`

SECOND REGIONAL ECONOMIC DEVELOPMENT PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Bishkek

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LIST OF ABBREVIATIONS AND ACRONYMS

ACM	Asbestos-containing materials
ARAP	Abbreviated Resettlement Action Plan
ARIS	Community Development and Investment Agency
DDR	Due Diligence Report
DMS	Detailed Measurement Survey
DSEI	Draft Statement of the Environmental Impact
EHS	Environment, Health and Safety General Guidelines
EIA	Environmental Impact Assessment
ES	Environmental specialist
ESS	Environmental and Social Standards of the World Bank
ESA	Environmental and Social Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
E&S	Environmental and Social
FS	Feasibility Study
GRID	Green, Resilient, and Inclusive Development
GRM	Grievance Redress Mechanism
H&S	Health and Safety
HH	Household
IFIs	International Financial Institutions
IP	Indigenous People
IPM	Integrated Pest Management
IR	Involuntary Resettlement
LAR	Land Acquisition and Resettlement
LC	Land Code
LSGB	Local Self Government Body
MoA	Ministry of Agriculture
MoCISYP	Ministry of Culture, Information, Sports and Youth Policy
MoH	Ministry of Health
MoNRETS	Ministry of Natural Resources, Environment and Technical Supervision
NGO	Non-governmental organization
OHS	Occupational Health and Safety
OP	Operational Policy
PAP	Project Affected Persons
PCB	Polychlorinated Biphenyl
PCR	Physical Cultural Resources
PIA	Project Implementation Agency
PIE	Project Implementing Entity (ARIS)
POM	Project Operational Manual
PPE	Personal Protective Equipment
RAP	Resettlement Action Plan
RED-1	Regional Economic Development Project for Osh region
RED-2	Second Regional Economic Development Project for Batken Region
RoW	Right of Way
RPF	Resettlement Policy Framework
SEE	State Environmental Expertise
SEI	Statement of the Environmental Impact
SIA	Social Impact Assessment

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TOR	Terms of Reference
USD	United States dollar

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EXECUTIVE SUMMARY

This Environmental and Social Management Framework (ESMF) has been prepared for the Second Regional Economic Development Project, which will be coordinated by the Ministry of Economy and Commerce (MoEC) and funded by the World Bank. The Community Development and Investment Agency (ARIS) will be the Project Implementing Entity (PIE).

The objective of the project is *to improve access to basic municipal services, strengthen competitiveness of selected agriculture value chains, and increase SME activities in the Batken region.* The proposed project will build on the experience of the ongoing Regional Economic Development Project in Osh (RED-1) and expand horizontally to the west from the Osh Region to the Batken Region. It will help the Government to support regional economic development and address the issues of climate resilience through three key dimensions: (i) enhanced basic municipal infrastructure and services in Batken, Isfana and Kadamjai urban centers in support of local business and improved living conditions for the local communities, including support to recover infrastructure damaged during the recent armed clashes in April 2021, (ii) support provided to the farmers and producers living in the rural areas to enhance their economic performance resulting in strengthened agriculture competitiveness; (iii) improved capacity in starting and executing business activities and incremental financial support for turning business ideas into business activities.

The Project is composed of the following components.

Component 1: Supporting municipal infrastructure, basic public services and capacity building. This component will help prioritize packages to improve (i) infrastructure and services to meet the minimum living standards in the selected towns. This component will also include activities to help reconstruct public facilities and spaces affected by the armed conflict with Tajikistan in April 2021 with a total anticipated cost of up to USD 5-10 million; (ii) sewerage and water supply, stormwater and drainage systems, (iii) municipal and regional roads, sidewalks, and street lighting to improve access to key municipal services and markets; (iii) schools and kindergartens; (iv) other municipal assets such as parks and public spaces of high interest to the community. This component will also support (i) public-private partnerships (PPPs) to help attract private investment in targeted sectors and regions. This initiative was first presented in the first RED-1 project and aims to create a favourable environment for business development for medium and large businesses. This initiative could finance public infrastructure to attract private investment across the region, where private sector enterprises are willing to invest but need additional public infrastructure to make their investment viable (e.g. public infrastructure close to investment, road/sidewalk, water supply/sewerage, etc.); (ii) respective capacity-building activities and technical assistance that would strengthen the role of local, regional and central governments.

Component 2. Strengthening Agriculture Competitiveness. This component will comprise two sub-components. Sub-component 2.1. The sub-component will upgrade the Ministry of Agriculture's (MoA) facilities located in Batken city and region relating to the functions of safety and quality of agriculture and food products, complementing on-going investments to upgrade SPS capacity to align with EEU and WTO standards. This will include financing for laboratory equipment and facilities upgrading at border control points and upgrading sampling capacity at the district/rayon level. Sub component 2.2. Sub-projects would have an objective to develop "productive partnerships" across multiple producer groups in and across a value chain – including farmers, collectors, processors, traders, and exporters. Each partnership will be governed by a framework agreement signed by relevant participant. Financing for activities within a partnership will target two types of investment as public services and infrastructure and Investments for producers and processors. Public investments will be 100 percent project financed, on farm

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investments will be governed by additional agreements signed with beneficiaries. The detailed criteria for selection of the value chain and the productive partnership will be defined in the Productive Partnerships Manual. Given that many farmers are women, productive partnerships are expected to generate positive impacts for women and the criteria for selection will prioritize those demonstrating inclusion of youth, women and vulnerable groups.

Component 3: Promoting local economic development through the Small Grants Program. The project will support SME development through a training and small grants program. The small grants program will aim at supporting the launching of new enterprise activities and diversification and expansion of services offered by SMEs. This component will build on the success of this initiative introduced under the ongoing RED-1 and will be built on its experience, including the application of a Small Grants Handbook developed and used for the corresponding component under RED-1. To address the issues of women's low participation in the labor force and access to finance, the Small Grants Program will give preferences to women, in the training program and during evaluating business-plans for financing, female applicants will be given a priority at the selection stage as well. The same approach will be used for youth to promote young entrepreneurs at the local level and socially vulnerable groups, as defined by the Small Grants Handbook. The Small Grants Program will be guided by a Small Grants Handbook, which will be prepared by the PIE. Disbursement under this component will be subjected to the adoption of the Handbook, acceptable to the Bank, by the PIE.

Component 4: Contingent Emergency Response Component (CERC). This zero-dollar component is to improve the Kyrgyz Republic's capacity to respond to disasters. Following an eligible crisis or emergency, including climate related disasters, the recipient may request the Bank to reallocate project funds to support emergency response and reconstruction.

Component 5: Operational Support. This component will support project implementation, including the project's monitoring and evaluation system, communication strategy, application of environmental and social instruments, training, and financing of incremental operating costs of the PIE.

The project will be implemented in the Batken region of the Kyrgyz Republic. Batken region includes 3 rayons with 31 ayil okmotus (regional self-government), 2 village administrations, 1 city administration and 189 rural settlements. The overall project environmental and social risks are assessed as Substantial.

Potential environmental risks and impacts and mitigation measures. The environmental risk rating is substantial**.** Project potential adverse impacts can be related to increase environment pollution and health risks due to project activities implementation.. These risks and impacts can be summarized as follows: (a) *agricultural production*: soil erosion, loss of soil productive capacity, soil compaction, soil pollution, surface and underground water pollution, loss of biodiversity; (b) *agro-processing*: contribution to surface water pollution, wastes generation, odor; (c) *small scale construction and/or rehabilitation of the existing premises:* dust, noise, soil and air pollution; acoustic, construction wastes, and potential asbestos issues, OHS,etc. These risks and potential adverse impacts are predictable and site-specific. They can be prevented, minimized, or mitigated by proper assessment and readily available mitigation measures in line with national regulations, the Environmental, Health, and Safety general and specific Guidelines (EHSGs), and the Good International Industry Practice (GIIP). pecific potential environmental risks/impacts and related mitigation measures are reflected in Table 17.

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Project potential social risks and impacts and Mitigation measures. The social risk is assessed as Substantial. The project's key social risks and adverse impacts relate to a) Lands – construction activities will require land acquisition which may involve temporary and/ or permanent economic and/or physical displacement; (ii) Inclusion/ exclusion – disadvantaged and vulnerable groups may get excluded owing to a variety of internal and/ or external factors; and (iii) Security – recent armed conflicts have resulted in local tensions, which could affect labor and community safety. Specific potential social risks/impacts and related mitigation measures are reflected in Table 18.

Security assessment. The security situation has been a major recent concern, which was recently exacerbated by the armed conflict between Tajikistan and the Kyrgyz Republic in April-May 2021, which resulted in massive property destruction and death / injury / displacement. To identify and evaluate relevant security risks related to the regional conflicts caused by various reasons, the Bank team conducted a security assessment. The Security Assessment Report (SAR) coupled with the recommendations and measures was prepared. The risk mitigation measures recommended in the SAR will be reflected in the site specific ESMPs. Considering the project related risks and suggested mitigation measures, the team suggested and the RSA agreed that no Security Management Plan (SMP) was required. ARIS will ensure that all reccomendations and measures included in the SAR will be duly reflected in the site-specific ESMPs at the time of their preparation.

Sexual exploitation and abuse / sexual harassment (SEA / SH) Risk rating is Low. The projects financed by the Bank have been created a sufficiently flexible grievance system to deal with all grievances, including SEA/SH. A separate dedicated privacy window is created to manage SEA/SH complaints in the projects under ESF. So far, no project has received such complaints.

Relevance of Environmental and Social Standards (ESS) and triggered WB Operational Policies (OPs). All ESSs but ESS7 (Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities) and ESS 9 (Financial Intermediaries) are relevant to the project. In addition, OP 7.50 on International Waters is triggered. The potential transboundary water impacts under the Project are related to investments under Component 1 (rehabilitation of the existing water supply pipes and networks in the selected areas, and/or rehabilitation of water reservoirs, and under Component 2 (rehabilitation of existing irrigation systems and promote adoption of drip irrigation technology in newly irrigated areas. These activities are expected to be small-scale and, therefore, will be no additional water abstraction; at the same time, it would improve water use efficiency. Following the requirements of the OP7.50, notifications on behalf of the Kyrgyz Republic were sent by the World Bank (at the request of the Kyrgyz Republic) to all riparian countries during the project preparation stage.

Scope of the Environmental and Social Management Framework (ESMF). Sub-projects to be financed under this Project shall be identified, and their location, number and design shall be defined in more detail during implementation, so it is not possible to assess the full environmental and social footprint at the time of preparation of this document. Accordingly, the Ministry of Economy and Commerce (MoEC), through the Community Development and Investment Agency (ARIS) prepared this Environmental and Social Management Framework (ESMF), which is based on the ESMF for RED-1 and specifies rules and procedures for the activities and subprojects' Environmental and Social Impact Assessment (ESIA) and for preparing Environmental and Social Management Plans (ESMPs). The ESMF will guide the environmental and social assessments (ESA) process and cover 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 simple ESMP or ESMP Checklist which would

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include the monitoring plans; (iii) mitigation measures for possible impacts of different proposed activities and subprojects to be supported by the project; (iv) safety measures while applying pesticides and a template for the Pest Management Plan (PMP); (v) requirements for monitoring and supervision of implementing of ESIA/ESMPs, implementation arrangements; (vii) overview of the capacity of ARIS (Project Implementing Entity) for E&S risk management and capacity building activities that would include other parties (the Productive Partnerships Selection Committee and Small Grants Program Committee) on mitigating potential environmental and social risks and conducting subproject-level ESIA.

Screening of Sub-project Activities and identification of ESA Instruments. PIE environmental and social specialists will carry out a rapid assessment of the likely environmental impacts and the potential for involuntary resettlement, which will be based on the requirements of national legislation and WB ESSs using the screening forms of the environmental and social aspects presented in Annex 3 and Annex 9. Subproject activities will be also checked against WB criteria for High-Risk Projects and the exclusion list provided in Section 7.1.2 and Annex 2. Results of the screening will be reflected in the screening form presented in Annex 4. For Substantial Risk subprojects, a site-specific Environmental and Social Impact Assessment ESIA or an ESMP will be required to identify, evaluate and manage potential environmental and social risks and impacts. For Moderate Risk subprojects, either an ESMP or ESMP checklists will be prepared based on the screening results. For Low Risk subprojects, an ESMP Checklist will be prepared.

ARIS provides the final approval of infrastructure and agricultural subprojects – only once all EA documents have been prepared, accepted, and, if needed, preliminary approval is provided by the State Ecological Expertise. ARIS and subproject beneficiaries will then sign an agreement which will include statements on compliance with all EA documents.

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

ESMF Implementation Arrangement, Supervision and Reporting. To ensure coordination and flow of information and timely decision making on strategic and programmatic aspects at the highest level, the project will be overseen by a Steering Committee (SC), formed with participation of the deputy minister or director level representatives from various relevant line ministries and government agencies. The Community Development and Investment Agency (ARIS) is the project implementing entity, while the Ministry of Economy and Commerce will provide overall coordination of the project.

ARIS is well experienced with implementing all donor-financed agriculture and water resource management projects and has a good record of working hand-in-hand with the line ministries to deliver specific programs. At same time, ARIS has limited experience and knowledge in addressing the requirements which are related to new World Bank Environmental and Social Standards and, in particular, those related to risk assessment, labor and working conditions and labor safety issues; community health and safety; incidence reporting protocols; etc. For ARIS, the first project under the ESF of the World Bank was RED-1 for the Osh region, where documents were developed using the new ESSs. This project is the second under the ESF and focuses on the Regional Economic Development of the Batken Region.

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The status of the compliance with the ESMPs' requirements shall be provided by the contractors to the ARIS, and then to the Bank by the ARIS in form of their semi-annual report. In addition, ARIS environmental and social specialists will carry our regular supervision and monitoring of the sub-projects implementation and note and take action on non-compliance with the ESMPs mitigation measures. The environmental and social monitoring during sub-projects' implementation should provide information about the sub-projects' key environmental and social issues and the effectiveness of taken mitigation measures. Such information enables the ARIS to evaluate the success of mitigation measures as part of project supervision and allows corrective action(s) to be implemented on time, when needed.

The Resettlement Action Plan implementation monitoring will involve (i) administrative monitoring to ensure that implementation is on schedule and problems are dealt with on a timely basis and (ii) overall monitoring to assess status of project affected persons in terms of compensation and assistance and alternate land allocation with land development etc. Monitoring will include daily planning, implementation, feedback and troubleshooting, individual affected person file maintenance, community relationships, dates for consultations, number of appeals placed and progress reports.

The Bank's environmental and social specialists will provide support to ARIS to ensure smooth implementation of the Project activities in consistency with the applicable ESSs of the Bank. Site visits during project implementation support missions will be carried out to monitor the compliance of the project's activities with requirements specified in site-specific ESMPs. Additionally, the social specialists will be reviewing the consistency of land acquisition with the requirements of the RPF and RAPs to be prepared for project activities. The Bank task team will provide guidance in, and review, key environmental and social monitoring documents, such as ESMPs, RAPs, RAP Completion Reports, and quarterly progress reports and support in meeting its commitments set out in ESCP.

Citizen and Stakeholders Engagement. During preparation, the Project activities have been identified through a participatory process engaging local, regional and national level stakeholders. The PIE and local municipalities engaged relevant stakeholders to prepare a long list of proposed investments and key preparatory documents have been presented at public consultations, and citizens' inputs have been incorporated in the Project design. During implementation, the project will continue to pro-actively involve citizens and beneficiaries (including women and youth groups) across project activities and ensure their genuine engagement in the finalization of detailed designs. For Citizen Engagement purposes, the project will utilize the following mechanisms: (i) participatory urban design through place-making, which is a collaborative, community-driven approach including citizens and the local community into urban design activities, (ii) participatory monitoring of ongoing construction works, which will include community representatives to evaluate the implementation of the investments, (iii) periodic "Open Door Days", organized like consultative workshops inviting local citizens and SMEs. ARIS, in consultation with the Bank, has prepared a draft of **Stakeholders Engagement Plan** (SEP) and disclosed it publicly before Appraisal, further it was updated based on feedback provided during public consultations. Key objectives of the SEP are to maintain a constructive relationship with stakeholders, ensure that stakeholder views can be taken into account in project design and implementation, specifically in the management of environmental and social performance, provide means for inclusive engagement with all project-affected parties (PAPs), and ensure that appropriate project information is disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.

The proposed **Grievance Redress Mechanism** within the ESMF helps complaint handling system to be functional, transparent and responsive, and where appropriate, strengthen government

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systems. ARIS uses the **Beneficiary Feedback Mechanism** (BFM) which is an information system for management of grievances put forward by the project affected persons or any other person from the project communities. The BFM will have a special window to address sexual exploitation and abuse/sexual harassment (SEA/SH) complaints to ensure privacy and dignity of the affected persons. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to the BFM or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns.

ESMF public Consultations and Information Disclosure. During ESMF preparation, a number of virtual meetings were conducted with the main stakeholders. Draft version of ESMF, SEP, RPF were presented during public consultations. Draft version of ESF documents in local language was published on ARIS website https://www.aris.kg/index.php?option=com_content&view=article&id=316&Itemid=397&lang=ru on November 11, 2021 with advertisement about planning public consultations. Moreover, information about the planning consultation was distributed through Batken oblast administration as well – municipalities. The public consultations were held on November 18, 2021 in Batken city. Representatives from all rayons of Batken oblast, participating cities, business unions, representatives of state inspectorate on environmental and nature protection, and others are attended meetings. In total, 84 participants attended the meeting. During public consultations an information about the project, components, implementation agencies, ESMF, SEP, RPF, including potential environmental and social impacts, proposing mitigation measures, environmental and social assessment procedures were presented to the participants. Proposed GRM was discussed as well. SEP was finalized and disclosed publicly before Appraisal. The final versions of documents such as ESMF, RPF, LMP will be published on ARIS website and, if available, on the website of the regional administration of Batken region and further on WB external website.

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1. PROJECT BACKGROUND

The **Project Development Objective** is *to improve access to basic municipal services, strengthen competitiveness of selected agriculture value chains, and increase SME activities in the Batken region.*

Consistent with the Government's priorities, the proposed project will build on the first Regional Economic Development Project (RED-1) and expand horizontally to the west from the Osh Region to the Batken Region to help the Government serve the residents and communities for better economic performance, improved rural economy, and to recover damages on undisputed lands raised from the past armed conflict with Tajikistan in April 2021. The selection of Batken region as the focus of the second phase project was requested by the Kyrgyz Government and is also aligned with the findings of the Bank-conducted regional and spatial analysis, which has identified Batken as the second lagging region after Osh. Furthermore, the selection of three key urban centers of the Batken region – namely, Batken, Isfana and Kadamjai – to participate in the Project are also aligned with the Government's strategic vision on regional development, with these three towns identified as growth poles for development at the regional scale. As mentioned above, the challenges faced by the Batken region and particularly of these three cities include low skilled labor, low level of public infrastructure, and provision of basic municipal services, low market accessibility and low level of development of relevant economic institutions.

1.1. Project components and proposed investments

The RED-2 project will help the Government support regional economic development and address the issues of climate resilience through three key dimensions: (i) enhanced basic municipal infrastructure and services in Batken, Isfana, and Kadamjai urban centers in support of local business and improved living conditions for the local communities, including support to recover infrastructure damaged during the recent armed clashes in April 2021, (ii) support provided to the farmers and producers living in the rural areas to enhance their economic performance resulting in strengthened agriculture competitiveness; (iii) improved capacity in starting and executing business activities and incremental financial support for turning business ideas into business activities.

Component 1: Supporting municipal infrastructure, basic public services, and capacity building (US$24 million). This component will follow the GRID[1] principles to identify critical constraints in an evidence-based manner as proposed by the RISE approach. Following the GRID principles will help prioritize investment packages to improve municipal infrastructure and associated municipal services to meet the basic living standards in the selected towns and address the anticipated climate related risks and impacts; that will also include activities to help reconstruct public facilities and spaces affected by the recent armed clashes in April 2021 with a total anticipated cost of up to US$ 5-10 million. The types of project-supported climate resilient infrastructure could include: (i) sewerage and water supply, stormwater and drainage systems, (ii) municipal and regional roads, sidewalks, and street lighting to improve access to key municipal services and markets; (iii) schools and kindergartens; (iv) other municipal assets such as parks and public spaces of high interest to the community. All intervention under this component will be led by climate related assessment to identify potential climate related impacts, risks and include relevant adaptation measures to make infrastructure climate resilient and, as a result, deliver reliable municipal services. That will be taken into account in the corresponding designs and further applied for execution of the civil work contracts through the use of the corresponding construction technologies and climate resilient materials. The project investments will also look into introducing possible climate change mitigation measures, including using energy-saving technologies leading to reduced building emissions, nature-based solutions and promotion of green

[11] Green, Resilient, and Inclusive Development (GRID)

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infrastructure. Furthermore, all public buildings and spaces supported under the project will integrate appropriate measures to make these facilities accessible for people with disabilities.

This component will also support the Public-Private Cooperation (PPC) initiative to promote private investment attraction in the targeted sectors and locations. This initiative was first introduced in the ongoing RED-1 and aims to create enabling environment for business development for medium and large-scale businesses. This initiative may finance public infrastructure to attract private investment across the region, where private sector entities are willing to invest but require complementary public infrastructure to make their investment viable (e.g., public infrastructure within the vicinity of the investments, road/sidewalk, water/sanitation, etc.). Investments under this initiative will be limited to the determined ratio (e.g. 1 to 4) of the investments provided by the private sector. The PPC initiative will build on the screening and selection process, which was identified as part of RED-1 and will be specified in the Project Operations Manual developed by the Project Implementing Entity (PIE) and acceptable to the Bank. The public infrastructure financed under PPC initiative will be designed with due consideration of climate-related impact and risks, and include related climate change adaptation measures, with use of the corresponding designs, technologies and materials, and application of the energy-saving technologies, nature-based solutions, improved water management, etc., to contribute to climate change mitigation.

To address the territorial and investment planning and development issues, seismic resiliency and energy efficiency, this component will supports the respective capacity-building activities and technical assistance that would strengthen the role of local, regional and central governments. Areas for possible support under this component would result in improved (i) integrated and sustainable urban and spatial planning based on the GRID principles through the use of digitalization and good global practices and following best practices of climate change mitigation and adaptation; and (ii) capital investment planning, budgeting, asset management, operation and maintenance of local infrastructure and the local and regional levels, and inter- and intra-agency coordination. The scope will be further defined based on the discussions for needs identification with the local, regional and national stakeholders.

Component 2: Strengthening Agriculture Competitiveness (US$21 million). This component will comprise two sub-components.

Sub-Component 2.1: Improving basic public agricultural services (US$3.0 million). This sub-component will improve the infrastructure and services that underpin agri-food marketing and trade in Batken with a focus on strengthening the capacity for sanitary and phytosanitary (SPS) control, food quality, and basic services. The sub-component will upgrade the Ministry of Agriculture's (MoA) facilities located in Batken city and region relating to the functions of safety and quality of agriculture and food products, complementing on-going investments to upgrade SPS capacity to align with EEU and WTO standards. This will include financing for laboratory equipment and facilities upgrading at border control points and upgrading sampling capacity at the district/rayon level. The component will also provide targeted investment to upgrade training capacity and equipment on agricultural export market requirements, food safety regulations, Hazard Analysis Critical Control Points (HAACP), and modern food processing technologies. A detailed feasibility assessment for upgrading existing facilities will be conducted in the first year to detail technical specifications and required infrastructure upgrades. The sub-component will also support training and capacity building around food safety requirements for domestic markets and export promotion. Where possible, training will also incorporate climate risk analysis and linkages between climate risks and food safety and quality.

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Sub-component 2.2: Strengthening Agri-Food Clusters (US$18.0 million). This sub-component will facilitate the development of select agri-food clusters with the aim of improving production and productivity among small agricultural producers within the selected clusters, strengthening partnerships between market actors within a cluster (agri-businesses and small agricultural producers), and putting in place the needed infrastructure for trade and logistics within clusters. The project will use a competitive selection process to identify investment sub-projects that target investments that build agri-business partnerships and increase production/processing volumes for domestic or export markets.

Sub-projects would have an objective to develop "productive partnerships" across multiple producer groups in and across a value chain – including farmers, collectors, processors, traders, and exporters. Each productive partnership will be expected to target a specific market opportunity; be managed by a lead farmer group, producer organization or cooperative; identify an investment program targeting critical constraints; and include *bona fide* market opportunities with identified buyers/partners. Each partnership will be governed by a framework agreement, signed by the lead producer group, the buyer/aggregator or processing enterprise, and any other relevant participant. Partnerships could be based on contractual or less formal arrangements, with TA support provided as part of the partnership to develop appropriate governance arrangements.

Financing for activities within a partnership will target two types of investment:

a. Public services and infrastructure critical to improving the functioning of the value chain targeted in the partnership. This could be technical assistance and training for producers and other services around quality assurance, pest and disease control, food safety improvements, and public infrastructure rehabilitation. Public infrastructure could include irrigation, access road repairs, electricity infrastructure, and other agriculture related infrastructure including wholesale markets or trade and logistics related infrastructure developed under Public-Private Partnership (PPP) arrangements.
b. Investments for producers and processors that introduce the adoption of innovative technologies (particularly climate resilient or resource efficient technologies) including appropriate equipment, new crop or livestock varieties and farm inputs (including climate resilient crop varieties); and post-harvest facilities (such as facilities for storage, washing, grading, packing, pre-cooling, cold storage) for specific producer groups. On-farm investments for producers and investment for processors will be co-financed by beneficiaries and subject to the Ministry of Finance's (MoF) requirements.

The sub-project development process will be guided by a set of feasibility studies or assessments that will inform the development of business plans and detailed sub-project proposals. In particular, the project will finance three assessments immediately following effectiveness: (a) a value chain assessment that will identify high potential value chain opportunities and agri-business linkages; (b) a drip irrigation/groundwater feasibility study to guide investments in drip irrigation; and (c) a PPP feasibility assessment for potential trade and logistics centers on MoA owned sites in Batken region. Technical assistance will be provided to potential sub-project beneficiaries to mobilize participation and prepare business plans and partnership proposals.

Both public and on-farm investments will prioritize where possible climate proofing and climate resilience through adaptation or mitigation technologies such as promotion of climate smart varieties (drought and heat tolerant varieties), improved water management and climate informed

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irrigation design, more optimal input use, livestock management practices that reduce emissions, and energy efficient equipment at both the production and post-harvest stages. Where possible contributions to reduction in GHG emissions will be pursued in livestock production systems, which represent a major source of GHG emissions in the agriculture sector. The project anticipates that drip irrigation will be heavily promoted and could include expansion of new orchards using drip irrigation technology as well as conversion of traditional furrow irrigation to drip irrigation technology. In order to stimulate adoption of climate smart technologies, beneficiaries will be exposed and sensitized to new technologies as part of the sub-project proposal development process and feasibility studies will incorporate a climate lens where possible.

A productive partnership may define an investment program including both types of investment (public and on-farm) or only one. The sequence of implementation of activities will be determined by the specific sub-project partnership proposal. Public investments will be 100 percent project financed. On farm investments will be governed by additional agreements signed with beneficiaries. In the case of larger agri-business participants in the partnership (for example, processors or trade and logistic centers), cooperation will be in line with best practice principles for public-private cooperation and participants will be required to develop formal supply chain linkages to producers within the partnership.

The detailed criteria for selection of the value chain and the productive partnership will be defined in the Productive Partnerships Manual, which will constitute a condition of disbursement for sub-projects. Key criteria for selection include existence of a market or buyer, potential for job creation or engagement of many small-scale farmers, sustainable comparative advantage or competitiveness, inclusion of women and youth, and climate resilience. The selection and award process will also include a feasibility study that will inform the development of business plans and detailed proposals. Given that many farmers are women, productive partnerships are expected to generate positive impacts for women and the criteria for selection will prioritize those demonstrating inclusion of youth, women and vulnerable groups.

Component 3: Promoting local economic development through the Small Grants Program (US$2 million). To boost local economic development through improved business practices, the project will support SME development through a training and small grants program. The small grants program will aim at supporting the launching of new enterprise activities and diversification and expansion of services offered by SMEs. The program will follow a phased approach, where the selected participants will undergo a robust training program, among others, on how to start and execute a business, how to address climate related risks and incorporate energy efficient technical solutions and any other green infrastructure ideas in their business plans. Those who successfully complete the training program will be eligible to apply for grant financing. This component will build on the success of this initiative introduced under the ongoing RED-1 and will be built on its experience, including the application of a Small Grants Handbook developed and used for the corresponding component under RED-1.

To address the issues of women's low participation in the labor force and access to finance, the Small Grants Program will give preferences to women, as follows: (1) in the training program, female applicants will be given a priority at the selection stage as well. This will give women an opportunity to gain practical knowledge and skills in doing business; (2) when evaluating business-plans for financing, women applicants will be given additional points. The same approach will be used for youth to promote young entrepreneurs at the local level and socially vulnerable groups, as defined by the Small Grants Handbook. The summary of Identified Gender Gap, Actions, and Expected Results and Indicators is included in Annex 2, paragraph 137.

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The Small Grants Program will be guided by a Small Grants Handbook, which will be prepared by the PIE. Disbursement under this component will be subjected to the adoption of the Handbook, acceptable to the Bank, by the PIE.

Component 4: Contingent Emergency Response Component (CERC). This zero-dollar component is to improve the Kyrgyz Republic's capacity to respond to disasters. Following an eligible crisis or emergency, including climate related disasters, the recipient may request the Bank to reallocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted credit/grant resources under the project from other project components to cover emergency response. An emergency eligible for financing is an event that has caused or is likely imminently to cause, a major adverse economic and/or social impact to the Borrower, associated with disaster.

Component 5: Operational Support (US$3 million). This component will support project implementation, including the project's monitoring and evaluation system, communication strategy, application of environmental and social instruments, training, and financing of incremental operating costs of the PIE.

1.2. Project beneficiaries

The proposed project will support the Government of the Kyrgyz Republic and Batken region to improve economic performance, improve agriculture, and rehabilitate infrastructure facilities destroyed during the last armed conflict between Kyrgyzstan and Tajikistan in April 2021. The primary beneficiaries for this Project are the residents of the Batken Region and its municipalities (both urban and rural) benefiting from infrastructure and services to be delivered under the Project, SMEs from the agricultural and service sectors, agricultural producers and agri-businesses who will benefit directly from improved accessibility, connectivity and infrastructure and services. Special focus will be given to the distribution of benefits by Gender.

Male and female inhabitants of participating localities are also expected to indirectly benefit from increased job opportunities. Indirect beneficiaries will be the aggregate number of city visitors (for work, market visits, administrative and other purposes). In addition, government counterparts and associated entities will benefit from the project implementation. These include: (i) at the central level - Ministry of Economy and Commerce; Ministry of Agriculture, and (ii) at the regional and local level - the regional, district state authorities in Batken region, local administrations of cities and districts (rayons) within the Batken region.

1.3. Scope and objectives of Environmental and Social Management Framework

Sub-projects to be financed under this Project will be identified, and their location, number and design will be defined in more detail during implementation, so it is not possible to assess the full environmental and social footprint at the time of preparation of this document. Accordingly, the Ministry of Economy and Commerce (MoEC), through the Community Development and Investment Agency (ARIS) prepared this Environmental and Social Management Framework (ESMF), which specifies the rules and procedures for the activities and subprojects' Environmental and Social risk management. The ESMF will guide the environmental and social assessments (ESA) process of subprojects and cover 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 simple ESMP or ESMP Checklist which would include the monitoring plans; (iii) mitigation measures for possible impacts of different proposed activities and subprojects to be supported by the project; (iv) safety measures while applying pesticides and a template for the Pest Management Plan (PMP); (v) requirements for monitoring and supervision of implementing of ESIA/ESMPs, implementation arrangements;

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(vii) overview of the capacity of ARIS (Project Implementing Entity) for E&S risk management and capacity building activities that would include other parties (the Productive Partnerships Selection Committee and Small Grants Program Committee) on mitigating potential environmental and social risks and conducting subproject-level ESIA.

During the implementation of the project activities, potential environmental and social issues will be screened to determine the scope and types of ESF instruments that would be required. Site-specific ESMPs for investments identified during project implementation will be prepared in due time before works may commence. The RPF information, part of this ESMF, serves to assess and mitigate potential social impacts associated with land acquisition and economic or physical displacement of population required for the project. Furthermore, the ESMF identifies the responsibilities of project stakeholders, procedures for environmental and social impacts screening, review and approval, monitoring and reporting requirements, as well as plans to enhance institutional capacity through capacity-building activities. Finally, this ESMF will be an integrated part of the *Project Operation Manual (PoM) under the component 1 "Supporting municipal infrastructure, basic public services, and capacity building", component 2 "Strengthening Agriculture Competitiveness" and component 3 "Promoting local economic development through the Small Grants Program"* and is applicable to all linked investments financed in the project areas regardless of their funding source or implementing agency.

Small Grants Program Handbook

The Small Grants Program (SGP) aims to assist startups and SMEs through capacity building, as well as financial support for their initiatives to sustain their own business activities. Based on the knowledge gained, the selected participants of SGP will receive financial support to launch new activities or scale up the ongoing ones in agriculture, industrial production, and services in the cities and rural rayons of the Batken region. Target groups include business sector representatives from all rural rayons and the cities of the Batken region who are eligible to participate in the Program.

All applications shall consider measures to reduce the risks of negative environmental and social impacts. Projects that harm the environment and violate the norms of the legislation of the Kyrgyz Republic shall be declined. All participants must complete an environmental and social checklist when preparing a project. The checklist will serve as a screening tool for the environmental and social risks/impacts and associated mitigation measures during the project's implementation and/or operation. ARIS shall be responsible for reviewing and approving the checklist.

To become eligible for financing under SGP, one criterion the applicant shall meet is to demonstrate compliance with environmental and social risk management requirements. ARIS will prepare the Small Grants Program Handbook to guide the process.

Productive Partnership Manual

One of the main goal of investments is to improve market access and improve the quality and consistency of supply, stimulate cooperation in the value chain, reduce risk and transaction costs for participants within the Value Chain (VC).

A Productive Partnership (PP) is a set of formal or informal, mutually beneficial commercial partnerships between participants in a VC that may include buyers (buyers of fresh produce and processors), farmers, and service providers (such as suppliers of seeds and inputs, technology services, storage and distribution of services, consulting and information services, and veterinary services).

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The potential risks of the agricultural and agro-processing subprojects are expected to be typical, temporary by nature and site-specific, and can be mitigated by applying available technology and relevant mitigation measures. To identify adverse social risks of potential sub-projects during the selection and award process, a feasibility study will be conducted that will inform the development of business plans and detailed proposals. Given that many farmers are women, productive partnerships are expected to generate positive impacts for women and the criteria for selection will prioritize those demonstrating inclusion of youth, women and vulnerable groups.

The Productive Partnership Manual regulates the procedures and implementation mechanisms, determines the legal status of the project implementation bodies and their rights and obligations, and establishes the administrative, managerial, and legal procedures for the preparation, selection, and implementation of targeted investment sub-projects financed through the project. All subprojects must comply with the ESF requirements by developing appropriate E&S instruments approved by ARIS.

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2. ENVIRONMENTAL AND SOCIAL ASSESSMENT POLICY AND REGULATORY FRAMEWORK

2.1. Kyrgyz Republic National Environmental Legislation and Environmental and Social Assessment Procedures

2.1.1. Constitution

The supreme legislative instrument in the Kyrgyz Republic is the *Constitution of the Kyrgyz Republic, May 5, 2021,* hereafter referred to as 'the Constitution'. All laws must comply with the Constitution, and only the parliament may amend it, change or pass laws or ratify international agreements. Under the Constitution, the Kyrgyz Republic is a parliamentary democratic republic, with a popularly elected president leading the executive power, and a 60-seat unicameral legislative assembly.

2.1.2. Natural Resources and Environment Legislation

The Constitution establishes the basic principles of natural resources and environmental management, including the right of KR citizens to access the primary sources of life while the main resources (land, water and subsoil) are the common property of the people and belong to the state. Based on these principles, a legal framework has been developed to regulate relations between natural resource users and the state (UNDP 2007a). The most significant relevant legislation includes:

a) *Law on Environmental Protection, 1999*, which provides state policy and the general legal framework for natural resource utilization and environmental protection;

(b) *Law on Ecological Expertise, 1999,* which empowers the SAEPF to undertake State Environmental Reviews (SERs) of proposed projects;

(c) *Law on Surface Water Protection, 2009*, which provides a framework for protection of water bodies, including development and approval of water protection activities and defining rules and enforcing sanctions for violations.

In addition to legislation pertaining directly to the environment and natural resources, the Kyrgyz national legal framework includes laws in other substantive areas relevant to the Project. Among these are laws concerning labor and occupational health and safety, and cultural heritage protection. These are briefly described below.

The Constitution offers protections for workers, stipulating that they are entitled to labor conditions in which basic workplace safety and hygiene requirements are met. The Ministry of Labor and Social Development has primary responsibility for overseeing occupational health and safety. Key relevant legislation includes the *Law of the Kyrgyz Republic on Occupational Safety, 2003,* the *Labor Code of the Kyrgyz Republic, 2004,* and individual regulatory norms. The KR joined the International Labor Organization on March 31, 1992. A review by that organization in 2008 concluded that the *Law of the Kyrgyz Republic on Occupational Safety* met international norms and standards, though it also identified a lack of trained state inspectors to ensure enforcement (ILO 2008).

The Constitution also guarantees state protection of historical monuments. *The Law on Protection and Use of Historic-Cultural Heritage, 1999* (last revised 2014) establishes a system for the protection of objects of local, state, and international historical or cultural importance, with the

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Ministry of Education and Science having custodial authority. The Ministry maintains the official state cultural heritage register, which lists over 5,000 items of local, state and international importance. Legislation most relevant to the Project is summarized in Ошибка! Источник ссылки не найден..

Table 1. Relevant Kyrgyz Republic Environmental Legislation

Legislation	Year Passed (Amended)	Purpose / Content
Law on Environmental Protection	1999 (2002, 2003, 2004, 2005, 2009, 2013, 2014, 2015, 2016)	Provides state policy and the general legal framework for natural resource utilization and environmental protection, including environmental impact assessment, setting environmental standards, and the legal regime for protected areas.
The Environmental Safety Concept of KR	2009 (2012)	It establishes the basic principles of environmental policy and determines global, national and local environmental issues; priorities in the field of environmental protection at the national level as well as tools to ensure environmental safety.
Law on Ecological Expertise	1999 (2003, 2007, 2015)	Provides the legislative framework for the SAEPF to undertake SER and approval of EIAs. Defines (in general) projects requiring environmental assessment and SER.
Law on Water Resources	1994 (1995, 2012, 2013, 2016)	Regulates the use and protection of water resources, including prevention of negative impacts, and seeks to improve cooperation and enforcement. Regulates the quantity and quality of water released into the environment, and prohibits the discharge of industrial, household and other wastes into water bodies. Provides water protection zones, where activities that can negatively impact water quality are prohibited.
Law on Drinking Water	1999 (2000, 2003, 2009, 2011, 2012, 2014)	Regulates drinking water availability and its quality.
Law on Special Protected Natural Territories	1994 (2011)	Regulates the organization, protection and use of biosphere reserves; national parks; other protected areas with unique natural areas, flora or fauna or cultural heritage values; and protected areas for recreational use.
Law on Biosphere Reserves No. 48	1999	Sets out legal standards for biosphere reserves, with the goal of preservation, restoration and use of areas rich in natural and cultural heritage, and supporting long-term sustainable economic and social development, including recreation, restoration of natural resources, long-term ecological control, monitoring and education.
Law on Protection and Use of Flora	2001 (2003, 2007, 2009, 2010, 2016)	Regulates the use, protection, and reproduction of flora. Key tenets include preservation of biodiversity and growth of wild plants and ecosystems; restoration and preservation of rare, endangered, and endemic

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Legislation	Year Passed (Amended)	Purpose / Content
		species; and use and restoration of natural vegetation resources based on scientific principles.
Law on Fisheries	1997 (1998, 2008, 2013)	Regulates commercial fisheries with a view to conservation and development of fish stocks, increasing aquaculture, and meeting the fish product needs of the population.
Law on Wildlife	1999 (2003, 2014, 2015)	Establishes that fauna is the property of the national state. Regulates protection of fauna during infrastructure design and construction, including faunal species' habitat, migration routes and areas for nesting and breeding. Provides definitions of wildlife, rare and endangered species, wildlife protection, and use of wildlife.
Water Code	2005 (2012, 2013, 2016)	Establishes a unified legal base regulating the use, protection and development of water resources to ensure sufficient and safe supply and environmental preservation.
Rules on Protection of Surface Waters of the Kyrgyz Republic	2016	Provides the legislative framework for defining, specifying standards for the quality of water bodies used for fisheries and irrigation and enforcing regulations regarding discharges to water bodies, among other things.
Law on the Protection of Ambient Air	1999 (2003, 2005)	Regulates ambient air quality and air quality management.
Law on Protection and Use of Historic-Cultural Heritage	1999 (2014, 2015, 2017)	Establishes a system for protecting items of local, state and international historical or cultural importance. Includes definitions of key terms and types of protected objects.
Law of the Kyrgyz Republic on Occupational Safety	2003	Provides the basis for regulation of working conditions, including workplace safety features, workplace safety procedures, and workplace hygiene.
Procedure for Hazardous Waste Management in the Kyrgyz Republic (approved by Decree No. 885 of the Government of the Kyrgyz Republic on December 28, 2015)	2015 (2021)	The procedure defines the process of handling hazardous waste and the operation of disposal and landfill facilities for this waste. It establishes requirements for the management of certain hazardous wastes, such as used containers and packaging of chemicals, mercury-containing waste, waste batteries, and waste oil products.
Law of the Kyrgyz Republic on Chemicalization and Plant Protection	1999 (2003, 2012, 2020)	The law defines the general legal, economic, environmental, social and organizational principles of chemicalization and plant protection for public health care, animals and environment protection, prevention or elimination of consequences of soil, plant and animal products contamination.

