, sampling locations, frequency of measurements; and
* monitoring and reporting procedures: to (i) ensure early identification of conditions requiring mitigation measures; and (ii) provide information on the progress and results of mitigation.

The IG will provide brief information on the implementation of the ESMF and the environmental and social activities of the sub-project as part of the progress reports to be submitted to the WB every six months.

If social monitoring identified any impacts, it should be mitigated immediately. If there is an impact on land, productive assets, illegal users, people's livelihood, assess to the assets etc. the construction works should be stopped and the IG needs to be informed immediately. A Corrective Action Plan (CAP) needs to be developed. The CAP should contain information on the sub-component of the project, status of the civil works, impact types and social impact assessment, proposed mitigation measures. CAP should be prepared by the sub-component implementer and approved by the IG. All unanticipated impacts under the subproject, which have been occurred out of the RoW, should be compensated/mitigated by the Contractor. This needs to be reflected in the bidding documents. All impacts in the RoW should be compensated by the Subproject Implementer.

IG Monitoring and Evaluation Specialist is responsible for overall compilation of progress and results. It is suggested that semi-annual reports and quarterly unaudited IFRs will be submitted to WB. These reports should include the scorecards of communities on project implementation and success along with financial records, project implementation records, social audit meetings, and feedback and grievances received. Results measurements are outcomes defined in the results framework and set of output indicators defined in POM. The IG will be responsible for producing a completion report. All environmental and social issues are monitored and supervised by IG or Regional Specialist. Despite of insignificant social impacts, the potential negative impacts must be prevented or mitigated during construction and operation stages.

Environmental and social monitoring system starts from the preparation phase of the sub-component of project through the operation phase in order to prevent negative impacts of the project and observe the effectiveness of mitigation measures. This system helps the WB and the CEP to evaluate the success of mitigation as part of project supervision and allows taking an action when needed. The monitoring system provides technical assistance and supervision when needed, early detection of conditions related to mitigation measures, follows up on mitigation results, and provides information of the project progress. Monitoring Plan identifies monitoring objectives and specifies the type of monitoring, and their link to impacts and mitigation measures. 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; 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.

**9.4. Occupational Health and Safety (OHS) issues reporting**

OHS issues must be covered in all supervision and monitoring activities. That means specifically observing whether the enterprise adheres to good OHS practices, asking whether all employees have received OHS training, whether there have been any incidents, checking logs and the availability and use of protective and preventative equipment. Respectively, the ESF sections of all progress reports include statements indicating that the IG have checked occupational health and safety issues, and existing procedures in this regard, and asked if there have been any serious incidents or fatalities. Similarly, the IG will ensure that at the project launch workshop and in the operational manual contain adequate provisions for occupational health and safety.

Any incidents occurring on project sites and/or within project-supported activities should be reported immediately, e.g., by the contractor to the employer, IG and subsequently to CEP. All incidents should be reported to the World Bank no later than 48 hours from their occurrence.

Details on any incidents that have occurred, or lack thereof, will be provided in regular progress reports to CEP and the World Bank. The relevant text on OHS to be included in the progress reports might be as follows: The project has reported X Occupational Health and Safety (OHS) incidents since its start. Of these, X are classified as SEVERE, X as SERIOUS, and X as INDICATIVE. All incidents are confirmed accounted through the Environment and Social Incident Response Toolkit (ESIRT) (see below). During this mission period, the IG checked with all contractors and consultants under all project activities, if any OHS incidents occurred, either reported or not yet reported. The IG found (EITHER) (i) no new incidents occurred during this supervision period, or (ii) X incidents occurred (include classification, brief description of event and follow-up actions, and confirmation event was reported via SIRT)]. Monitoring activities during the report period found that OHS practices have been observed / partially observed / not observed. The following deficiencies were found: The following recommendations have been made to [XX Contractor / farm / business]

The World Bank Environment and Social Incident Response Toolkit helps to manage incidents

consistently by providing clear guidance on how to classify the incident's severity, how to provide a proportional response according to severity, and clarifies roles and responsibilities. ESIRT also requires a root cause analysis to be done by the Borrower when there is a severe incident.

*“Incident”* is defined as an accident, incident, or negative event resulting from failure to comply with identified risk management measures OR conditions that occur because of unexpected or unforeseen environmental or social risks or impacts during project implementation. Examples of environmental or social incidents include: fatalities, serious accidents and injuries; social impacts from labor influx; sexual exploitation and abuse (SEA) or other forms of gender- based violence (GBV); major environmental contamination; child labor; loss of biodiversity or critical habitat; loss of physical cultural resources; and loss of access to community resources. In most cases an incident is an accident or a negative impact arising if the contractor does not comply with the WB security policy or unforeseen events which occurred during the Project implementation.

The WB ESIRT does not replace monitoring procedures and implementation of regular monitoring of the implementation of the project ESF provisions. The document includes the following six stages of the incident management and reporting process:

**Stage 1. Initial informing about the incident.** The contractor, executor, supervisor, is informing the IG, local authorities, the WB, the public, providing urgent health care and providing the necessary safety measures for workers. All measures must be taken immediately. In parallel, all necessary data about the incident are collected - its scope, degree of danger to public health and environment, location, cause of occurrence, duration, what decisions are taken by the Executor, what actions should be taken next, etc.

**Stage 2. Assess severity of the incident**. The Executor (should promptly provide information to the WB about the incident and its degree of danger.

**Stage 3. Notification**. The Executor is preparing an incident notification for the WB. Submission of a notification in the event of an incident should be determined when signing a contract with the Contractor.

**Stage 4. Investigation of the incident**. The Executor provides any information requested by the WB and does not prevent to visit the incidence scene. The Executor is also obliged with the assistance of the Contractor to analyze the causes of the incident and to document the information received. The Executor may need to involve external experts in investigation of the incident. The term of the investigation should not exceed 10 days after the incident. The findings of the investigation should be used by the Executor and the Contractor to develop corrective actions and draw up a corrective action plan (CAP) to avoid any future repetition of what happened. Besides, the conclusions should be submitted to the WB.

**Stage 5. Corrective Action Plan**. The Executor develops a CAP with specific actions, responsibilities, implementation dates and monitoring program and discusses it with the WB. In case of serious incidents, the WB and the Executor agree on a set of measures to eliminate the major causes of sources for such incidents. The CAP indicates actions, duties and terms that should be performed by the Executor and the Contractor. The Executor is responsible for implementation of the CAP. The CAP may include development or modernization of technical measures to protect the environment and prevent further pollution, conduct training, including on issues of emergency health care, compensation for insurance claims of injury or death. If the WB considers that the CAP measures are not effective, and/or the Executor has shown unwillingness or inability to take corrective measures, the WB may consider a decision on complete or partial suspension of the loan payments until such actions are taken, or in some cases it may consider a question of cancellation of the whole or part of the Project after its suspension. Such decisions of the WB are transferred to the IG and the Committee on Environmental Protection authorities to determine the appropriate actions of the WB.

**Stage 6. Monitoring execution of the CAP**. The Executor performs the CAP, monitors execution of individual CAP items and provides a report on implementation to the WB.

It will be mandatory for all project participants immediately report on the OHS (on severe and serious) incidents (by contractors - to employer, by sub-borrowers -- to PFIs, by project implementing entity - to the World Bank). It is required that World Bank is to be notified about each severe and serious incident within 24 hours.

For supervision of OHS issues during the project implementation which include civil works, the IG Environmental Specialist may use, as appropriate, the “Health, Safety and wellbeing inspection Checklists” see Annex 9.