2.1.3. Environmental and Social Regulations

There are over 20 regulations in place to support the above-mentioned laws with respect to the protection of wildlife and cultural heritage. The most relevant of these are are the Regulation on

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Protection and Use of Fish Resources and Aquatic Organisms, 1994 and Regulation on Protection of Fish Resources and their Habitats, 2008, which prescribe measures to ensure the conservation of fish resources and their habitats during economic activities, the establishment of sanitary and protective zones along shorelines, and the prohibition of pollution of shoreline areas by municipal and other wastes. Another relevant regulatory instrument is the List of Rare and Threatened Animal and Plant Species included in the Red Data Book of Kyrgyzstan, 2005 (amended 2009), known locally as the 'Red Book'. Species included in the Red Book – and their habitats – are protected by law, and proposed development projects must incorporate measures to avoid negative impacts and mitigation measures designed to prevent habitat destruction and species extirpation or extinction.

A series of instructions and decrees support the cultural heritage law. These include:

(a) Decree of the President on Measures to Promote the Studies of Historic and Cultural Heritage of the Peoples of Kyrgyzstan, dated January 27, 2012 №18;
(b) State List of Monuments of History and Culture in Kyrgyz Republic of National Status, approved by the government on August 20, 2002 № 568;
(c) Instruction on Registration, Protection, Restoration, and Use of Historic and Cultural Monuments of Kyrgyz Republic, approved by the government on August 20, 2002;
(d) Local 'Lists of Monuments of Regional Importance' approved by local authorities in compliance with the Law on Protection and Use of Historic-Cultural Heritage (Article 10).

The key legislation governing occupational health and safety, including at construction sites (the Law of the Kyrgyz Republic on Occupational Safety, 2003) is supported by the Labor Code of the Kyrgyz Republic, 2004, as well as other regulatory norms.

2.1.4. Technical Regulations and Environmental Standards

The relevant technical regulations and environmental standards to the Project include:

Technical Regulation for Potable Water Safety (2011), which establishes microbiological, parasitological and chemical maximum allowable concentrations (MACs) for potable water from centralized urban water supply systems and non-centralized sources (e.g., community wells).

Rules for Protection of Surface Waters (2016, No. 128), which establishes ambient standards for surface water used for potable water, recreation, fisheries and irrigation. The rules regulate the discharge into water bodies of all wastewaters, including domestic, industrial, rainfall and snow-melt waters, road washings, runoff from built-up areas, discharge waters of ameliorative systems, drain waters and mine waters. The rules also regulate economic activities, such as water engineering, that may cause adverse impacts on surface waters. The rules apply to all water bodies, including rivers, streams, lakes and reservoirs.

Hygiene Standard 2.1.5.1315-03 (2004), which establishes standards for the quality of water bodies used for domestic and potable water supply and recreational purposes. Adapted from Russian Federation standards, this standard is typically used only when a particular parameter of interest is not covered by the Rules for Protection of Surface Waters (2016).

Hygiene Standard 2.1.6.1338-03 (June 10, 2004 No. 64-04), which sets MACs for pollutants in outdoor air in urban and rural settlement areas. The MACs are designed to prevent human health impacts from air pollutants and are used when establishing allowable emission levels from industries.

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SNIP 2.04.03-85-Sewerage (*External Networks and Facilities*), which establishes criteria for hydraulic capacity calculations for sewerage networks and wastewater system design, and specifies standards for components of wastewater management systems, including sewerage and treatment plants.

SNIP 3.05.04-85 (*External networks, water supply and sewerage facilities*), which identifies specifications for pipes, water supply and wastewater plants, tanks, pressure mains and gravitational pipelines.

Kyrgyz Republic Noise Standards, which are adapted from Russian Federation noise standards. The standards were promulgated as Collection of the Most Important Records on Sanitary and Anti-epidemiological Issues; Volume 2, Part 1 (Information Publishing Centre of Goskomsanepidnadzor, Russian Federation, 1994).

KR Law on Sanitary, Epidemiological Well Being of the Population No. 60, July 26, 2001, which aims to ensure sanitary-epidemiological wellbeing of the people of the Kyrgyz Republic and is used to enforce guarantees given by the state to the people to exercise their right to their health protection and to the healthy environment.

In respect of monitoring the Soviet standards: GOST 17.2.3.01-86. Rules for Air Quality Control in Settlements (1986) and RD 52.04.186-89 Manual on Atmospheric Pollution Control (1989) adopted by Kyrgyz Republic will apply.,

The main normative documents governing the environmental protection activities are:

2.1.5. Legal framework for Environmental and Social Assessment

The country's legal framework for environmental assessment comprises several laws and regulations. These are described below.

The Law on Environmental Expertise ensures compliance of economic and other activities with environmental requirements. This Law is applied to projects that may have environmental impact, including feasibility studies as well as projects for construction, reconstruction, development, re-equipment, other projects that may have environmental impact, regardless of their estimate cost and title or ownership type.

The law obliges the project initiator to submit necessary documentation related to the project and its environmental impact to the state environmental expertise. The Expert Commission of the State Agency on Environment Protection and Forestry is responsible for review of the submitted documentation.

Positive decision of the State Environmental Expertise is required to trigger financing or implementation of the project. Negative opinion will ban implementation of the project. One of the main opportunities for citizen’s participation and their associations in decision making on environmental protection and rational nature management is public environmental expertise. Two types of environmental review are implemented in the Kyrgyz Republic: State Environmental Expertise and Public Environmental Expertise.

The Law of KR on General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic sets general requirements for ensuring ecological safety during the design and operation of economic and other activities involving production, storage, transportation and utilization of

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products. Based on the Law the risk categories for each subproject will be determined to fix arrangements for EIA.

Environmental impact assessment is carried out according to the following regulations:

- Regulations on the procedure for environmental impact assessment in the Kyrgyz Republic (13 February 2015, #60);
- Regulations on the procedure of the state ecological examination in the Kyrgyz Republic
- (7 May 2014, #248);
- Law "On Ecological Expertise" No.54 dtd. 1999, (with amendments as of 04 May 2015),
- Law "On Environmental Protection" No.53 dtd. 1999, and
- Law "General technical regulation on environmental safety."No.151 dtd. 2009.

Environmental assessment in the Kyrgyz Republic is founded on two subsystems: (i) OVOS (the Russian acronym for "Assessment of Environmental Impacts"), and (ii) Ecological Expertise (State Environmental Review, SER). Under the OVOS process, projects are screened based on inclusion lists for activities requiring environmental assessment (the list of categories of objects subject to OVOS is specified in Annex 1). Activities categorized according to hazard class I or having potential for significant adverse transboundary effects, a complete (full) EIA is required. For activities categorized according to hazard class II or III, a preliminary EIA is required. . For cases that this is required, an OVOS is conducted by an OVOS consultant hired by a Project Proponent. The environmental assessment proceeds the EIA documents which will be subjected for further reviews.

The resulting EIA/IEE is then presented for public consultations, after which revisions are done according to the public's feedback. Subsequently, the OVOS report, Statement of Environmental Consequences, and other supporting documentations are submitted for the State Environmental Review (SER). After which the project will be approved, rejected or send for reexamination.

Continuation of the SER depends on the project but cannot be more than three months after submission by the Initiator of the project with all EIA/IEE documents to SER. Public Environmental Review (PER) is organized and conducted by the initiation of the local people, local administrations, and Civil societies, registered in the Kyrgyz Republic. The outputs of public environmental review are directed to the agency, which is implementing the state environmental expertise and to the agency, which is responsible for implementing the expertise objects.

Public Consultation had been held for the IEE during Feasibility Stage. The outputs of the public consultation are incorporated in the Public Environmental Review (PER) which can be done both stage of the OVOS or also initiated in parallel to the SER. The SER duration depends on the complexity of the project but should not exceed 3 months after submission of all the OVOS documents for the SER by the Project Proponent.

2.2. Legislation of the Kyrgyz Republic in the sphere of social assessment, land acquisition and resettlement, and information disclosure

The legal and policy framework of the project is based on national legislations related to land acquisition and compensation, access to information and disclosure grievances in the Kyrgyz Republic **the Constitution of the Kyrgyz Republic (May 5, 2021) provides that:**

(i) the Kyrgyz Republic recognizes the diversity of ownership forms and guarantees equal legal protection to private, state, municipal and other types of ownership (article 15, clause 1);

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(ii) Ownership is inviolable, and no one can be dispossessed of property arbitrarily. The right to inherit is secured. Property can be acquired by the state against the person's (party's) will only be based on a court ruling (article 15, clause 2);

(iii) Acquisition of property for the public purposes, as defined in the national laws, can be carried out only through court ruling and with fair and prior payment of compensation for the affected property, as well as for other costs (article 15, clause 2, paragraph 3);

(iv) Land can be in private and municipal ownership with an exception of pasturelands (article 16, clause 3);

(v) Appropriation of citizens' and legal entities' property to public ownership (nationalization) shall be exercised on the basis of law with compensation for the cost of such property and other losses (article 15, clause 3).

Civil Code (May 8, 1996, No. 15; last amended September 15, 2021)

The Civil Code (CC) provides that a party whose rights are violated can claim full compensation for losses, unless the national legislation or the agreements (contracts) prepared in line with the national legislation indicate the contrary (article 14, clause 1). The CC also specifies that the compensable losses include:

- Costs that the party concerned has incurred or was going to incur in order to reinstate the party's right (article 14, clause 2), loss or damage to the property (real damage), and
- Lost profit that the party was supposed to receive under normal conditions, if the party's rights were not violated (opportunity costs);
- If a party that violated the right received profits, a party whose rights were violated shall be entitled to demand compensation for lost profit in the amount not less than such profits as well as for other losses (article 14, clause 2)

In regard the compensation for losses caused by the state agencies and local self-government, article 15 states that the losses incurred on a citizen or legal entity as a consequence of illegal actions (or inactivity) of state agencies, bodies of local self-government or officials of these bodies, including issuance by a state body of an act that does not comply with legislation, are subject to compensation by the state, as well as local self-government authorities in the cases foreseen under the law.

Land Code (June 2, 1999, No. 45; last amended March 17, 2021 No.33)[2]

Article 68 of the Land Code (LC) defines withdrawal of land plot for state and public needs and provides that:

- (i) Land can be acquired (purchased) for state and public purposes based on agreement between the authorized body and landowner or land user. In case the land owner or land user disagrees with the acquisition (purchase), the authorized body can, within two (2) months, turn to the court with the request to carry out the acquisition with the payment to the owner or land user of the compensation for the land from the date of official denial of landowner/land-user (article 68, clause 1);

[2] http://cbd.minjust.gov.kg/act/view/ru-ru/112189?cl=ru-ru

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- (ii) When determining compensation for the land being acquired, it should reflect the market value of the right to the land and associated structures, losses that the land owner or land user incurs, and liabilities to third parties (article 68, clause 3); and

- (iii) When acquiring land for the state or public purposes with the consent of the land owner or land user, the owner/user can be allocated replacement land with the value of this land to be counted towards compensation for the land acquired

The Land Code specifies that the right to the land and associated structures can be terminated, among others, when land is needed for state or public purposes (article 66, clause 1).

The acquisition of the land for state and public needs can be affected only after payment of the value of the right to the land plot and compensation for losses (article 66, clause 4).

The land owner or user has the right to claim the compensation, as specified by the legislation of the Kyrgyz Republic (article 49, clause 1, sub-clause 5).

Finally, the Land Code (article 78, clause 2) also specifies the use regime with regards to the lands of common use. It particularly indicates that lands of common use in settlements, towns, and villages (e.g. roads, streets, squares, sidewalks, driveways, park bands, boulevards, mini parks, water bodies, etc.) cannot be in private ownership, and only in exceptional instances can be rented by the authorized state body to legal entities and individuals for a maximum of 5 years. The authorized state body may permit construction of light-weight structures on the lands of common use (clause 78, clause 3).

Law on State Registration of Rights of Immovable Properties and Associated Transactions (December 22, 1998 No.153, last amended February 25, 2021, No. 21)[3]

This law states that State registration of rights of immovable properties and associated transactions is a legal act of recognition and confirmation of rights to immovable properties and their encumbrances (restrictions), as well as real estate transactions, providing protection for the rights and encumbrances (restrictions), except as provided in this Law (article 1).

Any other document or entitlements and their limitations, are subject to mandatory registration in accordance with article 4 of this Law, submitted to the registration authority not later than thirty days from the date of the (drafting) of the above document (article 7).

The property rights, which are not subject to the registration, but are recognized and protected by the state include (article 6):

- Access rights to the communication lines, pipelines, geodesic localities, and other pieces of infrastructure meant for public use;
- Rights of spouses, children, and other individuals;
- Temporary rights, lease or sub-lease for a period of under 3 years;
- Actual use rights for the primary or preferential use of the property;
- Rights arising from the taxation requirements;
- Encumbrances arising from the common rules on healthcare, public safety, environmental protection etc.

[3] http://cbd.minjust.gov.kg/act/view/ru-ru/160

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Regulation on Assets Valuation

- The valuation of the assets is carried out based on the Temporary rules for the valuators and valuation companies (Government Resolution, August 21, 2003, No 537[4]);
- Valuation standards for the valuators (Government Resolution, April 3, 2006, No 217)[5] and other provisions of national legislation.

Law on Grievances[6] (March 4, 2007, No.67 last amended on July 27, 2016, No. 151).

The Law on Grievances provides that the grievance from the Kyrgyz Republic citizens should be registered, given due consideration, and addressed in an equitable, timely and accountable manner (article 2 and 4). Every citizen has the right to apply personally or through his representative to state authorities, local authorities and their officials, who are obliged to provide a reasoned response within the time period established by law (article 4). The grievance registered with the state agency or the local government should be processed within 14 working days, it can be prolonged exceptionally for no longer than 30 days (article 8).

Law on Guarantee and Freedom of Access to Information[7] (December 5, 1997 No. 89, last amended March 18, 2017, No. 47). It determines access to information, which is available at organizations/institutions not referred to as public authorities; it concerns with rights and legal interests of claimants.

Law on Access to Information Under Supervision of Public Authorities and Local Self-Government Bodies (December 28, 2006 No. 213, last amended on July 20, 2017 No. 130)
. It concerns with information available at public authorities and local self-governance bodies. The law has been adopted to secure the exercising and protection of citizens' and legal entities' rights for access to information as well as achieving highest information transparency of activities implemented by public authorities and local self-governance bodies;

The President's Edict "On implementation of Kyrgyz Republic's Law on Access to Information Under Supervision of Public Authorities and Local Self-Government Bodies dated 8th may 2007 UP No. 240";[8]

The Prime Minister's Order No.210 dated 22nd April 2008 (on endorsement of reporting formats on implementation of the on Access to Information Under Supervision of Public Authorities and Local Self-Government Bodies and Guidelines for their filling);[9]

The Kyrgyz Republic is a party to many international Conventions on environmental management including Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Kyrgyz Republic's Law on Accession dated 12th January 2000 No. 5) which regulates access to environmental information as well.

Below are key acts some articles of which regulate citizens' rights of access to information and obligations of competent authorities for provision of such information.

[4] http://cbd.minjust.gov.kg/act/view/ru-ru/6710
[5] http://cbd.minjust.gov.kg/act/view/ru-ru/99527
[6] http://cbd.minjust.gov.kg/act/view/ru-ru/202100
[7] http://cbd.minjust.gov.kg/act/view/ru-ru/589
[8] http://cbd.minjust.gov.kg/act/view/ru-ru/4605?cl=ru-ru
[9] http://cbd.minjust.gov.kg/act/view/ru-ru/22262

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- ✓ On state regulation and policy on greenhouse gas emission and absorption;
- ✓ On protection of ozone screen;
- ✓ On environmental expert review, 16th June 1999;[10]
- ✓ On public radiation security;
- ✓ On protection of ambient air;
- ✓ On production and consumption wastes;
- ✓ On industrial safety of hazardous production facilities;
- ✓ On drinking water;
- ✓ On tailings and mining dumps;
- ✓ On subsurface resources;
- ✓ On public sanitary and epidemiological well-being; and
- ✓ On environmental protection.

Labor Code (August 4, 2004 No. 106, last amended on June 26, 2018 No. 62). Labor Code is the fundamental legislative act aimed to regulate all labor matters arising in the Kyrgyz Republic. This Code governs employment relationships and other relations, directly related, directed to protection of the rights and freedoms of the parties of employment relationships, establishment of the minimum guarantees of the rights and freedoms in the sphere of work. Article 9 of the Code prohibits discrimination and guarantees that all citizens have equal rights to work; discrimination in labor relations is prohibited. Any differences, non-admission or preference, denial of employment, regardless of nationality, race, gender, language, religion, political beliefs, social status, education, property, leading to a violation of equality of opportunities in the field of labor, are prohibited.

Law on local self-government (July 15, 2011 No.101, last amended on August 8, 2019 No.118). This Law establishes the principles of local self-government organization at the level of the administrative-territorial units, defines the role of local self-government in the exercise of public authority, establishes the organizational and legal foundations of their activities, establishes the competence and principles of relations between local authorities and public authorities, state guarantees of local law communities on self-government.

Local self-government is exercised, among the others, on the principles of:

- openness and responsibility of local governments to the local community and the exercise by them of their functions in the interests of the local community;
- the will of citizens through a system of local self-government, as well as through the citizens meetings and Kurultai;
- protection of the rights and legally protected interests of local communities;
- publicity and consideration of public opinion.

Local governments operate in close cooperation with state authorities to create conditions for the implementation of the constitutional rights of citizens of the Kyrgyz Republic to participate in resolving issues of state and local significance.

2.3. National Sectoral Legal Regulatory Framework

The following strategic documents have been developed and are being implemented in the Kyrgyz Republic:

[10] http://cbd.minjust.gov.kg/act/view/ru-ru/219

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The National Development Strategy of the Kyrgyz Republic for 2018-2040 sets a strategic legislative framework in the field of economic well-being and the quality of the environment for development; and which says:

-The state economic policy should stimulate the development of industries with high export potential, creating jobs and increasing the well-being of the people. At the same time, it is important to attract foreign investments, the safety and integrity of which should receive real guarantees.

The concept of regional policy of the Kyrgyz Republic for the period 2018-2022[1] was developed in order to form a basic structure for the preparation of detailed programs for the development of specific regions and settlements in the medium and long term; It identifies 20 settlements as the base points of growth of the regions, which included Isfana, Batken, Kadamjai.

The Climate Investment Program of the Kyrgyz Republic and the Program for the Development of a Green Economy in the Kyrgyz Republic for 2019-2023[2]. It sets the strategic framework for the development of climate-resilient sectors of the economy, including agriculture, transport, energy, etc.

[1] Approved by the Decree of the GoKR as of March 31, 2017 No 194

[2] Approved by the Decree of the GoKR as of March 14, 2019 No 605

2.4. The Kyrgyz Republic's International Covenants and Obligations

The Kyrgyz Republic recognizes and accepts international rights in the sphere of environmental protection where international obligations prevail.

In addition to national legislation and normative acts on environmental and social matters, the Kyrgyz Republic is a party to several international covenants on environmental and social issues

- Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters;
- Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (2000);
- Stockholm Convention on Persistent Organic Pollutants (2006);
- Convention on Biological Diversity (1996) and enclosed Cartagena Protocol on Biosafety (2005);
- Convention concerning the Protection of the World Cultural and Natural Heritage (1992);
- The UN Convention to Combat Desertification (1997);
- UN Framework Convention on Climate Change (2000);
- Ramsar Convention on Wetlands (2002);
- Convention on Migratory Species of Wild Animals (2013);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (2006);
- Basel Convention on the Control of the Transboundary Movements of Hazardous Wastes and their Disposal (1996)

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2.5. The World Bank Environmental and Social Standards

The World Bank Environmental and Social Framework sets out the World Bank's commitment to sustainable development through a Bank Policy and a set of Environmental and Social Standards designed to support Borrowers' projects to end extreme poverty and promote shared prosperity.

The Environmental and Social Standards set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through Investment Project Financing. The Bank believes that the application of these standards, by focusing on the identification and management of environmental and social risks, will support Borrowers in their goal to reduce poverty and increase prosperity in a sustainable manner for the benefit of the environment and their citizens.

The standards will:

(a) support Borrowers/Clients in achieving good international practice relating to environmental and social sustainability;
(b) assist Borrowers/Clients in fulfilling their national and international environmental and social obligations;
(c) enhance nondiscrimination, transparency, participation, accountability and governance;
(d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement.

The Environmental and Social Standards that apply to the project are given in Table 2 below.

Table 2. WB Environmental and Social Standards and their relevance to the current project

Environmental and Social Standards	Relevant to this Project (yes or no)	Main requirements and conducted activities to meet them	ESMF provisions in terms of addressing ESSs requirements
ESS 1 - Assessment and Management of Environmental and Social Risks and Impacts	Yes	ESS1 sets out the Client's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing, in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). As required by this standard, the ESIA should be conducted based on current information, including a description and delineation	The project environment and social risks are rated as substantial. The risks are due to project activities' type and spatial coverage, diverse potential investment areas, high uncertainty over sectoral policy priorities and directions, and the client's lack of experience in implementing the ESF. Towards addressing these risks, the following instruments have been prepared: (i) Environment and Social Management Framework (ESMF): (ii) Social Assessment; (iii) Stakeholder Engagement Plan (SEP); (iv) Resettlement

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		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.	Policy Framework (RPF); and (v) Labor Management Procedures (LMP). The ESMF covers applicable ESF Standards and the World Bank Group's Environmental Health and Safety Guidelines. The ESMF has checklists for determining where and when site-specific Environment and Social Impact Assessments (ESIAs)/Management Plans (ESMPs) and Resettlement Plans (RAPs) will be necessary (for resettlement, the criteria are also in the RPF). The ESMF also contains generic ESMP checklists for small-scale construction and local roads improvement and maintenance envisaged by the project, rehabilitation and maintenance of water resources and water supply networks, waste disposal, and other investments that improve local living conditions, including those related to social infrastructure.
ESS 2 – Labor and Working Conditions	Yes	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.	Based on the ESS2 requirements, the client prepared the LMP, specifying direct workers contractors and subcontractors. *Direct workers.* The implementing agency, ARIS, follows the national labor legislation and practices when hiring project staff. ARIS staff is not public /civil servants, as they are hired on contract basis for the implementation of a wide range of development projects. The Agency applies two types of employment contract: a one-year employment agreements and short-term service

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		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.	contracts. Majority of staff are permanent staff with one-year employment agreements with fixed monthly wage rates. All the recruiting procedures are documented and filed in the folders. Monthly timesheets are also filed and kept accurately. Forty hour per week employment is practiced and recorded on paper. *Contractors.* The Contractors follow the legal provisions of the Kyrgyz Republic Labor Code. ARIS 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, 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. *Sub-contractors.* The sub-contractors (including local private firms) will be recruited by the contractors to implement project activities in the project areas. They are obliged to follow the local labor legislation and regulations during the sub-project implementation. The ESMF includes sections on Environment Health and Safety (EHS) including specific instruments that will need to be prepared either by the client or the contractor prior to commencement of works (ESH checklists, codes of conduct; safety training etc.). Civil works contracts

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			will incorporate social and environmental mitigation measures based on the WBG EHS Guidelines and the ESMF. All civil works contracts will include industry standard Codes of Conduct that include measures to prevent Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH). A locally based Grievance Redress Mechanism (GRM) specifically for direct and contracted workers will be provided.
ESS 3 – Recourse and Efficiency, Pollution Prevention and Management	Yes	ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations. At the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable. This ESS sets out the requirements to address resource efficiency and pollution1 prevention and management throughout the project life cycle consistent with GIIP.	The ESMF covers issues of resource efficiency and pollution prevention and management. It requires that the ESIA/ ESMP studies and proposed mitigation measures related to relevant requirements of ESS3, including raw materials, water use, air pollution, hazardous materials, and hazardous waste are included within scope of the site specific ESMPs, as relevant.
ESS 4 – Community Health and Safety	Yes	ESS4 recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. In addition, communities that are already	Community health and safety, such as the disruption of normal traffic patterns, and risks from unauthorized entry to the construction areas resulting in accidents, use of

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		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.	agrichemicals, etc., - all these will be mitigated through implementation of the ESMPs, which will include relevant measures in this regard, including the provision of fences to enclose areas of civil works, and the posting of warning signs and information in construction areas, providing training and demonstrational activities, etc. As specified in the ESMF, the project involves civil works, which require labor force to be supplied mostly locally, - it is anticipated that due to the nature and scope of rehabilitation activities the level of labor influx will be insignificant so the associated risks will be low and manageable.
ESS 5 – Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	Yes	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:	Land acquisition and resettlement is not expected to be a major issue for project activities requiring rehabilitation, however, it is expected to be involuntary resettlement activities in subprojects requiring a rehabilitation and new constructions of tourism facilities. Towards addressing such a situation, the Client has prepared a Resettlement Policy Framework (RPF), which describes the next steps on preparing and implementing resettlement action plans (RAP). The framework clarifies resettlement principles, organizational arrangements, and design criteria to be applied to subprojects or project components to be

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		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.	prepared during project implementation. Once the subproject or individual project components are defined and the necessary information becomes available, the framework will be expanded into a specific resettlement action. Project activities that will cause physical and/or economic displacement will not commence until such specific plans have been finalized and approved by the Bank. Social screening is carried out to identify possible social impacts, including involuntary resettlement (IR). This ESMF provide a template to screen possible social impacts and IR impacts before the appraisal of each subprojects in Regional Economic Development Project (RED-2).
ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	Yes	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.	The activities envisaged by the project are small in scale and expected to be carried out in participating cities or the existing agricultural lands. However, as specified in the ESMF document, site-specific potential risks for biodiversity will be assessed for each individual subproject and, if need be, relevant mitigation measures will be included in the ESMPs.
ESS 7 - Indigenous Peoples/Sub-Saharan African Historically	Not relevant as there are no such social groups in the project area.		

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Underserved Traditional Local Communities			
ESS 8 – Cultural Heritage	Yes	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. The requirements of ESS8 apply to cultural heritage regardless of whether or not it has been legally protected or previously identified or disturbed - to intangible cultural heritage only if a physical component of a project will have a material impact on such cultural heritage or if a project intends to use such cultural heritage for commercial purposes.	The project activities do not anticipate any works on cultural heritage sites and buildings. However, as a precautionary measure for the construction of other buildings involving excavation and movement of earth activities, a chance find procedure is included in the ESMF and where appropriate will be part of mitigation measures to be provided in site-specific ESMPs.
ESS9 – Financial Intermediaries	Not relevant	ESS9 recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects, and monitor portfolio risk, as appropriate to the nature of intermediated financing. The way in which the FI will manage its portfolio will take various forms, depending on a number of considerations, including the capacity of the FI and the nature and scope of the funding to be provided by the FI. FIs are required to develop and maintain, in the	The project will not use Financial Intermediary bodies.

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		form of an Environmental and Social Management System (ESMS), effective environmental and social systems, procedures and capacity for assessing, managing, and monitoring risks and impacts of subprojects, as well as managing overall portfolio risk in a responsible manner.	
ESS 10 – Stakeholder Engagement and Information Disclosure	Yes	This ESS 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.	Project preparation has done an extensive mapping the stakeholders. Individuals and groups likely to be affected (direct beneficiaries) have been identified. They include: the inhabitants of participating regions and municipalities (both urban and rural) as well as agricultural products value-chain participants (farmers, local communities, traders, workers, contractors and transporters) and visitors who will benefit directly from improved accessibility, connectivity and infrastructure and services. Mapping of other interested parties such as government agencies/ authorities, CSOs and Private Sector by subprojects, will be done during implementation. Given the highly diverse stakeholder profile and that their expectations and orientation as well as capacity to interface with the project are different, a Stakeholder Engagement Plan (SEP) has been developed which identified and will continue to identify impediments during implementation as well, if any, at reaching out to stakeholders and reflect/ build capacity of the client in engaging with stakeholders. The client has also developed a Grievance Redress

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			Mechanism (GRM) to enable stakeholders air their concerns/ comments/ suggestions, if any.

WB Operational Policy on International Waterways (OP 7.50)

OP 7.50 on "International Waterways" applies to the proposed Project as some of the proposed interventions may impact the water resources of the Syr Darya River Basin, shared by Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan and which is an international waterway under the Policy. The potential transboundary water impacts under the Project are related to investments under Component 1: Supporting Municipal Infrastructure and Basic Public Services; and Component 2: Strengthening Agricultural Competitiveness. Under Component 1, specific investments for water supply and sanitation will be limited to the rehabilitation of the existing water supply pipes and networks in the selected areas, and/or rehabilitation of water reservoirs, all of which are small-scale works, therefore there will be no additional water abstraction under this component. Under Component 2, the Project is expected to make investments to rehabilitate existing irrigation systems and promote adoption of drip irrigation technology in newly irrigated areas. Rehabilitation of existing irrigation schemes is expected to be small-scale and would improve water use efficiency. Due to the limited scope of the Project area and the relative efficiency of drip irrigation technologies in contrast to traditional furrow irrigation, the Project is expected to result in net water savings.

To adhere to the commitments made under existing riparian agreements, the Project will ensure: (i) sharing of relevant environmental and water source information from the initial assessment and sub-project sites once it becomes available. Information will be made publicly available on the Project website and this disclosure obligation will be included as part of the Environment and Social Commitment Plan (ESCP); and (ii) that overall water abstraction under of the Project (both additional water abstractions due to new investments as well as reduction in abstractions because of conversion to drip irrigation in existing schemes) will not negatively impact the agreed water allocations between riparians through the use of selection criteria that would ensure that the currently calculated net water savings will indeed materialize or that savings and abstractions will at minimum balance each other out. This will be monitored as part of the World Bank's implementation support and prior review process. Following the requirements of the OP7.50, notifications on behalf of the Kyrgyz Republic were sent by the World Bank (at the request of the Kyrgyz Republic) to all riparian countries during the project preparation stage.

Environmental Health and Safety (EHS) Guidelines

The World Bank Group Environmental, Health, and Safety Guidelines (EHS Guideline) are technical reference documents with general and industry-specific examples of GIIP. In compliance with ESS, the Project will be subject to the World Bank Groups EHS Guiding Principles. Hence, relevant requirements of EHS Guidelines will be applied to the Project.

The EHS guidelines applicable to the Project, depending on the types of subprojects, include, *inter alia*, the following:

• General EHS Recommendations (2007);

• EHS Guidelines for Water Supply and Sanitation (2007);

• EHS Guidelines for Wood Harvesting Enterprises (2007);

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• EHS Guidelines for Production of Perennial crops (2016);

2.6. Project risks assessment and classification

As part of the environmental and social procedures, The Bank classifies all projects into one of four classifications: High Risk, Substantial Risk, Moderate Risk or Low Risk. In determining the appropriate risk classification, the Bank takes into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the Client to manage the environmental and social risks and impacts in a manner consistent with the Environmental and Social Standards.

Although the potential project environmental risks would be typical for agriculture and construction activities, temporary and moderate in scale, predictable, and easily mitigable, considering the high uncertainty over sectoral policy priorities and directions, and diverse areas of potential investments, as well as weak knowledge of implementing entity of the ESF requirements, the project environmental risks are assessed as Substantial.

Social Risk Rating is "Substantial" as project areas are intrinsically diverse regions and are exposed to conflict and fragility risks which will have a bearing on the project outcomes; (i) inter-ethnic relations – inter-regional and international/cross border risks; (ii) geographical – certain sections could get excluded due to wide disparities within the regions – 95% of the territory is covered by mountains and valleys, making it difficult for better connectivity, delivering infrastructure and basic public services; (iii) economic risks-high rate of unemployment in particular among youth and significant dependency of household income on remittances which is vulnerable to external economic conditions and fluctuations; (iii) social risks – certain sections could get excluded either due to inherent structural deficiencies and/ or due to elite capture; and (iv) institutional risks – inadequate capacity of Ministry of Economy and Commerce in ESS application. While the first two risks remain external to the project, the remaining have been addressed. The project, by design, will avoid undertaking any such activity which will result in physical and/or economic displacement.

Taking all the above into account, the project overall risk rating can be qualified as '**substantial.'**

2.7. Comparing the national law and the requirements of the World Bank

The Kyrgyz Republic Regulation on EIA

While principal regulations and procedures of environmental evaluation stated in the national law of the Kyrgyz Republic and the requirements of the World Bank are similar to a certain degree, there are some differences that mainly relate to the project's environmental screening and risk classification.

National law. According to the Regulation on the procedure of conducting environmental impact assessment (OVOS) in the KR, the economic activities subject to mandatory environmental appraisal are established. The procedure for environmental impact assessment (OVOS) has the following stages: 1) the decision to conduct OVOS, 2) preliminary environmental impact assessment (OVOS) (following the feasibility study (FS)), 3) OVOS (based on the design documents – design, detailed design) and 4) post project examination (to be conducted a year after the start of the activity). For objects with low level of environmental impact, only preliminary

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OVOS may be conducted. In the Kyrgyz Republic, two types of environmental appraisal may be held, state and public. However, the findings of the latter are not binding.

The World Bank requirements: To fulfill the requirements of the World Bank on environmental assessment, a number of mechanisms may be used. These may include environmental and social impact assessment (ESIA)/ and Environmental and Social Management Plan (ESMP), regional and sectoral environmental assessment, and environmental audit. In this project, most of the subprojects are expected to require ESMP. To realize the project objective and activities, the project will assess and apply the more stringent requirements of the national law and the World Bank on the environmental assessment. In other words, if the national requirements in environmental protection are more stringent than the World Bank's requirements, then the national law requirements are used. If the requirements of the World Bank are more stringent, in this case, the Bank requirements are used.

Table 3 provides a comparison between National E&S Legislation and the World Bank Environmental and Social Standards requirements and related gap-filling measures.

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Table 3. Comparing the National E&S Legislation and the requirements of the World Bank Environmental and Social Standards

Environmental and Social Standards	Relevant to this Project (yes or no)	WB ESS requirements	KR National E&S legislation requirements	ESF Instrument/ Document to Fill the Gaps
ESS 1 - Assessment and Management of Environmental and Social Risks and Impacts	Yes	ESS1 sets out the Client's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing, in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs). 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	The system of environmental risk classification under Kyrgyz law is based on a list of activities that are either subject to or not subject to an EIA. While under the ESF, risk is classified based on the due diligence and judgement of the Bank team. However, certain provisions in ESS 1 are not fully reflected in national legislation – for example, in social risk assessment, the need for identification of vulnerable and disadvantaged groups and application of differentiated measures to prevent disproportionate impacts or disadvantage in sharing development benefits. National law also does not elaborate on other types of social risk assessment and mitigation such as community health and safety although some of these aspects are present in other state	This ESMF which is based on the ESMF for RED-1 will provide guidance and procedures for the preparation of the site-specific instruments. Sub-project specific environmental and social assessment studies such as Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP) will be prepared in line with ESS1. Accordingly, potential environmental and social impacts of the sub-projects will be the part of the assessment. Depending on the level of the impacts and proposed mitigation measures together with residual impact analysis, sub-management plans will be annexed to each ESIA/ESMP.

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		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.	regulations for example those on air or water pollution, and food safety.	
ESS 2 – Labor and Working Conditions	Yes	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	Over the last twenty years, Kyrgyz labor legislation has evolved as the country has adopted supplementary legislation and introduced amendments to its key labor laws. The Kyrgyz Republic has also ratified eleven ILO conventions on issues such as forced and child labor, freedom of association, rights to organize and collective bargaining, non-discrimination, and labor inspection (see Annex III). The national Labor Law, last amended in April 2021,	Labor Management Procedure (LMP) is a component of the ESF instruments. LMP provides guidance on the required mitigations or management implementations such as child labor, discrimination and harassment, obligations for contractors and management of contractors, workplace grievance mechanism, and code of conduct, etc. stipulated by ESS2 and relevant WB EHS guidelines. In line with the LMP developed for the Project, sub-project specific

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		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.	establishes state guarantees of labor rights and freedoms of citizens, creates favorable working conditions, and protection of rights and interests of employees and employers. In addition to this Law, the government has approved fourteen other laws and more than twelve regulations that directly relate to labor relations. Collectively, the body of legislation enacted in the country covers many of the objectives and requirements of ESS 2. Full or partial legal gaps with ESS 2 exist on issues such as child labor and minimum age of employment, clear definitions of non-discrimination and harassment, obligations for contractors and management of contractors, due diligence on primary suppliers, the provision of a workplace grievance mechanism, and the monitoring and enforcement of labor laws. Grievance registration and follow-up procedures are available through the Law on Appeals of Citizens; however, they are general to all project	Labor Management Plans (LM Plans) will be developed, as relevant.

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			effected persons and do not spell out specific grievance process for employees as is required under ESS 2.	
ESS 3 – Recourse and Efficiency, Pollution Prevention and Management	Yes	ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. The current and projected atmospheric concentration of greenhouse gases (GHG) threatens the welfare of current and future generations. At the same time, more efficient and effective resource use, pollution prevention and GHG emission avoidance, and mitigation technologies and practices have become more accessible and achievable. This ESS sets out the requirements to address resource efficiency and pollution1 prevention and management throughout the project life cycle consistent with GIIP.	The national regulatory framework for pollution prevention prioritizes public health protection and is based on defining thresholds for permitted concentrations of pollutants to which humans may be exposed. The environmental regulation requires calculation of the expected emissions (including noise) and discharges as part of the EIA, so that compliance of an intended project with the established thresholds is proven.	Resource efficiency and pollution prevention and management will be be covered by the site-specific ESMPs. Sub-management plans will be developed as part of ESIA/ESMP and will include requirement stipulated in relevant WB EHS Guidelines.

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ESS 4 – Community Health and Safety	Yes	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.	The general principles of protecting the health and safety of citizens and communities are embedded in the Constitution of the Kyrgyz Republic and the Law on Environmental Protection. These laws stipulate that everybody has a right to live in a natural environment that is not harmful to their health. To achieve this goal, thresholds are established to limit human exposure to hazardous environments based on a number of physical, chemical, and biological parameters.	Management plans will be prepared for the sub-projects, as relevant, as a part of ESIA/ESMP. This may include: Traffic Management Plans, Community Health and Safety Plans, Emergency Response and Preparedness Plans. The ESMP/LMP will include relevant provisions for SEASEA/SH. A Security Assessment was carried out and a report (SAR) coupled with the recommendations and measures was prepared. The risk mitigation measures recommended in the SAR will be reflected in the site specific ESMPs at the time of their preparation.
ESS 5 – Land Acquisition, Restrictions on Land Use, and Involuntary Resettlement	Yes	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	The Land Code of the Kyrgyz Republic states that land acquisition (withdrawal) is an exceptional measure for terminating the right to a land plot. No specific requirement in national law exists to avoid or minimize resettlement impacts. In practice, however,	A Resettlement Framework (RF) in line with this ESMF is prepared to provide a guidance to assess any risk of resettlement and to prepare sub-project specific RPs in case a requirement. Sub-project specific RPs will be prepared in order to account for the

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		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	government agencies and municipalities aim to use existing state and municipal land to ensure economic effectiveness of the project. Implementing agencies of both IFI-funded and local investment projects make an effort to avoid and minimize land acquisition and resettlement impacts during both project preparation and implementation stages. The Constitution and several laws refer to the need to compensate for land acquisition although there is no specific requirement to prepare land acquisition or resettlement action plans with detailed procedure.	discrepancies with the national legislation. Livelihood impacts of sub-projects on informal land users will be assessed and Livelihood Restoration Plans (LRPs) will be prepared as relevant to sub-projects.

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		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.		
ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources	Yes	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.	The Kyrgyz Republic has a strong regulatory framework for protecting, conserving, and restoring biodiversity, but legal provisions for sustainable use of living natural resources do not provide regulatory basis enabling to meet social needs of forest-dependent communities and maximize benefits of its economic use while preserving forest ecosystems, preventing forest degradation and depletion of its resources. National legislation mainly focuses on protecting and conserving species and less so on preserving habitats. The Law on Red Book and Red List of Species prohibits any activities that would damage habitats that support species under protection, meaning that	Depending on the location of the sub-projects and pertinent impacts, Biodiversity Management and Action Plans can be prepared within the scope of sub-project specific ESIAs/ESMPs. Sub-projects which have significant impacts on biodiversity will be considered as ineligible.

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			any proposed activity in such habitats must prove that the proposed mitigation measures are sufficient to meet this requirement.	
ESS 7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not relevant (NR) as there are no such social groups in the project area.	NR	NR	NR
ESS 8 – Cultural Heritage	Yes	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. The requirements of ESS8 apply to cultural heritage regardless of whether or not it has been legally protected or previously identified or disturbed - to intangible cultural heritage only if a physical component of a project will have a material impact on such cultural heritage or if a project intends	National legislation comprehensively covers many aspects related to historical and cultural heritage. The Law on Protection and use of Historic-Cultural Heritage mandates the State to acknowledge the general cultural values of humankind, support cultural development and international cultural relations, ensure the availability of cultural assets for the public, and preserve the freedom of every citizen to express his or her own cultural identity. The State establishes a system for protecting items of local, state	While the national legislation is comprehensive, sub-project specific environmental and social assessment will consider the significance of any tangible and intangible cultural heritage that may be materially affected or put at risk as a result of the sub-project.

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		to use such cultural heritage for commercial purposes.	and international historical or cultural importance.	
ESS9 – Financial Intermediaries	Not relevant	ESS9 recognizes that strong domestic capital and financial markets and access to finance are important for economic development, growth and poverty reduction. FIs are required to monitor and manage the environmental and social risks and impacts of their portfolio and FI subprojects, and monitor portfolio risk, as appropriate to the nature of intermediated financing. The way in which the FI will manage its portfolio will take various forms, depending on a number of considerations, including the capacity of the FI and the nature and scope of the funding to be provided by the FI. FIs are required to develop and maintain, in the form of an Environmental and Social Management System (ESMS), effective environmental and social systems, procedures and capacity for assessing, managing, and monitoring risks and impacts of subprojects, as well as	The project will not use Financial Intermediary bodies.	Not relevant.

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		managing overall portfolio risk in a responsible manner.		
ESS 10 – Stakeholder Engagement and Information Disclosure	Yes	This ESS 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	The national legislation and norms are focused mainly on the project preparation stage and despite the existing more detailed requirements, the public hearings in local projects are held formally consulted with state agencies, and (v) in addressing grievances the Law guides each state agency on grievances. All state agencies, at least, try to respond in a timely manner as each application is under control by the system of electronic document flow, in the given situation to be paid attention to the satisfaction of the complainants and completeness of the decision taken.	Stakeholder Engagement Framework (SEF) is prepared for the project. Following the project SEP, and prior to subproject activity implementation, subproject specific stakeholder engagement activities program will be prepared and implemented. The SEF will be operational throughout implementation of the Project, including an overall disclosure of information on sub-projects and the grievance mechanism.

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		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.		

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3. BASELINE ANALYSIS

3.1. Location and size

The Kyrgyz Republic is a landlocked country in the mountainous part of Central Asia (***Figure 1***). The area of country is 199.9 thousand km². The Kyrgyz Republic is a landlocked country with mountainous terrain. It is bordered by Kazakhstan to the north, Uzbekistan to the west and southwest, Tajikistan to the southwest and China to the east. Its capital and largest city is Bishkek.

The Oblast territory includes the Batken, Isfara-Isfana, Shakhimardan and Isfayram depressions, as well as part of the Fergana Valley, which are limited by the low ridges of Beli-Synyn, Andygen-Too, Kuruk-Sai, Katran-Too, Kok-Bel. From the south, the Oblast is bounded by the Turkestan and Alay ridges. The relief is highly dissected; absolute heights range from 401 to 5539 m.

Figure 1. Map of Kyrgyz Republic

The project will be implemented in Batken Oblast of the Kyrgyz Republic. Locations of the selected cities within Batken Oblast are presented in Figure 2. The Oblast territory includes the Batken, Isfara-Isfana, Shakhimardan and Isfayram depressions, as well as part of the Fergana Valley, which are limited by the low ridges of Beli-Synyn, Andygen-Too, Kuruk-Sai, Katran-Too, Kok-Bel. From the south, the Oblast is bounded by the Turkestan and Alay ridges. The relief is highly dissected; absolute heights range from 401 to 5539 m.

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Figure 2. Administrative map of Batken Oblast

Batken Oblast was formed in 1999; it occupies the southwestern part of the Kyrgyz Republic with an area of 17048 km^2 and borders the Republics of Tajikistan and Uzbekistan in the north, with the Republic of Tajikistan - in the south and west, and in the east and partly in the south with the Osh oblast of the Kyrgyz Republic.

The Oblast territory is divided into 3 administrative-territorial raions: Batken, Kadamzhai, Leilek (Fig. 3).

There are 6 cities in the region, out of which Kyzyl-Kiya, Batken, Sulukta are cities of regional significance and Isfana, Aydarken and Kadamjai cities have rayon significance, 1 urban-type village (UTV), 31 ayil aimaks and 216 rural settlements. In accordance with the National Statistical Committee of the Kyrgyz Republic as of January 1, 2021 the total resident population is 548,247 thousand people: including 91,983 people in Batken district; 201,457 people in Kadamjai district; 146,020 people in Leilek district; 56,819 people in the Kyzyl- Kiya City (the urban population of Kyzyl-Kiya is 42.564 people, the rural population is 16.254); 24,238 people in the Sulukta City (Sulukta city - 14.770 people, Vostochny urban-type village (UTV) -8,611 people, rural population 712 people); 27.730 people in the Batken city (urban population makes 19.765 people, rural population - 11.925 people); 34.219 people in the Isfana City (urban population

The administrative center of the Oblast is Batken City (area 51.8 km^2). According to the National Statistical Committee of the Kyrgyz Republic, as of January 1, 2021 the resident populations makes 27.730 people (urban population - 19.765 people, rural population - 11.925 people).

On average, the population density in the Oblast is 30.8 people per 1 square kilometer of the area, in Kadamjai region - 31.4, Leilek region - 30.2, Batken region (including Batken city) - 20.7. The Batken Oblast is sparsely populated with a low population density of 16.1 people, as there are high mountains.

3.2. Physical Environment

3.2.1. Climate and Rainfall

The country's climate is influenced chiefly by the mountains, the Kyrgyz Republic's position near the middle of the Eurasian landmass, and the absence of large enough water bodies to influence

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weather patterns. Those factors create a distinctly continental climate that has significant local variations such as fluctuations in the air temperature, precipitation, hours of sunshine, solar radiance and cloudiness. By climatic conditions, the Kyrgyz Republic is divided into several climatic belts (***Figure 3***). Frosty weather persists until the end of February and intrusions of cyclones from the south-west during the cold period of the year bring humid, tropical air from the Mediterranean and the Arabian seas, with heavy precipitation in Fergana Valley and on the slopes around it.

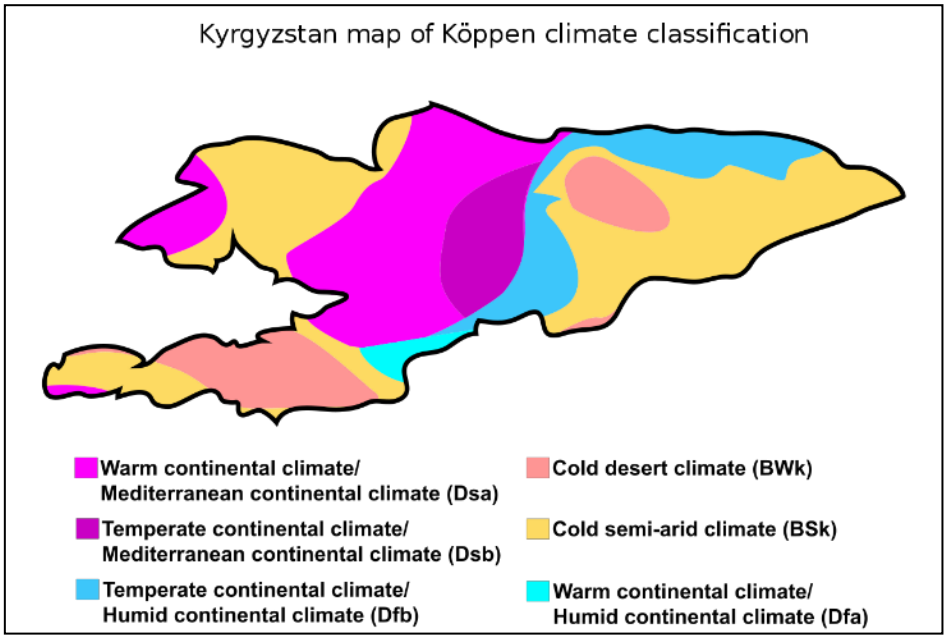

Figure 3. Climate classification of the Kyrgyz Republic.

The climate in the Batken Oblast is transitional from subtropical to temperate latitudes climate. High air temperatures during the warm season, drought by the end of summer and precipitation in the winter-spring period are features of the continental-type subtropical climate, but the colder winter than in the subtropics is characteristic of the temperate zone. Mountainous regions have a temperate climate. Annual amount of precipitation is 140-500 mm. Spring precipitation prevails. Unstable snow cover lies 1.5-2 months on average. The average height is 15-30 cm. The average annual air temperature is about 9^0C.

The duration of the period with average daily temperature below 0 in the lower part makes 70-80 days, at an altitude of about 2400 m above sea level it increases to 130 days. The average January temperature is -4 in the lower zone and -12 ... -13^0C at the altitude of about 2000 m above sea level, the average minimum temperature is -8 ... -9^0C in the lower zone and -12 ... -13^0C at an altitude of about 2000 m, the absolute minimum is -26 ... -28^0C of frost.

The duration of the warmest period with the average daily temperature above +10 makes 175-180 days at an altitude of 1100 - 1200 m; at an altitude of about 2000 m, it is reduced to 150-155 days; at 2400 m altitude, it reduces up to 135 days, at about 3000 m altitude of - up to 45 days. The average July temperature is 21 ... 22^0C, and at the altitude of about 2000 m above sea level is 18-19^0C. The average maximum temperature is 25-28^0C, the absolute maximum is 36 ... 37^0C in the lower zone, 32-33^0C at the altitude of about 2000 m above sea level.

Air quality. Batken oblast accounts for only 0.05% (0.22 thousand tons) of the total amount of emissions in Kyrgyzstan (437.48 thousand tons) (2013). The absence of industrial sources of air

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pollution in the territory suggests that the main sources of atmospheric air pollution in winter are the residential, private sector and vehicles. The lack of natural gas reserves and the shortage of electricity are the main reasons for the use of solid fuel, which has a relatively low caloric content and high ash content. Therefore, unaccounted classical pollutants are emitted into the atmosphere: dust, sulfur dioxide, nitrogen oxide and dioxide, carbon monoxide.

In Batken region, as well as in the whole country, emissions from transport sources account for about 90%. In addition, certain industries and all types of transport emit so-called specific substances into the atmosphere: formaldehyde, benz(a)ren, heavy metals, including lead. The growth in the number of road transport in recent years is characteristic of the cities of the republic as a whole and Batken city in particular. The poor quality of the road surface, lack of asphalted roads and failure to water the existing roads is the cause of increased dust content in the atmosphere. Partial dusting in dry windy weather from the dumps and tailings of the Khaidarkan mercury plant, which borders on the Batken district, is possible, which will contribute to local atmospheric pollution. The wastes stored in the tailings of the combine are classified as moderately hazardous, and the dumps are classified as low-hazardous by waste hazard class. There is no laboratory control over the quantity and quality of emitted gases from transport.

3.2.2. Hydrology and Water Resources

The hydrographic network belongs to the Syr Darya river basin, and it mainly fed by glacier-snow from the northern slopes of the Alay and Turkestan ridges and adjacent spurs. The main rivers are Ak-Suu, Kara-Suu, Kozy-Baglan, Isfara, Sokh, Shakhimardan (the highest discharge made 172 m^3/sec in July of 1977) and Isfayram-Sai (the highest discharge made 162 m^3/sec in July of 1945). The river runoff is partially distributed along the Batken Oblast irrigation network and canal, and is also regulated by the Tort-Gul reservoir, the rest of the river runoff enters the Syr-Darya River in the Fergana Valley. On the northern slopes of the Alai and Turkestan ranges, there are mountain lakes feeding the Ak-Suu, Sokh, Shakhimardan and Isfayram-Sai Rivers.

In the south of Kyrgyzstan, rivers flow mainly in narrow channels along the bottom of deep valleys. It should be noted that the bulk of water from these rivers is used outside the country, in the downstream of Uzbekistan and Tajikistan, and mainly enters the irrigation systems. It should be assumed that some watercourses freeze to the bottom during the winter, which negatively affects the formation of aquatic invertebrates and ichthyofauna. There are dry river beds, as well as temporary water bodies that accumulate water due to precipitation.

Water resources are represented by glaciers and snowfields, surface and underground water bodies. There are 1,024 glaciers on the northern slopes of the Alai and Turkestan ridges on the territory of Kyrgyzstan. As indicvated above, the main rivers of the region are Isfairam, Shakhimardan, Sokh, Isfara, Khojabakirgan and Aksu.

In hydrogeological terms, the area belongs to the Alai-Turkestan water region of the Fergana region. Artesian basins of the 40th latitudes (Shaymardan-Isfairam-Sai, Isfara-Isfana-Aidarken-Kara-Bulak, Batken) are located here. Groundwater formed on the territory of Kyrgyzstan is closely connected with surface flowing waters; in winter months, when other sources of supply are reduced, they become the main waters. Groundwater, especially the upper floor, is valuable for its purity and is widely used in providing water to cities and villages and for irrigation.

At present, observations of salinity, chemical composition and quality of river water in the area are not carried out by the Agency for Hydrometeorology.

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Basic information about the geomorphological and geological structure of the territory

Kadamjai Raion

The Raion occupies the mid-mountainous Shakhimardan-Isfayram depression (the absolute height of the depression bottom is 1100-2700 m), from the north it borders the Fergana Valley, from the south - the Alai ridge. Inside the Raion territory there are the Katyrang-Too, Teskey, Kuruk-Sai, Tekesekirdi-Bel, Kollektorsky and Yaruptus ridges with an average altitude of 3000 to 4400 m above sea level. In general, they have a similar structure: steep northern slopes, often dray. The southern slopes of the ridges are also steep and fortified with layers of limestone. Absolute heights rise from west to east. Ridge watersheds are often lined with remnants of ancient deviation surfaces. The relief is moderately dissected with small differences in elevation.

Batken Raion

The northern part of the Raion is located on the southern edge of the Fergana Valley; the rest is located in the Alai Range foothills and mountains.

The asymmetry of the latitudinal mountain ranges is clearly visible. Their southern slopes are short, steep, often rocky, impassable, cut by numerous short, often "hanging" valleys of streams. The northern slopes are gentler and extended, which makes them impassable. In the axial sections of the ridges, ancient surfaces of leveling have been preserved.

Leilek Raion

The Raion occupies the low-mountain Isfara-Isfan depression (the absolute elevation of the depression bottom is 900-1600 m), which borders the Fergana Valley in the north. The mountain ranges are laterally elongated. Due to the lithological features of the rocks that compose these orographic structures, the nature of the microrelief is sharply different.

A distinctive feature of the microrelief, which is formed in the mountains mainly by carbonate rocks, is pronounced structurally. Here, in their morphology, a "stepped structure" is clearly visible, and the lines of disjunctive dislocations, as a rule, mark the base of the "stSES". The ridge spines and individual sections of the slopes are practically inaccessible. Ravines are also impassable, the profile of which often resembles a canyon.

Sel-Unkur is a cave on the western outskirts of the Aydarken city in the Batken Oblast, at the foot of the Eshme-Too ridge. A section of the Stone Age was discovered in the cave. This is the only stratified object in the south of Kyrgyzstan, dating back to the Early Paleolithic.

3.2.3. Climate change and natural disasters

Climate change

Batken oblast is the most vulnerable to climate change in the Kyrgyz Republic[11]. According to projections river runoff will start to decrease after 2020-2025 and in the worst-case scenario of climate change may be reduced to 40% of the baseline level of 2000 by 2100. The situation is aggravated by inefficient water use practices for crop irrigation. Modeling and estimation of the

[11] Third National Communication of the Kyrgyz Republic under the UN Framework Convention on Climate Change, 2016.

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wetting coefficient has shown that Batken oblast has the highest vulnerability to climate change among all other oblasts of the country.

Natural disasters

In Batken oblast, 12 to 65 emergencies occur per year, with an average of 27-28. Emergencies caused by mudflows and floods account for 23.1%; landslides and rockfalls 5.6%; earthquakes 6.4%; avalanches 0.4%; dangerous meteorological phenomena 9.0%; technogenic accidents and large fires 5.7%.

Activation of mudflow and flood processes occurs when there is intensive melting of snow reserves over a large area (March-May); melting of glaciers and snowfields, abnormal temperatures in high mountain zone (June-August); heavy rainfall; precipitation during floods; breakthrough of high mountain lakes and water reservoirs.

The most dangerous valleys with possible occurrence of large floods, including those caused by lakes outbursts are Isfairam-Sai, Ak-Suu-Shakhimardan, Sokh, Karavshin-Isfara, Leilek-Ak-Suu.

Mudflows are caused by melting of seasonal snows, heavy rains, and moist mudflow-forming deposits. The mudflow hazard period starts in March and covers the whole warm part of the year, including September.

Wind, heavy and long rains, snowfalls, blizzards, ice, frost, hail and others, besides direct impact on infrastructure, may cause floods and mudflows, rockfalls and landslides, waterlogging and flooding of territories, lakes outburst. One of the most unfavorable weather phenomena during the growing season is late spring and early autumn frosts, which significantly reduce the duration of the growing season.

3.3. Land Use

At the beginning of 2019, there were 591,423 hectares of farmland in the Batken Oblast. Out of which, pastures make 482446 ha, arable land - 73946 ha, perennial plantations - 17441 ha, hayfields - 13,824 ha, and laylands - 3766 ha.

The most important problems in land use are soil erosion and salinization in improperly irrigated farmland. An estimated 60% of the Kyrgyz Republic's land is affected by topsoil loss, and 6% by salinization, both problems with more serious long-term than short-term effects. In addition, uncertain land tenure and overall financial insecurity have caused many private farmers to concentrate their capital in the traditional form—livestock—thus subjecting new land to overgrazing.

There is 57446 ha in the Batken Oblast: 14691 ha in the Batken Raion, 28434 ha - in the Kadamjai Raion- and 14321 ha in Leilek Raion.

The area subjected to overgrowing with reeds in the Batken raion makes 2113 hectares.

The main reasons causing the rise of groundwater and complicating the reclamation situation are as follows:

1. Filling the Tort-Gul reservoir above the design level.
2. Increasing the irrigation norms.

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3. Commissioning of new irrigated lands in the foothill zone without taking into account the reconstruction of drainage.
4. Damaged technical condition of 33 vertical drainage boreholes.

In the Kadamjai Raion, it is necessary to control the land reclamation state on an area of 400 hectares, where the GWL is at 1.5 - 2.0 meters level.

In the engineering-geological structure of the territory, one can distinguish rocks of the bedrock and Quaternary surface deposits. The bedrock consists of metamorphic and ancient sedimentary complexes, combined into rocky and semi-rocky soils. Outcrops of rocky and semi-rocky soils are observed in high- and medium-mountain zones, in which landslides, rockfalls, talus, and karst can develop.

Surface sediments are combined in the formations of mountain slopes, intermontane depressions represented by loose and cohesive soils, in which landslides, gully erosion, mudflows, solifluction, planar washout and subsidence and other processes are possible.

In Batken Oblast, from 12 to 65 emergencies occur per year, on average, their number is 27-28. Emergencies caused by mudflows and floods make 23.1%; by landslides and rockfalls is 5.6%; by earthquakes - 6.4%; as the result of avalanches- 0.4%; by dangerous meteorological phenomena - 9.0%; man-made accidents and large fires - 5.7%.

Earthquakes. Earthquakes, in addition to direct impact on buildings, structures, communications, are often accompanied by secondary impacts, such as landslides, avalanches, rockfalls, formation of dammed lakes, destruction of dams, fires and other phenomena.

3.4. Biological Environment

3.4.1. Flora and Fauna

The Kyrgyz Republic is characterized by a high level of plant biodiversity, with a plant concentration from two to three times higher than in other Central Asian countries, with 3,786 higher plant species and 3,600 lower plant species registered. Eighty-nine plant species growing in the country were included in the Red Book in 2005.

On the territory of the Batken Oblast, there are numerous valuable for science rare and endemic plant species, which are characteristic for the Alai, Turkestan ridges and the Fergana Valley. They are juniper forests, shrubs, meadows.

Plant species in the Batken Oblast of the Kyrgyz Republic that are listed in the Red Book:

- Aigul flower;
- Tulip allied;
- Korolkov Tulip;
- Pink tulip;
- Larkspur Knorring;
- Dymyanochka Turkestan;
- Rhodiola Litvinova;
- Olga's false spirea;
- Bladderpod short-winged;
- Kozopolyanskaya fluffy;
- Small-size dorema;
- Akontolimon coriaceous;
- Skullcap catnip;
- Alai bladderpod;
- Nataliela Alayskaya;
- Olga's Incarvillea;
- Trichantemis golden.

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Vertebrates listed in the Red Book live in the south of Kyrgyzstan, including in the Batken Oblast.

Reptiles:
- Central Asian turtle;
- Said-Aliyev's round head;
- gray monitor lizard;
- Balkan glass-snake;
- Tatary sand boa.

Birds:
- White stork;
- lesser kestrel;
- barbary falcon;
- bearded vulture;
- vulture;
- Himalayan vulture;
- griffon vulture;
- European black vulture;
- snake eagle;
- golden eagle;
- owl;
- paradise flycatcher.

Mammals:
- Pamir horseshoe bats;
- small horseshoe bats;
- Asian barbastelle;
- European free-tailed bat;
- porcupine.

All forms of anthropogenic impact directly or indirectly affect the flora and fauna. Each animal perceives in its own way the changes that occur on earth as a result of human activity, and what is good for some turns out to be destructive for others. The indicative features of animals make it possible to use them to assess the state, control, and determine the regional variability of natural ecosystems under the influence of an anthropogenic factor. The activity of nature protection authorities and strict control over the observance of national environmental legislation and international organization standards will ensure the preservation of animal world objects, in particular, very rare and listed in the Red Book species.

3.4.2. Specially Protected Areas

Specially protected natural areas of Kyrgyzstan occupy 1,476,121.6 hectares and make 7.38% of the total country area (2017). They include:
10 reserves (IUCN category I),
13 - natural national parks (IUCN Category II),
19 – natural monuments (IUCN Category III),
45 – nature reserves to control habitats and species, including:
- 23 - botanical reserves,
- 8 - forest reserves,
- 12 - hunting (zoological) reserves,
- 2 - complex reserves, (IUCN Category IV).

Specially protected areas on the project territory. There is one State Reserve in the Batken Oblast, it is Sumartash State Natural Reserve. In addition, there is the Sarkent National Natural Park, the Sulukta Botanical Nature Reserve.

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3.5. Socio-economic Background

Batken oblast was established on October 12, 1999[12] by the law of the Kyrgyz Republic, "On Establishing the Batken Oblast of the Kyrgyz Republic", from the westernmost section of Osh oblast within the administrative boundaries of Batken, Kadamjai, Leilek Raions and Kyzyl-iya city of Osh Oblast. The administrative center of the newly formed Oblast was Batken Village, which on February 18, 2001 was granted the status of the city within the administrative boundaries of 4 villages: Batken, Bazar-Bashi, Kyzyl-Zhol and Bulak-Bashi. The armed conflict on the border in 1999 served as an impetus to establish the separate Oblast, strengthening of the country's external borders and the socio-economic development of this remote and backward region.

3.5.1. Geographical position and administrative-territorial structure

Batken region is located in the south-west of the country, in the east it borders on the Osh Oblast, in the south-west and north on the Republic of Tajikistan, in the north-east on the Republic of Uzbekistan.

The Oblast territory is divided into 3 administrative-territorial raions: Batken, Kadamjai, Leilek [13] (Fig. 2).

There are 6 cities in the region - of which Kyzyl-Kiya, Batken, Sulukta are cities of regional significance, Isfana, Aydarken, Kadamjai are of district significance, 1 urban-type settlement, 32 aiyl aimaks (AA) and 201 rural settlements[14]

Table 4. Administrative and territorial structure of Batken Oblast

District	Area (km^2)	Number of administrative territorial units				
		Cities		Urban-type Villages	Aiyl Aimaks	The actual number of villages on the place
		Total	Including cities of Oblast significance			
Batken Oblast	17048	6	3	1	32	198
Batken City	205	1	1	-	-	3
Kyzyl-Kiya City	78	1	1	-	-	3
Sulyukta City	18	1	1	1	-	1
Raions						
Batken	5948	-	-	-	9	45
Leilek	6146	2	-	-	13	107
Kadamjai	4653	1	-	-	9	47

[12] http://cbd.minjust.gov.kg/act/view/ru-ru/273?cl=ru-ru

[13] http://www.stat.kg/ru/batkenskaya-oblast/

[14] Source: National Statistic Committee of the KR

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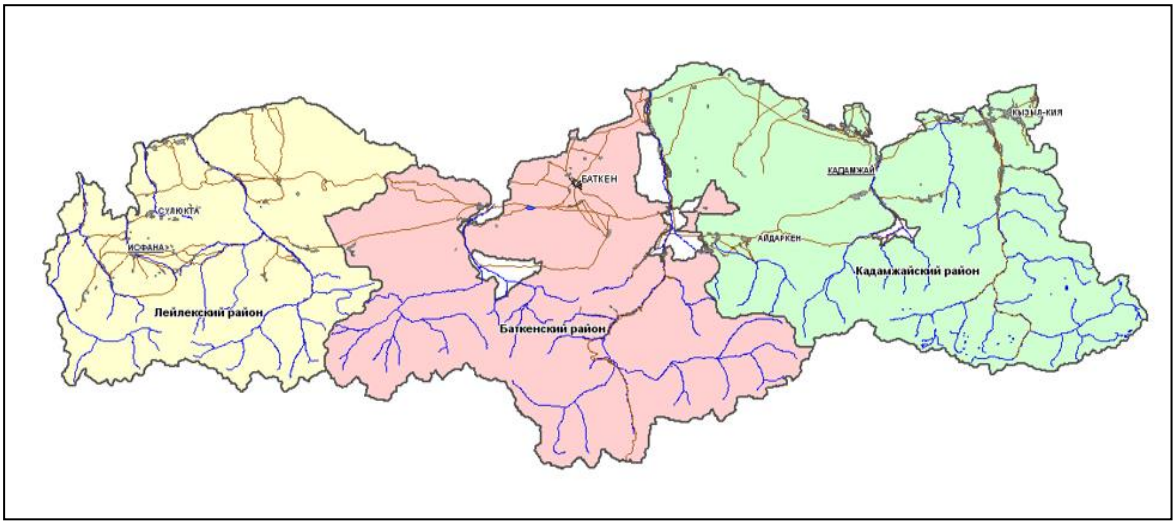
Figure 4. Administrative and territorial map of Batken Oblast



Batken raion: located in the central part of the Batken Oblast of the Kyrgyz Republic. The northern part of the raion is located within the southern outskirts of the Fergana Valley, the rest is located in the foothill and mountainous parts of the Alai Range. In the west it borders on the Leilek raion, in the east - on the Kadamjai raion of the Batken Oblast of the Kyrgyz Republic, in the south and north – with Tajikistan, in the north and east – with Uzbekistan (mainly with Sokh exclave). There is also an exclave of Tajikistan - Vorukh inside the raion.

Leilek raion: In the east it borders on the Batken Raion of the Batken Oblast of the Kyrgyz Republic, in the north, west and south it borders with Tajikistan. Administrative center is Isfana City.

Kadamjai raion: In the west it borders on the Sokh area - exclave of Uzbekistan and Batken raion of the Batken Oblast, in the east and south – with the Osh Oblast Kyrgyz Republic , in the north - with the Fergana raion of the Fergana Oblast of Uzbekistan.

The raion also surrounds the territory – exclave of Uzbekistan - Shakhimardan (Erdan or Yourdan), which belongs to the Fergana Raion of the Fergana Oblast of Uzbekistan.

Enclaves and exclaves in Batken Oblast[15]

During Soviet times, six enclaves and exclaves had been established in the Batken Oblast.

Sokh is the exclave of Uzbekistan, located about 24 kilometers to the east from Batken. Being the largest exclaves, it has an area of ~ 234 km², stretches from 3 to 13 kilometers from east to west and about 35 kilometers from north to south, and it is crossed by the main highway from Batken to Osh. Tajiks make up 99% of the population, which in 1993 made 42,800 people.

Chon-Gara and Kalacha, located immediately north of Sokh are two Uzbek villages in a very small enclave that sits on the Sokh River. It is 2 kilometers long, 1 kilometer wide, and an area of about

[15]https://ru.wikipedia.org/wiki/%D0%91%D0%B0%D1%82%D0%BA%D0%B5%D0%BD%D1%81%D0%BA%D0%B0%D1%8F_%D0%BE%D0%B1%D0%BB%D0%B0%D1%81%D1%82%D1%8C

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3 km². It is part of the Sokh district of the Fergana Oblast. The Chon-Gara and Kalacha villages are at both ends. The Kyrgyz Chon-Kara village is located two kilometers to the northwest.

Djangil (also Djangy – Aiyl or Khalmion) is a small exclave of Uzbekistan, located about 60 kilometers east of Batken and within 1 kilometer of the main Uzbek border. Its dimensions are only 2-3 kilometers far and wide.

Zapadnaya Kalacha is a very small exclave of Tajikistan, located in the northwestern part of the region, near the Kairagach railway station, therefore it is sometimes called "Kairagach". About 130 kilometers to the west of Batken

Shakhimardan, or Shokhimordon, is an exclave of Uzbekistan, about 80 kilometers east of Batken and 19 kilometers south of the Uzbek border. Its area is ~ 38.2 km², and the population in 1993 was 5100 people. Uzbeks make up 91% of the population/

Vorukh is the exclave of Tajikistan, with an area of about 96.7 km², located 45 kilometers south of Isfara and 24 kilometers south-west of Batken, on the right bank of the Ak-Suu River.

3.5.2. Basic socio-economic indicators

According to the NSC estimates[16], the resident population of the Kyrgyz Republic made 6 636 803 people, including 3 342 669 women or 50.36% as at the beginning of 2021, compared to 6,523,529 people in 2020. Life expectancy at birth makes 66 years for men, compared with 74 years for women. One third of the population (34%) lives in cities and two thirds (66%) in rural areas. The average population density in the country is 31/km^2 (NSC 2016a).

Table 5. Crude births, deaths and natural population growth rates

	Number of births		***Number of death***		***Natural population growth***	
	2020	**2021**	**2020**	**2021**	**2020**	**2021**
Kyrgyz Republic	22,9	22,9	5,7	5,8	17,2	17,1
Batken Oblast	25,1	24,0	4,7	4,9	20,4	19,1

Table 6. Basic socio-economic indicators

Name	**Indicators**	
Population density, people/km ^{2}	**32**	
Resident population as of 01.01.2021[17]:		
Batken Oblast,	**548 247, including**	
	men	women
Including	279 225	269 022
Cities of Oblast significance		
Batken city, including villages within the city	27 730	
Kyzyl-Kiya city, including villages within the city	56 819	
Sulukta city, including villages and Vostochnyi Uban-type village	24 238	
Raions, including cities of regional significance		
Batken Raion	91 983	

[16] As of January-August 2021

[17] Source: National Statistic Committee of the KR: http://www.stat.kg/ru/statistics/naselenie/

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Leilek Raion:	146 020	
Isfana City including villages within the city	34 219	
Kadamjai Raion:	201 457	
Kadamjai City, including villages	14 049	
Aidarken City	12 032	
Ethnic composition, %	Kyrgyz	76,5
	Uzbeks	14,7
	Tajiks	6,9
	other ethnic groups	1,9
Poverty rate at the end 2020, in %	34,7	
	men	women
	35,1	34,3
The number of educational organizations in the Oblast, as of the end of 2020		
pre-school organizations	187	
comprehensive secondary schools	248	
for kids with special needs	2	
educational organizations with initial vocational education	10	
educational organizations of vocational secondary education	10	
educational organizations of higher vocational education	1	
Number of medical institutions in the Oblast[18]		
Hospitals	No data	
medical facilities	No data	
Family Medical Centers (FMC)	No data	
Family Doctors Groups (FDG)	No data	
Medical and obstetrical points	No data	
First-aid stations	No data	
Child care centers	No data	
Infrastructure		
Transport	motor roads, km	No data
	railway roads, km	No data
	airports, No.	Batken -1 Isfana- 1
Social infrastructure	water supply networks	n/a
	sewerage	n/a
Small And Medium-Sized Entrepreneurship, 2021	small enterprises	1087
	medium-size enterprises	395
	large enterprises	123
	Individual entrepreneurs	36 185
	Peasant farms/husbandry farms	32182
Tourist infrastructure[19]	“Dugaba” Touristic Base	
	“Ak-Suu” Touristic Base	
	“Ozgorush” Touristic Base	

[18] Data is not publicly available

[19] Source: Digest "Tourism potential of Batken, Osh and Jalal-Abad Oblasts of the Kyrgyz Republic"

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	Hotels, hostels, guest houses are concentrated in cities Public catering facilities are available
Historical and cultural tourism [20]	Sarkent National park
	Surma- Tash State Natural Reserve
	Sary-Too Mountain Mass
	Aigul-Too mountain
	Ai-Kol lake
	Karavshin gorge
	Kan-and-Gut Fortress
	Kan Karst Cave
Internet and mobile communications	Communication service providers - 4, including KyrgyzTelecom

Poverty rate. Batken Oblast ranks[21] third in terms of poverty after Jalal-Abad and Naryn Oblasts, and poverty rate makes 34.7% compared to the country rate -25.7%.

Table 7. Summary table of Aiyl Aimaks and population[22] at the beginning of 2021.

Raion	**Batken**	**Number of Population**	**Leilek**	**Number of Population**	**Kadamjai**	**Number of Population**
Aiyl Aimak	Dara	11 282	Ак-Suu	7 741	Ak-Turpak	16 773
	Tor-Gul	7862	Beshkent	12 770	Alga	9 405
	Kara-Bak	20 608	Margun	5 452	Birlik	14 046
	Kara-Bulak	15 125	Djany-Djer	14 848	A. Masaliev	14 890
	Kyshtut	10 310	Leilek	8 065	Kotormo	11 029
	Samarkandek	13 664	Kulundu	27 007	Maidan	14и370
	Ak-Sai	8 999	Sumbulinskyi	16 337	Markaz	16 014
	Ак -Tatyr	8 131	Toguz-Bulak	10 937	Orozbekov	13 779
	Suu-Bashi	7 269	Katran	10 531	Uch-Korgon	36 167
					Khalmion	21 025
					Kyrgyz-Kyshtak	9599
					Sovetskyi	1502
					Chauvai	1636
Total: 32 AA	**9**		**9**		**14**	

Table 8. Dynamics of external migration outflow [23]

	2016	**2017**	**2018**	**2019**	**2020**
Kyrgyz Republic	-3 965	-3 925	-5 390	-6 160	-4 861
Batken Oblast	-69	-68	-228	-315	-73

[20] https://ru.sputnik.kg/longread/20170725/1034439363/turisticheskij-putevoditel-po-dzhalal-abadskoj-oblasti.html
[21] http://www.stat.kg/media/publicationarchive/27bf7b42-dfee-44e0-9698-864275e6b3b3.pdf
[22] http://www.stat.kg/ru/statistics/naselenie/
[23] http://www.stat.kg/ru/opendata/category/41/

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A negative migration balance in the Oblast has been observed, decline in the indicator in 2020 can be associated with the COVID 19 pandemic situation- quarantine measures, decline in general business activity around the world, including in host countries.

3.5.3. Economy

Agriculture is certainly the most important source of livelihood in the Kyrgyz Republic, it accounts for a third of GDP, and two-thirds of the population is employed in it. Industrial processing, the second most productive sector, is also strongly dependent on the agricultural sector in terms of raw materials (GFDRR 2014). Significant items are agriculture, forestry, and fishing.

As of January 1, 2018, more than 429 thousand active business entities working in the field of agriculture, forestry and fishing were registered in the country. Out of which, about 323 thousand or 75.4% of the total number of such enterprises accounted for peasant (farm) enterprises, 105 thousand enterprises or 24.6% of individual entrepreneurs are engaged in agricultural production. A significant number of such economic entities are in Osh oblast - 116.5 thousand, or 27.2 % of the total, in Jalal-Abad oblast - 98.8 thousand or 23.0%, in Chui oblast - 65.5 thousand or 15.3 %.

At the beginning of 2019, there were 591,423 hectares of agricultural lands in the Batken Oblast. Out of which, pastures make 482446 ha, arable lands - 73946 ha, perennial plantations - 17441 ha, hayfields - 13,824 ha, and laylands - 3766 ha.

Table 9. Agricultural land area, ha

	2015	2016	2017	2018	2019
Agricultural lands – in total	592 038,0	591 930,0	591 890,0	591 876,0	591 423,0
arable lands	73 817,0	73 886,0	73 936,0	73 946,0	73 946,0
perennial plantations	17 195,0	17 247,0	17 356,0	17 448,0	17 441,0
Laylands	3 728,0	3 728,0	3 728,0	3 766,0	3 766,0
Hayfields	13 615,0	13 615,0	13 615,0	13 617,0	13 824,0
Pastures	483 683,0	483 454,0	483 255,0	483 099,0	482 446,0

In 2018 the index of physical volume of production of agriculture, hunting and forestry products made 104.3 percent.

The volume of gross output of agriculture, hunting and forestry made KGS 15636.1 mln in 2018. The index of physical volume of agricultural production in comparison with the previous year amounted to 100.2 percent. In total volume of gross output of agricultural, hunting and forestry products in 2018 the share of crop production made 50.0 percent, livestock - 47.2 percent, hunting and forestry and agricultural services - 2.8 percent.

In the gross agricultural output in 2019, the share of peasant (farm) households amounted to 61.8 percent, individual population households - 35.3 percent, state and collective farms - 0.2 percent, hunting and forestry - 0.1 percent, services rendered to agriculture - 2,6 percent.

Grain production (in weight after processing) in total in Oblast in 2019 made 106,539.0 tons, which is more by 8.8 percent than in 2015. Production of potato made 39343.8 tons, which is more by 13.3 percent than in 2015, vegetables - 59725.7 tons, increasing by 14.7 percent, grapes made 3841.2 tons, which is more by 4.5 times than in 2015, and raw cotton (in test weight) - 107.3 tons, which is by 2.6 times more than in 2015, fruits and berries - 68597.6 tons, which is by 55.1 percent more than in 2015.