**9.5. Integration of ESMF into the project documentation**

The ESMF requirements will be integrated in the Project Operational Manual while the ESMPs requirements, - into construction contracts for all sub-projects, both into specifications and bills of quantities, and the Contractors will be required to include the cost for ESMP implementation in their financial bids. Based on the ESMF there will be highlighted the roles and responsibilities of all involved parties in the ESA process. Lastly, based on the ESMF and ESMPs requirements, monitoring and evaluation of mitigation/avoidance measures identified in the site-specific review and in the ESMPs will constitute integral part of the subproject implementation, including them into the contracts binding the and the contractors will need to carry out the environmental and social obligations during civil works. Furthermore, all contractors will be required to use environmentally acceptable technical standards and procedures during carrying out of works. Additionally, as specified in the ESMF, the contract clauses shall include requirements towards compliance with all national construction, health protection, ESF procedures, and rules on environmental and social protection.

The provisions of the ESMF will be used for the following:

* Inclusion of the ESMF requirements into the Operational Manual of the project;
* The inclusion of environmental guidelines, ESMP into the construction contracts for individual sub-projects, both in the specification and in the bills of work, sub-borrowers shall include the cost of ESMF implementation in their financial proposals;
* The allocation of subsequent responsibility of ESMF within the framework of the IG;
* Specifying mitigation and prevention measures during the implementation of selected sub-component of the projects;
* Monitoring and evaluation of mitigation/prevention measures identified in the site- specific review and in the ESMP. The required mitigation measures will be an integral part of the sub-project, including contracts requiring contractors to meet environmental and social obligations during construction.

All contractors shall use environmentally acceptable technical standards and procedures during the work. In addition, the contract provisions shall specify the requirements for compliance with all national building codes, health, protective procedures and regulations, as well as environmental protection.

Contractors, for the construction and/or rehabilitation works shall prepare a Contractors ESMP based on the ESIA/ESMP prepared as part of the bid preparation.

**X. GRIEVANCE REDRESS MECHANISM**

**10.1. Grievance Redress Mechanism (GRM)**

Grievance procedures will be required to ensure that PAPs are able to lodge complaints or concerns, without cost, and with the assurance of a timely and satisfactory resolution of the issue. The procedures also ensure that the entitlements are effectively transferred to the intended beneficiaries. Stakeholders will be informed of the intention to implement the grievance mechanism. The GRMs will be devised to comply with the national legislation as well as the international standards, they typically address both environmental and social issues. Complaints and grievances can be addressed through the following levels:

**First Step:** District Grievance Management Groups (LGMG) will be established in each district administration (khukumat) to be facilitated by the CEP departments to address and resolve complaints within 14 days of receiving complaints. The GRM focal point will be responsible for maintaining grievance and feedback logs. If the issue cannot be resolved at the local level, then it will be escalated to the national level. Local governments will be fully coated in reaching out to the local communities and individuals and provide intermediation support, in general, and airing grievances, in particular.

**Second Step**: If the Local Grievance Management Groups are not able to resolve the grievance within a 14-day period, the complaints should be presented to the CEP IG/ ALRI PMU at the national level. National Grievance Management Group (NGMG) represented by the E&S specialists, M&E specialist, engineers and other relevant specialists, will be chaired by the IG Director. The NGMG will make a final decision after the assessment of the case and will be a careful preparation of the decision by the IG resettlement and environmental representative. Grievances must be heard and resolved within 14 days of submission of the complaint. The IG will also file all the project specific grievances from other regions and target districts, where no local district officers (LDOs) are in place.

**Third Step:** If no solution is reached within 14 days at IG\PMU level, the project affected people (PAPs) can further submit their case to the appropriate court of law.

The Grievance Logs along with the Grievance Redress Forms are maintained on site with all the complaints registered in the logs and tear-off stubs left with the PAPs to allow for adequate and transparent redress process. Project affected persons can air their grievances either on their own or through local jamoat and khukumat representatives. *Anonymous complaints related to project activities are also entertained by the project specific GRM*.

The leaflets containing information on the Project as well as contact addresses/phone numbers to be contacted are shared and available at the level of targeted districts, and jamoats. The Grievance Logs along with the Grievance Redress Forms are maintained on site with all the complaints registered in the logs and tear-off stubs left with the PAPs to allow for adequate and transparent grievance redress process.

GRM will be established in such a way that among others: (i) it is easily accessible to all and as nearest as possible; (ii) grievances are encouraged in any form (verbal/ written) and including anonymous requests too; (iii) composition of the Grievance authorities is inclusive and beset with requisite authority; and (iv) bound by appropriate protocols in terms of time to address, communicate, and maintain log viz., is a repository.

**Grievance Logs.** The Grievance Focal Points (GPFs) will maintain local grievance logs to ensure that each complaint has an individual reference number and is appropriately tracked, and recorded actions are completed. When receiving feedback, including grievances, the following is defined:

* Type of appeal;
* Category of appeal;
* People responsible for the study and execution of the appeal;
* Deadline of resolving the appeal; and
* Agreed action plan.

The GFPs will ensure that each complaint has an individual reference number and is appropriately tracked, and recorded actions are completed. The log should contain the following information:

* Name of the project affected party, his/her location and details of his / her complaint;
* Date of reporting by the complaint;
* Date when the Grievance Log was uploaded onto the project database;
* Details of corrective action proposed, name of the approval authority;
* Date when the proposed corrective action was sent to the complainant (if appropriate);
* Details of the Grievance Group meeting (if appropriate);
* Date when the complaint was closed out; and
* Date when the response was sent to the complainant.

**10.2. Monitoring and Reporting on Grievances**

The IG/PMU M&E Specialist will be responsible for:

* Collecting and analyzing the qualitative data from GFPs on the number, substance and status of complaints and uploading them into the single project database;
* Monitoring outstanding issues and proposing measures to resolve them; and
* Preparing quarterly reports on GRM mechanisms to be shared with the World Bank.

Quarterly reports to be submitted by World Bank shall include Section related to GRM which provides updated information on the following:

* Status of GRM implementation (procedures, training, public awareness campaigns, budgeting etc.);
* Qualitative data on number of received grievances \ (applications, suggestions, complaints, requests, positive feedback), highlighting those grievances related to the involuntary resettlement and number of resolved grievances, if any;
* 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.

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

**XI. ESMF DISCLOSURE AND PUBLIC CONSULTATION**

ESMF and RPF preparation has been highly participatory. Some consultations have been held with various stakeholders including the public communities, local/ district/ regional authorities, other departments and service providers. The draft ESMF and RPF in English and Russian languages were posted on the CEP IG website on \_\_\_\_\_\_\_ (http://tajnature.tj). The final versions will be officially submitted to the World Bank for disclosure in English on the WB external webpage by \_\_\_\_\_\_\_. The English and Russian versions will be also redisclosed on the website of the CEP IG. The Client will follow Citizen engagement and Stakeholder Consultations during COVID-19 pandemic per the World Bank’s guidelines: <https://www.worldbank.org/en/news/factsheet/2020/12/01/citizen-engagement-and-stakeholder-consultations-during-covid-19>.

The final version of this document will be used by respective government agencies and other Project stakeholders during the project implementation. Minutes of the virtual disclosure workshop to be held will be enclosed in Annex X.

**Annex 1: PEST MANAGEMENT PLAN**

Following review of the Environment Screening Checklist submitted by the applicant for a sub-project loan, the PFI Loan Officer and/or PMU Environmental Specialist will determine if the applicant needs to prepare a PMP. This determination would be made on the basis of toxicity of the pesticides to be used and the environmental risks posed by the activity. When, a determination is made that a PMP is to be prepared by the sub-project loan applicant, a two stage process would be applied towards the preparation of the PMP.

**Stage A: Additional Information Request**

The applicant would provide the following information:

**1. *Types and application of pesticides***

* What are the pesticides that are to be purchased, including name of product, type of formulation, concentrations of the active ingredient?
* Where are the pesticides to be purchased from, including name of store and location?
* What are the quantities of pesticides to be purchased and the package sizes and quantities in each package?
* What type of equipment is to be used to apply the pesticides
* Are applicators trained in the proper and safe use of the pesticides?

2. ***Purpose and appropriateness of pesticides***

* What crops to you plan to use the pesticide?
* What pests and/or diseases are to be controlled by the pesticide?
* What non-chemical pest control measures have been used in the past to control the pests and/or diseases mentioned in (ii) above?
* How often is the pesticide to be applied and in what quantities in any given application?
* How will the timing of the application of the pesticide be decided?
* Have you been trained or received advice on non-chemical pest control or integrated pest control (IPM)?
* If not trained, how do you plan to obtain assistance, advice or training in pesticide application quantities and methods; calibration of spraying equipment; use of protective gear; storage and disposal methods, etc.

*3.* ***Handling, storage and disposal of pesticides***

* How will the pesticides be transported to the project site?
* Where will the pesticides be stored in the farm?
* Will the storage location of the pesticide be secured / locked and who will have access to these stores?
* How will animals, children and unauthorized persons be excluded from access to the storage areas?
* Where will mixing of pesticides happen and what precautions will be taken to keep the storage and pesticide mixing areas away from grain stores and production areas?
* How will excess unused and mixed pesticide products be disposed of?
* How will empty pesticide containers be disposed of?
* How will pesticide records in terms of purchase, use and disposal be maintained?

*4.* ***Environmental Aspects***

* Are pesticide application areas near water bodies, wetlands or areas of known natural habitats?
* Are there know natural pollinators found in the vicinity of the application areas? If so what precautions would be used to ensure that non-target beneficial species are not harmed?

**Stage B: Preparation of Pest Management Plan**

Based on the information provided by the subproject loan applicant, the PFI Loan Officer (if necessary, in consultation with PMU Environmental Officer) will identify the risks associated with the application of the pesticide and the more important and most practical mitigation measures that need to be applied, including any complementary measures using non-chemical control measures. The PFI Loan Officer will advise the applicant on the scope and nature of the PMP to address potential impacts of the subproject activities. If needed, the PFI Loan Officer and/or PMU Environmental Specialist can advise the loan applicant on professional services that could be obtained for completion of the subproject specific PMP. Typically the outline of the PMP would be the following The proposed outline for PMP:

* **Aims and objectives** of PMP (provides information on extent and severity of pest and diseases in the crops to be grown);
* **General area of Project intervention and main crops (**should provide data on land use and soil, water resources, layout of facilities, etc.)
* **Existing practices/experience** for pesticide use and pest management in Tajikistan; Current and anticipated pest problems (***Review of Existing Pest Management Practices and Capacity*** which should provide data on current practices (chemical and non-chemical) in control of the particular pests and diseases, including lists of pesticides banned by national law or prohibited by the ESF ESSs, constraints and track record and extent to which pest and diseases of fruit and agricultural crops have been managed and controlled; and reasons for enhanced pesticide applications through the proposed subproject loan.)
* **Legal Framework**: relevant National/Regional and International Policies/Conventions ratified by Tajikistan; Guidelines on the use of pesticides, fertilizers/agrochemicals;
* **Relevant WB ESF ESSs** for pest management;
* **Institutional Framework (**e.g. government agencies/local authorities and others responsible to enforce pest management and control, etc.)
* **Major activities** (e.g. surveillance, spraying methods/monitoring, livelihood protection activities, etc)
* **Public Complaints and Grievance Redress Mechanism** (GRM);
* **Stakeholder Engagement and Disclosure** of the PMP;
* **Criteria for pesticide selection and use including types & amount; choosing pesticides for locust campaign);**
* **Pesticide use by crops (crop type, pest/disease, dose…);**
* **Pesticide waste management approaches**
* **E&S, occupational health** risks associated with importation, transportation, storage, distribution and use of pesticides, particularly locust control;
* **Mitigation measures to avoid and manage those risks and impacts;**
* **Guidance/best practices on pest quality control**
* **Procedures for pesticides handling, packaging storage, disposal (**provides information on the types, amounts and nature of the pesticides to be purchased and used and the current and proposed handling, application, storage and disposal methods for the pesticides)**;**
* **Capacity building/training for personnel on application of pesticides (Capacity, training and knowledge of the safe application and use of pesticides provides information on existing knowledge and capacity of staff and personnel in the safe use and application of pesticides and identification of gaps in training and knowledge for improving capacity);**
* **Institutional arrangements and** roles and responsibilities;
* **Monitoring and reporting approaches;**
* **Coordination Responsibilities;**
* **Activity plan and Budget;**
* **Other findings/information that are specifically relevant to the Project**
* **References;**
* **Annexes and respective Checklists;**
* **….**

***Potential risks and hazards associated with application and use of pesticides in subproject loan*** would provide information on the environmental and human health impacts associated with the handling, application, storage and disposal of pesticides under the subproject loan, including potential impacts on non-target beneficial species, soil and water and natural habitats.

***Mitigation Measures to avoid and manage potential pesticide impacts*** that would provide information on the following:

* For locust management, it is important to strengthen the system of surveillance, early detection and response to prevent potential risks and avoid adverse implications;
* Mechanical and physical control, cultural and biological control measures, if any that can be used in conjunction with or without pesticide applications to suppress or reduce the severity of the target pest or disease to be controlled;
* Chemicals and chemical procedures that will be used to control pests and diseases, conditions under which the chemicals will be used, including climatic conditions, vegetation conditions, timing of applications, to improve the effectiveness of the pesticide and reduce its environmental impacts as well as specific measures to be employed to protect sensitive ecosystems, aquatic systems and ground water;
* Management of health and safety aspects that would define measures to ensure safe handling, transport, application, storage and disposal of pesticides so as to reduce environmental and health risks;
* Measures that would be introduced for public safety and protection during pesticide applications;
* Measures to track and monitor pesticide use and effectiveness in controlling desired pests;
* Measures to be undertaken to create awareness, improve information flow and improve capacity of farm workers on the hazards on the unsafe use, handling and storage of pesticides and measures for reducing such risks, as well as options for integrated pest management;
* Measures to be taken to obtain technical support for pest management and safe use and application of pesticides, when necessary;
* Budget estimate for implementation of the PMP.