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Table 10. Production of basic agricultural products, tons

	2015	2016	2017	2018	2019
	97 930,3	97 102,8	100 030,4	98 400,4	106 539,0
All categories of farms					
Grain (in weight after processing)	97 930,3	97 102,8	100 030,4	98 400,4	106 539,0
Cotton	42,0	7,0	23,7	93,0	107,3
Tobacco	613,6	317,5	335,5	349,7	378,1
Potato	34 712,7	36 522,5	37 468,5	38 221,0	39 343,8
Vegetables	52 071,7	55 272,7	56 354,2	58 245,3	59 725,7
Watermelon plantation	2 337,0	2 502,0	2 946,0	3 118,6	3 198,0
Fruits and berries	44 226,1	57 829,2	55 694,9	64 345,5	68 597,6
Grapes	853,5	3 672,1	3 711,7	3 780,6	3 841,2
Meat (live weight)	28 639,8	28 848,9	29 116,7	29 718,6	30 524,1
Meat (slaughter weight)	15 246,3	13 839,1	14 244,7	14 538,9	13 841,0
Raw milk	96 316,8	96 252,7	96 540,9	100 542,8	103 958,3
Eggs, thous, pcs	21 422,0	21 585,5	21 803,9	22 350,5	22 832,9
Wool (in physical weight)	673,5	680,2	689,9	690,2	696,6
Honey	12,5	-	-	-	-

In 2019, farms of all categories produced 30,524.1 tons of meat (in live weight), which is by 6.5 percent more than in 2015. Of the total volume of meat produced, 69.5% accounted for beef, 22.5% - lamb, 2.5% horse meat, 5.5% - poultry meat. Total volume of milk produced made 103,958.3, which is by 7.9 percent more than in 2015. In 2019 average annual milk yield per cow amounted to 1429.9 kg, which is by 47.1 kg less than in 2015. Cow's milk accounts for 100 percent of the total milk production.

In 2019 a volume of sheared wool made 696.6 tons. Out of total amount, 79.8 percent accounted for sheep wool. The average annual shear of wool from one sheep was 1.8 kg.

In 2019, 22832.9 thousand pieces of eggs had been received, the average annual egg production of one hen - laying hens on average in the Oblast made 113 pieces.

At the end of 2019, total heads of cattle in farms of all categories made 151419, which is by 22301 heads or 14.7 percent more than at the end of 2015. The number of sheep and goats for the same period was increased by 32109 heads or by 6.3 percent and amounted to 511955 heads, the number of poultry was increased by 12248 heads (by 4.3 percent), horses - by 1063 heads (by 13.4 percent). At the same time, number of pigs was decreased by 35.3 percent

Source: "Annual publication on socio-economic development of Batken Oblast 2015 - 2019" by the Batken Oblast State Statistics Department

Entrepreneurship in the Oblast is concentrated mainly in agriculture, which is characterized by small-scale production of cereals, potatoes, fruit and berry and vegetable products. Apricot, "cocoon gilyas" cherry and Batken rice have become a brand for local agricultural products, the products are in high demand and have the potential to increase production.

Business entities are mostly represented by small and individual entrepreneurship, large business entities - 123[24] - had been not identified at the time of writing.

[24] Source: Monthly Publication January- September 2021, National Statistic Committee

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Tourism is a promising sector for economic development in the KR because of its ability to generate jobs and income, and because it is one of the few industries that has expanded in the post-independence era. The KR in general and the Batken Oblast in particular have significant tourism potential due to a combination of natural resources, diversified landscapes, and unique cultural heritage. However, currently this potential is only partially exploited due to (i) the remoteness of the country from major markets and limited access to regional markets; (ii) underdeveloped transport and tourism infrastructure; and (iii) insufficient hospitality skills and marketing efforts.

Batken Oblast is located in the southern foothill part of the Fergana Valley. The Kyrgyz Republic lowest point is located in this area, 401 m above sea level (for comparison, the highest point of Pobeda Peak is 7439 m). Here tourists are attracted by horseback riding, speleotourism, mountaineering, rafting, cultural tours. Interesting places to visit in Batken Oblast are Ai-Kol lake, Sarkent National Park, Sary-Too mountains, Karavshin gorge, Kan-and-Gut cave, Kan fortress, blooming of the Aigul flower (Edward's fritillary), which blooms once a year in April and only two weeks. The flower grows only in this area and nowhere else in the world.

There are 17 institutions and enterprises of recreation and tourism in the Oblast, 16 of them are non-governmental, more than 20 thousand visitors visit it. In 2019, the number of tourists was 23,276 people, 612 of which are CIS citizens and 81 people were outside the CIS. The number of tourists was increased by 87.0 percent compared to 2015.

In 2019, 752 people had the rest in 3 institutions of specialized accommodation facilities, including 452 children rested in children's health centers.

In terms of financial indicators, Table 11 presents the revenues of tourism firms for 2015 with breakdown direction and location. It is obvious that tour operators and travel agencies are most active in the Bishkek capital city and Issyk-Kul oblast, accounting for 63.4% and 31.6% of total revenues respectively, where the share of Batken Oblast revenues is insignificant.

Table 11. Revenue by type of service and location in 2015, KGS, mln

	Touristic firms	**Resorts, sanatoriums, other objects**	**Hotels and guest houses**	**Restaurants, cafes**	**Total amount**
Bishkek City	860,9	-	2.532.2	4.264.5	7,657.6
Osh City	**52,3**	**5,3**	**100,4**	**992,7**	**1,150.7**
Issyk-Kul Oblast	429,1	648,1	360,5	223,3	1,661.0
Chui Oblast	6,1	28,1	35,4	610,6	680,2
Naryn Oblast	2,2	2,6	11,5	32,9	49,2
Osh oblast	**3.0**	**18,9**	**12,8**	**498,9**	**533,6**
Batken Oblast	-	-	10,1	368,4	378,5
Talas Oblast	3,3	-	33,5	109,7	146,5
Total amount	1,356.9	769,3	3,211.8	8,312.9	13,650.9

Source: KNSC, 2016. Tourism in the Kyrgyz Republic, 2011-2015

3.5.4. Socio-economic and gender analysis

Demography

As of 2021, there were 6 cities, 1 urban-type settlement and 216 villages in the Batken region. The resident population of the Batken region from the beginning of 2021 is 548.247 thousand people.

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During 2015-2019 there was an increase in the resident population by 44.7 thousand people, or an increase by 9.1 %.

The birth rate of the population had a significant impact on the increase in the total population of the region. In 2019, 15.5 thousand people were born in the region, or 2.9 percent of the population. The birth rate in 2019 is 29.1 births per 1000 population.

In recent years, there has been a decrease in the share of migration, in 2015 the migration outflow amounted to -114, and in 2019 -313. However, there is still a high proportion of emigrants.

In 2019, 2,357 people died in the region, while the mortality rate has been decreasing over the past five years.

Life expectancy at birth for men is 68.7 years and for women 73.8 years, that is the life expectancy for men is 5 years less than for women.

The birth rate and mortality rate affect the formation of the age-sex structure of the population. The population of Batken region is demographically young: at the beginning of 2020. Children and adolescents accounted for 36.8 percent of the total population, 56.4 percent for people of working age and 6.8 percent for people over working age (while people over working age increased by 5.9 percent over the year).

Diseases of the circulatory system remain the main cause of death of the population (56.7 percent of all deaths in 2019), respiratory diseases (5.7 percent), injuries, poisoning and some other consequences of external causes (6.7 percent), infectious and parasitic diseases (2.0 percent), diseases of the digestive system (4.3 percent), neoplasms (8.4 percent).

In recent years, there have been changes in marriage and family relations: the number of registered marriages decreases annually from 9.5 per 1000 population in 2015. by 9.2 in 2019, and divorces in 2015 were 1.2, in 2019 per 1000 population was 1.5 percent.

The high-mountainous areas of the Batken region are the region of traditional residence of the Kyrgyz - nomads and pastoralists, who constitute the absolute majority of the region's population. But due to its border location next to Uzbekistan and Tajikistan, the region has a high proportion of various ethno-linguistic minorities.

In mountainous areas, the population density is low; it is much higher in the valleys and at the state border. The region is characterized by a high birth rate, low mortality, high natural increase and a significant level of emigration in the last decade.

Table 12. Ethnic composition.

	2015	**2016**	**2017**	**2018**	**2019**
All nationalities	**492 594**	**503 514**	**513 592**	**525 125**	**537 365**
including:					
Kyrgyz	379 744	388 591	396 698	405 831	415 573
Belarusians	1	1	1	1	1
Georgians	95	95	98	99	101
Dungans	4	3	3	3	3
Jews	3	3	3	3	3

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Kazakhs	177	182	187	184	191
Koreans	63	61	61	54	52
Latvians	5	5	5	5	5
Moldovans	12	12	12	12	12
Germans	11	11	11	10	8
Russians	2 579	2 509	2 451	2 366	2 289
Tajiks	33 847	34 537	35 265	36 036	36 906
Tatars	1 505	1 492	1 477	1 447	1 410
Turks	867	868	870	894	903
Turkmens	66	66	67	67	66
Uzbeks	72 202	73 650	74 954	76 670	78 325
Uyghurs	317	339	345	355	365
Ukrainians	41	33	29	27	29
Chechens	48	50	51	50	49
Estonians	1	1	1	1	1
Armenians	13	12	12	14	15
Azerbaijan	37	35	37	38	36
other nationalities	956	958	954	958	1 022

Table 13. Resident population by sex, age groups, urban and rural population

	2015	**2016**	**2017**	**2018**	**2019**
All population	**492 594**	**503 514**	**513 592**	**525 125**	**537 365**
including age, years:					
less than 1	15 082	14 135	13 277	14 718	15 288
16	79 526	82 911	83 872	84 024	85 204
7 – 15	80 305	82 932	87 630	92 450	97 496
men and women 0-15	174 913	179 978	184 779	191 192	197 988
men 16-62,	150 510	153 435	155 660	157 844	160 026
women 16-57	137 903	139 392	140 647	141 553	142 781
men 63 and more,	9 917	10 167	10 647	11 271	11 932
women 58 and over	19 351	20 542	21 859	23 265	24 638
65 and older	18 042	18 585	19 522	20 395	21 592
Urban population	**116 207**	**118 718**	**121 151**	**123 972**	**127 219**
including age, years:					
less than 1	3 600	3 352	2 922	3 193	3 366
16	21 578	22 314	22 366	22 275	20 865
7 – 15	17 130	18 057	19 616	20 883	23 682
men and women 0-15	42 308	43 723	44 905	46 351	47 913
men 16-62,	34 104	34 661	35 094	35 569	36 102
women 16-57	33 024	33 222	33 586	33 957	34 683
men 63 and more,	2 024	2 066	2 202	2 380	2 499
women 58 and over	4 747	5 046	5 365	5 715	6 022
65 and older	3 996	4 064	4 284	4 526	4 800
Rural population	**376 387**	**384 796**	**392 441**	**401 153**	**410 146**
including age, years:					
less than 1	11 482	10 783	10 355	11 525	11 922
16	57 948	60 597	61 506	61 749	64 339
7 – 15	63 175	64 875	68 014	71 567	73 814

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men and women 0-15	132 605	136 255	139 875	144 841	150 075
men 16-62,	116 406	118 774	120 566	122 275	123 924
women 16-57	104 879	106 170	107 061	107 596	108 098
men 63 and more,	7 893	8 101	8 445	8 891	9 433
women 58 and over	14 604	15 496	16 494	17 550	18 616
65 and older	14 046	14 521	15 238	15 869	16 792

Income

For the period from 2015 to 2019, a noticeable increase in the main indicators of the standard of living of the population can be traced in the social sphere. So, in 2015-2019 the average income per capita of the population increased by 1.5 times, and amounted to an average of 5346.54 soms per capita per month in 2019. The ratio of the income level of per capita to the average republican income was 94.1 percent. Access to clean water is increasing from 73.3 percent in 2015 to 80.5 percent in 2019. The value of the subsistence minimum in 2019 amounted to 4498.6 soms on average per capita per month, and compared to 2015 it decreased by 12.4 percent. At the same time, the change in the value of the subsistence minimum depends on fluctuations in prices for the main types of food. The poverty level of the population of the region was 32.6 percent in 2019 and, compared to 2015, decreased by 8.6 percent. The extreme poverty rate has been reduced from 4.0 percent in 2015, up to 0.3 percent in 2019.

Table 14 shows the average monthly income and expenses per person for 2019 (poor and non-poor) in Batken region.

Table 14. Monthly Incomes in Batken Oblast

Year	Monthly Income per Person in Batken Oblast (in KGS)		Monthly Expenditure per Person in Batken Oblast (in KGS)	
	Batken Oblast	**Kyrgyz Rep.**	**Batken Oblast**	**Kyrgyz Rep.**
oor	7258,6	5898,2	4034,0	3589,9
on-poor	3356,6	3264,2	1839,7	1826,9

Source: National Statistical Committee, level of standards of living 2015-2019

The National Statistical Committee has registered the following poverty levels for 2019 for Batken Oblast and for the national level.

Table 15. Levels of Poverty, 2019 Batken Oblast and National Figures[25]

Year	Batken Oblast			Kyrgyz Republic		
	Urban	**Rural**	**Total**	**Urban**	**Rural**	**Total**
2019	23,8%	36,2%	32,6%	14,7%	23,2%	20,1%

Source: National Statistical Committee

The poverty level in 2019 compared to previous years reduced by 1,2 %.

[25] Information obtained from National Statistical Committee of the Kyrgyz Republic. This has been published in the document: Poverty Level of the Population of the Kyrgyz Republic 2007-2010, 2013 ("Sbornik").

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The Kyrgyz Republic's HDI value and rank. The Kyrgyz Republic's HDI value for 2017 is 0.672— which put the country in the medium human development category—positioning it at 122 out of 189 countries and territories. Between 1990 and 2017, the Kyrgyz Republic's HDI value increased from 0.618 to 0.672, an increase of 8.8 percent. A reviews the Kyrgyz Republic's progress in each of the HDI indicators. Between 1990 and 2017, the Kyrgyz Republic's life expectancy at birth increased by 4.8 years, mean years of schooling increased by 2.3 years and expected years of schooling increased by 1.4 years. The Kyrgyz Republic's GNI per capita decreased by about 4.8 percent between 1990 and 2017[26].

Gender and labor

Kyrgyzstan demonstrates its commitment to addressing gender issues by joining the Beijing Platform for Action, having ratified a number of international conventions, including the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and signed the Millennium Declaration. The consequence of this was the adoption by the state of international political and legal obligations, including the need for periodic reporting by the Kyrgyz Republic to the UN treaty bodies.

The country has created and is developing a regulatory and legal framework, adopted such fundamental laws as "On State Guarantees for Ensuring Equal Rights and Opportunities for Men and Women,".
In 2012, for the first time, a long-term National Strategy for Achieving Gender Equality until 2020 was developed and adopted (approved by the Government of the Kyrgyz Republic No. 443 dated June 27, 2012), which was determined by the need to strengthen gender policy mechanisms in the context of deepening social inequality caused by the political and economic crisis of recent years.

But, despite the measures taken by the state in the field of regulatory and legal support, given the developed civil society and a large number of NGOs (non-profit expert organizations) specializing in gender issues, the practical implementation of accepted norms and international obligations is still problematic.

In the Kyrgyz Republic, gender-disaggregated statistical records are being maintained, on the basis of which the "Women and Men of the Kyrgyz Republic" collection is published annually. According to statistics, the proportion of the total number of workers, women make up 31% in the Kyrgyz Republic, in the Batken oblast -23.9%. Although women contribute to the development of agriculture, and there are no restrictive legal barriers, the share of women-leaders in agriculture - 21.2% in the Kyrgyz Republic, in Batken oblast - 19.5%.

Gender-based violence (GBV) In addition, numerous studies and statistics confirm the fact that women are being pushed out of the sphere of government / politics, and new cultural norms and stereotypes have appeared in everyday life that degrade women's dignity - the Institute of "Younger Wives", "Ala Kachuu" - kidnapping of girls for the purpose of forced marriage, early marriage, and forced wearing of the hijab. Every year, the public is shocked by cases of physical violence against women, including deaths.
The project will promote the involvement of women and help to reduce gender gaps such as - low technical business skills and limited access to finance under Component 4 - through targeted capacity building in developing business plans and prioritizing financial support.

[26] http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/KGZ.pdf

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And also contribute to the reduction of gender stereotypes in the agricultural sector by developing and disseminating gender-sensitive information products that do not restrict women to specific gender roles and social expectations.

In the field of employment, through the development of an LMP, following the provisions of the ESS2, which will stipulate the requirement for employment to respect the norms of non-discrimination and equality in employment, equal pay for equal work, decent working conditions and health and safety standards, taking into account the needs of women and men.

The risks of gender-based violence will be mitigated through the development of ESMPs, which will include codes / standards of conduct for construction contractors.

3.6. Cultural heritage

WB ESS8 on Cultural Heritage recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. People identify with cultural heritage as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. In its many manifestations, cultural heritage is important as a source of valuable scientific and historical information, an economic and social asset for development, and an integral part of people's cultural identity and practice. ESS8 sets out measures to protect cultural heritage throughout the project life cycle.

As for the Human Development Index[27]. the Kyrgyz Republic ranks 120th out of 189 countries and is characterized by average HDI in the following categories: low, medium, high, very high.

According to experts, one of the most promising regions to create a Geopark in Kyrgyzstan is the Batken Oblast. Within the territory some objects are a natural heritage of world significance.

World Heritage is monuments, ensembles and sites of outstanding universal value, that is, a value "so exceptional that it transcends national boundaries and represents a universal value for present and future generations of all mankind."

Such objects on the territory of Batken Oblast are geological sections reflecting the continuous course of the geological Earth history. These sections are distinguished by the presence of a complete continuous boundary between some geological formations (layers) of the Paleozoic period. Such structure of the sections creates all conditions to be included in the list of world natural heritage, and from the geological point of view, these places have every reason to get the "Golden Nail" - a reference geological section, or a stratigraphic boundary between geological layers of different ages.

This continuous boundary makes it possible to reconstruct without gaps the geological evolution of the region where the section with the "Golden Nail" is located.

In addition to unique geological sections, outstanding geological objects are located on the territory of the region, forming landscapes of a very aesthetic appearance.

[27] https://gtmarket.ru/ratings/human-development-indexhttps

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In this regard, the Tien Shan Geological Society promotes the territory of the Batken Oblast, including geological and cultural heritage objects, as a UNESCO Global Geopark. According to our experts, it is necessary to create the Geopark on the territory in the Ak-Su-Sokh Rivers interfluve. The Geopark should include the following geological heritage sites: the Madygen mountain tract, the Sary-Too mountains, the Kalcha-Bashi mountains, the ancient Kani-Gut cave mine, the northern slopes of the Takta-Boz limestone ridge, the Tash-Rabat tract, the Kara-Tau mountains, Beli-Synyk ridge and other objects. Photo of Batken Geopark geological heritage

Along with the geological heritage, historical sites with cultural heritage are located within the Geopark territory. They have a direct connection or constitute a single whole geological heritage. For example, such as ancient mines, quarries, mines and adits.

The Geopark territory is distinguished by special contrasts, from semi-deserts to nival landscapes. The Sokh canyon with historical sites located in its vicinity is of certain importance as a natural and cultural heritage.

The Geopark is a habitat for rare and endemic species of fauna and flora. This is a single territory of interdependent ecosystems. The development of common material culture and, accordingly, monuments of material culture are associated with the geological heritage and individual forms of relief.

Thus, the territory of the future Geopark meets the natural criteria of natural and cultural heritage: N1, N2, N3, N4, N5. With regard to cultural heritage, the united territory meets the criteria: C1, C2, C3, C4.

In addition, the future Geopark has the prospect of cross-border development with neighboring Tajikistan.

The relief and outstanding geological formations are natural monuments, which together represent one of the unique geological heritages not only of Kyrgyzstan, but of the Eurasian continent. The cultural and historical significance of the region is associated with history and archeology, describing the development of civilizations along the Great Silk Road, including this territory.

Below is an example of assessing the characteristics according to the mentioned criteria of the Ak-Su - Sokh Geopark, which define the territory as a UNESCO Geopark.

Assessment of Ak-Su - Sokh (Batken) Geopark based on UNESCO criteria, development prospects

The assessment is based on the criteria of the UNESCO natural and cultural heritage, and also takes into account local special aspects that characterize values, the uniqueness of the geological heritage (N1, N2, N3), which, in fact, determines habitats, ecosystems (N5) and the development of material culture (C2, C2, C3).

Our experts also analyze the management of the Geopark, socio-economic feasibility and the possibility for developing ecological tourism.

One of the fundamental practical assessment tools is the Red Book of Kyrgyzstan. Biodiversity listed in the Red Book is an important criterion (N4, N5) for justifying the Geopark territory. A large number of animals in need of protection live within the described territory, as well as animals that become or may become dependent on limiting factors, which is the main criterion in assessing the Geopark. In this way, geological landscapes act as habitats for biodiversity. This is a

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fundamental concept when a certain geological structure, history of geological development, relief and geographical conditions determine the life of certain species of flora and fauna.

3.6. Waste management practice

There are no sources of industrial waste accumulation on the territory of the Region. A reliable information about the quantity of solid waste is not available. Solid waste management still relies on old practices, principally dumping on open ground, simple landfilling, and open burning. In Batken Region, as well as in Kyrgyzstan, there are no special waste sorting and recycling plants and all waste generated by population and agriculture except for organic waste is taken to authorized dump sites.

At the same time, some of the organic waste from agriculture (manure) is used as a fertilizer by local farmers. However, in Batken city except a special waste dump site there are about 6-7 spontaneous dumps which are used by organizations and businesses to dispose waste. The current system for waste collection in Kyrgyzstan and municipalities of the Batken oblast involve the collection of solid waste from metal containers placed on the streets (collection point system), from the curbside where inhabitants have placed the waste at the collection day (curbside collection system) and from people bringing their waste directly to waste collection vehicles following the scheduled routes (signal collection system). Places for waste collection are not supplied with trash bins/containers for the collection of solid waste; there is also insufficient number of specialized machines for garbage collection. However, some of the commercial and industrial enterprises dispose solid and construction waste on their own, so that is why the accurate information on the amount of accumulated waste is not available.

Minor dumpsites can be seen in many places in Batken oblast municipalities. Dump sites does not meet sanitary standards and has no underlying coating. Waste dumping "somewhere" is not a common, but occasional practice, while burning and burial of waste in back-yards is a common practice, particularly among residents of individual houses. Burning poses risk of spreading fire and nuisance from smoke.

With the growth of cities and population increase, both the general public and the authorities can see that change of consumption habits and on-going urbanization lead to increased generation of waste in residential areas and get interested in regular waste collection services.

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4. OPPORTUNITIES AND CONDITIONS FOR PARTICIPATION OF INTERESTED PARTIES IN THE DEVELOPMENT PROCESS

4.1. Stakeholders Engagement

ESS10 recognizes two broad categories of stakeholders: 1) "Project Affected Parties" and 2) "Other Stakeholders". The first category includes "those who may be affected by the project due to actual impacts or potential risks to their physical environment, health, safety, cultural practices, welfare or livelihoods. These stakeholders can include individuals or groups, including local communities". These are the people or households most likely to see changes related to the environmental and social impacts of the project. Affected persons are described in the table below.

One of the main objectives of the project is to identify stakeholders who may be negatively impacted by the project, such as households or businesses that may be affected by land redistribution, workers who may lose their jobs, etc. However, a project can have a positive or negative impact on the activities of various stakeholders. Thus, a list of key stakeholder groups can be identified as potentially affected parties. They must be interacted with throughout the life of the project and must be monitored and mitigated.

- Farmers-entrepreneurs
- Small farms / dekhkan farms
- Small and medium entrepreneurs in tourism and services
- Population of participating cities / districts, villages

The term "Other Stakeholders" (OS) refers to individuals, groups, or organizations with an interest in a project, which may be related to the location of the project, its characteristics, impacts, or issues of public interest. When identifying these groups, particular attention should be paid to stakeholders who may be disadvantaged or vulnerable. "Other stakeholders" include individuals or organizations that have an interest in a project due to the public interest impact of the project. For example, these parties may include but are not limited to the following:

- The World Bank
- Authorized bodies at the central level - Ministry of Agriculture, Ministry of Economy and Commerce, MoF, Ministry of culture, information, sport and youth policy;
- Authorized bodies at the regional and district levels;
- Local government bodies;
- Association of Travel Companies;
- Civil society organizations;
- Disadvantaged and Vulnerable groups;

Disadvantaged and Vulnerable groups. The following disadvantaged and vulnerable groups of citizens can be addressed in the project: women, female-headed households and women farmers, who may find it more difficult to obtain information about the benefits of the project due to limited social norms and social networks; unemployed youth; low-income households, including landless households; individuals with disabilities; ethnic / linguistic minorities.

The project will undertake stakeholder engagement activities to ensure that these groups are not disproportionately affected and to ensure equal access to benefits from the project. Such activities will include awareness-raising campaigns, including those targeting women, and community meetings that all community members can join, dissemination of information materials through multiple channels such as the media, social media, and local leaders, with an emphasis on the rules

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and principles of equality and non-discrimination, for example with regard to opportunities to participate in all training and advisory activities.

There are significant overlaps between potentially affected parties and other stakeholders. For example, commercial and small farmers are expected to directly benefit from project activities; however, some of them may also be affected by land redistribution or loss of market if they become less competitive as a result of project activities. Proactive awareness raising, advocacy and support that encourages the involvement of all potential beneficiaries can ensure that they are more likely to benefit than to be excluded from project activities. Resettlement and social mitigation measures will be put in place, as well as a functioning grievance redress mechanism to ensure that, if affected, such groups can raise their concerns and seek additional support to ensure that the project does not impair living conditions or livelihoods.

Agricultural workers, including women and the unemployed population, who may be employed by the project are indirect beneficiaries. However, this group can also be affected if fair and safe working practices are not followed.

More detailed stakeholder mapping, presentation of stakeholder actions, roles, responsibilities and budget for their implementation is presented in the Stakeholder Engagement Plan (SEP) of the Project. The Labor Management Procedures (LMP) outlines labor rights and occupational health and safety, and the health and safety of workers and communities to be respected by the project in accordance with national laws and World Bank policies.

Table 16 indicates that tourism and agro-industrial enterprises of the participating Batken Oblast cities and districts, local communities and government agencies and civil society have the most important role to play in the successful implementation of the project. These stakeholders should be taken into account for making decisions related to the project, and their consent and suggestions should be respected.

Table 16. Stakeholders' role assessment rates

Stakeholder	Contribution	Legitimacy	Willingness to Engage	Influence	Necessity of Involvement
LSG	High: Cities are planning the project activities	High: Directly involved in project activities	High: Cities are active in implementation of the project	High: Well-known group	High: The project cannot be implemented without Cities
Agribusiness Enterprises	High: start a business	High: Direct beneficiary	High: Eager to enhance the business.	High: Controls the major portion of economy.	High: Must be taken on board for better planning.
Local Communities	High: The project is focused to enhance livelihood and economy of the communities.	High: Direct beneficiary	High: Local community is keen to get engaged in the project.	High: Controls the local business	High: The project will be a complete failure without involvement of local communities.

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Government structures (national, regional, district level)	High: Government plans and finances the activities.	High: Unsustainable without government support.	High: Government wants regional development through tourism and agribusiness development.	High: Government has the highest influence on the project.	High: Cannot proceed without government approvals.
Civil Society Organizations	Medium: Work for development	Medium: Indirect beneficiary	Medium: Eager to enhance the business.	Low: Relatively unknown groups.	Medium: Controls a portion of tourism.

To ensure coordination and flow of information, as well as timely decision-making on strategic and programmatic aspects at the highest level, the Project will be overseen by a Steering Committee (SC) formed with the participation of Deputy Minister or Director-level Representatives from various relevant line ministries and government agencies (e.g. representatives of the regional administration for the Batken region, the Ministry of Finance (MoF), the Ministry of Economy and Commerce (MEC), the Ministry of Agriculture (MOA), the State Agency for Architecture, Construction and Utilities).

4.2. Proposed citizen engagement mechanisms

Public/community meetings. At the start of the project, ARIS will organize project launch meetings in each of the municipalities and regional center. ARIS E&S Team will help organize community meetings sessions in the municipalities on a quarterly basis throughout the project's lifecycle.

Mass/social media communication. ARIS Public Relations Department will be engaged on the project in order to post information on the dedicated project and ARIS Facebook page and to communicate with the local population via social media campaigns throughout the project's lifecycle. An online information platform on the ARIS official website, where there is information about the BFM / GRM, where beneficiaries and other stakeholders of the project can leave their appeals and complaints. (Link https://kyrgyz-demo-republic-village-covid-19.yrpri.org/post/25458.)

Communication materials. Written information will be disclosed to the public via a variety of communication materials including brochures, flyers, posters, etc. A public relations kit will be designed specifically and distributed both in print and online form. ARIS will also update its website regularly (at least on a quarterly basis) with key project updates and reports on the project's environmental and social performance both in English and Russian. The website will also provide information about the grievance mechanism for the project.

Trainings and workshops. Training sessions on a variety of environmental and social issues will be provided to the stakeholders, including environmental and social management systems (ESMS), development and implementation, sensitization to inclusion/exclusion, labor issues, SEA/SH risks, SEP and GRM reporting. Periodic "Open Door" days will be organized like consultative workshops inviting local citizens and SMEs interested in implementing grant activities and providing guidance and information on the small grants program.

Grievance redress mechanism. In compliance with the World Bank's ESS10 requirement, a specific grievance mechanism will be set-up for the project. Dedicated communication

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materials (GRM pamphlets, posters) will be created to help local residents familiarize themselves with the grievance redress channels and procedures. Internal GRM training will also take place for ARIS and contractor staff. The ARIS's website will include clear information on how feedback, questions, comments, concerns and grievances can be submitted by any stakeholder and will include the possibility to submit grievances electronically.

Project tours for media, local representatives. At appropriate points during the construction phase, site visits or demonstration tours will be organized for selected stakeholders from media organizations or local government. On average, it is planned that 4 such tours will be planned per year.

Information Desks. Information Desks in each municipality will provide local residents with information on project/subproject, stakeholder engagement activities, BFM, contact details of the ARIS Local Representative, etc. Local Representatives in the affected municipalities will set up these information desks, either in their offices or other easily accessible places where they can meet and share information about the project with PAPs and other stakeholders. Brochures and fliers on various project related social and environmental issues will be made available at these information desks.

4.3. Information Disclosure

The current ARIS website (www.aris.kg) is used to disclose project documentation, including environmental and social standards, in Russian and English. ARIS creates a web page about the Project on its current website. All future environmental and social monitoring reports listed in the above sections will be published on this web page. Information about the project (including news about construction works and related environmental and social data) will also be posted on the home page of the ARIS website. The site will also include an easy-to-understand guide to the terminology used in environmental and social reports or documents.

All information brochures / leaflets will be posted on the website. An Electronic Complaint Form (BFM) is also available on the ARIS website. Contact details of the team and all environmental and social specialists at the municipal level will also be uploaded to the website. ARIS will regularly update and maintain the website.

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5. POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS AND MITIGATION MEASURES

5.1. Subprojects for consideration under the REDP-2

The project includes sub-components aimed at infrastructure modernization, which include the reconstruction of sewage and water supply, storm and drainage systems, municipal and regional roads, sidewalks and street lighting to improve access to basic municipal services and markets, construction and reconstruction of schools and kindergartens, as well as other municipal assets (parks and public places) of high public interest.

Improvement of agri-food marketing and trade infrastructure and services, with a focus on strengthening capacity for sanitary and phytosanitary (SPS) control, food quality and basic services; upgrades laboratory equipment and facilities at border control points and updates district/local sampling capabilities and investments to improve training and equipment to meet the requirements of agricultural export markets, food safety regulations, Hazard Analysis Critical Control Points (HAACPs) and modern food processing technologies.

The Project will promote selected agri-food clusters to improve production and productivity of small agricultural producers within the selected clusters, strengthen partnerships between market actors within the cluster (agribusiness and small agricultural producers), and create the necessary infrastructure for trade and logistics in the clusters. The Project will use a competitive selection process to identify investment-focused sub-projects that create partnerships in agribusiness and increase production/processing volumes for the domestic or export market.

Public infrastructure support may include irrigation, repair of access roads, power supply infrastructure, and other agriculture-related infrastructure, including infrastructure related to wholesale markets or trade and logistics developed under public-private partnership (PPP) arrangements.

Investments for producers and processors will introduce innovative technologies (particularly climate-resilient or resource-efficient technologies), including appropriate equipment, new crop or farm animal varieties and farm inputs (including climate-resilient crop varieties); and postharvest processing facilities.

All activities will be implemented taking into account a climate-related assessment to identify climate-related impacts and risks, and will include appropriate measures to minimize adverse socio-environmental impacts. This will be taken into account in the subprojects and further applied to the performance of construction contracts.

5.2. Adverse Environmental Risks and Impacts

5.2.1. Overview of potential environmental risks and impacts

Overall, the project is expected to generate positive socio-economic benefits due to improving tourism and agriculture-related activities and environmental conditions in the participating cities and in the region. Rehabilitation of urban and tourism infrastructures will significantly improve living conditions, water supply and sanitation, solid waste management, and reduce the level of pollutants emissions, which will have significant effects on the health of the population and the environment of cities in general. Similarly, agriculture-related activities would generate a series of positive social and economic impacts such as increased production, products and goods which

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would result in the creation of new jobs and, respectively, more employment and increased income; improvement of business environment, the introduction of advanced agricultural technologies and techniques, contribution to poverty reduction and food safety. The proposed activities and financing of agricultural subprojects will also strengthen the sustainability of agriculture in the region, which overall combines the implementation of new technologies, policies, and activities aimed and also integrating socioeconomic principles with environmental concerns so as to maintain or enhance agricultural production, reduce the risk of diminishing productivity, protect natural resources, develop the capacity to map pests and diseases and improve quality and food safety standards, all with a view to be economically viable, socially acceptable and technically feasible.

The proposed project activities might also generate a series of various adverse environmental impacts. These impacts would be associated with the generation of waste, noise, dust, air pollution, health hazards, labor safety issues, etc., due to civil works under the urban and tourism infrastructure development and related to agriculture production or processing activities. All of them are expected to be typical for small-scale construction/rehabilitation works, temporary by nature and site-specific, and can be easily mitigated by applying best construction practices and relevant mitigation measures. Also, the expansion of agricultural and agro-processing activities could result in increased water use and use of inputs, including pesticides, chemical fertilizers, and waste. In addition, livestock, dairy and meat processing activities could potentially generate waste (manure, livestock feed, antibiotics) and air emissions (e.g. nitrous oxide, ammonia).

5.2.2. Health and safety risks for workers and community during civil works

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 strictly implementing established norms and procedures H&S, which depends on the type of conducted works, usage of PPE, training activities, and monitoring. In addition, all workers need to be introduced to working procedures with hazardous materials (such as asbestos materials, PCBs etc.). Furthermore, contractors must provide workers with appropriate living conditions: safe water supply, washing conditions, rooms for rest, etc.

For community - Inadequate lighting and fencing of construction sites inside settlement areas can be dangerous for pedestrians and vehicles, especially at night. Increasing traffic due to trucks and vehicles moving to construction sites and temporary closing of roads during pipe lying inside of settlements may also cause inconvenience for the local population. In addition, pipe lying 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 may cause pollution of the surrounding environment and affect the health of local people. Moreover, the movement of heavy tracks may destroy or deteriorate the conditions of roads inside settlements.

5.2.3. Potential impacts of agriculture-related activities and subprojects

Potential benefits and impacts associated with strengthening agri-food supply chains and SMEs: Related activities aimed at providing financial assistance for agribusinesses operating in the Kyrgyz Republic's agricultural sector, towards enhanced competitiveness of the sector, improved quality and food safety standards, and establishment of market linkages. While generally the project will provide many environmental and social benefits, it may also cause some negative impacts. For example, by expanding areas under horticulture and intensifying other agricultural practices, agro-processing could result in increased water use and use of inputs, including

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pesticides and chemical fertilizers. The project may also support the import of alien varieties of fruits, nuts, and vegetables, which could result in the loss of native species biodiversity and the introduction of new pests and diseases, which could be aggravated by climate change effects already being seen in the Kyrgyz Republic. Overall, the sub-projects anticipated for financing under this subcomponent, if not adequately implemented, may cause some environmental impacts related to: (a) increased pollution of ground and surface waters due to soil erosion, use of fertilizers and pesticides, as well as the processing of agricultural products; (b) threats to human health and wildlife due to poor handling of fertilizers and pesticides; (c) increased siltation of water bodies due to soil erosion; (d) solid wastes during the processing of agricultural products.

Pesticide usage: Increasing pesticide applications can lead to pesticide residue (including heavy metals) building up in the soil. Pesticides and fertilizers can migrate to both surface waters and groundwater, contaminating these two sources, damaging aquatic ecosystems, and threatening the health of downstream users. Indirectly, it is possible to develop pests resistant to pesticides and/or destroy natural enemies of crop pests, both of which can lead to even greater use of pesticides. In assisting borrowers in managing pests that affect agriculture, the Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides. In Bank-financed projects, the borrower addresses pest management issues in the project's environmental assessment context.

The use of pesticides is a common practice in the Kyrgyz Republic, and hence it may occur under the RED-2 components that provide matching grants to small and medium-size agribusinesses, whether the project finances it or not. However, the application of pesticides in the project areas is not expected to be significant, given the small size of the individual farmer's land holdings. In case of using a significant amounts of pesticides individually for each subproject, a pesticides management plan will be developed, including specifying the procedures for storage, transportation, treatment, and disposal.

Potential Residual and Cumulative Impacts (Component 2): Assuming that all mitigation is carried out on all sub-projects for which financing is provided, there will still be residual effects, that when considered in total, could have an overall significant effect on the environment. The major environmental concerns, as described in sections above, are water pollution and soil erosion, and the consequences and secondary effects that erosion will cause.

Considering the small size of most sub-projects, it would be easy to dismiss the negative effects that each sub-project might have on the environment. For instance, it is anticipated that small farmers will request modest matching grants for the purchase of basic farm inputs of seed, fertilizers, and fuel. Such a grant to a single farmer would present little environmental concern and many such small grants spread throughout the total project area would have a relatively negligible effect. However, if by chance many requests for grants originated from the same area, and more importantly, from the same watershed, the cumulative effect of all of the small (negligible) effects could be significant.

Cumulative effect is important in spatial terms, as indicated above, and over time. For instance, a grant for seed purchase has no negative impact, and in fact, has much the opposite with an increased production and return to the farmer. However, the same grant provided for more than two years in a row could promote poor crop and land management and disrupt a relatively current good agricultural management system characterized by long rotations. By avoiding a crop rotation program, the farmer can deplete his soil's fertility and organic content and further promote soil erosion. Over time there would be a cumulative effect.

Another example applied to small and medium enterprises is the application of grants for

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rehabilitation or for the start-up of new businesses. With agro-processing and other agribusinesses, the environmental concerns usually focus on air emissions and effluent discharge. In the case of air emissions, there are usually standards in place that guide the concentration of various emissions at the stack. Although each industrial activity may have emission controls within well-established national standards, cumulatively, all enterprises in one region (e.g. in a small closed valley with poor air circulation) could significantly contribute to the deterioration of overall air quality, resulting in an impact on human health. Similarly, for water quality, several enterprises releasing effluents into a water body could significantly affect the water quality even though each enterprise may be releasing very small amounts of effluent that meet set standards.

The other aspect of cumulative effects of the overall project is the accumulation of many small impacts over the full range of project-funded activities. That is, the cumulative impact of all small impacts as a result of several grants for agricultural machinery purchase, added to the cumulative impact of all of the small impacts from the non-farm enterprises. The overall cumulative impact could be significant. Since many of these activities can influence water quality, the overall effect on water quality could be significant.

In order to prevent the risk of adverse cumulative environmental effects, a brief environmental analysis will be made of the portfolio every year by the ARIS environmental specialist and reported to the relevant environmental authorities and the World Bank.

5.2.4. Potential Impacts associated with livestock activities

Overall livestock-related activities might generate a series of potential impacts as follows:

- Environmental impacts of potential expansion of livestock, including the management of cattle manure and increased pressure on grazing lands;
- Potential risks of degradation or changing species composition in the pastures due to overgrazing, soil losses because of erosion, and a reduction in soil productivity caused by alteration of the vegetation status and composition.
- Environmental pollution during animal feeding. Livestock feed includes hay, grain (sometimes supplemented with protein, amino acids, enzymes, vitamins, mineral supplements, hormones, heavy metals, and antibiotics), and silage. Feed can become unusable waste material if spilled during storage, loading, and unloading or during animal feeding. Waste feed, including additives, may contribute to the contamination of storm-water runoff, primarily because of its organic matter content.

Manure management. Livestock production generates significant quantities of animal waste, mainly in the form of un-metabolized nutrients excreted as manure. Manure contains nitrogen, phosphorus, and other excreted substances, which may result in air emissions of ammonia and other gases and may pose a potential risk of contamination to surface or groundwater resources through leaching and runoff. Manure also contains disease-causing agents such as bacteria, pathogens, viruses, parasites, and prions, potentially affecting soil, water, and plant resources (for human, livestock, or wildlife consumption). Most of the animal waste is generated at housing, feeding, and watering locations. Following is the summary of positive and negative potential impacts of manure application.