**Annex 2: SOCIAL RISK SCREENING CHECKLIST**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Activities** | **Yes** | | **No** | | **Notes** | |
| 1 | Acquisitions of land, buildings (residential and business) |  |  | | If "Yes", and answers other questions "No", provide relevant documents, available for the final sales transaction | |
| 2 | Acquisitions or expansion of the business, which will be implemented by the demolition/  relocation homeowners, renters, formal and informal user assets |  |  | | If yes, provide more details | |
| 3 | Acquisition of assets, which will cause the loss of access of people or a particular community/groups, especially ethnic minorities to:  · Natural resources  · The traditional habitat  · The traditional activities  · Communal utilities |  |  | | If yes, provide more details | |
| 4 | Acquisitions/or expansion of a business that can promote/increase the risk of:  1. Violation of the labor code and laws including the use of child labor  2. Harassment of ethnic minority groups in the areas of project (related to their identity, dignity and livelihoods of the system of subsistence, cultural identity)  3. Human trafficking and forced labor |  |  | | If yes, provide more details | |
| 5 | Will there be land acquisition using eminent domain law? |  |  | | If yes, provide more details | |
| 6 | Will there be permanent or temporary loss of shelter and residential land due to land acquisition? |  |  | | If yes, provide more details | |
| 7 | Will there be permanent or temporary loss of agricultural and other productive assets due to land acquisition? |  |  | | If yes, provide more details | |
| 8 | Will there be losses of crops, trees, and fixed assets due to land acquisition? |  |  | | If yes, provide more details | |
| 9 | Will there be permanent or temporary loss of businesses or enterprises due to land acquisition? |  |  | | If yes, provide more details | |
| 10 | Will there be permanent or temporary loss of income sources and means of livelihoods due to land acquisition? |  |  | | If yes, provide more details | |
| 11 | If land or private property is purchased through negotiated settlement or willing buyer-willing seller, will it result in the permanent or temporary removal or displacement of renters, or leaseholders? |  |  | | If yes, provide more details | |
| 12 | If land or private property is purchased through negotiated settlement or willing buyer-willing seller, will it result in the permanent or temporary removal or displacement of informal land-users (people without legal rights on the land) or squatters? |  |  | | If yes, provide more details | |
| 13 | Will the project involve any permanent or temporary restrictions in land use or access to legally designated parks or protected areas and cause people or any community to lose access to natural resources, traditional habitats, communal land, or communal facilities? |  |  | | If yes, provide more details | |
| 14 | Will the project use government land or any public land or property, which will require the permanent or temporary removal of informal occupants or users (residential or economic)? |  |  | | If yes, provide more details | |

The Social Development Specialist confirms that the assigned land / proposed subproject

Has Involuntary Resettlement (IR) impact, a Resettlement Action Plan is required

Will not have IR impact

Completed by (full name and contacts): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Annex 3: INDICATIVE OUTLINE OF ESIA/ESMP**

Where an environmental and social impact assessment is prepared as part of the environmental and social assessment, it will include the following:

**(a) Executive Summary**

* 1. Concisely discusses significant findings and recommended actions.

**(b) Legal and Institutional Framework**

* 1. 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 26[[22]](#footnote-22)
  2. Compares the Borrower’s existing environmental and social framework and the ESSs and identifies the gaps between them.
  3. 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 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 EHSGs or if the ESHGs 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: ENVIRONMENTAL SOCIAL MANAGEMENT PLAN (Template)**

**General Remarks**. If an ESIA is required, then the ESMP should be an Annex to the ESIA. For smaller activities, only an ESMP or ESMP checklist is required. An Environmental and Social Management Plan (ESMP) should outline the mitigation, monitoring and administrative measures to be taken during project implementation to avoid or eliminate negative environmental and social impacts.

**Description of the of the Environmental and Social Management Plan**

The Environmental and Social Management Plan (ESMP) identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost-effective, or sufficient. Specifically, the ESMP (a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous people or involuntary resettlement); (b) 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; (c) estimates any potential environmental impacts of these measures; and (d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

*Monitoring*

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision, and allows corrective action to be taken when needed. Therefore, the ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the EA report 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.

*Capacity Development and Training*

To support timely and effective implementation of environmental project components and mitigation measures, the ESMP draws on the ESA's assessment of the existence, role, and capability of environmental units on site or at the agency and ministry level. If necessary, the ESMP recommends the establishment or expansion of such units, and the training of staff, to allow implementation of ESA recommendations. Specifically, the ESMP provides a specific description of institutional arrangements - who 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 management capability in the agencies responsible for implementation, most EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.

*Implementation Schedule and Cost Estimates*

For all three aspects (mitigation, monitoring, and capacity development), the EMP 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.

*Integration of ESMP with Project*

The borrower's decision to proceed with a project, and the Bank's decision to support it, is predicated in part on the expectation that the ESMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the ESMP within the project so that the plan will receive funding and supervision along with the other components.

**The Environmental and Social Management Plan format** provided in **Form below.** It represents a model for development of an ESMP. The model divides the project cycle into three phases: construction, operation and decommissioning. For each phase, the preparation team identifies any significant environmental impacts that are anticipated based on the analysis done in the context of preparing an environmental assessment. For each impact, mitigation measures are to be identified and listed. Estimates are made of the cost of mitigation actions broken down by estimates for installation (investment cost) and operation (recurrent cost). The ESMP format also provides for the identification of institutional responsibilities for "installation" and operation of mitigation devices and methods.

To keep track of the requirements, responsibilities and costs for monitoring the implementation of environmental mitigation identified in the analysis included in an environmental assessment a monitoring plan is necessary. A **Monitoring Plan format** is provided in **Annex 4** and includes a row for baseline information that is critical to achieving reliable and credible monitoring. The key elements of the matrix are:

* What is being monitored?
* Where is monitoring done?
* How is the parameter to be monitored to ensure meaningful comparisons?
* When or how frequently is monitoring necessary or most effective?
* Why is the parameter being monitored (what does it tell us about environmental impact)?

In addition to these questions, it is necessary to identify the costs associated with monitoring (both investment and recurrent) and the institutional responsibilities.

When a monitoring plan is developed and put in place in the context of project implementation, the CEP IG and ALRI PMU will request reports at appropriate intervals and include the findings in its periodic reporting to the World Bank and make the findings available to Bank staff during supervision missions.

**Environmental and Social Management Plan Format**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Phase** | **Environmental and Social**  **Impacts** | **Mitigating**  **Measure(s)** | **Cost** | | **Institutional Responsibility** | | **Remarks** |
| Install | Operate | Install | Operate |  |
| Construction |  |  |  |  |  |  |  |
| Operation |  |  |  |  |  |  |  |
| Decommissioning |  |  |  |  |  |  |  |

**EXAMPLE OF AN ENVIRONMENTAL AND SOCIAL MONITORING PLAN**

| **PHASE** | **WHAT**  is the parameter to be monitored? | **WHERE**  is the parameter to be monitored? | **HOW**  is the parameter to be monitored?? | **WHEN**  is the parameter to be monitored? (frequency)? | **WHY**  is the parameter being monitored? | **COST** | **RESPONSIBILITY** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Designing** | Implementation of ESMP guidelines (RECOMMENDATIONS) | Design project for construction, reconstruction and adaptation. | Review of elaborates and adaptation designs. | Prior approval for construction as part of project monitoring program. | Recommended due to national legislation requiring a construction permit. | Should be part of the Project | CEP  Designer, Contractor |
| Resettlement impacts and risks | Target sites | Social screening of the proposed sites | After the technical designs are finalized | To comply with ESS5 | Project Management costs | CEP IG/ALRI PIU |
| **Construction** | Parameters given in construction permit - all special conditions of construction issued by different bodies | Main Project documentation | A part of regular inspection by the Ministry of Environment and the Construction Inspection | During construction and prior to issuance of the Operation permit | Regular review stipulated in the Law, and if any public complaint is sent to the Ministry of Environment, or the Construction Inspection. | Included in the construction phase, costs of Contractors | Supervision Engineer, inspectorate of the CEP and Construction Inspection |
| Construction waste management (including hazardous) | Supporting documents for waste, which is submitted to the competent communal enterprise | A part of regular inspection by the Ministry Environment Construction Inspection | After reporting on waste management | Needed in accordance with the waste-related regulations | Expenditure of the Ministry Environment and the Construction Inspection and low costs for the Contractor | Supervision Engineer, inspectorate of the CEP and Construction Inspection |
|  | Labor conditions and contracts, OHS, Worker GRM | Onsite observations, Contractor office | Site visits, desk review | During construction | To comply with ESS2 | Project Management costs | CEP IG |
| Community Outreach, GRM | Neighbouring communities, PROs | Community meetings, GRM logs | During the field site visits | To comply with ESS10 | Project Management costs | PIU and its Regional offices |
| **Operation** | Waste management | Based on the supporting documents for waste, which is submitted to the Ministry of Environment | Reports to the Ministry of Environment | After reporting to the Ministry of Environment on waste management. | Should be monitored in line with the regulations on waste management. | Costs of the project beneficiary and the Ministry of Environment | Project beneficiary, competent communal company and the CEP |
| Community Outreach, GRM | Neighbouring communities, PROs | Community meetings, GRM logs | During the field site visits | To comply with ESS10 | Project Management costs | PIU and its Regional offices |

**ACM MANAGEMENT PLAN (Example)**

**А. Introduction**

* Management plan for asbestos-containing materials (hereinafter referred to as ACMMP), describes and assesses the risks of contractor organizations (as well as others) that have discovered asbestos-containing materials (hereinafter ACM) at construction sites during the project implementation period; and also, the plan provides procedures for the rapid and safe handling of any ACM that can be detected.

**В. Risk Assessment**

**Risk**

* Asbestos is a fibrous material of natural origin, widely used in buildings and other infrastructure in the 20th century; the material is strong, resistant to heat and fire. The general use of asbestos was in the production of slate sheets, asbestos cement (hereinafter AC) pipes, as well as in some parts of cars. The risk of asbestos for human health began to be widely understood at the beginning of the 20th century from the 1980s onwards, increasing the number of countries that had begun to restrict, and then its use was banned. The supply and use of ACM is currently banned in most countries, although it is not yet prohibited in the Tajikistan.
* Inhalation of asbestos fibers can lead to serious and fatal diseases, including lung cancer, mesothelioma (internal mucosa cancer), asbestos pneumoconiosis (inflammatory lung disease). The health safety risk generally increases with prolonged and repeated exposure, but the "US Occupational Safety and Health Act" (hereinafter referred to as OSHA) states that there is no "safe level of exposure" for any type of asbestos fibers[[23]](#footnote-23).
* At workplaces, risks are usually the greatest, if the production of work with ACM is carried out in buildings or other enclosed premises, and also where the material is dry, old, or broken. This is because the collapsing ACM, as well as the cut or chipped edges of even a new material, can be fibrous (where the fibers are easily separated), especially when they are touched.

**С. Urgent measures**

* If an ACM is found on a facility, the Contractor should take the following actions:
* Stop all work within a radius of 5 m from the place of ACM, evacuate all personnel from the territory of this section;
* Mark the border of the territory within a radius of 5 m with a columnar safety fence, an alarm tape and easily visible warning signs notifying about the presence of asbestos;
* Inform the Project Engineers, as well as the Environmental Supervision Specialists, in order to organize an object inspection without delay.
* Project Implementation Institution is needed to:

Notify the State Administration of Sanitary and Epidemiological Supervision.

**D. Equipment**

* In order to remove asbestos from the construction site, the Contractor shall be provided with the following equipment:
* Signal tape, strong fencing posts and warning signs;
* Shovels;
* Water supply and hoses equipped with garden sprinklers;
* A bucket of water and rags;
* Bags of transparent, durable polyethylene with strings;
* Containers for asbestos-containing waste (empty, clean, sealed metal drums, with a clear designation - "contained asbestos").

**E. Personal protective equipment (PPE)**

* All personnel involved in the process of handling ACM should be dressed in the following type of outfit, which must be provided by the Contractor:
* One-time overalls, equipped with a hood;
* Boots without laces;
* New gloves made of durable rubber;

Respirators are usually not required if only a few fragments of the ACM are present in a small area, and if the ACM is in a humid environment

* In a large area with severe contamination, a respirator (not dust masks) is required, with a protective factor of 20 or more (eg a respirator with a RZ filter);

It is not allowed to smoke, eat, or drink on an object with an ACM content.

**F. The procedure for preparing the work site**

* These procedures should be followed when working with ACM pipes (which includes cutting, drilling, clamping, etc.), in order to minimize fiber emissions during labor activity. All workers, technical personnel and outsiders should understand the requirements of these procedures before carrying out any work with the ACM sheets. The supervisor should be responsible for coordinating activities to ensure the use of personal protective equipment when necessary. It is necessary to draw up a written document available to workers at the work site that will determine the location of the ACM pipes and any other hazardous materials.
* Before the entrance (exit) of the work area, locker rooms for personnel equipped with airtight containers for storing contaminated disposable coveralls should be organized. Contaminated clothing must be disposed of. Repeated use and cleaning with compressed air is prohibited.
* A protective tape with the following warning should be placed around the work area at all entrances to the work site, using fasteners to hold it in place (such a fence must be in place immediately before performing any work):
* CAUTION ASBESTOS
* NO ENTRY FOR UNAUTHORISED PEOPLE
* ENTRY ONLY IN RESPIRATORS AND PROTECTIVE CLOTHING.
* Workers must have (at minimum) a half face-piece respirator with combination cartridges for particulate (P100) and organic vapours (OV). No single use respirators are allowed. Workers shall inspect and clean their respirators prior to each use. Workers must be fit tested and properly trained in the use, limitations, and maintenance of their respirators.
* Labelled asbestos waste bags must be available and placed in the work area for disposal of protective coverall suits and contaminated waste such as sponges and rags.
* Construction areas should be allocated to the individual site for garbage collection from the demolition work. Containers temporary storage of asbestos-containing waste must be sealed with tight-fitting lid and be labeled accordingly "asbestos".

**G. Disposal**

* ACM if any should be disposed of safely at a local hazardous-waste disposal site if available, or at the municipal dumpsite after making prior arrangement for safe storage with the site operator.
* The Contractor must arrange for the disposal site operator to collect the sealed asbestos waste containers if any as soon as possible and store them undisturbed at the disposal site.
* At the end of construction Contractors must arrange for the disposal site operator to bury all ACM containers in any in a separate, suitably-sized pit, covered with a layer of clay that is at least 250 mm deep.

**Personal Decontamination**

* At the end of each day, all personnel involved in handling ACM must comply with the following decontamination procedure:
* At the end of the decontamination operation, clean the boots thoroughly with damp rags;
* Peel off the disposable overalls and plastic gloves so that they are inside-out and place them in a plastic sack with the rags used to clean the boots;
* If a disposable respirator has been used, place that in the plastic sack, seal the sack and place it in an asbestos waste container;
* All personnel should wash thoroughly before leaving the site, and the washing area must be cleaned with damp rags afterwards, which are placed in plastic sacks as above.

**Clearance and Checking-Off**

* The decontamination exercise must be supervised by site supervisors (engineering or environmental).
* After successful completion of the decontamination and disposal, the DSC Supervisor should visually inspect the area and sign-off the operation if the site has been cleaned satisfactorily.
* The contractor should send a copy of the completion notice to the Project Implementation Institution, with photographs of the operation in progress and the site on completion.

**J. Training**

Environmental Specialist may hire the specialized companies to conduct training on ACCMP implementation for Contractors staff and RPCU and PIU. The training will include a session focusing on ACM, which covers:

* 1. Risks of contact with ACM;
  2. Responsibilities for dealing with ACM on project’s construction sites;
  3. The Project’s ACMMP and the Protocol for site clean-up;
  4. Awareness-raising for the contractors’ workforce.