Positive environmental impacts

- Soil fertilization by manure application: decomposition of the organic material by microorganisms produces carbon dioxide (CO2), water, and minerals of plant nutrients as N, P, S and metals. Mineralization is the transformation of organically bound elements into

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plant-available nutrients. Application of manure to crop land or pastures will reduce the requirements for artificial fertilizer.

- Soil fertility improvement: organic matter that remains one year after the application is assumed to be part of the soil organic matter and will decompose gradually over the years, releasing plant nutrients.
- Improvement of the soil structure stability. Organic matter is also involved in the physical properties of soil e.g. porosity, aeration water holding capacity, it improves soil structure and reduces the soil's vulnerability to erosion.
- Improvement of inorganic fertilizer potentiality: organic matter in soil increases the absorption capacity of minerals, reducing the loss of the elements brought in the fertilizers. Absorbed elements are gradually released for plant nutrition.

Negative environmental impacts

- Runoff of manure and manure components into surface water, contributing to water pollution.
- Leaching nitrate and phosphorus into the ground water contributes to underground water pollution.
- Ammonia emissions: before and during storage and application in the field.
- Emission of NOx: this is formed as a by-product of the denitrification process.
- Emission of methane formed upon decomposition of manure under anaerobic conditions.
- Air pollution. Dairy cows and their manure produce greenhouse gas emissions which contribute to climate change.
- Large amounts of animal wastes may be produced by livestock and poultry breeding, mainly the indigested nutrients in the animal excretion. The excreted matters such as nitrogen and phosphorus contained in the livestock and poultry excrement will give off ammonia and other gases in the air, polluting surface water and ground water resources by filtration and runoff. In addition, animal excrement contains many pathogenic elements, such as bacteria, pathogens, virus, parasite and viroid, which may cause adverse impact on the soil, water, and plant resources (those plants may be the food source for human, livestock and poultry and wild animals). Most animal wastes are possibly found inside the house, livestock, poultry farm, and watering place. Animal wastes can be classified into liquid, mud, and solid (depending on solid content) by their form. The animal waste management system can reduce the above adverse impacts by following functions: collect, transport, store, treat and utilize (but discard) the wastes.

Overall, it is expected the project will not contribute to the expansion of the livestock – it would contribute to the reduction of the number of heads directed on improving of herd quality and the project focus is replacing more numerous herds with less but more productive animals.

Impacts of chemicals. These impacts can be expected from using insecticide/acaricide livestock dips applied directly to livestock or structures (e.g. barns and housing units) and to controlling pests (e.g. parasites and vectors) using dipping vats, sprayers, and foggers. Pesticides can also be used to control predators. The potential pollutants from pesticides include the active and inert ingredients, diluents, and persistent degradation products. Pesticides and their degradation products may enter groundwater and surface water in solution, in emulsion, or bound to soil particles. Pesticides may, in some instances, impair the uses of surface waters and groundwater. Some pesticides are suspected or known to cause chronic or acute health hazards for humans as well as adverse ecological impacts.

Acaricides are the major chemicals used to control ticks and other ectoparasites. As the ticks take animal blood meal, they also transmit disease-causing organisms to not only the livestock but also

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man they present a strong constraint to livestock production in the project area. To reduce their impacts, the farmers routinely use conventional control methods, including chemical Acaricides, giving some partial results albeit shortcomings like the presence of chemical residues in milk, meat, and the development of tick resistant strains. A wide range of Acaricides exist for use against domestic animals and livestock ticks among one of the many methods used to control ticks. Documented in the project area Acaricides include arsenics, chlorinated hydrocarbons, organophosphates, carbamates and synthetic pyrethroids which are sold under the following names: *Ivermektin, Inter-Ivermetin, Ivertet, Flyblock, Ecomektin, Cypek, Santomektin, Diazinon "Lucy", Solfisan, Ivermek Gold, Vilmektin, Rolenol, Ivermekvet.* They are applied through, dipping, spraying, spot treatment or hand dressing.

Usually, farmers do not wear any protective clothing during the administration of acaricides. Dermal exposure to these pesticides is usually overlooked or underestimated by farmers in KR although the pesticides can bind to the skin, extract lipids out of the skin or render it permeable to other similar toxic chemicals. Pesticides residues in meat and milk are likely to be higher in livestock products produced by smallholder rural farmers. Inappropriate trading, labelling and use of acaricides and anti-helminths in the project area raise concerns about food safety and public health. Because of their large use, these chemicals pose health risks to non-target species, including people, domestic and companion animals, wildlife, and aquatic species.

Impacts of the animal diseases. Animal diseases can enter a facility with new animals, on equipment, and on or people. Some diseases can weaken or kill large numbers of animals at an infected facility. From this point of view, the project impacts will be positive as the project will support a series of activities for diseases control, through better veterinary services, vaccinations, veterinary points.

The main areas of environmental risk from the project activities are:

(i) the inadvertent spread of the viruses during culling, transport, and disposal of carcasses, animal waste, litter, and contaminated protective gear;
(ii) contamination of surface and groundwater from use of disinfectants;
(iii) laboratory bio-safety and waste management.

In addition, minor environmental disturbances may occur during the renovation of laboratories and vaccine storage facilities.

5.2.5. Dairy and meat agro-processing impacts

Sub-projects related to dairy and meat processing that might be implemented under the project activities will generate many direct and indirect positive impacts.

Direct positive impacts will be generated by increased livestock product processing activities which would result in new jobs and more employment and income. Indirect positive impacts will relate to overall improvement of agricultural production and business environment, the introduction of advanced agricultural and livestock technologies and techniques & quality standards at enterprises. In addition, the use of advanced machinery & equipment, providing additional value to produced agricultural production enhancement competitiveness of domestic production and products, will contribute to poverty reduction and food safety, improvement of country's socio-economic conditions in urban and rural areas and others.

Despite their important contribution to overall and agricultural development, livestock processing industries can also give rise to undesirable environmental side-effects. If left unchecked, like any

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other industry, livestock industry can casuse environmental pollution or hazards in various ways: the discharge of organic or hazardous wastes into water supplies; the emission of dust or gases that affect air quality and produce toxic substances; and the use of dangerous machinery that can put the safety and health of workers at risk.

In dairy and meat processing sector - production/processing production of cheese, yogurts; butter; other dairy products as well as of meat and its sub-products the main impacts are related to surface water pollution through increased concentrations of pollutants in wastewater effluents and their treatment, waste management, emissions to air, mostly dust and odor, acoustic, vibration, water and energy consumption, labor hazards.

Air emissions from mammalian livestock production include ammonia (e.g. management of animal waste), methane and nitrous oxide (e.g. animal feeding and waste management), odours (e.g. animal housing and waste management), bioaerosols, and dust (e.g. feed storage, loading, and unloading, feeding, and waste management activities).

Special risk materials (SRM) are tissues in cattle that contain the agent that may transmit bovine spongiform encephalopathy (BSE), transmissible spongiform encephalopathy (TSE), or scrapie disease if reprocessed into animal feed. In addition, the human disease, Creutzfeldt-Jakob Disease (CJD), may result from human consumption of products from animals infected with BSE. Although not typically used for food, processing activities may accidentally mix SRM tissue with meat products produced for human consumption. Therefore, SRM should be carefully separated from carcasses before their processing into commercially valuable by-products, whether for human or animal consumption.

The overall potential adverse impact can be from high to moderate, primarily due to human health threat. Following are the main potential adverse impacts of dairy and livestock agro-processing:

- Contribution to surface water pollution/wastewater from silk solids (e.g. protein, fat, carbohydrates, and lactose), salting activities during cheese. It can lead to significant organic content, high salinity levels; creation of other pollutants as acids, alkali, and detergents, etc. as well as pathogenic microorganisms and viruses;
- Soil, groundwater and surface waters can be polluted, and solid waste amount can be increased due to production processes, nonconforming products and product losses, grid and filter residues, sludge from centrifugal separators and wastewater treatment, and packaging waste;
- Air pollution and air emissions as well as dust level can be caused by dairy and livestock processing activities and lead to fine milk powder residues in the exhaust air from the spray drying systems and bagging of product;
- Dairy and livestock processing facilities are related to on-site wastewater treatment facilities, in addition to fugitive odour emissions from filling/emptying milk tankers and storage silos that can increase the area's odor level.
- Dairy and livestock processing facilities consume considerable amounts of energy and can strengthen stress on natural resources.

The risks of pollution are relatively smaller at the initial stages of preservation and transformation, but they may increase with the level of physical and chemical alteration, particularly in the industries using dated equipment and technology (new technologies are less polluting than old ones in terms of wastes and emissions per unit of output). The industry's size may be an important factor but not a determinant. The smaller-scale industries can also generate scattered pollutants with a cumulative effect in a given geographic region. In general terms, waste products may occur as wastewater, solid material, volatile compounds or gases that are emitted into the air.

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Wastewater. An important environmental impact of the animal processing industry results from the discharge of wastewater. Dairy and livestock processing requires the use of water and respectively produce a lot of wastewater. The strength and composition of pollutants in the wastewater depend on the nature of the processes involved. Discharge of wastewater to surface waters affects the water quality in three ways:

- The discharge of biodegradable organic compounds (BOC's) may cause a strong reduction of the amount of dissolved oxygen, which in turn may lead to reduced levels of activity or even death of aquatic life.
- Macro-nutrients (N, P) may cause eutrophication of the receiving water bodies. Excessive algae growth and subsequent dying off and mineralization of these algae, may lead to the death of aquatic life because of oxygen depletion.
- Livestock industrial effluents may contain compounds that are directly toxic to aquatic life.

Suspended Solids (SS). Suspended solids are insoluble organic and inorganic particles present in wastewater. SS is mainly material that is too small to be collected as solid waste. It does not settle in a clarifier either. Discharge of SS increases the turbidity of water and causes a long-term demand for oxygen because of the slow hydrolysis rate of the organic fraction of the material. This organic material may consist of fat, proteins and carbohydrates. The natural biodegradation of proteins (from for instance milk), will eventually lead to the discharge of ammonium. Ammonium oxidation into nitrite and nitrate by nitrifying bacteria, leads to an extra consumption of oxygen.

Eutrophication. Nitrogen (N). In wastewater Nitrogen is usually present as fixed in organic material or as ammonium. Occasionally also nitrate may be present (this may be the case in dairy industries where HNO_3 is used for cleaning operations). Nitrogen and phosphorus (P) removal can be achieved through special wastewater purification systems, which are based on either biological or physic-chemical processes.

Solid waste. Livestock by-products that are not used in any way will be referred to as solid waste. They must be dumped. The following types of solid waste may be distinguished:

(a) toxic compounds. These compounds require special attention, e.g. special dumping grounds;
(b) organic compounds. These compounds may require attention under certain conditions because of hygienic reasons or because during decomposition ill odor or leaching problems may arise;
(c) non degradable compounds. These may be dumped at regular dumping grounds.

Air pollution. An important factor with respect to environmental impact is whether the produced milk and meat products are processed at home or in a factory. Home processed livestock products hardly offer any environmental problems as little waste is produced (mainly air pollution from heating and some pollution of cleaning water with milk and meat residuals) and as the concentration of the waste is generally low.

Impacts of investments in improving the animal herd. The proposed project activities on investments in improving the animal heard might generate a series of various environmental and social impacts, positive and negative. Positive impacts attribute mainly to socio-economic environment. Negative impacts attribute to water, air and soil pollution, odour, health risks, loss of biodiversity and habitats, etc.

Potential social impacts. The sub-projects to be implemented under the on mentioned investments will generate a great number of both direct and indirect positive impacts. Direct positive impacts

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will be generated by increased livestock production due to animal herd improvement, which would result in creation of new jobs and respectively, and increased income. Indirect positive impacts will relate to improving the business environment, contributing to poverty reduction and food safety.

Potential adverse environmental impacts can include the following:

- Solid waste generated during mammalian livestock production (waste feed, animal waste, and carcasses, as well as various kinds of packaging (e.g. for feed and pesticides), used ventilation filters, unused / spoilt medications, used cleaning materials, and sludge from wastewater treatment if present (which may contain residual amounts of growth enhancers and antibiotics, among other hazardous constituents);
- Odor and air emissions;
- Waste waters;
- Hazardous materials used throughout the livestock production cycles (e.g. disinfecting agents, antibiotic and hormonal products);
- Animal diseases.

Positive impacts. It is expected that Project will have beneficial impacts in these areas as there will be less animals and more productive ones. Also, it means fewer animals required for the same production volume and less pressure on pastures; improved quality of production and respective products for markets, including foreign ones; increased farm incomes; improved rural economic situation, etc.

5.3. Adverse social risks and impacts

5.3.1 Overview of potential social risks and impacts and Mitigation Measures

The project will bring mainly positive socio-economic benefits through improved environmental conditions of urban infrastructure services in the participating cities. As a result of restoration and new construction work, the number of households connected to the drinking water supply and sewerage system will increase, which in general will have a significant impact on the living conditions of the population as a whole. At the same time, the proposed project activity may cause a number of different adverse social consequences.

ESS 1 recommends a mandatory assessment of the following social risks and impacts:

i) **risks of disproportionate impact of the project on populations that are disadvantaged or vulnerable due to specific conditions.** The following groups may be particularly at risk or perceived to be disadvantaged and vulnerable: women, especially women in seasonal agricultural work, female-headed households, and women farmers, who, due to social norms and social media constraints, may be more difficult to obtain information about advantages of the project; poor households; households with persons with disabilities or ethnic / linguistic minorities; as well as landless households. Under the ESS, the WB is required to develop an SEP that specifically identifies vulnerable and disadvantaged groups and guidelines for informing / /involving them in the implementation of the project.

The developed GRM will also aim to provide an opportunity for such groups to declare any facts of violations related to the activities of the project.

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Small Grants Program under Component 3. The project will support SME development through a training program and small grants to stimulate local economic development through improved business practices. The small grants program will focus on supporting new business start-ups and diversifying and expanding the services offered by SMEs. This initiative is expected to improve the capacity as well as the quality and range of services offered, which could lead to interrelated activities, in particular in the areas of agriculture, tourism and service delivery. The program will follow a phased approach in which selected participants will complete a robust training program and those who successfully complete it will be eligible to apply for grant funding. This component will build on the success of this initiative, first presented as part of the first RED project.

To address the low levels of women's labor force participation and access to finance, the Small Grants Program will prioritize women. Women applicants for the training program will also have priority in the selection phase. This will allow women to gain practical knowledge and skills in running a hospitality business or rural entrepreneurship. Women applicants will be awarded additional points when calculating business plans for funding. The same approach will be used for youth to promote young entrepreneurs at the local level.

ii) **any bias or discrimination against individuals or groups in providing them with access to development resources and project benefits, especially groups that may be disadvantaged or vulnerable.** Appropriate social, environmental, labor standards, standards for interaction with stakeholders in the implementation of project activities will be developed and items on non-discrimination based on age, religious, ethnic, gender, physical and other characteristics will be included.

(iv) **negative economic and social consequences associated with the compulsory acquisition of land or restriction of access to natural resources.**

Construction / rehabilitation activities under some local infrastructure sub-projects may result in the need for compulsory acquisition of land or restrictions on access to natural resources such as pastures, forests. All alternative technical solutions will be considered in order to minimize the risks.
An Environmental and Social Management Framework Document (ESS 1) and a Resettlement Policy Framework (ESS 10) have been developed to serve as a "guide", to provide detailed information on procedures, criteria and responsibilities for pre-screening each subproject, preparation, implementation and monitoring.

(v) **risks or impacts associated with tenure and use of land and natural resources, including (where applicable) the potential impact of the project on local land use and tenure arrangements, land access and availability, food security and land values, and any related risks associated with conflicts or disputes over land and natural resources.** The ESS 5 of RPF provides for a thorough assessment and elaboration of sub-projects to ensure that existing legal rights (including collective rights, related rights and women's rights) are protected from unintended negative project impacts or other unintended consequences. RPF (a) will provide clear and adequate rules for the recognition of relevant land tenure rights in accordance with national law; (b) establish fair criteria and effective, transparent and inclusive procedures for the settlement of land disputes and complaints; and (c) will include procedures to inform / consult with affected persons about their rights and to ensure that they can obtain independent advice / appraisal of property.

(vi) **impacts on the health, safety and well-being of workers and communities affected by the project.**

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For workers - Failure to comply with health and safety requirements can create a risk for builders. Contractors must comply with health and safety regulations, including strict compliance with established health and safety standards and procedures, which depend on the type of work being performed, the use of PPE, training activities and monitoring.
In addition, all workers should be familiar with the procedures for handling hazardous materials (such as asbestos materials, etc.). Contractors must provide workers with adequate living conditions: safe water supply, laundry facilities, lounges, etc.

For community - Inadequate lighting and fencing of construction sites within settlements can be hazardous to pedestrians and vehicles, especially at night. The increase in traffic due to the movement of trucks and vehicles to construction sites can also cause inconvenience to the local population. In addition, some construction / renovation work will temporarily block access to households. Untimely and ineffective solid waste disposal and inadequate sanitation by construction workers on construction sites and in labor camps can cause environmental pollution and affect the health of local communities. In addition, the movement of heavy equipment can destroy or worsen the condition of roads within settlements.

The Contractor must comply with the requirements of the 2003 Law of the Kyrgyz Republic "On Occupational Safety", the 2004 Labor Code of the Kyrgyz Republic and individual regulations and standards for occupational safety and health. IFC Performance Standard Guidelines (2007). Contractors, on the basis of a signed "Certificate of Contractors", undertake to comply with the requirements of the Environmental Management Plan for a specific subproject, which will reflect measures to mitigate environmental and social impacts, including measures for occupational health, safety and health protection.

Construction sites will be properly lit and fenced; clear signs will be posted indicating the works carried out;

The contractor and local self-government bodies will inform the local population in advance about the schedule of the proposed construction work through the announcements in the local media, the notification system - quarterly, announcements on information boards, SMS messages, etc.

(viii) SEA / SH risk is moderately assessed based on past performance / experience of several Bank financed projects. All projects developed over the past 5 years have created a sufficiently flexible grievance system to deal with all grievances, including SEA / SH. A separate dedicated privacy window has been created to manage SEA / SH complaints. So far, no project has received such complaints. This project will have detailed Human Resource Management Procedures (LMP) developed during the assessment, with due regard to the SEA / SH-related complaint handling system.

5.4. Risks associated with the COVID-19 pandemic

General recommendations for organizing measures to prevent the spread of coronavirus COVID-19 (Annex 15).

Coronavirus is an acute viral disease characterized by a primary lesion of the respiratory system.
Transmission ways:

- airborne droplets (when coughing, sneezing, talking);
- airborne dust (with dust particles in the air);
- contact-household way (through handshakes, household items);

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Transfer factors:

1. Air (main);
2. Food and household items contaminated with the virus.

Like other respiratory viruses, coronavirus spreads through droplets that form when an infected person coughs or sneezes. In addition, it can spread when an infected person touches any contaminated surface (such as doorknobs, handrails, etc.). People become infected when they touch their mouth, nose or eyes with dirty hands.

Symptoms of the coronavirus COVID-19.

In the overwhelming majority of cases, these symptoms are not associated with the coronavirus, but with the usual ARVI.

Rare symptoms of coronavirus:

- headache;
- hemoptysis;
- diarrhea;
- nausea, vomiting.

Symptoms may appear within 14 days of contact with an infectious patient. Symptoms are in many ways similar to many respiratory diseases, often mimic the common cold, and can pass for the flu.

If symptoms of coronavirus are detected, you should immediately consult a doctor to confirm the diagnosis and obtain the necessary medical attention. It is better to refrain from visiting a medical facility and call the doctor of your clinic at home. In no case should you self-medicate.

Preventive measures:

- Appointment of a person in charge of personnel health protection;
- Development of a notification scheme in case of accidents at the construction site, including the appearance of symptoms of coronavirus infection;
- The responsible person will prepare information on the contractor, as well as identify the existing employees with chronic diseases;
- Development of measures for the entry and exit of workers to the construction site;
- A designated health worker will oversee the restriction of workers' contact with people near the facility, and if necessary, will prohibit individual workers from leaving the site during their contract to avoid contact with local residents. Moving workers off-site only with respiratory masks.
- Submission of weekly information on activities to reduce the proliferation of S-19, technical supervision of ARIS or the regional Project engineer;
- Conducting a daily briefing to remind workers to self-control possible symptoms (fever, cough) and the need to inform the person in charge if they have symptoms or feel unwell;
- Provide pre-job briefings to workers, with a focus on cough etiquette, hand hygiene and spacing;
- Preventing a worker from returning from an infected area or after contact with an infected person to a facility for 14 days, or (if not possible) isolating such a worker for 14 days.

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- Prevent a sick worker from entering the facility, referring him to local health facilities if required to require isolation at home for 14 days.
- Extending the duration of the existing contract to avoid workers returning home to affected areas or, conversely, workers returning to the site from affected areas.
- Mandatory installation of washstands, provision of antiseptic agents to workers at the work site;
- Confirmation that employees are fit for work (relevant certificates) before they start work. Checking and recording the temperature of workers and other people entering the facility or requiring them to report themselves before or after entering the facility.
- Conduct daily pre-shift briefings for workers, with a focus on COVID-19, including cough etiquette, hand hygiene and distancing measures.
- Educating workers and personnel on site about the signs and symptoms of COVID-19, how it spreads, how to protect themselves (including regular hand washing and social distancing);
- Placing posters and signs throughout the construction site, with images and text;
- Ensure the availability of handwashing products filled with soap, disposable paper towels and closed trash cans at key locations throughout the facility, including at entrances / exits to work areas; where there is a toilet, canteen or food distribution, drinking water supply; in the working room;

Cleaning (disinfection) and disposal

- Conducting regular and thorough disinfection (cleaning) of all work facilities, including offices, living quarters, canteens, common areas.
- Provide cleaning personnel with appropriate cleaning equipment, materials and disinfectant.
- Training of cleaning staff (cleaning women) in proper hygiene (including hand washing) before, during and after cleaning work; how to use PPE safely (if necessary);
- Any health care waste generated by workers' use should be collected in designated containers or bags and disposed of;

Regulation of working methods

- Potential reduction in the size of workgroups.
- Limiting the number of workers in the workplace (construction site) at any time.
- Transition to a 24-hour work shift (rotation).
- Reorganization of work processes for specific work activities and tasks to ensure social distancing;
- Organization (where possible) of work breaks in open areas at the facility.
- Consider changing dining room layouts or staged meals to ensure social distancing.

Medical services

- Obtaining information on the possibilities of local medical institutions. Agreeing with medical institutions on the scope of services provided, procedures for admitting patients and (if necessary) any costs or payments that may arise.
- Conducting preliminary discussions with the nearest medical institutions, obtaining a mechanism of action, if necessary, referring sick workers to medical institutions;

Consider how the sick worker will be transported to the healthcare facility and the method of transportation.

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5.5. Risks associated with the CERC Component

Emergency activities financed under the CERC will involve financing provision of critical goods or emergency recovery and reconstruction works. The CERC will be guided by a CERC Manual, which the PIE will prepare. Disbursement under this component will be subjected to the PIE's adoption of the Manual, which is acceptable to the Bank. Furthermore, based on the positive list of activities agreed in the CERC Manual and initial E&S analysis, a CERC section will be prepared and included in the ESMF when CERC is activiated. The main aspects that the specific CERC section should consist of are a) list of activities that the CERC could finance (Positive list of goods, services, and works; b) an analysis of related potential Environmental and Social Risks and Impacts; c) Environmental and Social Management Procedures; and d) Institutional Arrangement for the Emergency Action Plan (EAP) Implementation.

5.6. Environmental and Social Impacts Mitigation Measures

The proposed activities' potential environmental and social impacts and the generic mitigation measures are presented in Table 17 and 18 below. Additionally, for different agricultural and agro-processing subprojects that might be supported under the project, potential risks and impacts, along with the typical mitigation measures are presented in Annexes 11, 12. The proposed measures could be used for the development of ESMPs for selected sub-projects.

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Table 17. Potential Environmental Impacts and Mitigation Measures

Activities carried out within the framework of the project	Expected environmental impacts	Impact before mitigation action	Objects of influence	Prevention / Mitigation Measures	Impact after mitigation action
Construction phase					
Component 1. Support for Municipal Infrastructure and Basic Public Services					
1) Construction / reconstruction (renovation) of municipal buildings	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, and paper; 5) Regular, timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	Low
	Generation of hazardous (asbestos-containing) waste when replacing the roof of buildings	High	Soil, atmospheric air, worker safety and health	1) Develop a Management Plan for asbestos-containing waste 2) Extraction, transportation and disposal of asbestos-containing wastes should be carried out in strict accordance with the requirements of the Kyrgyz Republic established in SanPiN 2.2.3.013-03 “Working with asbestos and asbestos-containing materials”.	Low
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low

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	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Provisionof regular training to workers on the use of tools, equipment, working at heights, etc. 4) Availability of first aid equipment in case of damage on the site; 5) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 6) Measurement of temperature by workers; 7) Social distancing on the job site and during meals in accordance with WHO recommendations; 8) Regular cleaning of the living quarters of workers and food intake with disinfectants; 9) Isolation of the worker when fever and other cold symptoms appear 10) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	Moderate to Low
	Community health and safety	High	Community, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	Moderate to Low

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2) Construction of water supply networks and sewerage networks	Violation of the landscape during the laying of drinking water pipelines and drainage systems and the construction of water intake facilities;	Moderate	Landscape	1) The soil during the digging of the trenches of the water conduit and the construction of the reservoir will be used for backfilling of the trenches; 2) Surplus soil during well drilling will be used for reclamation and planning and restoration of the water intake construction site; 3) Reclamation and planning and restoration work will be carried out at the work sites	Low
	Generation of hazardous (asbestos-containing) waste when replacing drinking water pipelines and sewerage pipelines	High	Soil, atmospheric air, worker safety and health	1) Develop a Management Plan for asbestos-containing waste 2) Extraction, transportation and disposal of asbestos-containing wastes should be carried out in strict accordance with the requirements of the Kyrgyz Republic established in SanPiN 2.2.3.013-03 “Working with asbestos and asbestos-containing materials”.	Low
	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	Low
	Destruction of the soil layer	Moderate	Land resources	1) Storage of damaged soil and vegetation layer (PRS) for its further use during reclamation and restoration work;	Low
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low

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	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	Moderate
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	Moderate
	Cutting down trees and shrubs	Moderate	Trees and shrubs growing in settlements	1) If possible, preference will be given to plots for the construction of water supply and sewerage facilities, taking into account the least amount of growing trees and shrubs;	Low

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				2) If necessary, the number of trees and shrubs that can be cut down will be determined and the damage will be compensated in monetary terms in accordance with the Resettlement and Land Purchase Plan; 3) The felling of trees will be carried out on the basis of a permit issued by the environmental protection authority; 4) In the course of reclamation and restoration work, trees will be planted on the territory of the water intake.	
3) Reconstruction of sewage treatment facilities	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	Low
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	low
	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers;	Moderate

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				6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	
4) Road construction: - asphalting of streets and sidewalks; - reconstruction of bridges	Impact on the natural environment during road construction and repair	Moderate	Landscape	1) Dust suppression works; 2) Will be carried out, reclamation and planning and restoration work in the areas of work; 3) Operation of technically sound machinery and equipment;	Short
	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste with subsequent removal to places for burial; 2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	Short
	Generation and disposal of waste from machinery and equipment, including hazard classes 1 to 4	Moderate	Soil, ground and surface water bodies	1) Collection and disposal of waste; 2) carrying out TO-1 and TO-2 on the territory of the base or in the service station	Low
	Contamination of water bodies and soil associated with the leakage of oil products during storage and operation of equipment in water protection zones and belts, with the organization of camps for builders	Moderate	Water bodies, soil	1) It is prohibited to locate the construction site in the water protection zones of rivers and canals; 2) In order to exclude the ingress of fuels and lubricants on the soil, the use of equipment in the production of work (transportation of building materials, work on a construction site, etc.), which has passed the inspection; 3) Refueling equipment at stationary gas stations and repairing equipment at specialized enterprises; 4) Construction equipment will be maintained in good condition, and in case of any leaks, must be repaired immediately;	Short

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				5) Drilling rigs when drilling drinking wells must be technically sound; 6) In the event that fuels and lubricants get on the soil, the site must be immediately cleaned and disposed of in accordance with environmental safety standards in agreement with the environmental authorities.	
	Air pollution during the construction of roads, bridges and other facilities under the project. Emissions from vehicles and other construction equipment. These risks will be especially noticeable in settlements.	Moderate	Atmospheric air, population, workers on sites	1) The exhaust systems of vehicles and construction equipment must be in good condition to minimize air pollution; 2) Limiting the speed of traffic means and selection of suitable transport routes to minimize dust emissions; 3) Moistening the road surface when driving vehicles; 4) Moistening of trenches of canals and foundation pits during earthworks; 5) Construction work should be suspended in high winds if dust levels are high. 6) All machines providing the delivery of dusty building materials to the site or the removal of debris must be covered or covered to prevent dusting; 7) Welding of metal structures is carried out by electric welding.	Short
	Violation of the natural habitat of the animal world	Short	Wild animals	1) A ban on hunting among workers in construction contractors	Short
	Destruction of the soil and vegetation layer during construction	Moderate	Land resources	1) Storage of damaged soil and vegetation layer (PRS) for its further use during reclamation and restoration work	Low
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low
	Occupational safety, health and safety in the workplace, including	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ;	Moderate

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	measures to prevent the spread of COVID-19.			2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	Moderate
5) Construction of power lines and substations	Impact on the natural environment during road construction and repair	Moderate	Landscape	1) Dust suppression works; 2) Will be carried out, reclamation and planning and restoration work in the areas of work; 3) Operation of technically sound machinery and equipment;	Short
	Waste generation and disposal: solid and liquid household waste,	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste with subsequent removal to places for burial;	Short

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	as well as non-hazardous construction waste			2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	
	Cutting down trees and shrubs	Moderate	Trees and shrubs growing in settlements	1) If possible, preference will be given to plots for the construction of water supply and sewerage facilities, taking into account the least amount of growing trees and shrubs; 2) If necessary, the number of trees and shrubs that can be cut down will be determined and the damage will be compensated in monetary terms in accordance with the Resettlement and Land Purchase Plan; 3) The felling of trees will be carried out on the basis of a permit issued by the environmental protection authority; 4) In the course of reclamation and restoration work, trees will be planted on the territory of the water intake.	Short
	Destruction of the soil and vegetation layer during construction	Moderate	Land resources	1) Storage of damaged soil and vegetation layer (PRS) for its further use during reclamation and restoration work;	Low
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low
	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry;	Moderate

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				3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	Moderate
6) Purchase of special vehicles	Generation and disposal of waste from equipment, including hazard classes 1 to 4	short	Soil, ground and surface water bodies	1) Collection and disposal of waste; 2) carrying out TO-1 and TO-2 on the territory of the base or in the service station	Low
	Emissions from combustion engines	moderate	Atmospheric air	1) Purchase of equipment with a Euro-5 engine	Low
Component 2: Strengthening agri-food clusters					
1) Construction of a trade and logistics center	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets;	Short

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				3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low
	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	Moderate
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment;	Moderate

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				2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	
2) Construction of a workshop for the processing of agricultural products	Waste generation and disposal: solid and liquid household waste, as well as non-hazardous construction waste	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	Short
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Low
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Low
	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry;	Moderate

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				3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected.	Moderate
3) Construction or rehabilitation of irrigation structures, canals, drilling of the wells	Violation of the landscape during the laying of irrigation canals and the rehabilitation of hot water supply and other hydraulic structures (HTS);	Moderate	Landscape	1) The soil during the digging of the trenches of the water conduit and the construction of the reservoir will be used for backfilling of the trenches; 2) Surplus soil during well drilling will be used for reclamation and planning and restoration of the water intake construction site; 3) Reclamation and planning and restoration work will be carried out at the work sites	Short
	Waste generation and disposal: solid and liquid household waste,	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste;	Short

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	as well as non-hazardous construction waste			2) Arrangement of temporary toilets in accordance with ecological or dry closets; 3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	
	Formation of hazardous (asbestos-containing) waste during the reconstruction of GST and GVS	High	Soil, atmospheric air, worker safety and health	1) Develop a Management Plan for asbestos-containing waste 2) Extraction, transportation and disposal of asbestos-containing wastes should be carried out in strict accordance with the requirements of the Kyrgyz Republic established in SanPiN 2.2.3.013-03 “Working with asbestos and asbestos-containing materials”.	Short
	Contamination of water bodies and soil associated with the leakage of oil products during storage and operation of equipment in water protection zones and belts, with the organization of camps for builders	Moderate	Water bodies, soil	1) It is prohibited to locate the construction site in the water protection zones of rivers and canals; 2) In order to exclude the ingress of fuels and lubricants on the soil, the use of equipment in the production of work (transportation of building materials, work on a construction site, etc.), which has passed the inspection; 3) Refueling equipment at stationary gas stations and repairing equipment at specialized enterprises; 4) Construction equipment will be maintained in good condition, and in case of any leaks, must be repaired immediately; 5) Drilling rigs when drilling drinking wells must be technically sound; 6) In the event that fuels and lubricants get on the soil, the site must be immediately cleaned and disposed of in accordance with environmental safety standards in agreement with the environmental authorities.	Short
	Air pollution during the construction and rehabilitation of water supply and sewerage systems, as well as during the construction and rehabilitation of	Moderate	Atmospheric air, population, workers on sites	1) The exhaust systems of vehicles and construction equipment must be in good condition to minimize air pollution; 2) Limiting the speed of traffic	Short

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	other facilities under the project. Emissions from vehicles and other construction equipment. These risks will be especially noticeable in settlements.			means and selection of suitable transport routes to minimize dust emissions; 3) Moistening the road surface when driving vehicles; 4) Moistening of trenches of canals and foundation pits during earthworks; 5) Construction work should be suspended in high winds if dust levels are high. 6) All machines providing the delivery of dusty building materials to the site or the removal of debris must be covered or covered to prevent dusting; 7) Welding of metal structures is carried out by electric welding.	
	Violation of the natural habitat of the animal world	Short	Wild animals	1) A ban on hunting among workers in construction contractors	Short
	Cutting down trees and shrubs	Moderate	Trees and shrubs growing in settlements	1) If possible, preference will be given to plots for the construction of water supply and sewerage facilities, taking into account the least amount of growing trees and shrubs; 2) If necessary, the number of trees and shrubs that can be cut down will be determined and the damage will be compensated in monetary terms in accordance with the Resettlement and Land Purchase Plan; 3) The felling of trees will be carried out on the basis of a permit issued by the environmental protection authority; 4) In the course of reclamation and restoration work, trees will be planted on the territory of the water intake.	Short
	Destruction of the soil and vegetation layer during the construction of new reclamation canals	Moderate	Land resources	1) Storage of damaged soil and vegetation layer (PRS) for its further use during reclamation and restoration work; 2) Transfer of ORS to local governments and farmers for further use.	Short
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Short
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Short

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	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	Short
	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected	Short
	Waste generation and disposal: solid and liquid household waste,	Moderate	Soil, ground and surface water bodies	1) Installation of containers for the collection of solid waste; 2) Arrangement of temporary toilets in accordance with ecological or dry closets;	Short

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4) Carrying out repair work in laboratory buildings Equipping and modernizing laboratories with equipment.	as well as non-hazardous construction waste			3) Temporary storage of construction waste on protected ground; 4) Recycling and disposal of waste such as: wood, metal, paper; 5) Regular timely removal from the construction site of solid household waste (MSW) and construction waste to municipal authorized landfills in accordance with the permission of the LSG bodies	
	Generation of hazardous (asbestos-containing) waste during reconstruction	High	Soil, atmospheric air, worker safety and health	1) Develop a Management Plan for asbestos-containing waste 2) Extraction, transportation and disposal of asbestos-containing wastes should be carried out in strict accordance with the requirements of the Kyrgyz Republic established in SanPiN 2.2.3.013-03 “Working with asbestos and asbestos-containing materials”.	Short
	Contamination of water bodies and soil associated with the leakage of oil products during storage and operation of equipment in water protection zones and belts, with the organization of camps for builders	Moderate	Water bodies, soil	1) It is prohibited to locate the construction site in the water protection zones of rivers and canals; 2) In order to exclude the ingress of fuels and lubricants on the soil, the use of equipment in the production of work (transportation of building materials, work on a construction site, etc.), which has passed the inspection; 3) Refueling equipment at stationary gas stations and repairing equipment at specialized enterprises; 4) Construction equipment will be maintained in good condition, and in case of any leaks, must be repaired immediately; 5) Drilling rigs when drilling drinking wells must be technically sound; 6) In the event that fuels and lubricants get on the soil, the site must be immediately cleaned and disposed of in accordance with environmental safety standards in agreement with the environmental authorities.	Short
	Air pollution during the construction and rehabilitation of water supply and sewerage systems, as well as during the construction and rehabilitation of other facilities under the project. Emissions from vehicles	Moderate	Atmospheric air, population, workers on sites	1) The exhaust systems of vehicles and construction equipment must be in good condition to minimize air pollution; 2) Limiting the speed of traffic means and selection of suitable transport routes to minimize dust emissions; 3) Moistening the road surface when driving vehicles;	Short

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	and other construction equipment. These risks will be especially noticeable in settlements.			4) Moistening of trenches of canals and foundation pits during earthworks; 5) Construction work should be suspended in high winds if dust levels are high. 6) All machines providing the delivery of dusty building materials to the site or the removal of debris must be covered or covered to prevent dusting; 7) Welding of metal structures is carried out by electric welding.	
	Noise pollution, especially in settlements	Moderate	Site workers and the public	1) Carry out work only during the daytime; 2) The exhaust systems of cars, trucks and machinery must be in good condition to minimize noise pollution; 3) If the work will be in settlements. inform localities about the schedules and duration of construction work.	Short
	Improper restoration of construction sites after completion of work	Moderate	Soil, landscape, water bodies	1) Cleaning the construction site from solid waste, construction waste, liquid waste and other possible contamination; 2) Carrying out restoration and planning works.	Short
	Occupational safety, health and safety in the workplace, including measures to prevent the spread of COVID-19.	High	Contractor workers	1) The sites will be equipped with appropriate information boards and signs informing workers about the rules and norms of work ; 2) Passing introductory and periodic briefings before the start of work and in the process of workers' activities. Briefing log entry; 3) Availability of first aid equipment in case of damage on the site; 4) Provision of workers with personal protective equipment (helmets, safety shoes, gloves); 5) Measurement of temperature by workers; 6) Social distancing on the job site and during meals in accordance with WHO recommendations; 7) Regular cleaning of the living quarters of workers and food intake with disinfectants; 8) Isolation of the worker when fever and other cold symptoms appear 9) Compliance with etiquette when coughing and sneezing (in a handkerchief or elbow)	Short

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	Population safety and other social measures	High	Population, local self-government bodies, roads and social facilities	1) Conducting information campaigns about construction works and their impact on the environment and social environment; 2) Restriction of the admission of the population to construction sites; 3) Fencing of construction sites with signal tapes, if construction is carried out within the boundaries of settlements; 4) Traffic regulation, installation of warning signs when working on construction sites that run along highways and roads; 5) Conducting construction work within the boundaries of settlements only in the daytime; 6) Compliance with construction work schedules in order not to interfere with the activities of social facilities, if they will be affected	Short
5) Provision of financing for the creation of a value chain for a specific cluster (with a focus on selected fruit products (cherries, apricots, plums) and early season vegetables, as well as meat and dairy processing).	Various risks and impacts depending on the specificity and scale of the subproject. This may include hazardous and non hazardous waste (pesticides, agochemicals and fertilizers, mannuer, feed materials), pressure on water and energy resources, OHS, community health and safety.	Moderate	Soil, ground and surface water bodies, air, human health and safety	1) Adapt good waste management practices 2) Adapt safe chemicals handling and storage 3)Apply good OHS practices 4) Provide training on hygiene and safety good practices 5) Use efficient water and energy appliances and equipment	Short
6) Providing grants funding to support SMEs Including tourism and services provision (e.g. car wash facility, repair shops, B&B)	Different risks and impacts depending on the type of activity/ subproject and size of the SME. This may include construction-related waste, emissions, OHS, CHS, and unsustainable use of water and energy.	Moderate	Soil, ground and surface water bodies, air, human health and safety, natural resources	6) Adapt good waste management practices 7) Adapt safe chemical handling and storage 8)Apply good OHS practices 9) Use efficient water and energy appliances and equipment	Short
Operation Phase					
All of the facilities listed above	Wastewater, air emissions, waste (hazardous and non-hazardous), odor, OHS, groundwater and surface water contamination	Low to Moderate	Soil, ground and surface water bodies, air, human health, and safety, natural resources	Identification of measures to mitigate the negative impact for each facility will be addressed during the development of the ESMP	Low