**Annex 5: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN CHECKLIST**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ENVIRONMENTAL /SOCIAL SCREENING** | | | | |
| Will the site activity include/involve any of the following: | **Activity** | | **Status** | **Additional references** |
| * Building rehabilitation | | [ ] Yes [ ] No | See Section **B** below |
| * New construction | | [ ] Yes [ ] No | See Section **B** below |
| * Individual wastewater treatment system | | [ ] Yes [ ] No | See Section **C** below |
| * Historic building(s) and districts | | [ ] Yes [ ] No | See Section **D** below |
| * Acquisition of land or loss of assets[[24]](#footnote-24) | | [ ] Yes [ ] No | See Section **E** below |
| * Hazardous or toxic materials[[25]](#footnote-25) | | [ ] Yes [ ] No | See Section **F** below |
| * Impacts on forests and/or protected areas | | [ ] Yes [ ] No | See Section **G** below |
| * Handling / management of medical waste | | [ ] Yes [ ] No | See Section **H** below |
| * Traffic and Pedestrian Safety | | [ ] Yes [ ] No | See Section **I** below |
|  | Labor Conditions and OHS | | [ ] Yes [ ] No | See Section J below |
|  | Occupational Health and Safety of Workers | | [ ] Yes [ ] No | See Section K below |
|  | Community outreach and GRM | | [ ] Yes [ ] No | See Section L below |
|  | Community health and safety | | [ ] Yes [ ] No | See Section M below |
| **ACTIVITY** | **PARAMETER** | **MITIGATION MEASURES CHECKLIST** | | |
| **A**. General Conditions | Notification and Worker Safety | * The local construction and environment inspectorates and communities have been notified of upcoming activities * 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) * All legally required permits have been acquired for construction and/or rehabilitation * All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. * Workers will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) * Appropriate signposting of the sites will inform workers of key rules and regulations to follow. | | |
| **B.** General Rehabilitation and /or Construction Activities | Air Quality | * During interior demolition use debris-chutes above the first floor * Keep demolition debris in controlled area and spray with water mist to reduce debris dust * Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site * Keep surrounding environment (sidewalks, roads) free of debris to minimize dust * There will be no open burning of construction / waste material at the site * There will be no excessive idling of construction vehicles at sites | | |
| Noise | * Construction noise will be limited to restricted times agreed to in the permit * During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible | | |
| Water Quality | * 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. | | |
| Waste management | * Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities. * 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. * Construction waste will be collected and disposed properly by licensed collectors * The records of waste disposal will be maintained as proof for proper management as designed. * Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos) | | |
| **C**. Individual wastewater treatment system | Water Quality | * The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities * 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 * Monitoring of new wastewater systems (before/after) will be carried out | | |
| **D**. Historic building(s) | Cultural Heritage | * If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation * Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds. | | |
| **E**. Acquisition of land or loss of assets | Activity will not eligible | * If the activity will result in the taking of land resulting in: involuntary land acquisition or displacement of third parties using land; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location it will not be financed. | | |
| **F**. Toxic Materials | Asbestos management | * If asbestos is located on the project site, mark clearly as hazardous material * When possible the asbestos will be appropriately contained and sealed to minimize exposure * The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust * Asbestos will be handled and disposed by skilled & experienced professionals * If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately * The removed asbestos will not be reused | | |
| Toxic / hazardous waste management | * Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information * The containers of hazardous substances should be placed in an leak-proof container to prevent spillage and leaching * The wastes are transported by specially licensed carriers and disposed in a licensed facility. * Paints with toxic ingredients or solvents or lead-based paints will not be used | | |
| **G**. Affects forests and/or protected areas | Protection | * All recognized natural habitats 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. * For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees * Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences * There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas. | | |
| **H**. Disposal of medical waste | Infrastructure for medical waste management | * 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: * Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal; and * Appropriate storage facilities for medical waste are in place; and * If the activity includes facility-based treatment, appropriate disposal options are in place and operational | | |
| **I** Traffic and Pedestrian Safety | Direct or indirect hazards to public traffic and pedestrians  by construction activity | * 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 * Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards * 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. * Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement * Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. * Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. | | |
| * Labor Conditions | Child and Forced Labor, Working conditions, Worker GRM | *Labour relations*: The workers involved are considered to be the contractor's labor force and therefore the following requirements must be met:   * Child labor (children under 18 years of age) to perform any type of work at the facility is completely prohibited; * Attraction of community members as public works within "khashars" is prohibited; * The contractor signs contract with each worker, which will have rights and obligations with observance of labor norms, that is * 8-hour working day, and if it exceeds the set time, take into account extra-time with appropriate payment; * 40-hour work week; * 1 hour for lunch; * The Contractor shall sign with each worker a code of conduct consistent with international practice which should be followed, otherwise dismissal of workers and collection of proportionate financial penalties are possible; * Raise workers' awareness of the general principles of communication management with the local population; * Organize access of workers to toilets and areas for hand washing, which should be provided with hot and cold water, soap and a hand dryer in sufficient volume; * Develop a system for workers grievance redress.   *Living conditions:* Given that planned work is short-term, unskilled workers should, whenever possible, be recruited from local communities, and women should be recruited to do light work. If local workers will be involved in the work, then there is no need to provide jobs for temporary residence, but there is need to provide them with adequate conditions (sleeping places, kitchen, showers, toilets, etc.).  If workers from other regions or cities and villages who do not have their homes in the place of repair work will be involved in the work, then the contractor must provide them with housing. Housing must be provided with the following conditions:  - Bedrooms with beds;  - Kitchens with the ability to cook food, store food;  - Sanitary conditions (shower or bath, toilet, place where clothes can be washed);  - In the cold season - heating;   * - Central power supply. | | |
| * Occupational Health and Safety of Workers | Covid prevention measures, safety measures | *Health protection*:  - At the construction site, it is necessary to have a medical first aid kit for persons who have been injured.  - Daily measurement of the temperature of employees before the start of work on the construction site.  - Regular activities with all employees at the construction site regarding compliance with the requirements for COVID-19 prevention;  *Safety of employees:*  -Provide safety training prior to commencement of each type of work and regularly check safety compliance.  - Provide special clothing (masks, gloves and safety glasses, for repair work also helmets and protective shoes), personal protective equipment, tools, materials;  - Provide necessary equipment for high-altitude works (temporary fences, safety belts and ropes, etc.) | | |
| * Community Outreach | Public relations and Grievance Redress Mechanism | The contractor will appoint one of his employees as a contact person who is responsible for communication with the local community, as well as for receiving complaints / complaints from the local community.  The contractor is obliged to consult with local communities to resolve conflict situations between interested parties, including between workers and local communities.  Inform the nearby population about the repair schedule.  Limit construction work at night.   * Provide a Grievance Redress Mechanism for stakeholders and communicate information to them. | | |
| * Community health and safety | Exposure to dangerous agrochemicals | * Prepare, consult and disclose the site-specific Pest Management Plans * Implement and report on information and education campaigns among farmers or their family members who perform manual labor in areas treated with pesticides, and can also face major exposure from direct spray, drift from neighboring fields, or by contact with pesticide residues on the crop or soil. | | |

**Annex 6. Agrochemicals permitted on the territory of Tajikistan (approved by Decision N4 of Chemical Security Commission of Tajikistan, June, 11, 2004)**

A. Insecticides and acaricides

Aktellik 50% к.э.(pirimifosmetil) ICA “Zeneka”) England

Alfasupermethrin-tryton 10% (permethrin) - France

Apollo 50%(klofentizin) – Shering, Germany

Applaud (buprofezin), 25% - “Nippon Kayaky”, Japan

Arrivo (cipermetrin), 25% - FMS, SMA

Benzophosphat (30%) (fozalon), Pussia

Be–58 (dimetoat), 40% “Bitterfeld” Germany

Buldok 2,5% - Baier, Germany

Buldok 12,5% - Baier, Germany

Vismetrin (permetrin), 25% - -Russia

Volaton (foksim), 50% - «Baier», Germany

Geksasulfan (endosulfan) 30% - India

Danitol (fenoropatrin) 10% - «Sumimoto», Japan

Deltafos 36% - Baier Germany

Decis (deltamitrin) 2,5% - “Russel Uklaf” France

Dilor (betadihydrogeptachlorine), 80% Russia

Dimilin (diflubenzuron) 25% “Dufar”, Holland

Dimilin (diflubenzuron) 48% “Crompton (Uniroyal Chemical)”

DNOK (Dinitroortokrezol) 40% - Russia

Zolon 35%, (fozalon) “Ron-Pulenk”, France

Zolon 30%, (fozalon) “Ron-Pulenk”, France

Incegar 25% (fenoksikarb) “Ciba”, Switzerland

Kallipso 48% - Baier Germany

Karate 5% (lyambdacigalotrin) – “ICI” (Zeneka) England

Confidor 20% - Baier, Germany

Croneton 50% (etiofencarb) – Baier, Germany

Mavric 2E 25% (fluvalinat) – “Sandoz”, Switserland

Malathyon 57% - Fufanon, Denmark

Neoron 50% (Brompromilat) – Skiba, Switserland

Nissoran 10% (geksitiazoks) – Nippon Soda, Japan

Nitrafen 60% (nitroalkilfenolat), 60%, Russia

Oltingygidi kyftashuda - Uzbekistan, Turkmenistan

Oltingygird, 80% - Ukraine

Omite 30%, (propargit) «UNIROYL», SMA

Omite 57% (propargit) «UNIROLL CHEMICAL», England

Omite 570 EW, 57% (P) «CROMPTON (UNIROYAL CHEMICAL»)

Preparates N30, 30A, 30C, 30CC, 30M, 36%, Russia

Patriot 12,5% - Baier, Germany

Polo 50% - «Singenta», Switserland

Sunmite 20% (piridaben) “Nissan Chemical”, Japan

Simbush, 25% “Zenaka”, England; “Ser-Italy”, Italy

Siperkil, 25%, “Mitchel Kots”, England; “Bharat”, India

Solphak 10% (syfnutrin) – “Baier”, Germany

Sonet 10% (geksafluron) – “Daw Elanko”, SMA

Sumi-Alfa (esfenbalerat) 5% “Sumimoto”, Japan

Sumi-Alfa (esfenbalerat) 20% “Sumimoto Chemical”, Japan

Talstar 10% (bifentrin), FMS, SMA

Tiodan 35%, (endosulfan) “Hoechst”, Germany

Tiodan 50% (endosulfan) “Hoechst”, Germany

Trebon 30% (etofenprox) – “Mitzui Toyatzu”, Japan

Festak 10% (alfametrin) - :Shell”, England

Fenval 20% (fenvalerat) – “Searle”, India

Fenvalerat 20% - “Kharda Chemical”, India

Fenio 20% (fenvalerat) - :Pesticides”, India

Fozalon 35% (fozalon) – Russia, «Astra», Horvatiya

Furi 10% (zetametrin) – FMS, SMA

Khostakvik 50% (kheptenofos) – “Hoechst”, Germany

Sherpa 25% - “Ron-Pulenk”, France

Eim 12% - “Ciba”, Switzerland

Ekamet 50% - “Sandoz”, Switzerland

Endocell 35% - India

**B. Fungicides**

Alto 4Cosc, 40% (ciprokonazol) – “Sandoz”, Switzerland

Arcerid 60% (metalakcil+policarbicin), Russia

Afugan 30% (pirazofos), “Hoechst”, Germany

Byleton 25% (triadimeffon), “Baier”, Germany

Boricid 70% (sulfur+policarbicin), Russia

Derozal 50% (carbedazim), “Hoechst”, Germany

Karatan FN-57, 18,25% (dinocap) – “Rom va Haas”, SMA

KMAX 50% (2-carbometoxiaminochinazol), Uzbekistan

Copper sulfate 98% (copper sulfate), Uzbekistan

Green vitriol (iron sulfate) 53%, Uzbekistan

Calcium polisulfid

Sulfatimis + calcium hydroxide

Nitrafen 60% (citroalkilfenolat), Russia

Oxichom (oxadixil + copper oxychloride), 80%, Russia

Sulfur, 30%, Ukraine

Previkur 60%, “Baier”, Germany

Raxil 6% - “Baier” Germany

Ridopolichom 60% (metalaxil + policarbicin), Russia

Saprol 20% (triforin), “Shell”, England

Scor 25% (difenconazol), “Ciba”, Swizerland

Sportak 45% (prochloraz), “Shoring”, Germany

Tilt 25% (propiconazol) – “Ciba”, Switzerland

Topaz 10% (penconazol) – “Ciba”, Switzerland

Topcin-M 70% (tiofanatmetil) “Nishlen Soda”, Japan

Flamenko 10% - “Baier”, Germany

Folikur BT 22,5% - “Baier”, Germany

Copper oxychloride 90%, Russia

Copper oxychloride 50%, “Cuvrokvium Corporation”, SMA

Euparen 50% (dichlofluand), “Baier”, Germany

**C. Chemicals for seed treatment**

Agrocit 50% (benomal), “Chinoi”, Hungary

Apron 35, 38, 9% (metalaxil) – “Ciba”, Switzerland

Baytan 15% (triadimenol), “Baier”, Germany

Bronotac 12% (bronopol) – “Shering”, Germany

Vindidat 98% (potassium viniloxietilditiocarbamat), Russia

Vitavax 75% (carboxin) – “Uniriyal”, SMA

Derozal 50% (carbendazim), “Hoechst”, Germany

Nitrafen 60% (nitroalkilfanolat), Russia

Ortus, 5%, “HEXOH”, Japan

P-4, 65% - SLR “Agrokim”, Uzbekistan

Policarbicin 80% (complex of salts of etilenbisditiocarbamin + etilentiuramdisulfat, 1:8), Russia

Sumi-8 2% (dinikonazol) – “Sumimoto”, Japan

Formalin 40% (formaldehyd), Russia

Fundazol 50% (benomil), “Chinoin”, Hungary

**D. Biological chemicals**

Agri 50% (deltaendotokcin bisilusa turingisa) – “Ciba”, Switzerland

Baktospein (bisilusa turingisa), “Dufar”

Bitoksibacillin (exotokcin bisilusa turingisa), Russia

Virin-OS (granulez virus + poliedroz virus of autumn warm), Russia

Virin-XS (granulez virus + poliedroz virus of autumn warm), Russia, Moldova, Uzbekistan

Gomelin (bisilusa turingisa), Russia, Belorussia (White Russia)

Dendrobacillin (bisilusa turingisa, dendrolimus variety), Russia

Dipel (bisilusa turingisa, kurstaki variety), “Ambot”, SMA

Lepidocid (bisilusa turingisa, kurstaki variety), Russia

Trichodermin (trichoderma, trichodermin, veridin, glitokcil), Uzbekistan

Trichodermin-BL (--»--), Russia, Moldova

Turingin-1,0,3% (exotokcin bisilusa turingisa, turingensis variety), Russia

Turingin-2 10% (exotokcin bisilusa turingisa, turingensis variety), Russia

Turicid (bisilusa turingisa), “Sandoz”, Switzerland

**E. Herbicides**

Alirox 80% (ERTS) 72% + antidot AD-67), “Shagrochem”, Hungary

Acenit 50% (acetochlorus), “Nitrochemistry”, Hungary

Bazagran 48% (bentazon), BASF, Germany

Banvel 48% (dikamba), “Sandoz”, Switzerland

Basta 20% (ammonium gluphosinat) , “Hoechst”, Germany

Gazargard-50, 50% (prometrin), “Ciba”, Switzerland

Dalapon 85% (dalapon), Bashkirdistan

Dual 96% (metolachlorus), “Ciba”, Switzerland

Zellek 12,5% (galoksifonetoksietil), “Daw-Elanko”, SMA

Zellek super, 12,5% (galoksifonetoksietil), “Daw-Elanko”