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Table 18. Project's potential social impacts and mitigation measures

#	Project components and activities	Expected negative social impacts and risks	Impact before mitigation action	Objects of influence	Proposed mitigation/preventive measures for negative social impacts and\or risks	Impact after mitigation action
Component 1: Supporting municipal infrastructure and basic public services						
1	a) construction of new buildings of social infrastructure	Restrict access to homes, land, businesses, government/municipal buildings, or any other private property	Moderate	The contractor	The contractor will organize the construction work/site in such a way as to avoid blocking access to residences, businesses, and municipal/public buildings; The contractor will provide an alternative road to bypass the construction site if possible;	Low Low
		Occupational injuries to workers	Moderate		The contractor will consider mitigation measures to prevent or reduce safety risks, particularly ensuring the use of personal protective equipment, worker safety training, proper training for workers operating large equipment, proper licensing and inspection of construction equipment, availability of first aid kits and firefighting equipment at the site;	
		Accidental injuries among the local population	Moderate		The contractor will take appropriate measures to inform and notify the local population about the construction work in progress and safeguards in the form of fencing construction zones with signal tapes, placement of warning signs and signs;	Low
		Land alienation/acquisition and involuntary resettlement	Substantional	Local self-government bodies,	The implementing municipality shall present the title certification/ title establishing documents for the land plot; Prohibit forced labor, target local workers where possible, and prohibit child labor. In case of shortages of local skilled workers, the ESMP should be developed to mitigate adverse social impacts due to the influx into work force;	Low
		Influx into work force, forced child labor				

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			Moderate	The contractor, Site workers	Develop a code of conduct for the workforce to follow in relation to the worksite and the surrounding community; Employee Behavior and Community Awareness of SEASH; Creation of grievance redress mechanism taking into account SEASH;	Low
		Sexual exploitation/abuse and sexual harassment (SEASH)	Moderate	The contractor, Site workers	Promote fair treatment, non-discrimination and equal opportunity for employees. For large construction projects, ensure that the Contractor's LMP is prepared and implemented;	Low
		Unequal opportunities for vulnerable groups of workers	Substantional		The contractor shall identify all existing underground utilities and coordinate with authorized agencies to start excavation work along the construction corridor to prevent damage and destruction of utilities The contractor will consider mitigation measures to prevent or reduce safety risks, particularly ensuring the use of personal protective equipment, worker safety training, proper training for workers operating large equipment, proper licensing and inspection of construction equipment, availability of first aid kits and firefighting equipment at the site;	Low Low
		Damage to existing underground infrastructure, (communication cables, water supply and sewerage systems, etc.)	High	The contractor, Site workers	The contractor will take appropriate measures to inform and notify the local population about the construction work in progress and safeguards measures in the form of fencing construction zones with signal tapes, placement of warning signs and signs; Promote fair treatment, non-discrimination and equal opportunity for employees. For large construction	Low

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	b) reconstruction/repair of existing facilities of social infrastructure	Occupational injuries to workers Accidental injuries among the local population Unequal opportunities for vulnerable groups of workers	Moderate Moderate Substantial	The contractor, Local self-government bodies, vulnerable groups of workers;	projects, ensure that the Contractor's LMP is prepared and implemented;	Low Low
	c) private-public partnership d) capacity building of central, regional and local authorities	High expectations for upcoming investments can therefore lead to risks of social tension and dissatisfaction due to the unfulfilled expectations of the uncovered part and the unreceived benefits of the project No negative social impact	Substantial	Local self-government bodies, Small and medium-sized businesses	Risks of social tension and dissatisfaction can be mitigated through interaction and public awareness (PA) activities that provide clear explanations of the eligibility criteria for participation in the project.	Low

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Component 2. Strengthening Agri-Food Clusters						
2	a) Introduction of more climate-resilient and innovative farming technologies, including new crop or livestock varieties and agricultural inputs (including climate-resilient crop varieties and equipment such as drip irrigation, solar energy, pumps);	The project will not be able to cover every village at the level of every rayon of the oblast with investments, which will lead to risks of social exclusion, which may lead to social tensions, discontent, due to inflated expectations	Substantial	Productive Partnerships Committee, Farmers, LSGB (Local Self Government Body)	Risks of social tension and discontent can be mitigated through engagement and public awareness (PA) activities that provide clear explanations of the eligibility criteria under Component 2. The contractor will organize the construction work/site in such a way as to avoid blocking access to residences, businesses, and municipal/public buildings;	Low
	b) Post-harvest processing facilities (such as storage, washing, sorting, packaging, pre-cooling, cold storage) for certain groups of producers within the cluster;	the assumed impact will be identical to that of the construction of facilities of other types of activities: Restrict access to homes, land, businesses, government/municipal buildings, or any other private property Occupational injuries to workers	Moderate Moderate	The contractor The contractor LSGB	The contractor will provide an alternative road to bypass the construction site if possible; The contractor will consider mitigation measures to prevent or reduce safety risks, particularly ensuring the use of personal protective equipment, worker safety training, proper training for workers operating large equipment, proper licensing and inspection of construction equipment, availability of first aid kits and firefighting equipment at the site;	Low Low Low

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				The contractor Site workers	The contractor will take appropriate measures to inform and notify the local population about the construction work in progress and safeguards in the form of fencing construction zones with signal tapes, placement of warning signs and signs;	
		Accidental injuries among the local population	Moderate			
					The implementing municipality shall present the title certification/ title establishing documents for the land plot;	
				The contractor		
					Prohibit forced labor, target local workers where possible, and prohibit child labor. In case of shortages of local skilled workers, the ESMP should be developed to mitigate adverse social impacts due to the influx into work force;	Low
		Land alienation/acquisition and involuntary resettlement	Substantial			
					Develop a code of conduct for the workforce to follow in relation to the worksite and the surrounding community;	
		Influx into work force, forced child labor	Moderate	Contractor PPC LSGB		
					Employee Behavior and Community Awareness of SEASH; Creation of grievance redress mechanism taking into account SEASH;	
					Promote fair treatment, non-discrimination and equal opportunity for employees. For large construction projects, ensure that the Contractor's LMP is prepared and implemented;	
		Sexual exploitation/abuse and sexual harassment (SEASH)	Moderate	The contractor		Low
					The contractor shall identify all existing underground utilities and coordinate with authorized agencies to start excavation work along the construction corridor to prevent damage and destruction of utilities	

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		Unequal opportunities for vulnerable groups of workers	Substantial	The contractor		Low
		Damage to existing underground infrastructure, (communication cables, water supply and sewerage systems, etc.)	High	The contractor vulnerable groups of workers	Risks of social tension and dissatisfaction can be mitigated through interaction and public awareness (PA) activities that provide clear explanations of the eligibility criteria for participation in the project.	Low
	c) technical assistance and training for manufacturers to improve production technology and meet market standards	The project will not be able to cover all farmers at each village level with investments, so there may be risks of social tension and dissatisfaction due to unfulfilled expectations of the uncovered part and failure to receive benefits from the project	Substantial	The contractor		
		No negative social impact		Training consultant Farmers		Low

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	d) Trade and logistics platforms (including digitalization) to facilitate access to markets			LSGB		
Component 3: Promoting local economic development through the Small Grants Program						
3	a) selected SME training program	High expectations of upcoming grants can lead to risks of social tension and dissatisfaction due to unfulfilled expectations of the uncovered part of SMEs and failure to receive benefits from the project	Substantial	Small Grants Committee Consultant Representative of the LSGB	Risks of social tension and dissatisfaction can be mitigated through interaction and public awareness (PA) activities that provide clear explanations of the eligibility criteria for participation in the project. Development of Small Grants Manual Establishment of Small Grants Committee	Low
	b) Small Grants Program	Risks of women – entrepreneurs' exclusion		Small Grants Committee Consultant Representative of the LSGB Women entrepreneurs	To address women's low participation in the workforce and access to finances, the Small Grants Program will give preference to women. (1) The training program will also give priority to female applicants at the selection stage. This will give women the opportunity to gain practical knowledge and skills in urban sector business and entrepreneurship. (2) When evaluating business plans for funding, female candidates will be awarded additional points	Low
		Risks of young entrepreneurs' exclusion		Small Grants Committee Consultant Representative of the LSGB Youth aged between 18-30 years old	The same approach as for women – entrepreneurs	

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Component 4: Contingent Emergency Response Component						
4	n/a	n/a				
Component 5: Operational Support						
5	This component will support project implementation, including a project monitoring and evaluation system, communications strategy, application of safeguards tools, training, and funding for additional operating expenses of the project implementing agency	Unsatisfactory project implementation can lead to various social risks of dissatisfaction, social tension, and complaints.	Moderate	Project team ARIS management PPC SGC Consultants	Development of Operational Manual; Hiring of professional staff; Development of project framework documents consistent with WB SES; Capacity building of project implementing agency staff; Development of appropriate monitoring and evaluation system;	Low

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6. ENVIRONMENTAL AND SOCIAL ASSESSMENT RULES AND PROCEDURES

6.1. Main stages of environmental and social assessment and the role of involved parties

Each project activity and subproject to be financed by the project will undergo an ESA procedure as follows:

6.1.1. ESA stages

Environmental assessment in The Kyrgyz Republic is a national environmental impact assessment procedure when the project initiator determines adverse environmental impacts, ensures public participation, evaluates the consequences of such impacts and proposes measures for their mitigation. ESIA is carried out for activities subject to obligatory environmental review according to the Law of the Kyrgyz Republic "General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic". The list of such activities is attached as Annex 1. ESIA is founded on two subsystems: (i) ESIA (the acronym for "Environmental Impact Assessment"), and (ii) Ecological Expertise (State Environmental Review, SER). Based on a "list", project screening is carried out to determine whether a project is subject to environmental assessment or not. For cases where this is required, an ESIA is conducted by an ESIA consultant hired by a Project Proponent. The environmental assessment proceeds produce the ESIA documents which will be subjected for further reviews.

The resulting ESIA/EE is then presented for public consultations, after which revisions are done according to the public's feedback. Subsequently, the ESIA report, Statement of Environmental Consequences, and other supporting documentations are submitted for the State Environmental Review (SER). After which, the project will be approved, rejected or send for reexamination.

Continuation of the SER depends on the project but cannot be more that three months after submission by the Initiator of the project with all ESIA/EE documents to SER. Public Environmental Review (PER) is organized and conducted by the initiation of the local people, local administrations and Civil societies, registered in the Kyrgyz Republic. The outputs of public environmental review are directed to the agency, which is implementing the state environmental expertise and to the agency, which is responsible for the decisions of implementing of the expertise objects.

Public Consultation supposed to be held for the EE during Feasibility Study Stage. The outputs of the public consultation should be incorporated in the Public Environmental Review (PER) which can be done both stage of the ESIA or also initiated in parallel to the SER. The SER duration depends on the complexity of the project but should not exceed 3 months after submission of all the ESIA documents for the SER by the Project Proponent.

6.1.2. ESA process: step-by-step

PIE environmental and social specialists will carry out a rapid assessment of the likely environmental impact and the potential for involuntary resettlement, which will be based on the requirements of national legislation and WB ESSs, by completing the environmental and social screening forms presented in the Annex 3 and Annex 9. Subproject activities will be also checked against WB criteria for High-Risk Projects and the exclusion list provided below and in Annex 2.

This will make it possible to identify the type and scale of potential environment and social risks and impacts and determine to which risk category the subproject should be attributed. Generally,

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the significance of impacts and risks, contribute to resulting ESA categorization will depend on the *type* and *scale* of the subproject, its *location*, *sensitivity* of environmental issues, and the *nature* and *magnitude* of potential risks and impacts.

Type and scale of projects. Subprojects that are considered as "High Risk Subprojects" will not be financed. A "High Risk" rating generally would entail the following impacts (a) significantly impact on human populations, including settlements and local communities (b) alteration of environmentally important areas, including wetlands, native forests, grasslands, and other "critical" natural habitats and ecosystem services; (c) direct pollutant discharges that are large enough to cause degradation of air, water or soil, endangered species and "critical" habitats; (d) largescale physical disturbances of the site and/or surroundings; (e) extraction, consumption or conversion of substantial amounts of forest and other important natural habitats, including above and below ground and water-based ecosystems; (f) measurable modification of hydrologic cycle; (g) hazardous materials in more than incidental quantities; and (h) involuntary displacement of people and other significant social disturbances.

Location. There are a number of locations which should be considered while deciding to rate the project as *"High Risk":* (a) in or near sensitive and valuable ecosystems and "critical" habitats — juniper forests, wetlands, wild lands, vulnerable soils, and particular habitats of endangered rare and endemic species; (b) in or near areas with archaeological and/or historical sites or existing cultural and social institutions; (c) in densely populated areas, where resettlement may be required or potential pollution impact and other disturbances may significantly affect communities; (d) in regions subject to heavy development activities or where there are conflicts regarding the allocation of natural resources; along watercourses, in aquifer recharge areas or in reservoir catchments used for potable water supply; and on lands or waters containing valuable resources (such as fisheries, minerals, medicinal plants, prime agricultural soils). Subprojects located in the proximity of such areas will be classified as High-Risk projects and will not be considered for support by the RED-2.

Sensitivity. Sensitive issues may include (but are not limited to): conversion of wetlands, potential adverse effects on endangered species and habitats as well as protected areas or sites, involuntary resettlement, impacts on international waterways and other transboundary issues, and toxic waste disposal.

Magnitude. There are several ways in which magnitude can be measured, such as the absolute amount of a resource or ecosystem affected, the amount affected relative to the existing stock of the resource or ecosystem, the intensity of the impact and its timing and duration. In addition, the probability of occurrence for a specific impact and the cumulative impact of the proposed action and other planned or ongoing actions may need to be considered. Considering the scale of the proposed subprojects, it is expected that the magnitude of their environmental impacts will be low to moderate, and their social impacts will be moderate to substantial. Therefore, only subprojects that are rated as *"Substantial Risk"* or lower will be considered for RED-2 support. Table 19 provides guidance on the various types of activities that could be proposed for RED-2 subprojects, as well as the different environmental categories and suggested EA instruments for each of them.

Results of the screening will be reflected in the screening form presented in the Annex 4. While the ESAF risk ratings are the governing categories, they generally correspond to the Kyrgyz categories as follows:

(a) High Risk subprojects (which are excluded from the project) correspond with National categories I and II;

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(b) Substantial Risk subprojects correspond with National Category III and will require either a site specific ESIA or an ESMP;
(c) Moderate Risk subprojects fall between National Categories III and IV and will require in some cases a partial ESIA and or an ESMP or – an ESMP checklists; and
(d) Low Risk subprojects correspond with National Category IV and require no further EA.

Accordingly, Non-Eligible Sub-Projects which will not be financed by the WB, and therefore excluded from the scope, are listed below (and also listed in Annex 2):

(a) Any sub-project that is included in the World Bank Group/International Finance Corporation Exclusion List
(b) Any sub-project that will have impacts on Natural Habitats/Critical Habitats such as alteration of environmentally important areas, including wetlands, native forests, grasslands, and other "critical" natural habitats and ecosystem services.
(c) Any sub-project that will have impacts on buildings registered as Cultural Heritage.
(d) Any sub-project which would be classified as "High Risk"[28][1] in terms of environmental and social risks.
(e) Any subprojects that cause significant impacts on human populations, including settlements and local communities
(f) Any subproject that result in direct emissions of pollutants that are large enough to cause degradation of air, water or soil, endangered species and "critical" habitats;
(g) Any subproject that cause large-scale physical disturbance of the facility and / or its surroundings;
(h) Any subproject that cause the extraction, consumption or conversion of significant amounts of forests and other important natural habitats, including terrestrial and underground and aquatic ecosystems;
(i) Any subproject that cause change in the hydrological cycle;
(j) Any subproject involve hazardous materials in excess of incidental quantities; and
(k) Any subproject cause involuntary displacement of people and other serious social unrest.

6.2. Screening of sub-project activities and identification of ESA instruments

For Substantial Risk subprojects, a site-specific Environmental and Social Impact Assessment (ESIA) (see ESIA Report Outline presented in the Annex 5) or an ESMP will be required to identify, evaluate and prevent potential environmental and social risks and impacts. The mitigation measures for the identified impacts and risks will be included in the ESMP (see Annex 6 with the format of the ESMP) or ESMP checklist (see Annex 7 with the ESMP Checklist for small scale construction and rehabilitation activities). For Substantial risk subprojects, the subproject beneficiaries will prepare the site-specific ESIA and ESMPs under the supervision of the PIE; while for moderate and low risk subprojects beneficiaries with support of the Implementing Entity will prepare ESMP Checklist. .

The purpose of the ESMP or ESMP Checklist is to improve the environmental and social aspects of subprojects by minimizing, mitigating or compensating for negative effects. Environmental and

[28] A "High Risk" environmental rating generally would entail the following impacts (a) significantly impact on human populations, including settlements and local communities (b) alteration of environmentally important areas, including wetlands, native forests, grasslands, and other "critical" natural habitats and ecosystem services; (c) direct pollutant discharges that are large enough to cause degradation of air, water or soil, endangered species and "critical" habitats; (d) largescale physical disturbances of the site and/or surroundings; (e) extraction, consumption or conversion of substantial amounts of forest and other important natural habitats, including above and below ground and water-based ecosystems; (f) measurable modification of hydrologic cycle; and (g) hazardous materials in more than incidental quantities. It should be noted here that, as the whole Project is rated as "High Risk" in terms of social risks, sub projects with "high risk" in terms of social risks will not be non-eligible. Therefore, professional judgement will be used to identify "high risk" categorization in terms of environmental aspects during screening phase.

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Social Management Plan Checklists will be used mostly for Low Risk subprojects that are likely to have minor environmental impacts, typical for small-scale construction and rehabilitation investments. The ESMP Checklist has three sections: (a) *Part 1* constitutes a descriptive part ("site passport") that describes the project specifics in terms of physical location, the project description and a list of permitting or notification procedures with reference to relevant regulations. Attachments for additional information can be supplemented if needed; (b) *Part 2* includes the environmental and social screening in a simple Yes/No format as well as specifies mitigation measures; and (c) *Part 3* is a monitoring plan for activities carried out during the rehabilitation activities.

For Substantial and Moderate Risk subprojects, it is necessary to disclose the ESA documents and conduct public consultations with the project-affected people and interested parties. For that purpose, it is necessary to disclose in advance the EA document (about two weeks) on the Implementing Agency and on involved municipalities' websites as well as providing hard copies to local public administrations and key interested parties (environmental authorities). During the consultations, the subproject applicants will register all comments and suggestions on improving the site-specific ESIA/ESMP documents and will prepare relevant reports to be included in the final version of the EA documents. Furthermore, other specific information related to the project activities and ESA should also be publicly available on-line on the Implementing Agency website. In some cases, when face-to-face consultations can't be carried out, the public consultation can be done virtually by receiving relevant questions/proposals on-line and taking them into consideration while finalizing the subprojects ESMPs, - such consultations can be done only in the case when it is clear no any direct impacts on local population is expected, - mostly when the proposed activities are located far away from the residential areas and will not have adverse impacts on environmentally sensitive areas such wetlands, forests, legally protected areas, etc. Similarly, in the case of ESMP Checklist for rehabilitation of existing facilities, the public consultation can be done virtually. As described above, only in some cases, as per national legislation and when it is necessary to conduct a site-specific ESIA and prepare an ESMP, the subproject beneficiaries or their Contractors must submit all EA documents for approval to the oblast level State Ecological Expertise, which will issue a decision, to be used for approving and/or rejecting subproject proposals.

ARIS provides the final approval of infrastructure and agricultural subprojects – only once all EA documents have been prepared, accepted, and, if needed, preliminary approval is provided by the State Ecological Expertise. ARIS and subproject beneficiaries will then sign an agreement which will include statements on compliance with all EA documents. **Tables 19 and 20** indicate the process flow for the development of risk management instruments for the urban and tourism infrastructure and agriculture investments.

Table 19. ESMF Instruments Development for Urban and Tourism Infrastructure Investments

Step 1.	a) ARIS or FPs (engineers or technical specialists) conduct screening of the subproject with regard to prohibited/excluded activities; b) If the subproject passes the screening for the list of prohibited/excluded activities, ARIS specialists complete Section 1 of the Environmental Screening Checklist table; c) Based on the Environmental Screening Checklist, the environmental category and the type of EA to be conducted are determined– either a full ESIA, a partial ESIA, an ESMP, or an ESMP Checklist; d) The screening results will be the basis for ESIA/ESMP/ ESMP Checklist, including potential negative impacts and possible measures to mitigate the impacts.

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Step 2.	a) If the subproject requires a complete site-specific ESIA, partial ESIA or an ESMP, AIRIS will assign a consultant to prepare the ESIA/ ESMP, and submit it for consideration by the State Ecological Expertise; b) For Low Risk small-scale construction and reconstruction activities, an ESMP checklist will be prepared by ARIS to address potential environmental impacts;
Step 3.	ARIS will organize disclosure of the draft ESIA, ESMP or ESMP Checklist and organizes a public consultation, involving NGOs, community representatives, affected groups, etc. Formal minutes will be prepared to record inputs provided by the participants.
Step 4.	The contractors can proceed to implementation once the ESIA, ESMP or ESMP Checklist is completed, updated based on community consultations, and approved by ARIS and World Bank (if required).
Step 5.	ARIS conducts periodical supervision, monitoring and reporting as per the agreed monitoring plan.
Step 6.	Monitoring and reporting results will be included in the ARIS quarterly and annual reports.

Table 20. ESMF Instruments Development for Agriculture Investments

Step 1.	a) ARIS conducts screening of the subproject with regard to prohibited/excluded activities; b) If the subproject passes the screening for the list of prohibited/excluded activities, ARIS completes Section 1 of the Environmental Screening Ckeclist table; c) Based on the Environmental Screening Checklist, the environmental category and the type of EA to be conducted are determined– either an ESMP or ESMP checklist;
Step 2.	Subproject beneficiaries prepare ESMP or ESMP Checklist for their sub-projects and submit them to ARIS for approval.
Step 3.	If the subproject is selected for funding, ARIS specialists review the ESMP or ESMP Checklist Notes: In all ESMPs the requirement is to apply the WB EHS Guidelines to address potential environmental and social impacts;
Step 4.	ARIS assists the subproject beneficiaries in disclosing the draft ESMP or ESMP Checklist and organizes a public consultation involving community representatives, affected groups, etc. Formal minutes will be prepared to record inputs provided by the participants.
Step 5.	The subproject beneficiaries can proceed to their implementation once the ESMP or ESMP Checklist is completed and updated based on community consultations and approved by ARIS and the World Bank (if required).
Step 6.	ARIS conducts periodical supervision, monitoring and reporting, as per agreed monitoring plan.
Step 7.	Monitoring and reporting results will be included in the ARIS quarterly and annual reports.

Table 21. ESMF Instruments Development for sub-projects under Small Grants Program

Step 1.	a) ARIS conducts screening of the SGP subproject with regard to prohibited/excluded activities; b) If the subproject passes the screening for the list of prohibited/excluded activities, ARIS specialists assist applicants/beneficiaries in completing the environmental checklist, including subproject's potential negative impacts and possible measures to mitigate impacts, as part of the applicant/beneficiary subproject application form.

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Step 2.	a) The subproject applicant submits the full application form, which includes the environmental checklist for consideration and further decision on funding by the "Small Grants Program Committee"; b) Upon approval of the subprojects, ARIS will complete the subproject appraisal and proceed with the signing of the financing agreement with the respective sub-project beneficiaries.
Step 3.	The beneficiaries can proceed to implementation once the financing agreement is signed.
Step 4.	a) ARIS shall supervise and monitor subprojects implementation and take action in case of non-compliances. b) Monitoring and reporting results will be included in the ARIS quarterly and annual reports.
Step 5.	Upon completion of the subproject, the beneficiary (Grantee) shall prepare a report with information on environmental and social risks management and send it to ARIS for approval.

6.3. Types of ESA instruments and ESIA/ESMP review process

As explained above, for all subprojects and activities with Substantial and/or Moderate risks a site-specific ESIA and/or an ESMPs or ESMP Checklist will be prepared in accordance with the project Environmental and Social Management Framework (ESMF), and the process to be laid out in the "Productive Partnership Manual" and the "Small Grant Program Handbook". These will be the responsibility of beneficiaries, supported by Consultants and ARIS. The ESMP and/or the ESMP checklist documents must form an annex of bidding and contract documents for construction works. In addition, the Labor Management Procedures will also form a part of bidding documents for construction works. Implementation of ESMPs on the ground will be the construction contractor's task/ responsibility; however, in case of any non-compliance, the municipalities (for urban and tourism subprojects), or the subproject beneficiaries will inform ARIS, which is expected to take corrective action as the primary responsible party.

The distribution of the responsibilities of all parties involved in the project is given in **Table 22**. For all substantial risk subprojects and the first three moderate risks subprojects, ARIS will submit site-specific ESMPs to WB for prior review. When the WB is confident that ARIS has demonstrated that the process is accurate, WB will transfer this prior review to post review.

Table 22. Roles and Responsibilities

Responsible Party	Responsibilities
World Bank	Review, approve and disclose ESMF, SEP and RAP on WB's official website; Review the site-specific ESMPs and RAPs for all subprojects with substantial risks as well as for the first three sub-projects with moderate risks.; Review labor-management procedures; Conduct implementation support and supervision missions in order to ensure that the Project is following WB ESS requirements;
Implementing Entity (ARIS)	Prepare and implement the ESMF and RPF and submit for Bank approval; Disclose the ESMF and RPF on Implementing Agency website; Prepare ESMPs and RAPs according to ESMF and RPF; Submit ESMPs and RAPs to the WB for prior review;

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	Perform the quality control and review of ESMPs and RAPs; Disclose ESMPs and RAPs on the official website of Implementing Agency and incorporate ESMPs and RAPs into bidding documents; Prepare Labor Management procedures; Assign field specialists for the environmental and social monitoring; Perform inspections of the implementation of ESMP by the construction contractor, make recommendations and decide whether additional measures are needed; Implement RAPs on site and provide regular reporting on implementation to WB; In case of non-compliance, ensure that the contractor eliminates the noncompliance and inform the WB about the noncompliance; Prepare, update and implement a Stakeholder Engagement Plan (SEP) that considers vulnerable groups in addition to paying attention to the gender aspect of the Project; Hold consultation meetings, and prepare and distribute leaflets or other informative documents to inform communities, recruit a community liaison officer on project, and its impacts and construction schedule as well as rights and entitlements of PAPs; Set up a multi-level GRM, monitor and address grievances related to the project under specified timelines; Provide guidance to the construction contractor and engineering supervision firm. Summarize the environmental and social issues related to project implementation to WB in regular progress reports in accordance to the ESCP; Be open to comments from affected groups and local environmental authorities regarding environmental aspects of project implementation. Meet with these groups during site visits, as necessary; Coordinate and liaise with WB supervision missions regarding environmental and social ESF aspects of project implementation; Conduct regular monitoring activities for the implementation of site specific ESMPs and RAPs; and Prepare/design training and tools for Implementing Agency's local (branch level) staff and community representatives.
Contractor	Implement ESMPs on site, if required can revise the ESMP together with Implementing Agency; Implement labor management procedures; Manage the grievance mechanism at the contractor, communicate grievances to Implementing Agency regularly through ESMP monitoring reports; Monitor site activities on a regular basis (daily, weekly monthly etc.); Prepare the ESMP progress reports for the review of Implementing Agency; and Compensate or fix all damages that occurred during construction (i.e., damages to crops, infrastructure) as set out by the ESMP or RAP/RPF.
Beneficiaries/Clients	Ensure that ESMP is implemented correctly and in a timely manner by the contractor; Ensure timely and successful implementation of RAPs; Perform environmental and social monitoring as defined in ESMF and RPF and sub project specific ESMPs and RAPs; and Collect information on environmental and social issues (including completed LC activities) for progress reports submitted to the WB

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	and make sure that these are all compliant with the Bank's requirements.

6.4. Screening process in land acquisition and resettlement

The Bank undertakes screening of each proposed project for which it will provide funding in order to determine the appropriate extent and type of the involuntary resettlement to be conducted. Identification of the impacts and categorization of the subprojects is done as early as possible during subproject investment planning by the PIE and the project implementer through the procedure of social screening. The subproject shall be screened again on the other stages of its implementation, if the design, project scope is being revised and/or new project component(s) are being added. The following steps of the screening procedure needs to be followed:

1. Identify potential social risks related to land acquisition and resettlement and their significance:

- Collect project map superimposed on the cadastral and/or Google earth map if available. The boundary of the land needed for the project, including all safety and buffer zones, assess roads, utilities to be relocated, etc. should be made available on the map based on the available draft or detailed design. The boundary could be superimposed on the Cadastral map and/or on the Google earth map to understand potential impact of the proposed design, including illegally used land plots.
- Review available information and collect additional information required from different relevant sources if needed. At least, land use documents relevant to the subproject area should be available.
- Conduct field visit as needed.
- Identify any associated activity needed for sub-project.

Fill the screening form attached and identify: physical and economic displacement, including RoW clearance, direct and/or indirect impacts, full and/or partial, past, present, future, preconstruction and construction, operation stage impacts, including restrictions on easement rights and land use; impacts on vulnerable groups.

2. Identify possibility of avoiding of the impact through modifications to the subproject design and/or subproject scope.

- Determine category of the project based on resettlement impacts. The Bank will review the risk classification assigned to the project on a regular basis, including during implementation, and will change the classification where necessary, to ensure that it continues to be appropriate. Any change to the classification will be disclosed on the Bank's website.

3. **Table 23** below summarized subproject categorization indicators, respective planning documents to be prepared and eligibility for the Project financing.

Table 23. Subcomponent Categorization and Resettlement Planning Requirements

Subproject category	Eligibility for project	Planning requirements
High	Not eligible for project financing	RAP

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Substantial	Eligible for project financing	RAP
Moderate	Eligible for project financing	RAP or abbreviated RAP
Low	Eligible for project financing	Due diligence report

4. Document screening process in a Social Screening Check List tool following the structure proposed in the Annex 8.

5. Start screening process if project scope and/or design are revised.

The screening and categorization of impact on involuntary resettlement will be initiated by ARIS 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 ARIS's Social Specialist and reviewed by Authorized person of the PIE and PIE Director for clearance. The Social Specialist and Director at PIE will finally endorse the social screening and safeguard categorization of the proposed sub-project.

6.5. Resettlement Policy Framework (RPF)

RPF provides a framework to appropriately identify, address and mitigate adverse socioeconomic impacts that may occur due to the implementation of subprojects that involve the involuntary acquisition of land and the subsequent resettlement of affected families. RPF also serves the following specific purposes:

- Review the existing legal framework, compare with Bank ESS-5 for gaps, if any, and indicate gap filling measures;
- Describe the approach to taking of private land, assets and other common property resources;
- Valuation process of impacted assets;
- Process of preparation of SIA and RAPs and their review by PIE;
- Defining of the cut-off date for Title and Non-Title holders;
- Consultation mechanisms/approaches to be adopted including disclosure of ESF instruments; and
- Monitoring and Evaluation arrangements including Grievance Redress Mechanisms role/responsibilities of different stakeholders.

RPF sets out principles for safeguards management, procedures to screen and survey social impacts and prepare Resettlement Action Plans to mitigate the same, lays down, cut off dates, entitlements with eligibility criteria for providing compensation and resettlement benefits, livelihood restoration, implementation arrangements necessary to implement the action plans to mitigate impacts in the course of implementing subprojects of RED-2.

The corresponding document for other social and economic impacts not associated with land takings and restrictions is an environmental and social management framework.

In frame of RED-2 design stage an alternative design will be taken to avoid or minimize adverse

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impacts on private landowners and those non-title holders who have been using state lands with or without authorization. To minimize adverse impacts, the following principles shall be adopted:

- Avoid or minimize acquisition of private lands unless absolutely required through analysis of alternatives;
- Avoid or minimize involuntary resettlement and loss of land, structures, other assets and incomes by exploring all viable options;
- Use as much state lands as possible which are free of encroachment and other encumbrances
- Alternative designs will be considered in order that the project may not affect objects and sites like places of worship, cemeteries and structures that are considered socially and religiously important.; and
- Incorporating the gender considerations in social management, resettlement planning and implementation process.

In case of the project has thus triggered ESS5. The scale of impact on access, assets, livelihoods or land acquisition will have to be confirmed by ARIS once the detailed design has been completed.

To avert any negative social or economic impacts on persons losing access to land, assets and income as a result of the project, a full RPF has been prepared based on the World Bank's ESS5. For any project component requiring land acquisition, specific RAPs consistent with the principles in this RPF will be submitted to the Bank for approval when detailed investment planning information and the detailed scope of the civil works becomes available, and the extent of the land acquisition needed for the investment is known.

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7. ADDRESSING REQUIREMENTS UNDER ESSs

7.1 Requirements and actions for addressing potential risks and impacts while conducting civil works

To address identified above risks and impacts associated with the civil works under the ESS1, ESS2, ESS3, ESS4, and ESS5, it would be necessary to undertake a series of activities and implement mitigation measures which should be clearly specified in the construction contracts and enforced by the client. These would include the following:

Organizational measures. Before starting the construction/rehabilitation activities it is necessary to inform the local construction and environment inspectorates and communities about upcoming activities in the media and/or at publicly accessible sites (including the site of the works). Furthermore, it is necessary to have in place all legally required permits. All works should be carried out in a safe and disciplined manner designed to minimize impacts on neighbouring residents and environment. Construction workers should be properly dressed, having when necessary respirators and safety glasses, harnesses and safety boots.

Protection of air quality and dust minimization. During construction/rehabilitation activities it is necessary to use debris-chutes above the first floor and to keep demolition debris in controlled area, spraying with water mist to reduce debris dust. It is also necessary to suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site. It is strictly prohibited burning of construction/waste material at the site. For the transportation of any other dusty material to the rehabilitation site watering or covering of the cargo should be implemented. Reduction of dust on rehabilitation site during dry season of the year can be accomplished by watering the ground surface. Workers that perform the works should be introduced with protective closes and respirators.

Noise reduction. Before any beginning of the work it is recommended to inform all potentially affected parties and especially the neighbours either directly or through local billboards or newspapers on the rehabilitation activities. The noise should be limited by using good management practice and limiting works on regular daily shift (during the vacation time) and or after the school classes. The construction equipment and machinery used should be calibrated according to the Noise Standards.

Construction wastes and spills. As a general requirement is that the existing building elements to be rehabilitated (walls, ground cement slabs etc.) should be carefully rehabilitated and the construction wastes should be sorted and removed in an organized way and disposed on an authorized land filed. All valuable materials (doors, windows, sanitary fixtures, etc.) should be carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials should be recycled within the project or sold. Wastes wherever possible should be minimized, separated and handled accordingly. When wastes are separated, they are more manageable. Some materials like doors or ceramics sinks might be usable on the site again. Non-usable materials should be taken to appropriate place for recycling. For non-recyclable wastes, in agreement with local councils the wastes will be deposited on authorized landfill. Open burning and illegal dumping of any waste is strictly prohibited. In addition to solid wastes, some amounts of hazardous wastes will be produced on the site: like the remaining from paints, enamels, oiled packaging, oils, material contaminated with oil, insulation material, etc., which have to be collected and handed over to the local self-government body authorized for collection and transportation of hazardous waste.

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Temporary storage of materials (including hazardous). Stockpiling of construction material should be avoided if possible. If not, construction material should be stored on the construction site, and protected from weathering. Hazardous materials like paints, oils, enamels and others should be kept on impermeable surface, and adsorbents like sand or sawdust should be kept for handling small spillage.

Ensuring workers health and safety. The personal should have protective equipment, rubber gloves, respirators, goggles and breathing mask with filter, as well as helmets. Prior starting civil works, all workers must pass labour safety training course. In addition, it is necessary to carry out the routine inspection of the machinery and equipment for purpose of the trouble shooting and observance of the time of repair, training and instruction of the workers engaged in maintenance of the machinery, tools and equipment on safe methods and techniques of work. Special attention should be paid to welding operations. It is prohibited to distribute the faulty or unchecked tools for work performance as well as to leave off hand the mechanical tools connected to the electrical supply network or compressed air pipelines; to pull up and bend the cables and air hose pipes; to lay cables and hose pipes with their intersection by wire ropes, electric cables, to handle the rotating elements of power-driven hand tools.

Specific requirements and mitigation measures for handling asbestos containing materials and lead containing paints. In the case of rehabilitation of various buildings, it might be founded Asbestos Containing Materials, which should be handled is a specific manner, to ensure workers safety. For such types of subprojects, prior conduction construction works, contractor will have to develop Asbestos Management Plan in template provided in Annex 19. 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 ESS1 Environmental Assessment 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. There is national Hazardous waste management procedure of Kyrgyz Republic #855 dated from 28.12.2015 covering disposal of ACM in the Kyrgyz Republic. However, the procedure does provide clear description of handling ACM, therefore, the ACMMP follows the World Bank Guidelines.

The main principles of the ACMMP are (i) prompt and effective action to contain and deal appropriately with the ACM (including safe management and disposal); and (ii) maintaining the safety of site personnel and the general public always. The ACMMP is designed for use by Contractor, RPCU and the PIE to manage the ACM risk over the project, and, by contractors to deal efficiently with any ACM they or their workers encounter. The procedural element of the ACMMP is therefore designed to provide straightforward instructions that can be easily and quickly understood without the need for specialist knowledge and without referring to other sources.

The general approach while handling this material is that constructors avoided crushing/destruction of asbestos plates from the roofs and or from the walls insulation and deposited them in an organized manner on the construction sites. Also, the constructors should avoid releasing asbestos fibres into the air from being crushed. It is also imperative while working with asbestos plates the workers must wear special closing, gloves and respirators. If the use of asbestos-containing materials (ACM) it is anticipated for the roof renovation, it is necessary to provide brief information about alternative non-asbestos materials, their availability and the

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rationale for the material choice made. Once the presence of ACM in the existing infrastructure has been presumed or confirmed and their disturbance is shown to be unavoidable, incorporate the following requirements in the EMP for construction works:

- Develop a plan for doing works involving removal, repair and disposal of ACM in a way that minimizes worker and community asbestos exposure. The plan should include:
  (i) Containment of interior areas where removal will occur in a negative pressure enclosure;
  (ii) Protection of walls, floors and other surfaces with plastic sheeting;
  (iii) Removal of the ACM using wet methods and promptly placing the material in impermeable containers;
  (iv) Final clean-up with vacuum equipment and dismantling of the enclosure and decontamination facilities;
  (v) Disposal of the removed ACM and contaminated materials in an approved landfill;
  (vi) Inspection and air monitoring as the work progresses, as well as final air sampling for clearance, by an entity independent of the contractor removing the ACM;

- Require that the construction firms/and or individuals employed during the construction have received training in relevant health and safety issues;
- Provide for all construction workers with personal protection means, including respirators and disposable clothing;
- Require that the beneficiary or the selected contractor notifies authorities of the removal and disposal according to applicable regulations and cooperates fully with representatives of the cognizant agency during all inspections and inquiries.

For *lead containing paints and the rest of hazardous wastes* the above mentioned national hazardous waste management procedure and standard best practice need to be applied – collection and storage in the special designated and equipped places with proper labeling, timely disposal, etc.

The project-related land acquisition, restrictions on land use and involuntary resettlement can have adverse impacts on communities and persons. This 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. These impacts will be avoided as much as possible, if unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons will be carefully planned and implemented.

7.2. Specific measures for safe agricultural chemicals management and addressing ESS2, ESS3 and ESS4 requirements

<u>*General remarks.*</u> Although the project will not support purchasing and use of mineral fertilizers and pesticides, the farmers routinely use acaricides to control ticks and other ectoparasites. Furthermore, to a limited extent they also purchase on their own agro-chemicals for improved agricultural production which might cause impacts on the environment and on the farmers' health. By reducing pesticide use, agriculture and livestock production operators may reduce not only the environmental impacts of their operations, but also production costs. Pesticides should be managed to avoid their migration into off-site land or water environments by establishing their use as part of an Integrated Pest Management (IPM) strategy and as documented in a Pesticide Management Plan (PMP) (see Annex 11 with main requirements for a PMP). The following stages should be considered when designing and implementing an IPM strategy, giving preference to alternative pest management strategies, with the use of synthetic chemical pesticides as a last option.

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The objective of ESMF in this regard is to encourage adoption of Integrated Pest Management approach and increase beneficiaries' awareness of pesticide-related hazards and good practices for safe pesticides use and handling. This will be done by providing relevant information dissemination and training. Below are presented key issues that should be reflected in the training curricular.

Principles of the Integrated Pest Management. The primary aim of pest management is to manage pests and diseases that may negatively affect production of crops so that they remain at a level that is under an economically damaging threshold. Pesticides should be managed to reduce human exposure and health hazards, to avoid their migration into off-site land or water environments and to avoid ecological impacts such as destruction of beneficial species and the development of pesticide resistance. The IPM consists of the judicious use of both chemical and nonchemical control techniques to achieve effective and economically efficient pest management with minimal environmental contamination. IPM therefore may include the use of:

a) Mechanical and Physical Control;
b) Cultural Control;
c) Biological Control,
d) rational Chemical Control.

Although IPM emphasizes the use of nonchemical strategies, chemical control may be an option used in conjunction with other methods. Integrated pest management strategies depend on surveillance to establish the need for control and to monitor the effectiveness of management efforts.

Alternatives to Pesticide Application. Where feasible, the following alternatives to pesticides should be considered:

- Rotate crops to reduce the presence of pests and weeds in the soil ecosystem;
- Use pest-resistant crop varieties;
- Use mechanical weed control and / or thermal weeding;
- Support and use beneficial organisms, such as insects, birds, mites, and microbial agents, to perform biological control of pests;
- Protect natural enemies of pests by providing a favourable habitat, such as bushes for nesting sites and other original vegetation that can house pest predators and by avoiding the use of broad-spectrum pesticides;
- Use animals to graze areas and manage plant coverage;
- Use mechanical controls such as manual removal, traps, barriers, light, and sound to kill, relocate, or repel pests.

Pesticide Application. If pesticide application is warranted, users are recommended take the following actions:

- Train personnel to apply pesticides and ensure that personnel have received applicable certifications or equivalent training where such certifications are not required;
- Review and follow the manufacturer's directions on maximum recommended dosage or treatment as well as published reports on using the reduced rate of pesticide application without loss of effect, and apply the minimum effective dose;
- Avoid routine "calendar-based" application, and apply pesticides only when needed and useful based on criteria such as field observations, weather data (e.g., appropriate temperature, low wind, etc.),
- Avoid the use of highly hazardous pesticides, particularly by uncertified, untrained or inadequately equipped users. This includes:
- Pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Classes 1a and 1b should be avoided in almost all cases, to be used

only when no practical alternatives are available and where the handling and use of the products will be done in accordance with national laws by certified personnel in conjunction with health and environmental exposure monitoring;

- Pesticides that fall under the World Health Organization Recommended Classification of Pesticides by Hazard Class II should be avoided if the project host country lacks restrictions on distribution and use of these chemicals, or if they are likely to be accessible to personnel without proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly;
- Avoid the use of pesticides listed in Annexes A and B of the Stockholm Convention, except under the conditions noted in the convention and those subject to international bans or phase outs;
- Use only pesticides that are manufactured under license and registered and approved by the appropriate authority and in accordance with the Food and Agriculture Organization's (FAO's) International Code of Conduct on the Distribution and Use of Pesticides;
- Use only pesticides that are labelled in accordance with international standards and norms, such as the FAO's Revised Guidelines for Good Labelling Practice for Pesticides;
- Select application technologies and practices designed to reduce unintentional drift or runoff only as indicated in an IPM program, and under controlled conditions;
- Maintain and calibrate pesticide application equipment in accordance with manufacturer's recommendations. Use application equipment that is registered in the country of use;
- Establish untreated buffer zones or strips along water sources, rivers, streams, ponds, lakes, and ditches to help protect water resources;
- Avoid use of pesticides that have been linked to localized environmental problems and threats.

Pesticide Handling and Storage. Contamination of soils, groundwater, or surface water resources, due to accidental spills during transfer, mixing, and storage of pesticides should be prevented by following the hazardous materials storage and handling recommendations. These are the following:

- Store pesticides in their original packaging, in a dedicated, dry, cool, frost-free, and well aerated location that can be locked and properly identified with signs, with access limited to authorized people. No human or animal food may be stored in this location. The store room should also be designed with spill containment measures and sited in consideration of potential for contamination of soil and water resources;
- Mixing and transfer of pesticides should be undertaken by trained personnel in ventilated and well-lit areas, using containers designed and dedicated for this purpose.
- Containers should not be used for any other purpose (e.g., drinking water). Contaminated containers should be handled as hazardous waste and should be disposed in specially designated for hazardous wastes sites. Ideally, disposal of containers contaminated with pesticides should be done in a manner consistent with FAO guidelines and with manufacturer's directions;
- Purchase and store no more pesticide than needed and rotate stock using a "first-in, first-out" principle so that pesticides do not become obsolete. Additionally, the use of obsolete pesticides should be avoided under all circumstances; a management plan that includes measures for the containment, storage and ultimate destruction of all obsolete stocks should be prepared in accordance to guidelines by FAO and consistent with country commitments under the Stockholm, Rotterdam and Basel Conventions.
- Collect rinse water from equipment cleaning for reuse (such as for the dilution of identical pesticides to concentrations used for application);
- Ensure that protective clothing worn during pesticide application is either cleaned or disposed of in an environmentally responsible manner

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- Maintain records of pesticide use and effectiveness.

Safety issues in mineral fertilizers usage and handling. Similarly, as in the case of usage of pesticides, fertilizers usage may provide important benefits for forage production, they also pose certain risks associated with accidental expose of environment and of farmers during their inappropriate handling and usage. To avoid adverse environmental impacts while using mineral fertilizers it is necessary to comply strictly with a series of requirements, stipulated in the existing legal documents as well as in the fertilizers Guidelines for their handling. The rules and procedures of production, storage, transportation and usage of the mineral fertilizers are reflected in specific national enactments.

Main requirements while using mineral fertilizers. The usage of different mineral fertilizers should be done depending on such factors as type and quality of the soil, type of the crop, system of crop rotation, weather and climate conditions, ways and terms of their application.

Provisions with regard to fertilizers storage:

- Keep stocks of fertilizers, and soil amendment materials to the minimum required.
- Ensure that the storage facility is appropriately secured.
- Fertilizers and soil amendment materials are not to be stored in contact with ground surfaces.
- Storage areas/facilities must be weather-proofed and can exclude runoff from other areas.
- Do not store in close proximity to heat sources such as open flames, steam pipes, radiators or other combustible materials such as flammable liquids.
- Do not store with urea.
- Do not contaminate fertilizers, and soil amendment materials with other foreign matter.
- In case of fire flood, the area with water.
- If augers are used to move the material to ensure that any residue(s) in the immediate area is cleaned up.
- Dispose of empty bags in an appropriate manner.

Provisions with regard to fertilizers field usage:

- Keep fertilizer amounts to a minimum and covered to avoid unnecessary expose to open air.
- Keep spreaders and air seeders that are left in the field overnight covered.
- Cover spreader and air seeders between jobs.
- Ensure that the drill, air seeder and/or fertilizer box is completely empty at the end of each day. If the drill, air seeder and/or fertilizer box cannot be fully emptied, fill it prior to storage for the night.
- Do not store dry urea with dry ammonium nitrate.

Ensuring minimization of hazards associated with inappropriate handling and usage of fertilizers:
Table 22 below provides information about typical hazard scenarios that may arise in conjunction with the procurement, handling, and storage of fertilizers as well as the recommended measures to control the potential risks.

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Table 22. Typical hazard scenarios and recommended measures in the case of mineral fertilizers handling

Likely Hazard Scenario	Recommended Control Strategy
Spillage	Ensure all storage areas and/or facilities are secure and appropriate. Ensure all fertilizer products can be contained within the storage area and/or facility selected. Provide appropriate equipment and materials to clean up a spillage
Transportation and delivery of goods	Cover any loads of fertilizer products whilst in transit. Ensure that deliveries of fertilizer products are made at appropriate times. Do not accept any containers of fertilizer products that are damaged and/or leaking. Ensure that any spillages that occur during delivery are cleaned up appropriately.
Drift of dust from storage areas and/or facilities	Keep fertilizer products covered and/or sealed. Clean up spillages promptly. Keep "in use" stocks to the minimum required. Staff responsible for storage areas and/or facilities to will ensure that the drift of dust beyond the perimeter is kept to a minimum.
Storage areas Floors	Keep floor surfaces swept clean of fertilizer to prevent tracking by people and/or vehicles beyond the perimeter. Sweep up and dispose of spillages in a timely and appropriate manner.
Cross contamination of product	Keep each fertilizer product will in a separate storage container and/or position within the facility and/or area.
Confusion of Product	Maintain an accurate storage manifest/register. Keep products and blends are always segregated. Ensure all storage bays and bins are clearly labelled. Ensure all storage, loading and blending plant and equipment is cleaned from all residues when changing from one product to another. Do not store product in bags that are not correctly stamped.
Occupational Health and Safety	Contact between fertilizer products, people and livestock will be minimized.
Risk Assessments	Risk Assessments are required to be conducted on the procurement, storage and handling of fertilizer products.
Contact with people and livestock	Managers will develop, implement and monitor the effectiveness of hazard management procedures. All persons using fertilizer products are to adhere to the hazard management procedures and adopt safe working practice and ensure that direct contact with fertilizer and the inhalation of fertilizer dust is minimized. Managers are to ensure that staff is made aware of any national and industry regulations which have to be observed.
Personal Protective Equipment	Staff must be provided with appropriate PPE when using fertilizer products.
Lack of appropriate warning safety signage and information	Managers must ensure that appropriate safety warning signs and/or information is displayed/ available regarding nature of hazards and risk control measures.
Poor housekeeping and/or routine maintenance	All staff is responsible for implementing sound housekeeping practices in storage areas and arranging regular routine maintenance for all equipment used.
Defective &/or unserviceable plant & equipment	Conduct regular inspection & testing of equipment and infrastructure to identify what maintenance requirements

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Incorrect or inappropriate mixtures of product	Fertilizer blends to be prepared using the right raw materials in the appropriate proportions. All products will be loaded into spreaders etc., in the right condition to the right weight.
Number of trainings	Staff will undertake appropriate training.
Lack of appropriate records &/or documentation	All relevant records and documentation to be kept and maintained e.g. training records, risk assessments, maintenance schedules, recipes for fertilizer blends, MSDS's etc.

Ensuring safe application of acaricides in livestock, silk production and beekeeping. To reduce the impacts of ticks and other ectoparasites farmers routinely use Acaricides which are applied through, dipping, spraying, spot treatment or hand dressing. Dipping provides a highly effective method of treating animals with Acaricides for the control of ticks. The disadvantage of this method however is the initial construction cost and the cost of Acaricide which make this method unattractive for small scale ranching operations. The method involves immersion of animals in a dipping tub containing solution of chemicals.

The spraying method of tick control is not as efficient as dipping. It involves the use of fluid Acaricides applied to animals by means of a spray. The spraying equipment is portable and needs only small amounts of Acaricides to be mixed for the application. The Acaricides may not be thoroughly applied to all parts of the animal body hence it is less efficient than the dipping method of application. The 2 methods mentioned above, dipping and spraying may not exposed ticks in the inner parts of the ear, under part of the tail, the tail brush and the areas between the teats and the legs in cattle with large udder, to the Acaricides and hence may escape treatment. The process of applying Acaricides to these areas by hand is termed hand dressing or spot treatment. The advantage here is that the method is more effective and economical in terms of cost of Acaricide as spot treatment is restricted to only selected areas instead of the whole animal. The disadvantage however is that the process is time consuming and laborious.

To reduce inappropriate handling and improve usage of acaricides and anti-helminths at recommended doses, the labelling of parasiticides in the project area should be packaged in suitable containers with instruction in the national/Russian language, include the use of containers graduated by pictorial symbols or pictograms illustrating animal size and corresponding quantities of the drug required for treatment. Also, biological and integrated parasite management methods should be encouraged and taught to rural farmers to reduce the use of pervasive veterinary parasiticides. Stringent policies and efforts by Government of Kyrgyz Republic are also required to regulate the importation, distribution and marketing of agro-chemicals. All specified measures will be promoted via the training Program supported under the project.

7.3. Specific mitigation measures for livestock-related subprojects

Ensuring bio-safety and waste management and preventing inadvertent spread of the animal diseases. The Project will finance essential equipment, consumables and reagents, staff training and technical assistance for the veterinary laboratories and veterinary posts to be installed. The training activities will focus on laboratory waste management by basing training and upgrades to laboratory infrastructure and equipment on "International Best Practice in Safety of Research Laboratories" developed by the US National Institutes of Health. Design of upgrades for veterinary laboratory and posts will include facilities for safe disposal of wastes and contaminated materials. Construction and renovation work associated with the rehabilitation of laboratory and veterinary posts will be carried as specified above, ensuring the implementation of all mitigation measures specified in the EMP Checklist. The EMP Checklist will be included as part of the construction/rehabilitation contracts. In addition, waste generated in upgraded laboratory facilities

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will be managed using existing national guidelines that are consistent with international good practice.

Carcass. To prevent infectious illness and odour as well as the generation of vector, it is required to take proper measures to manage and rapidly disposal of carcass. The operator should implement the actual management and disposition system and not recycle carcass as animal feed. It is recommended to reduce mortality by taking proper animal-care and prophylactic measures. Livestock and poultry died of disease shall be timely disposed of and not allowed to be casually discarded, sold or reused as feed. While collecting carcass, proper storage is required, if necessary, refrigeration should be taken to prevent decomposition. It is feasible to bury carcass at the site if no other carcass disposal methods are issued by local authority. Landfill site, regardless of its location, should be accessible for excavating equipment. The site with soil stability and low permeability should be equipped with insulation layer strong enough to separate the area from houses and water sources to prevent pollution caused by odour from buried decaying matters or filtered matters.

Animal waste. Livestock and poultry excrement collection system: for the ground designed with groove, the livestock and poultry excrement should be pushed falling into the underground storage zone; for the ground designed without groove, it is necessary to scrape and wipe the floor and flush with water. For the livestock and poultry excrement used for farmland fertilizer, since it contains dangerous chemical and biological elements, it is necessary to make careful analysis of potential impact beforehand. Some treatments to some extent and preparations as well as proper application ratio may be required before utilizing the excrement as fertilizer.

To reduce the pollution of livestock and poultry excrement to the surface water, ground water and air as much as possible, it is recommended to select proper feeds according to the nutrient requirement in different production and growth stage of animal; select the feeds low in protein and amino acid; by grinding feeds, to improve absorptivity and reduce the consumption of feed, thus less livestock and poultry excretion will be produced (while increasing the livestock and poultry yield); select the high-quality and pollution-free feeds (for instance, the content of pesticide and dioxin must be known or not exceed the standard requirement) with content of additives like copper and zinc not exceeding the required amount for animal's healthy growth. It is necessary to regularly collect solid wastes (such as the bedding and excrement) and refrain from leaving the wastes overnight. To reduce the storm runoff in the storage system, the dry livestock and poultry excrement or garbage from the farm should be stored in a place with cover or ceiling.
In addition, the following management techniques are recommended to further reduce the impacts of water runoff from poultry operations: reduce water use and spills from animal watering by preventing overflow of watering devices and using calibrated, well-maintained self-watering devices; install vegetative filters to trap sediment; install surface water diversions to direct clean runoff around areas containing waste.

Preventing environmental pollution and ensuring rational manure management. Proper manure management refers to capture, storage, treatment, and utilization of animal manures in an environmentally sustainable manner. It can be retained in various holding facilities. Animal manure (also referred to as animal waste) can occur in a liquid, slurry, or solid form. It is utilized by distribution on fields in amounts that enrich soils without causing water pollution or unacceptably high levels of nutrient enrichment. Manure management is a component of nutrient management. One of the key factors of animal waste management is the design of one or more storage structures (ponds, tanks, and/or dry stacks) that can store the waste generated for time period recommended by the state and local regulatory agency. It is also necessary further reduce the moisture content of dry poultry excreta (e.g., by blowing dry air over it or by conveying ventilation air through the manure pits) and minimize the surface area of manure in storage.

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Recommended measures to prevent and control dust emissions during dairy processing activities mainly consist of the installation of exhaust ventilation equipped with dry powder retention systems (e.g., cyclones or bag filters). Bag filters are generally favoured over wet scrubbing methods, as they use significantly less energy, generate less or no wastewater, and produce less noise. The presence of hot air and fine dust creates fire and explosion impacts. All modern spray dryers should be equipped with explosion release mechanisms and fire prevention systems. Measures to be taken to minimize potential negative environmental impacts depend on their type, magnitude, combination and distribution. All of them are expected to be typical, temporary by nature and site specific and can be easily mitigated by applying relevant mitigation measures.
Furthermore, the project would support additional TA activities to strengthen the existing institutional capacities to ensure that effective ESAs are conducted, ESMPs are implemented properly and monitoring systems are put in place. Attention would be those activities resulting in water, soil and air pollution, and soil erosion.

Prevention and response-focused activities are expected to have a positive environmental impact, as the investments in facilities, equipment, and training for veterinary and public health service staff and laboratories will improve the effectiveness and safety over existing animal diseases handling and testing procedures by meeting international standards established by the World Organization for Animal Health (OIE) and the World Health Organization (WHO).

7.4. Ensuring Occupational Health and Safety (OHS) issues

OHS issues must be covered in all supervision and monitoring activities. That means specifically asking 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 PIE 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 PIE will ensure that at the project launch workshop and in the operational manual contain adequate provisions for occupational health and safety.

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 PIE checked with all contractors and consultants if any OHS incidents occurred, either reported or not yet reported. The PIE found (EITHER) (i) no new incidents occurred during this supervision period, or (ii) **X** incidents occurred (include classification, a brief description of event and follow-up actions, and confirmation event was reported via SIRT)].*

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 E&S measures OR conditions that occur because of unexpected or unforeseen E&S risks or impacts during project implementation. Examples of E&S incidents include: fatalities, serious accidents and injuries; social impacts from labor influx; sexual exploitation and abuse (SEA) and Sexual Harassment (SEA/SH); major environmental contamination; child labor; forced labor; risks and adverse impacts from temporary project induced labor influx; 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

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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 safeguard provisions. The document includes the following six stages of the incident management and reporting process:

Stage 1. Informing the PIE, 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.
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.

The proposed above scheme and stages of subproject beneficiaries and of ARIS in the case of OHS accidents are mandatory and will be implemented through the whole project implementation.

7.5. Land acquisition, land use restriction and involuntary resettlement (ESS5)

ESS 5 takes into account the fact that land acquisition and restriction of land use in connection with the implementation of projects can have negative impacts on communities and individuals. For these reasons, involuntary resettlement should be avoided. Where involuntary resettlement cannot be avoided, its effects should be minimized and, in doing so, appropriate measures to mitigate adverse effects on resettled persons (as well as on host communities) should be carefully considered and implemented. Towards addressing such impacts, a Resettlement Policy Framework (RPF) is developed with description of steps on preparing and implementing resettlement action

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plans (RAP). The framework clarifies resettlement principles, organizational arrangements, and design criteria to be applied to subprojects or project components to be prepared during project implementation. Once the subproject or individual project components are defined and the necessary information becomes available, the framework will be expanded into a specific resettlement action. Project activities that will cause physical and/or economic displacement will not commence until such specific plans have been finalized and approved by the Bank.

The Borrower shall build relationships with affected communities, including host communities, through the stakeholder engagement process described in ESS10. The decision-making process for resettlement and livelihood restoration should include options and alternatives offered to affected persons to choose from. Disclosure of relevant information and meaningful participation of affected communities and individuals will take place during consideration of the project alternatives and thereafter during planning, implementation, monitoring and evaluation of the compensation process, livelihood restoration activities and resettlement process.

7.6. Specific requirements for subprojects with potential risks and impacts on Biodiversity (ESS6)

As indicated in Table 2 Section 2.5, the requirements of this standard are relevant for the project. The environmental and social impact assessment for all project activities and subprojects will be screened against biodiversity and natural resources requirements as set out in ESS1 and ESS6. The assessment will consider threats to biodiversity, including habitat loss, hydrological changes, nutrient loading, pollution and incidental take. If any site-specific subprojects and activities would cause adverse impacts on biodiversity, they will be excluded from the project financing. Adequate mitigation measures will be included in the site-specific ESMP and implementation of the measures will be monitored by ARIS.

7.7. Requirements for subprojects with impacts on Cultural Heritage

The project is not planning to rehabilitate facilities which are included in the list national or local PCRs. It is expected that the rehabilitation and restoration works will mainly include primarily repair and upgrading of some public buildings and may also cover some interior utility networks (electricity, water, heating, a/c, etc.) and landscaping.

The project might support a series of subprojects related to various civil works that would involve significant excavations, demolition, movement of earth, or other changes in the physical environment, during which physical, cultural resources might be found. To address this issue all such subprojects 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.

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

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7.8. ESA requirements for the existing enterprise

For expansion of existing facilities or where change of technology is proposed, or when the farmers are asking for matching grants for seeds; mineral fertilizers and agricultural machinery purchasing an environmental audit may be required, and/or environmental due diligence procedure, depending on the nature of the sub-project. Such procedure would include collecting and checking relevant information and documents regarding the environmental performances of selected enterprise (see Table 23).

Table 23. Environmental eligibility checklist for the existing enterprise and screening criteria for the proposed project

No.	Criteria	N/A	Yes	No	Comments
1	Does the enterprise have a valid operating permit, licenses, approvals etc.?				If no, (a) all required licenses/permits/approvals etc. must be obtained prior to project approval; or (b) the project investment must include funds to obtain them.
2	Does the enterprise meet all national environmental regulations regarding air emissions, water discharges and solid waste management?				If no, (a) the facility must take corrective measures to meet all environmental regulations prior to project approval, or (b) the investment must include funds to meet them.
3	If the enterprise has any significant outstanding environmental fees, fines or penalties or any other environmental liabilities (e.g., pending legal proceedings involving environmental issues etc.) will the investment be used to correct this condition?				If the enterprise has outstanding liabilities, it must take corrective measures to remove them prior to project approval.
4	If any complaints were raised by local affected groups or NGOs regarding conditions at the facility, will the investment be used to remedy these complaints?				If yes, the PFIs should examine the nature of the complaints and actions taken to address them. If there are significant unresolved complaints, the PFIs should consult with the WB regarding appropriate actions.

7.9. Transboundary impacts on international waters

The proposed activities will be located in the Batken Region of the Kyrgyz Republic, and there are rivers, a tributary of the Syr-Darya River that is shared by the Kyrgyz Republic, Kazakhstan, Tajikistan, and Uzbekistan and thus an international waterway according to OP 7.50. The potential transboundary water impacts under the Project are related to investments under Component 1: Supporting Municipal Infrastructure and Basic Public Services; and Component 2: Strengthening Agricultural Competitiveness. Under Component 1, specific investments for water supply and sanitation will be limited to the rehabilitation of the existing water supply pipes and networks in the selected areas, and/or rehabilitation of water reservoirs, all of which are small-scale works,

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therefore there will be no additional water abstraction under this component. Under Component 2, the Project is expected to make investments to rehabilitate existing irrigation systems and promote adoption of drip irrigation technology in newly irrigated areas. Rehabilitation of existing irrigation schemes is expected to be small-scale and would improve water use efficiency. Due to the limited scope of the Project area and the relative efficiency of drip irrigation technologies in contrast to traditional furrow irrigation, the Project is expected to result in net water savings.

To adhere to the commitments made under existing riparian agreements, the Project will ensure: (i) sharing of relevant environmental and water source information from the initial assessment and sub-project sites once it becomes available. Information will be made publicly available on the Project website and this disclosure obligation will be included as part of the Environment and Social Commitment Plan (ESCP); and (ii) that overall water abstraction under of the Project (both additional water abstractions due to new investments as well as reduction in abstractions because of conversion to drip irrigation in existing schemes) will not negatively impact the agreed water allocations between riparians through the use of selection criteria that would ensure that the currently calculated net water savings will indeed materialize or that savings and abstractions will at minimum balance each other out. This will be monitored as part of the World Bank's implementation support and prior review process. Following the requirements of the OP7.50, notifications on behalf of the Kyrgyz Republic were sent by the World Bank (at the request of the Kyrgyz Republic) to all riparian countries during the project preparation stage.

7.10. Stakeholder Engagement and Information Disclosure

ESS 10 applies to all projects supported by the Bank using the investment and project finance instrument. The Borrower interacts with relevant stakeholders in the process of socio-environmental assessment, project development and implementation in accordance with SES1.

Requirements. Borrowers must engage with stakeholders throughout the project life cycle, starting such engagement as early as possible in the project development process and at a time that allows for meaningful consultation with stakeholders on project content. The nature, scope, and frequency of stakeholder engagement should be commensurate with the nature and scope of the project and its potential risks and impacts.

Requirements for employee engagement are outlined in ESS2. Specific provisions for emergency preparedness and response measures are outlined in ESS2 and ESS4. Where projects involve involuntary resettlement or or cultural heritage, the Borrower must also comply with the specific disclosure and consultation requirements set out in ESS5 and ESS8.

7.11. World Bank Assistance in complying with the ESSs

The Bank's environmental and social specialists will provide support to ARIS to ensure smooth implementation of the Project activities in consistency with the applicable Environmental and Social Standards of the Bank. As part of the implementation support mission, the WB environmental and social specialists will conduct site visits to monitor the compliance of the contractors with good construction practices and other requirements to be specified in site-specific ESMPs. Additionally, the social specialists will be reviewing the consistency of land acquisition with the requirements of the RPF and RAPs to be prepared for project activities. The Bank task team will provide guidance in, and review, key environmental and social monitoring documents, such as ESMPs, RAPs, RAP Completion Reports, and quarterly/semi-annual progress reports and support in meeting its commitments set out in the ESCP.

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8. MONITORING AND REPORTING

8.1. Monitoring plans

The environmental and social issues included within the mitigation measures will be monitored and supervised by the project beneficiaries, contractors and local specialists appointed by the Implementing Agency. Environmental and social monitoring system starts from the preparation phase of the subproject through the operation phase in order to prevent adverse impacts of the project and observe the effectiveness of mitigation measures. This system helps the WB and the Client 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 on the project progress. In this regard, the 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. A Monitoring Plan Format is presented in Part C of the ESMP Checklist document in Annex 7. A monitoring plan should be prepared and included in the subprojects ESMPs.

8.2. Subroject's monitoring and reporting responsibilities

ARIS E&S staff will monitor all subprojects that it finances to ensure conformity to ESSs requirements during construction, operation and maintenance. They will ensure full compliance with the contract conditions and the ESMP. Final payment to the contractor should be contingent on the final inspection, with attention to the requirement to restore the site to its original condition upon completion of rehabilitation activities. These requirements will be specified in the contracts along with non-compliance remedies.

The environmental monitoring of the rehabilitation sites will include regular observations of soil and water and vegetation within and around the rehabilitation sites; the involvement of the environmental inspectors in monitoring and evaluation will help in developing systematic environmental monitoring on rehabilitated sites.

ARIS's E&S staff will conduct regular visits to sub-project sites. Based on ESSs performance of different subprojects, they will advise on the subsequent disbursements that should be done for the contractors awarded a contract to implement subprojects under the RED-2. If it is found that there is an ESMF and/or ESF non-compliance, further disbursements will be stopped until ESF compliance is ensured. In addition, in the project areas the PIE will be responsible for the environmental and social monitoring activities identified above as part of the preventive actions and mitigation measures proposed to address potential adverse impacts. This monitoring will be incorporated into the overall project monitoring plan required by the World Bank as part of project performance. As part of its environmental and social monitoring activities, ARIS will conduct random inspections of project sites to determine the effectiveness of measures taken and the impacts of subproject activities on the surrounding environment. ARIS is also responsible for processing, addressing and monitoring complaints and other feedback, including that on environmental and social issues.

Also, ARIS will be responsible for ESMP reporting and will:

- Record and maintain the results of project supervision and monitoring throughout the life of the project. It will present summary progress reports on ESMF/ESMP implementation and the E&S aspects of subprojects on a semi-annual basis to the World Bank, and as part of this reporting, provide updates on any RED-2 related as grievances/feedback that was received, that has been addressed and that may be pending.
- Prepare quarterly reports on the progress of implementation of measures proposed by the ESMP for selected subprojects;
- Prepare annual reports on the environmental impacts originated during implementation of subprojects and analyze the efficiency of mitigation measures applied to minimize negative consequences;
- Prepare outlines and requirements for Contractors' reports on environmental protection and mitigation measures, and review Contractor's monitoring plan and reports; and,
- Present the impact of mitigation and environmental and social protection measures for the general public via specific publications or/and annual public seminars.

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9. INSTITUTIONAL ARRANGEMENTS AND CAPACITY FOR ESMF IMPLEMENTATION

This section describes all involved actors in the ESMF implementation and an assessment of their capacities to perform their duties. Based on that it will be necessary to propose a set of concrete capacity building and strengthening of involved institutions to assess and control the environmental and social impacts of the potential types of subprojects for inspection and enforcement to comply with existing and proposed legislation and any other requirements needed to ensure fulfillment of the proposed environment monitoring at national and local level.

9.1. National ESA Institutional Framework

Potential government institutions to be engaged in the Project are listed below.

Steering Committee (SC). To ensure coordination and flow of information and timely decision-making on strategic and programmatic aspects at the highest level, the Project will be overseen by SC to be established with the participation of the Deputy Minister or director level representatives from various relevant line ministries and government agencies: Cabinet of Minister's, President's Office, Ministry of Finance (MoF), Ministry of Economy and Commerce (MoEC), Ministry of Agriculture (MoA), State Agency for Architecture, Construction and Utilities, and the Plenipotentiary Representative of the Government in the Batken Region. This committee will be chaired at the level of the Cabinet of Ministers, with the MoEC providing secretariat support.

Ministry of Economy and Commerce. The Ministry of Economy and Commerce of the Kyrgyz Republic develops and implements the state policy in the field of macroeconomic, antimonopoly, tariff, licensing, investment, foreign economic, fiscal policies, policies in the field of public-private partnerships, state material reserves, economic and regional development. The task of the Ministry is to ensure socio-economic progress and sustainable development of the Kyrgyz Republic.

The Ministry of Agriculture of the Kyrgyz Republic. The Ministry of Agriculture of the Kyrgyz Republic is responsible for implementing the state policy in agriculture, land, irrigation and land reclamation infrastructure, and the processing industry. The goal of the Ministry is to ensure food security, development of agricultural production and processing industry of the Kyrgyz Republic.

The tasks of the Ministry are: - formation of a unified state policy for the development of agriculture, water, fisheries and the processing industry, as well as for ensuring veterinary-sanitary, phytosanitary safety and safe handling of pesticides and agrochemicals; ensuring the state's domestic needs for agricultural products and increasing the country's export potential; identifying priority areas and strategies for the development of innovative research, based on the needs of producers and processors of agricultural products, as well as national interests, promoting the implementation of the achievements of science and technology in the practice of production;

Ministry of Natural Resources, Environment and Technical Supervision (MNRETS).

The **Ministry of Natural Resources, Environment and Technical Supervision (MNRETS)** is the key institution responsible for development and implementation of environmental policy in the Kyrgyz Republic, as well as state supervision and control over observing the safety standards for human life and health, flora and fauna, the environment and prevention of negative consequences. The state environmental expertise procedure is mandatory for any plans or projects that imply adverse environmental impacts and if the activity is included in the EIA law. According to the law, no project can be considered as fully operational without a positive conclusion to be issued by the State Environmental Expertise.

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Ministry of Health (*Department of Sanitary and Epidemiological Surveillance*). The Ministry of Health develops and approves sanitary regulations, rules, and hygienic standards, carries out state sanitary supervision over their observance as well as methodological supervision of the work of sanitary and epidemiological services, regardless of their departmental subordination.

9.2. Project coordination

The **Ministry of Economy and Commerce (MoEC)** will be the ***project coordination Ministry*** responsible for overall project coordination (including with the line ministries and departments). MoEC will also overall manage the RED-2 through its Regional Development Department, with the MoEC Deputy Minister having overall responsibility for ensuring smooth and high-quality project implementation. MoEC responsibilities will further include reviewing and endorsing annual work plans and budget (prepared by ARIS), providing relevant technical inputs, especially on a strategic and policy level or on issues related to economic promotion matters.

9.3. Project Implementation Unit

The Community Development and Investment Agency (or **ARIS)** will be the ***project implementation entity (PIE)*** responsible for:

- all fiduciary (e.g., procurement, financial management, preparation of annual reports, budgets etc.); and
- ESF (e.g., assessments, document preparation and embedding E&S specialists in local and regional gov to carry out supervision, monitoring and compliance) functions for the RED-2.

The ARIS is led by a Project Director and has staff capacity in procurement, financial management, and technical sectors. The PIE will hire also E&S Specialists which will oversee overall coordination of individual ESMF and ESMPs implementation, reporting to PIE and to the WB regarding E&S issues, as well as of integrating ESSs requirements into biding and contracting documents. E&S specialists also will be responsible for interaction with the government authorities, local implementing agencies ensuring an efficient implementation of ESF documents and will undertake, randomly, field visits and environmental and social supervision and monitoring, assessing environmental and social compliance at worksites, advising project municipalities on environmental and social standards. They will be, also, responsible for identifying EA training needs for all parties involved in ESMF/ESMPs implementation.

The number of E&S specialists, including environmental and social specialists, will be determined by the Project Operations Manual. They will have the main responsibilities to ensure that project activities are carried out in accordance with the WB ESSs, site-specific ESF documents such as Environmental and Social Impact Assessment Studies (ESIAs), and preparation of Environmental and Social Management Plans (ESMPs) and Resettlement Action Plans (RAPs), (RAPs) and adherence to national ESA rules and procedures.

9.4. Beneficiaries and Contractors' responsibilities

The actual investments will be carried out by contractors selected through the public tendering process. They should operate in full compliance with national environmental and social legislation and with the ESMPs requirements. Further, the contractors are obliged to follow regulative requirements of the national law related to traffic safety, occupational health and safety; fire safety; environmental protection; and community health and safety. All ESMPs' associated activities will be financed by the contractors. The contractors will also be requested to designate a person in

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charge of environmental, social, health and safety issues and for implementing the ESMP. Similarly, in order to ensure an efficient implementation of the ESMPs, the subprojects' beneficiaries, in most cases these are local municipalities, will also appoint responsible persons with the main tasks of supervising subproject implementation and reporting to the ARIS in case of any environmental or social non-compliance.

9.5. ESA capacity building activities

The implementation of the ESMF requires specific knowledge for all parties, including beneficiaries and operators that will be engaged in the different phases of the project implementation. Respectively, the project will support relevant training on ESMF implementation, ESMF/ESMP reporting, World Bank Guidelines, management of hazardous materials, etc. For this purpose, before the civil works start, the Implementing Agency will hire a consultant with knowledge of the environmental and social management requirements for Kyrgyz Republic, along with substantial knowledge on World Bank ESF and requirements that will provide ESA training.

The training will include the basic requirements of the WB and National E&S rules and procedures, as well as case studies in this regard. The training activities will also continue during the project implementation when the consultant provides on the job training regarding environmental and social monitoring and supervision. The proposing the Project's capacity building on environmental and social aspects will cover three main directions:

i) ***PIE's capacity*** on ESMF implementation during sub-projects selection process and sub-project construction stages – the hired Consultant will provide respective training for ARIS's and ABCC's staff and SS on WB ESS standards requirements, ESMF, ESMP and RAP preparation and further assistance in monitoring of the RAP and ESMP. The training could be conducted in selected Batken oblast. In addition, other relevant staff members of PIE can participate in the training to widen their familiarization with the ESMF.

ii) PIE's capacity as well as the Committee for Productive Partnership Committee and Small Grants Program Committee, - on overall environmental and social performance during the projects' operation – the Consultant jointly with PIE's E&S staff will develop and conduct a training program on the general overview of WB ESS and national environmental and social requirements. The target of this training will be presentations of WB's ESF and national environmental requirements for different types (categories) of the projects and further needed actions.

iii) ***Beneficiaries' Capacity*** on development of ESIA, ESMP. Since the program will be implemented for several years and more sub-projects will be proposed for inclusion in the program, the Consultant will provide training for local agencies involved in preparing the EA report and conducting national EA. The training will be dedicated to the harmonization of the process of WB's EISA and national EA. The target will be to educate EA developers and specialists from local environmental agencies to prepare the documents that meet WB ESSs standards.

A separate training on handling, collection and disposal of hazardous materials (asbestos materials) for ARIS's E&S staff and contractors will be provided by the Consultant before starting respective works. As per national requirements the contractors will have to conduct OH&S training for workers with indication in special logbook which will be kept on each construction site.

For the project sustainability it is important along with physical interventions, institutional improvements and financial enhancing, to increase people's awareness on the project related topics, particularly waste management, water supply and sanitation aspects. It is proposed, that

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hired Consultant in collaboration with national NGOs and relevant agencies will develop awareness program which will cover three mentioned above topics and delivered to the target groups through seminars.

For Substantial and Moderate Risk subprojects, PIE is also responsible for providing funding for installation and other activities to minimize any hazardous environmental impacts to be included in the subproject costs during construction and operation. The amount of required funding will depend on the technique/technologies used for implementing mitigation measures and their scale, number, variety and other factors.

In order to ensure successful ESMF implementation, funding is also required to finance capacity building activities. Since it is difficult to prepare budget estimates for capacity building at this stage, this information will be included in the procurement plan. The tentative plan of capacity building and training plan is presented below.

Table 24. Tentative plan for capacity building and training program

	Name of training	Time and tentative duration of the training	Recipients	Organizer	Tentative cost
1	Overview on WB ESSs and their implementation during the project cycle. National Environmental requirements for project preparation and implementation	During first year of Project implementation Duration – 1 day	ARIS, Productive Partnership Committee and Small Grants Program Committee Local authorities	ARIS, Consultant	3,000 USD
2	Implementation of ESMF, ESMP, RPF and ARAP/RAP	Before sub-projects selection and approval Duration - 2 days	ARIS E&S staff	ARIS, Consultant	3,000 USD
4	Development of Gender Action and CE Plans	Before project implementation on the ground 2 days	ARIS; Productive Partnership Committee, Selection and Small Grants Program Committee Local authorities	ARIS, Consultant	3,000 USD each. Total 9,000 for two cities and one oblast
5	OH&S, CHS, Handling and disposal of hazardous materials	Before starting respective works 1 day	ARIS E&S staff; Contractors; Local authorities	ARIS, Consultant	3,000 USD each. Total 9,000 two cities and one oblast
6	Awareness program	Continuously during the program implementation	General Public, Main stakeholders	Consultant, ARIS	20,000 USD
7	Citizen Engagement Component	Continuously during the program implementation	ARIS E&S staff;	Consultant	3,000 USD each. Total 9,000 two

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			Productive Partnership Committee and Small Grants Program Committee; Local Authorities		cities and one oblast
	Total				**53,000 USD**

9.6. ESMF IMPLEMENTATION BUDGET

An estimated budget for the implementation of the ESMF is provided below, together with relevant budget items and costs.

Table 25. Budget Items and Estimated Costs

Budget Items	**Estimated Costs (**$)
Hiring of PEI Individual Specialists	24000
Preparation of the Environmental and Social Instruments	15000
PEI Monitoring Activities (for 36 months)	15000
Training and awareness activities to be provided for PEI, other beneficiaries, and Contractor's ESHS Specialists (see Table 24 for details)	53,000
Total	107,000

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10. GRIEVANCE REDRESS MECHANISM

10.1. Introduction

In order to receive and facilitate the resolution of affected peoples' concerns, complaints, and grievances about the project's performance the GRM is proposed for the project. When and where the need arises, this mechanism will be used for addressing complaints that may arise during the implementation of project. The GRM addresses affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people at no costs and without retribution. The mechanism is not impeding access to the KR judicial or administrative remedies. The project proponent will appropriately inform the affected people about the mechanism before the commencement of any civil works.

10.2. 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.

10.3. Project GRM

ARIS has introduced an institutional Beneficiary Feedback Mechanism (BFM) which includes an expanded Grievance Redress Mechanism (GRM) that includes all project activities. The systems and requirements (including staffing) for the grievance redress chain of action – from uptake, sorting and processing, and acknowledgement and follow-up, to verification and action, monitoring and evaluation, and finally feedback – are embodied in this BFM. To encourage proactive beneficiary engagement, the BFM will be communicated at project orientation and on city and district center notice boards, to direct and indirect project beneficiaries. As a part of the improved system, ARIS will conduct annual outreach and ensure that staff are fully trained, and that information is available in target communities.