Zenkor 70% (metribuzin), “Baier”, Germany

Kotoran 80% (fluometuron), “Ciba”, Switzerland

Kotofor 80% (diprometrin), “Ciba”, Switzerland

Nitran 30% (trifluralin), Bashkirdistan

Olitref 25% (trifluralin), Hungary

Ordam 6E 72% (molinat), “Zeneka”, England

Pantera, 40g/l – “Croipton (Uniroyal Chemical)”

Partner 22,5% - “Baier”, Germany

Pakhton 80% (diprometrin), Bashkirdistan

Penitran 33% (pendimetalin), Bashkirdistan

Prometrin 50%, “APT”, Italy; “Okason”, Italy; “Astra”, Horvatiya; Romeniya, Bashkirdistan

Propinat 85% (dilapon), Bashkirdistan

Puma-Super, 7,5% - “Baier”, Germany

Roundup 360 g/l – “Baier”, Germany, “Registartions Ltd”, England

Risan 50% (bentiocarb), Bashkirdistan

Rozalin 50% (5-chlor-2-metilbenzimidazol), Uzbekistan

Saturn 50% (bentiocarb), “Kumiai Chemical”, Japan

Sonalan 33% (etalfluralin), “Daw Elanko”, SMA

Stomp 33% (pendimetalin), “Cianamid”, SMA

Totril 22,5% (ioxynil), “Ron-Pulenk”, France

Treflon 24% (trifluralin), “Daw-Elenko”, SMA

Fluometuron 80% (fluometuron), “Chemo Complex”, Germany

Furore Super 7,5% - “Baier” Germany

Fuzilad 25% (fluazifonbutil), 12,5% - “Zeneka”, England

Eradican 6E 72% (ERTS 72% + antidot) – “Zeneka”, England

Yalan 72% (molinate) - Bashkirdistan

Yalan 60% (molinate) – Bashkirdistan

Yalan 10%, 10% (molinate) – Bashkirdistan

**F. Defoliants and desiccants**

Basta, 14% - «Hoechst», Germany

Gemetrel, 60%, Uzbekistan

Dropp, 50% - «Shering», Germany

Dropp-Turbo, 20% - «Shering», Germany

Sihat, 70,5%,Uzbekistan

Finish 450 g/l – «Baier », Germany

Hayot, 85%, Uzbekistan

Harvaid 25P, 250 g/l. «Uniroyal», SMA

Manganese chrorate, 60%, Uzbekistan

Calcium chlorate, chloride, 42%, Russia

Calcium chlorate, chloride, 62%, Russia

1. Detailed information on the ESF and ten ESSs can be found at <https://www.worldbank.org/en/projects-operations/environmental-and-social-framework> and *https://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-standards* [↑](#footnote-ref-1)
2. As per FAO guidelines: <http://www.fao.org/agriculture/crops/thematic-sitemap/theme/biodiversity/en/> [↑](#footnote-ref-2)
3. ROAM provides analytical outputs on (i) land degradation and deforestation geospatial/ biophysical aspects and; (ii) economic modeling within a framework that assess the social, political and institutional readiness to implement large-scale restoration. [↑](#footnote-ref-3)
4. Caritas (2019) Disaster Risk Reduction- Opportunities for sustained action to reduce vulnerability and exposure, Policy Brief TJ19-101 [↑](#footnote-ref-4)
5. (GIZ), Integrative Land Use Management Approaches in Tajikistan, 2019 [↑](#footnote-ref-5)
6. Under the KfW supported project *“Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan*” a methodology for the preparation of participatory forest management plans for SFEs has been developed. At present only Khovaling SFE, a project site for KfW has a such a plan. [↑](#footnote-ref-6)
7. KfW -funded project *“Climate Adaptation through Sustainable Forestry in Important River Catchment Areas in Tajikistan*” implemented by GIZ [↑](#footnote-ref-7)
8. Nature-based Solutions(NbS) are defined by IUCN as actions to protect, sustainably manage and restore natural or modified ecosystems, which address societal challenges (e.g. climate change, food and water security or natural disasters) effectively and adaptively, while simultaneously providing human well-being and biodiversity benefits. [↑](#footnote-ref-8)
9. NATIONAL REVIEW TOWARDS A «GREEN» ECONOMY IN TAJIKISTAN. Elaborated in preparation for the UN International Conference on Sustainable Development (RIO+20) https://sustainabledevelopment.un.org/content/documents/1021tajikistan.pdf [↑](#footnote-ref-9)
10. Tajikistan National Investment Plan for the Agriculture Sector Assessment of the Seed and Associated Systems of Tajikistan, 2020 [↑](#footnote-ref-10)
11. UN Economic Commission for Europe: Tajikistan Environmental Performance review, 2017 http://www.unece.org/env/epr/studies/Tajikistan/welcome.htm [↑](#footnote-ref-11)
12. WB Tajikistan Community Agriculture and Watershed Management Project. (CAWMP), Pest Management Plan. 2004. [↑](#footnote-ref-12)
13. *https://www.worldbank.org/en/projects-operations/environmental-and-social-framework* [↑](#footnote-ref-13)
14. This normative map of seismic zoning was compiled in 1978 by А.М. Babayev, T.A. Kinyapina, K.M. Mirzoev, R.S. Mikhailova and G.V. Koshlakov under the guidance of S.Kh. Negmatullaev

    [↑](#footnote-ref-14)
15. FAOSTAT 2020; Forest Sector Development Strategy of the Republic of Tajikistan for the Years 2016-2030 [↑](#footnote-ref-15)
16. <https://www.land-links.org/country-profile/tajikistan/#land> [↑](#footnote-ref-16)
17. GTZ (2010). Forest Sector Analysis of the Republic of Tajikistan [↑](#footnote-ref-17)
18. Muminjanov, H. 2008. State of Plant Genetic Resources for Food and Agriculture (PGRFA) in the Republic of Tajikistan. [↑](#footnote-ref-18)
19. <https://www.worldbank.org/en/news/infographic/2019/10/17/poverty-in-tajikistan-2019> [↑](#footnote-ref-19)
20. Jobs and Skills Assessment, 2018 [↑](#footnote-ref-20)
21. Including the impact on the labor force, gender issues, impact on socially vulnerable groups, stakeholder and community engagement, social conflicts, GRM, impact on land resources and others. [↑](#footnote-ref-21)
22. 27 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 EHSGs, and other relevant GIIP. [↑](#footnote-ref-22)
23. Health and Safety Management. US Department of Labor. "Safety and health issues: Asbestos." (2014)

    Skammeritz, E. et al. "The impact of asbestos and survival during malignant mesothelioma: A description of 122 consecutive cases in a professional clinic." International Journal of Occupational and Environmental Medicine (IJOEM), Volume 2, No 4 October 2011 [↑](#footnote-ref-23)
24. The project will support construction of new buildings only when the construction will not result in the taking of land resulting in: involuntary land acquisition or displacement of third parties using land; loss of assets or access to assets; or loss of income sources or means of livelihood, whether or not the affected persons must move to another location. Investors will be required to have landownership title as well as has to prove the land at the moment of subprojects application is not occupied or used even illegally. [↑](#footnote-ref-24)
25. Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc. [↑](#footnote-ref-25)