Taking into account the standards regarding the prevention of sexual exploitation and abuse (SEA), sexual harassment (SH), which, in accordance with the requirements of the World Bank, must be observed in all projects financed by the World Bank, these standards will be observed and responsibilities take action to raise awareness on the prevention and suppression of SEA/SH. At all stages of the project implementation, all project staff and contractors will be informed about the understanding of the principles of control and prevention of risks of SEA/SH. The BFM / GRM will ensure the access and confidentiality of the complaint mechanism, and will allow the complainant not to fear retaliation. These complaints will be investigated without undue delay, and all perpetrators will be held accountable.

As RED-1, RED-2 will utilize this BFM system to allow project beneficiaries and citizens of the Kyrgyz Republic to provide feedback on the project and to ensure that all project-related information is disseminated and complaints and responses are disaggregated and reported.

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Steps for processing and providing feedback responses:

Step 1. Registration of the appeal.

Step 2. Classification of categories / Allocation by categories of BFM / Allocation by environmental and social measures.

Step 3. Action / Response.

Step 4. Notification.

Step 5. Control of execution.

Step 6. Appeal. In case the affected person is not satisfied with the decision resulting from the consideration of grievance, he / she has the right to appeal. The appeal is considered by a special ARIS Committee which will be formed by the ARIS Executive Director. After review of the appeal, if the applicant is unsatisfied with the solution, he/she has the right to appeal the decision in a judicial procedure. The mechanism is not impeding access to the judicial or administrative remedies in Kyrgyz Republic, the affected person can communicate his/her concern to the court at any stage of grievance.

Channels for submitting grievances

1.Hotline: +996 (550) 70-05-22, (calls are received around the clock, the conversation will be recorded); 2. WhatsApp: +996 (770) 70-05-22, (instant messaging system for mobile devices with voice and video support); 3. Social networks (Facebook ARIS BFM); 4. Web-site address: www.aris.kg. 5. Verbal or written grievance received during the on-site working meetings; 6. Incoming correspondence via courier to ARIS reception; 7. Incoming correspondence by e-mail: bfm@aris.kg 8. CO ARIS tel.: +996 (312) 301805 (reception) 9. CO ARIS address: 102 Bokonbayev St., Bishkek, Kyrgyz Republic	1. Grievances are recorded in the BMF logbook under incoming correspondence and are considered if the following information is present: • Full name; • address of registration and residence or telephone number; • content of the grievance; • other reference information. If a grievance missing any of the above data, it is recorded in the logbook under incoming correspondence of the BFM and the results of the grievance will be published in the mass media at the local level, on ARIS website or made public at the session of the Village and City Keneshes (Councils). 2. Grievances are entered into the BFM configuration in the 1C system for analysis and monitoring. 3. Grievances may be submitted anonymously. Confidentiality shall be ensured in all cases.

In addition, an online information platform is available on the ARIS official website where beneficiaries and other stakeholders of the project can leave their appeals and complaints. https://kyrgyz-demo-republic-village-covid-19.yrpri.org/post/25458).

BFM Progress Reporting. The quarterly and annual reports of the ARIS should include a section of the BFM that provides updates on the following:
- BFM/GRM status (procedures, training, public awareness campaigns, budgeting, etc.);

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- Quantitative data on the number of appeals received (applications, proposals, complaints, requests, positive feedback) and the number of appeals that were resolved;
- Qualitative data on the type of appeal and the responses provided on them, the problems that remained unresolved;
- The level of satisfaction with the taken measures (response);
- Any corrective measures taken.

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11. ESMF DISCLOSURE AND PUBLIC CONSULTATIONS

11.1. ESMF disclosure

The environmental and social assessment process was done by involving all interested parties. The ESMF draft document in local language was published on ARIS website (https://www.aris.kg/files/prer/ramochnyj-dokument-po-upravleniyu-ekologicheskimi-i-sotsialnymi_p91749.pdf) on November 11, 2021 and with advertisement about planned public consultations. Moreover, information about the planning consultation was distributed through Batken oblast administration as well – municipalities. Furthermore, as part of information disclosure process a number of meetings have been conducted with involved parties, particularly, officials from district and city akimiats, specialists of oblast and district level utilities (water supply companies, municipal solid waste treatment companies, municipal cities beatification department, land cadaster, architectural department, the Ministry of Culture, Information and Tourism and others. During the meeting the project team discussed with various experts planned activities under the project and introduced WB ESS requirements.

11.2. ESMF public consultation

The ESMF public consultation was held on November 18, 2021 in Batken city. Representatives from all districts of Batken oblast, participating towns, cities departments on culture and architecture, and others are attended meetings (see list of participants in the Annex 14). In total, nearly 84 participants attended the meeting.

Brief information about the project, components, implementation agencies, ESMF was also presented in the meeting. During the public consultations, information about the project, anticipated environmental and social impacts, proposing mitigation measures, environmental and social assessment procedure were presented to the meetings' participants. Proposed GRM was discussed as well.

During the meeting it was explained, that final version of ESMF, which has incorporated comments, received during PC will be re-published on ARIS website and on WB external website. At the end the ARIS specialists shared their contact information for further comments, suggestions and clarifications on ESMF, they explained to beneficiaries that they could also contact through BFM/GRM system There were no questions related to social and environmental issues during discussions. The Summary of the raised issues and provided answers are presented in the Minutes of public consultation (Annex 12). Overall, the document was largely accepted by all participants and no major comments to revise the document have been received.

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ANNEXES

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Annex 1. Types of economic activities subject to EIA according to National legislation

1. Power engineering facilities:
1) central heating and power plants, heat power-stations, hydroelectric power stations;
2) industrial installations for production of electricity, steam and hot water;
3) gas-, oil-, oil products- and hot water pipelines;
4) high-voltage power transmission line;
5) warehouses for oil and oil products, gas and solid fuel;
6) ash dumps.
2. Reservoirs.
3. Enterprises engaged in extraction and processing of oil, oil products and gas.
4. Production of construction materials (cement, asphalt, asbestos sheeting, asbestos-cement pipes).
5. Farming:
1) farming intensification projects;
2) projects for land property management and reorganization;
3) projects for water resources management for farming purposes;
4) projects for land reclamation for changing the land use type;
5) poultry production units, intensive livestock units and fish farms;
6) land improvement projects.
6. Mining industry:
1) exploration and actual mining;
2) mineral output (carbonate of lime, basalt, salt, sand, gravel, clay, etc.);
3) coal miming;
4) ore mining;
5) ore treatment;
6) fabrication of base, rare and precious metals;
7) dispose and burial of waste, including hazardous and toxic waste.
7. Metal processing industry:
1) machine-building industry;
2) manufacturing of semiconducting materials;
3) air and railway transport repair services;
4) manufacturing of radio- and television equipment;
5) foundry and metal-rolling production.
8. Glass production.
9. Production of pharmaceutical drugs, biological and protein substances.
10. Chemical industry.
11. Food industry:
1) fats and oils production;
2) meat and dairy products production;
3) sugar production;
4) tobacco production;
5) wine, spirits production;
6) alcohol production;
7) brewing;
8) canned food production.
12. Textile, leather and paper making industry:
1) primary processing of leather and fur;

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2) chipboard, board and fiberboard industries;
3) leather industry;
4) paper making industry;
5) dye industry;
6) manufacturing of industrial rubber.
13. Warehouses for toxic, hazardous and radioactive substances.
14. Waste water treatment facilities, stack gas cleaning facilities.
15. water intake systems for ground water.
16. water supply systems in residential areas, hydro land reclaiming systems.
17. Construction of motor-roads and railways.
18. Airports, fly ground, testing ground, inland ports, motordrome.
19. Construction of leisure and tourist facilities.
20. Arranging of industrial hub.
21. Waste water network.
22. Mountain lifts and ski passes.
23. Disposal, recycling and burial of industrial and consumer waste.
24. Refueling stations.
25. Motor vehicle service and presale preparation stations.

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Annex 2. Exclusion list

The Exclusion List defines the types of interventions that the Project will not finance.

1. Any activity located on the disputed area or across the undemarcated border line(s).
2. Subproject/activity which may lead to the increased water use in the border areas and influence water access of downstream water users.
3. Subprojects/activities with high risk involuntary resettlement impacts.
4. Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.
5. Production or trade in weapons and munitions.
6. Production or trade in alcoholic beverages (excluding beer and wine).
7. Production or trade in tobacco.
8. Any activity related to gambling, casinos and equivalent enterprises.
9. Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
10. Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
11. Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

`

Annex 3. Environmental Screening Checklist – Forms
Form 1

ENVIRONMENTAL SCREENING CHECKLIST

Part 1

(to be completed by Sub-project beneficiary)

Subproject beneficiary:

1. Project Name:

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

3. Will the project have impacts on the environmental parameters listed below during the construction or operational phases? Indicate, with a check, during which phase impacts will occur and whether mitigation measures are required.

Environmental Component	**Construction Phase**	**Operational Phase**	**Mitigation Measures**
Terrestrial environment			
Land & soil degradation: Will the project involve land excavation?			
Generation of solid wastes, including toxic wastes?			
Soil and underground water pollution			
Air quality			
Will the project provide pollutant emissions?			
Aquatic environment			
Water Quantity: will the project involve water use?			
Water Quality / Pollution: Will the project contribute to surface water pollution			
Socio-economic environment			
Will the project assure non-deterioration of human health, occupational safety and non-disturbance of residents living near project area?			
Does the project require public consultation to consider local people environmental concerns and inputs?			
Social impacts			

`

ENVIRONMENTAL SCREENING CHECKLIST

Part 2

(to be completed by the ARIS based on the findings of the environmental screening process)

1. Sub-project Environmental Category (A, B or C) _____ (if project is categorized as A, no needs to fill next paras – sub-project could not be included into the project)

2. Will project activities be implemented:

in or near sensitive and valuable ecosystems — wetlands, wild lands, and habitat of endangered species - ____ (yes or no)

in or near areas with archaeological and/or historical sites or existing cultural and social institutions - ____ (yes or no)

in densely populated areas, where resettlement may be required or potential pollution impact and other disturbances may significantly affect communities - _(yes or no)

in regions subject to heavy development activities or where there are conflicts in natural resource allocation; along watercourses, in aquifer recharge areas or in reservoir catchments used for potable water supply; and on lands or waters containing valuable resources (such as fisheries, minerals, medicinal plants, prime agricultural soils) - _(yes or no)

If any “yes” - the sub-project will be excluded from the Program

3 Environmental Assessment required (yes or no) _____ (the next paras must be filled only for category B sub-projects)

3. Types of required EA documents (circle round the required):

partial ESIA, including site assessment and Environmental and Social Management Plan (ESMP) for Category B sub-projects;

Environmental and Social Management Plan for small scale Category B sub-projects;

ESMP checklists for small scale Category B sub-projects;

Draft Environmental Impacts Statement (for categories 2-4 (Kyrgyz) sub-projects)

Statement on Environmental Consequences (only for category 2-3 (Kyrgyz) sub-projects)

4. What environmental and social issues are raised by the sub-project?

`

_____

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

_____

_____

11. What is the time frame and estimated cost of conducting the ESIA? _____

_____

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

_____

_____

Environmental Screener: Date:

ENVIRONMENTAL SCREENING CHECKLIST

Part 3

Final Environmental Assessment Checklist

(to be completed by the ARIS based on review of the mitigation proposed and the environmental impact assessment (if required))

Was an Environmental and Social Impact Assessment needed? (Y or N) ___ If yes, was it done? ___

Was an Environmental and Social Management Plan prepared? (Y or N) _____

Are the mitigation measures to be included in project implementation adequate and appropriate? (Y or N) _____

`

Will the project comply with existing pollution control standards for emissions and wastes? (Y or N) _____ If No, will an exemption be sought? _____ _____

Is an Environmental Monitoring Plan necessary? (Y or N) ___ If so, has it been prepared? (Y or N) ___ Approved by the PIE? _____

What follow-up actions are required by the proponent, the RPCU and PIE?

_____

_____

_____

Were public consultations held concerning potential environmental impacts of the proposed sub-project? (Y or N) _____ Were minutes recorded? (Y or N) _____

Dates Participants

_____

_____

_____

Project Officer: Date:

Environmental Screener: Date:

`

ENVIRONMENTAL SCREENING CHECKLIST

Part 4. Final Environmental Assessment Checklist (2)

(to be completed by the ARIS based on the review of the mitigation proposed and the environmental and social impact assessment (if required))

Is the project documentation complete? If not, what is missing?

Are land use and resource use permits required? If so, have they been received?

Are discharge permits required for solid waste? If so, have they been received?

Are discharge permits required for wastewater discharge? If so, have they been received?

Is there a sanitary inspection required? Has a permit been issued?

Has the environmental assessment been received and approved?

Is there potential for soil degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for water quality degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for air quality degradation or contamination? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there a threat to the biological environment? If yes, have appropriate prevention or mitigation measures been planned and budgeted?

Is there potential for adverse impacts on the social environment? If yes, are there necessary prevention, mitigation or compensation measures planned and budgeted?

Was the level of public involvement in design and planning and public consultation sufficient? Were public concerns raised in the consultation process adequately addressed?

What is the desired level, frequency and scope of environmental monitoring during the construction phase?

What is the desired level, frequency and scope of environmental monitoring during the operational phase?

`

Form 2

Field site visit checklist

Project Name: Date/time of Visit:

Rayon: Visitors:

Current activity and site history

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

What is the area of the site to be used for project activities?

What are current users of the site?

What were previous uses of the site (give dates if possible)?

Are there any encroachers or illegal users of the site whose livelihoods or assets are going to be affected by the project?

Environmental Situation

Are there sensitive sites nearby (nature reserves, cultural sites, historical landmarks)?

Are there water courses on the site?

What is the terrain or slope?

Does the site experience flooding, waterlogging or landslides? Are there signs of erosion?

What are the neighboring buildings (e.g. schools, dwellings, industries) and land uses? Estimate distances.

Will the proposed site affect transportation or public utilities?

Licenses, Permits and Clearances

Does the site require licenses or permits to operate the type of activity proposed? Are these available for inspection?

What environmental or other (e.g., health, forestry) authorities have jurisdiction over the site?

Water Quality Issues

Does the proposed activity use water for any purposes (give details and estimate quantity). What is the source?

Will the proposed activity produce any effluent? (estimate quantity and identify discharge point)

`

Is there a drainage system on site for surface waters or sewage? Is there a plan available of existing drainage or septic systems?

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

Soils

What is the ground surface (agricultural land, pasture, etc.)?

Will the project damage soils during construction or operations?

Will the project affect the landscape significantly (draining wetlands, changing stream courses)

Biological environment

Describe vegetation cover on the site.

Is there information about rare or threatened flora and fauna at or near the site? If yes, would the project have an impact or increase risk to the species?

Obtain a list of vertebrate fauna and common plants of the site (if available).

Note potential negative impacts on biota if project proceeds.

Visual Inspection Procedures

Try to obtain a site map or make a sketch to mark details.

Take photos, if permitted.

Walk over as much of the site as possible, including boundaries, to note adjacent activities.

Note any odors, smoke or visual dust emissions, standing water, etc.

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Annex 4. Results of Environmental and Social Screening

☐ Risk Category "High". Significant impact, exclude from financing	Prepared by:
	Name and Signature:
☐ Risk Category "Substantial". Limited or temporary impact	Designation:
	Date:
☐ Risk Category "Moderate" Limited or temporary impact	Approved by:
	Name and Signature:
☐ Risk Category "Low" No impact	Designation:
	Date:

Any subproject applications that include activities that coincide with those included in the lists of excluded subprojects for financing and that which may have significant environmental risks will be disqualified. If the answer to one of the following questions is YES, the subproject application shall be excluded.

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Annex 5. Environmental and Social Impact Assessment Report Outline

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

Concisely discusses significant findings and recommended actions.

(b) Legal and Institutional Framework

Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26.

Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.

Identifies and assesses the environmental and social requirements of any co-financiers.

(c) Project Description

Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.

Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.

Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

(d) Baseline Data

Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.

Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.

Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.

Takes into account current and proposed development activities within the project area but not directly connected to the project.

(e) Environmental and Social Risks and Impacts

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

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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.

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Annex 6. Indicative outline of ESMP

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures. The Borrower will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

Depending on the project, an ESMP may be prepared as a stand-alone document or the content

may be incorporated directly into the ESCP. The content of the ESMP will include the following:

(a) Mitigation

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

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

identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);

describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of

contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;

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

estimates any potential environmental and social impacts of these measures; and

takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

(b) Monitoring

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

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

`

(c) Capacity Development and Training

To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.

Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

(d) Implementation Schedule and Cost Estimates

• For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost

estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

(e) Integration of ESMP with Project

• The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be

executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional

responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

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

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Annex 7. Environmental Management Plan Checklist (for small scale construction/rehabilitation sub-projects)

General Guidelines for use of ESMP checklist:
For low-risk construction projects, such as minor roads rehabilitation works or the construction of bicycle paths, the ECA (Europe and Central Asia) ESF team developed an alternative ESMP (environmental and social management plan) format to provide an opportunity for a more streamlined approach to mainstreaming the World Bank's environmental requirements into projects which (a) are small in scale or by the nature of the planned activities have a low potential environmental impact, (b) are located in countries with well-functioning country systems for environmental assessment and management. The checklist-type format has been developed to ensure that basic good practice measures are recognized and implemented, while designed to be both user friendly and compatible with the World Bank's ESSs.

The ESMP checklist-type format attempts to cover typical key mitigation measures to civil works contracts with small, localized impacts or of a simple, low risk nature. This format provides the key elements of an ESMP to meet the minimum World Bank Environmental Assessment requirements for Category B projects under OP 4.01. This checklist intends to offer practical, concrete and implementable guidance to Contractors and supervising Engineers for simple civil works contracts. It should be completed during the final design phase and, either freestanding or in combination with any environmental documentation produced under national law (e.g. ESIA reports), constitute an integral part of the bidding documents and eventually the works contracts.

The checklist ESMP has the following sections:

Part 1 includes a descriptive part that characterizes the project, specifies institutional and regulatory aspects, describes technical project content, outlines any potential need for capacity building and briefly characterizes the public consultation process. This section should indicatively be up to two pages long. Attachments for additional information may be supplemented as needed.

Part 2 includes a screening checklist of potential environmental and social impacts, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking "yes", a reference to the appropriate section in the table in the subsequent Part 3 can be followed, which contains clearly formulated environmental and social management and mitigation measures.

Part 3 represents the environmental mitigation plan to follow up proper implementation of the measures triggered under Part 2. It has the same format as required for MPs produced under ESSs requirements for Category B projects.

Part 4 contains a simple monitoring plan to enable both the Contractor as well as authorities and the World Bank specialists to monitoring due implementation of environmental management and protection measures and detect deviations and shortcomings in a timely manner.

`

Part 1.Project Information

Institutional & Administrative Arrangements				
Country				
Project title				
Scope of project and activity				
Institutional arrangements (names and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			Attachment1: Site Map [ ]Y / [ ]N	
Who owns the land?				
Geographic description				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where the public consultation process took place				
INSTITUTIONAL CAPACITY BUILDING				
Will there be any capacity building? (Yes/No)	[ ], if Yes, Attachment 2 includes the capacity building program			

Beneficiary: Signature: Date:

`

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 land29	[ ] Yes [ ] No	See Section E below
	Hazardous or toxic materials30	[ ] 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

29 The project will support construction of new buildings only in the case when land acquisition is not necessary and there are no any resettlement issues; for such cases the investor should have the landownership title as well as has to prove the land at the moment of sub-projects application is not occupied or used even illegally

30 Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

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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 (side-walks, 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.

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	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	Land Acquisition Plan/Framework	If expropriation of land was not expected and is required, or if loss of access to income or damage to assets of legal or illegal users of land was not expected but may occur, that the bank Task Team Leader is consulted. The approved by the Bank Land Acquisition Plan (if required by the project) will be implemented prior to start of project works.

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
F. Social Risk Management	Public relationship management	Assign local liaison person who is in charge of communication with and receiving requests / complaints from local population. Consult local communities to identify and proactively manage potential conflicts between an external workforce and local people. Raise local community awareness about sexually transmitted disease risks associated with the presence of an external workforce and include local communities in awareness activities. Scheduled works beyond irrigation season to the extent possible in order to avoid/minimize service disruption. Inform local population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, blasting and demolition, as appropriate. Limit construction activities at night. When necessary, carefully schedule night work and inform affected community beforehand. Properly mark and fence work site No temporary storage of construction materials and waste occurs within cultivated land plots or any type of private property Allocate areas for temporary storage of construction materials and waste so that free movement of traffic and pedestrians is not hindered
	Labor management	To the extent possible, do not locate work camps in close proximity to local communities. Locate and operate workers' camps in consultation with neighboring communities. Recruit unskilled or semi-skilled workers from local communities to the extent possible. Where and when feasible, worker skills training, should be provided to enhance participation of local people. Provide adequate lavatory facilities (toilets and washing areas) in the work site with adequate supplies of hot and cold running water, soap, and hand drying devices. Establish a temporary septic tank system for any residential labor camp without causing pollution of nearby watercourses.

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		Raise awareness of workers on overall relationship management with local population, establish the code of conduct in line with international practice and strictly enforce them, including the dismissal of workers and financial penalties of adequate scale.
G. 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
H. 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

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.

Environmental Monitoring Plan (Example to be expanded as needed)

Phase	What (Is the parameter to be monitored?)	Where (Is the parameter to be monitored?)	How (Is the parameter to be monitored?)	When (Define the frequency / or continuous?)	Why (Is the parameter being monitored?)	Cost (if not included in project budget)	Who (Is responsible for monitoring?)
During activity preparation	site access traffic management availability of waste disposal facilities hazardous waste inventory (asbestos) construction material quality control (eg. paints / solvents)	at the site at the site in site vicinity on site Contractor's store / building yard	check if design and project planning foresee diligent procedures visual / analytical if in doubt visual / research in toxic materials databases	before launch of construction before start of rehabilitation works before approval to use materials	safety of general public, timely detection of waste disposal bottlenecks public and workplace health and safety	marginal, within budget marginal, within budget; (prepare special account for analyses at PIE)	Contractor, Engineer

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During activity supervision	dust generation noise emissions waste and wastewater types, quality and volumes surface drainage soundness	on site and in immediate neighborhood, close to potential impacted residents at discharge points or in storage facilities	Visual consultation of locals visual, analytical if suspicious count of waste transports off site, check flow rates and runoff routes for wastewater	daily daily daily / continuous daily / continuous	avoidance of public nuisance avoidance of negative impacts on ground/ surface waters ensuring proper waste management and disposal	marginal, within budget	Contractor, Engineer

`

Annex 8. Social Screening Checklist

Instructions

(i) PIE/ Subproject implementer unit assigned[31] with help of experts if needed: completes the form.

(ii) The classification of a project is a continuing process. If there is a change in the project components, project design or/and site PIE/Subproject Implementer assigned completes and submits a new form. The old form is attached for reference.

(iii) Screening is filled in for all type of subprojects financed under the Project.

Project name:				
Subproject name:				
Location (Province, city, village)				
Infrastructure to be constructed (all types including assess roads, infrastructure etc.):				
Screening is done First Time _____ Time, (mention the reason)_____				
Project/subproject start date				
Project/subproject completion date				
Screening date				
Field visit conducted: No, Yes, (add dates and locations in the field)				
Description of the Subproject Give a brief introduction to the sub-project and its components, their objectives and benefits. Details about existing conditions of the facilities and proposed civil works with scope Available design maps earmarking site and proposed activities in order to explain work. Superimpose the map on the Google earth if available. Whether this is purely rehabilitation of existing facilities or will involve any new works. Is this sub-project closely linked to any other activity not funded under the Project? Will this sub-project involve any ancillary impact/ activity away from the work site?				
Questions	Yes	No	Not Known	Observations, remarks
Impacts Due to Land Acquisition/ Donation				

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Is the ownership status and current usage of land to be used for the construction known? (provide details in the remarks). Please, add is the site chosen for this work free from encumbrances and is in possession of the subproject implementer?				
Is land for material mobilization or transport for the civil work available within the existing plot (Right of Way)? If not, provide the details on that land location, availability etc.				
Would the Project potentially involve temporary or permanent and full or partial physical displacement? (Specify in the remarks what type of displacement is anticipated)				
Would the Project potentially involve temporary or permanent and full or partial economical displacement (e.g. loss of assets or access to resources due to land acquisition/ donation or access restrictions – even in the absence of physical relocation)? (Specify in the remarks what type of displacement is anticipated)				
Is there any impact on illegal land use practices? Are there any non-titled people who are living/doing business on the proposed site/project locations that will be used for civil work? If yes, provide in the Note Section details on any temporary or permanent impact on them?				
If the site is privately owned, can this land be purchased through negotiated settlement?				
Will the land owners donate the land plot for the project?				
Will there be loss of shelter and/or residential land due to land acquisition/ donation?				
Will there be loss of any productive assets due to land acquisition/donation?				
Will there be losses of crops, trees, and fixed assets due to land acquisition/donation?				
Will there be loss of businesses or enterprises due to land acquisition/donation?				
Will there be loss of income sources and means of livelihoods due to the subproject land acquisition/donation?				

`

Will any social or economic activities be affected by land use related changes?				
Will people lose access to natural resources, communal facilities, services or other assets as a result of land acquisition/donation or project implementation? Provide details in the remarks.				
Will project result in land use restrictions and/or easement rights? Provide details in the remarks.				
Will access to land and resources owned communally or by the state be restricted?				
Are there any previous land acquisitions happened and the identified land has been already acquired? Provide details in the Note section.				
Are there any land acquisition happening in frame of this project but without financing of the World Bank? Provide details in the Note section.				
Data on Impact and Vulnerable Groups				
Is land area needed for the project known? (Provide estimates in the Remarks, including status of ownership, area, type of land use etc.)				
Is there any estimate of the likely number of persons that will be displaced by the Project?				
Are any of them poor, female-heads of households, or vulnerable to poverty risks? Provide some estimate				
Gender				
Is there a likelihood of impacts on gender equality and/or the situation of women and girls?				
Would the Project potentially reproduce discriminations against women based on gender, especially regarding access to assets, opportunities and benefits?				
Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?				
Decision on categorization After reviewing the answers above, a sub-project's category is determined				
Prepared by _____ Date _____				

`

Approved by_____ Date _____

Note: Attach additional information on the project, as necessary. For example, maps, photos, expert conclusions, minutes of meeting etc.

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Annex 9. Asbestos-Containing Material Management Plan (Example)

Applicability

The Asbestos Containing Material Management Plan (ACMMP) applies to all project construction or reconstruction sites and any related areas. Contractors employed by Project are legally responsible for their construction sites and related areas and must follow the provisions of the Project ACMMP within those locations. Specifically, this procedure must be used to ensure the safe handling, removal and disposal of any and all Asbestos Containing Materials (ACM) from those areas.

Immediate Action

On discovering ACM on a Project site the contractor must:

Stop all work within a 5 m radius of the ACM and evacuate all personnel from this area;

Delimit the 5 m radius with secure fencing posts, warning tape and easily visible signs warning of the presence of asbestos;

If the site is in an inhabited area, place a security guard at the edge of the site with instructions to keep the general public away;

Notify the RPCU's ESF Specialist and arrange an immediate site inspection.

Equipment

To remove asbestos from a construction site, contractors must provide the following equipment:

Warning tape, sturdy fence posts and warning notices;

Shovels;

Water supply and hose, fitted with a garden-type spray attachment;

Bucket of water and rags;

Sacks of clear, strong polythene that can be tied to close;

Asbestos waste containers (empty, clean, sealable metal drums, clearly labelled as containing asbestos).

Personal Protective Equipment (PPE)

All personnel involved in handling ACM must wear the following equipment, provided by the contractor:

Disposable overalls fitted with a hood;

Boots without laces;

New, strong rubber gloves;

A respirator is not normally required if there are only a few pieces of ACM in a small area, and if the ACM is damp;

There must be no smoking, eating or drinking on a site containing ACM.

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Decontamination Procedure 1: Removing small pieces of ACM

Identify the location of all visible ACM and spray each lightly but thoroughly with water;

Once the ACM is damp, pick up all visible ACM with shovels and place in a clear plastic bag;

If ACM debris is partially buried in soil, remove it from the soil using a shovel and place it in the plastic bag;

Insert a large label inside each plastic bag stating clearly that the contents contain asbestos and are dangerous to human health and must not be handled;

Tie the plastic bags securely and place them into labelled asbestos waste containers (clean metal drums) and seal each drum;

Soil that contained ACM debris must not be used for backfill and must instead be shovelled by hand into asbestos waste containers;

At the end of the operation, clean all shovels and any other equipment with wet rags and place the rags into plastic disposal bags inside asbestos waste containers.

Decontamination Procedure 2: Removing ACM-contaminated backfill

If soil containing ACM debris has inadvertently been used for backfill this must be sprayed lightly with water and shovelled out by hand to a depth of 300 mm and placed directly into asbestos waste containers (i.e. not stored temporarily beside the trench);

Any ACM uncovered during the hand shovelling must be placed in a clear plastic bag;

Once the trench has been re-excavated to 300 mm, if there is no visible ACM remaining, the trench may be refilled by excavator using imported clean topsoil.

Disposal

ACM should be disposed of safely at a local hazardous-waste disposal site if available, or at the city 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 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 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 Contractor 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 RPCU, with photographs of the operation in progress and the site on completion.

TRAINING

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

Risks of contact with ACM;

Responsibilities for dealing with ACM on project's construction sites;

The Project's ACMMP and the Protocol for site clean-up;

Awareness-raising for the contractors' workforce.

COST ESTIMATE

Costs incurred by contractors in implementing the ACMMP are included in their budget in ESMP budget.

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Annex 10. Health, Safety and Wellbeing Inspection Checklists

Project name: _____ Project no: _____

Project location: _____

Inspection team: _____ Inspection date: _____

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
1.0 Plant and Equipment				
Plant in sound condition?				
Daily pre-start checks completed?				
Safety items/faults recorded in pre-start checklist?				
Lights, signals, beepers working?				
Fire extinguishers fitted/charged?				
Seat belts installed/worn?				
Speed limits posted/observed?				
Driver/operator ticketed/licenced?				
Warning signs/stickers in place?				
PPE worn for type of plant?				
Worker and Other separation acceptable?				
High visibility clothing worn?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Spotters being used during plant operations?				
Safe operations being observed by all?				
2.0 Cranage and Rigging				
Operator, dog man, rigger, Trained/certified?				
Log book/maintenance records?				
Daily pre-start checks completed?				
Any oil or diesel leaks?				
Load charts/certificates available?				
All Rigging gear tagged/colour code?				
Rigging gear/slings good condition?				
Rigging gear/slings stored correctly?				
Fire extinguishers fitted/charged?				
2 tag lines available?				
Hooks, clasps, shackles good working order and condition?				
Outriggers used, stabilized pads and correct set-up?				
PPE available and worn?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
3.0 Motor Vehicles				
Daily pre-start checks completed?				
4wd roll-over bar fitted?				
Brakes, warning lights operating?				
Glass in clean condition?				
Fire extinguishers/fitted/charged?				
Seat belts installed/worn?				
Reverse beeper operating?				
Qualified operators for on-site plant and equipment appointed?				
Operators are provided with refresher training?				
First aid kitted fitted/supplied and stocked?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
4.0 Power Tools				
Tools, cords in good condition?				
Correct tools used for the job?				
Guards on tools in place?				
Tools/leads/cords tagged/correct colour and recorded?				
RCDs fitted, including portable generators?				
RCDs tested and results recorded?				
Terminal boxes with covers?				
Switch boards locked, access, phone number for access?				
Electrical leads protected from damage?				
PPE available and worn?				
Specialized PPE for special work (face/eyes/gloves) provided and worn?				
Earth stake in place on generators (unless earth bonding on generator)?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
5.0 Compressed Air				
Compressor fitted with silenced unit?				
Fire Extinguisher available?				
All valves operational and correct?				
Inspection – Tags on machine/tools with details recorded?				
Whip checks/chains on hoses fitted?				
Drip tray provided under diesel engine fill point?				
Specific PPE for Workers using air tools (AVG/Hearing Protection/etc.)?				
Manifolds tested and identified effective?				
Exhaust fumes from compressor away from working area/location?				
6.0 Flammable Gases and Liquids				
Containers/drums clearly marked with contents?				
Safety Data Sheets is available /current?				
Correct separation of cylinders?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Storage area well ventilated?				
Cylinders stored out of sun/heat?				
Gas cylinders vertical, secured/chained?				
Fire extinguishers available /charged?				
No smoking and hazard signs in place and visible?				
Cylinder caps in available and use?				
Bunds/drip trays available and in place?				
All inspection/colour coded tags used and legible?				
Empty/Full cylinders segregated, stored and secured?				
7.0 Welding and Cutting				
Hot work permit in place/used?				
All hoses fitted with 2 Flash Back arrestors (Cylinder/Torch end)?				
Electrical leads protected?				
Screen in place when welding is being carried out?				
Gas bottles on trolley and restrained?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Fire extinguisher in place at work point?				
All equipment inspected/tags current?				
Cylinder caps in use and secured in place?				
Specific PPE available and being used?				
Fireproof blankets available and in place?				
Signage in positioned and placed to notify workers and others?				
Drip trays under stationary diesel-powered machines?				
Flammable material separated as required by the permit?				
8.0 Materials Handling, Storage				
Material stored, secured and/or stacked safely?				
Traffic control in storage and access area?				
Manual lifting operations safe and correct for material handling?				
Mechanical aids for lifting available and used?				
Materials weather protected (Sun, Rain, Storm etc.)?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Signage is in place to notify workers and others?				
No temporary or permanent water holding areas to favour mosquito breeding?				
Spotters available to manage traffic and worker movement and control?				
Adequate space for vehicles to manoeuvre around/through compound?				
9.0 Hazardous Substances				
Safety Data Sheets available at location?				
Hazardous/Chemical (HazChem) storage with good ventilation?				
Eye wash, showers, and hand wash facility?				
Hazardous liquids in suitable bund facility?				
No smoking signs displayed?				
Correct PPE available and being worn?				
Signage for HazChem displayed and visible?				
Correct spill kits available and stocked?				
HazChem containers appropriately labelled?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
HazChem certified handlers appointed?				
HazChem test certification required and certificates displayed/available?				
10.0 Work at Height				
Fall protection (barricades, railings) in place to prevent falls?				
Access to working at height is adequate and safe?				
Exclusion zones are in place and effective for the area?				
Ladders used are inspected/tagged?				
Are ladders used for access only?				
Are ladders secure (top & bottom) to prevent movement - 1m over, 1m < / 4m>??				
Are industrial ladders used for the work being undertaken?				
Are harness available and required/worn and used correctly?				
Is the work permit required, completed in full and sign-off obtained by all involved?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Are all penetrations covered/cover secured – wording 'hole below'?				
Are ladders stored/maintained/protected correctly?				
11.0 Scaffold				
Are Scaftags/Registers in place (signed off) and current as required for inspection requirements?				
Is scaffolding erected where needed for the work activities?				
Is the scaffolding erected by Competent/Certified persons?				
Are access to platforms in place, hand, mid-rails, toe boards in place secure and safe?				
Floor openings coverings – As above in 10.0 Working at height?				
Safety harness available, worn and used during erection of scaffolding?				
Foundations support for type of scaffolding adequate for loading, sound and secure?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Warning signage in place, visible to all workers and others?				
Is the Scaffolding adequate for the job/activities being carried out?				
The scaffolding complies with design drawings (Temporary Works)?				
What type of Scaffolding is provided – basic, special, suspended, hanging?				
12.0 Excavations and Trenching				
Daily checks completed by competent person and recorded?				
Checks for underground services performed prior to excavation?				
Underground services located prior to excavation (hand digging, HydroVac)?				
Are sufficient and adequate barricaded in place to prevent falls into excavations?				
Are ladders used/secured for a safe means of access and egress in/out of excavation?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Is the excavation >1.5 metres deep shored, battered benched?				
Is the excavated material away from the cut face (1 metre)?				
Is the excavation/trench width adequate for working activities?				
Is Air quality checks being done prior/during work activities and are the readings recorded?				
Is the excavation/trench Benching/Battering/Shoring adequate?				
13.0 Formwork/Concrete Work				
Are design drawings available for the temporary works and sign-off obtained?				
Is the temporary works erected in accordance with design drawings?				
Is the temporary works inspected prior to and during pour?				
Is the Formwork In good order and safe condition?				
Is the Formwork process/JSEA covers “do not drop” when being stripped?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Penetrations covered and cover secured/fixed with words – 'hole below'?				
All Vertical bars are covered and protected with anti-implament devices				
All waste concrete controlled and disposed of correctly?				
14.0 Traffic Management (Pedestrian and Vehicle)				
Traffic Management Plan(s) approved by the Engineer?				
Traffic control and signs checked every 2 hourly for compliance with the plan?				
Road traffic rules/signs being obeyed by workers and others?				
Barriers and signage adequate for the work activities?				
Are proactive measures in place to prevent pedestrians and vehicles entering active working areas?				
Parking rules are obeyed by workers and others?				
Speed limits obeyed by workers and others?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Dust suppression systems being operated and adequate for the whole operation?				
Lighting available and adequate for the tasks during dusk/night operations?				
Driving habits being observed comply with on-site requirements?				
Haul roads sign posted, marked, maintained and have adequate edge bund for usage?				
Traffic awareness workshops held – Schools, churches, community meetings etc.?				
TMP distributed to all workers, drivers, operators working on-site?				
Are weekly safety awareness and enhancement meetings held and attended by everyone?				
Traffic light system used, maintained and is manned?				
Maximum traffic diversions for work activities – 5 Km rural – 1 Km urban?				
Minimum lane width for traffic movement – single 3.5m – two-way 7.5m				
Roads maintained in a safe and trafficable condition at all times?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Has the contractor prepared a response plan for deteriorating road conditions/environment?				
Has the Contractor prepared a detailed completion report?				
15.0 Housekeeping				
Specific waste bins available and in place/used emptied/lids?				
Waste bins to segregated items used on-site (Wood, Steel Recycle)?				
All work areas are tidy and with safe access to all locations?				
On-site sewage/septic tanks are controlled and not allowed to overflowing?				
Walkways and passages demarcated/tidy/safe and maintained?				
Shelter from sun/rain provided and maintained?				
Signage legible, clean, visible and appropriate?				
Waste containers for cigarette butts provided and used?				
Lighting adequate provided within facilities and to work locations?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Hi Glare locations identified, and workers advised/informed to avoided?				
Security site fencing installed around hazards/compound?				
Site fencing in good order and condition with appropriate signs advising "Authorised Entry Only"?				
Office areas in a clean, tidy and hygienic condition?				
Storage areas clearly defined, tidy and maintained?				
Appropriate signs to inform visitors, workers and others fixed and visible to all?				
16.0 Fire Prevention				
Adequate number of Fire extinguishers available and in place?				
All extinguishers have clear and ready access to uplift?				
All extinguishers inspection tags up to date?				
Appropriate signage in place to inform those in the area?				
Correct Firefighting procedure displayed?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Emergency contact Numbers' displayed (fire, ambulance, police)?				
No smoking enforcement/signs displayed?				
Extinguishers suitable type/size for environment?				
Company vehicles fitted with fire extinguishers?				
Emergency response plan displayed and understood by all in the area?				
17.0 First Aid Facilities				
1st Aid person(s) on site for the number of workers in the area?				
1st Aid kit stocked, maintained and stocks are within expire date?				
Emergency contact numbers for first aiders is displayed around site?				
Signage for response is adequate and visible for all to see/read?				
All shifts operations are adequately covered?				
Emergency plan displayed and understood by all workers?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
A clinic provided with suitable equipment and staff to provide treatment for workers?				
Medical doctor appointed and a nurse with two years' experience?				
18.0 Health / Amenities				
Mess Rooms/Toilets clean, hygienic and tidy condition?				
Mess rooms and toilets adequate for numbers and size of workforce?				
Female toilet provided with additional personal equipment provided?				
Soap and paper towels available and maintained?				
Wash your hands signs legible and displayed?				
Correct drinking water supply available?				
Food storage adequate for all types of environments?				
Quit smoking signage visible and displayed?				
Fitness for work signage visible and displayed?				
UV Protection cream available, used and maintained?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Hazard/Incident reporting system in place?				
Vehicle available for treatment and transport of injured worker/visit to medical centre?				
The breeding sites (stagnant water ponds) for mosquitoes are eliminated?				
Is a medical clinic, with all necessary medication provided?				
Has any outbreak of illness of an epidemic nature occurred?				
Is a plan in place to manage an outbreak of illness?				
19.0 Asbestos Removal				
JSEA prepared to cover the removal of asbestos and engagement of workers prior to it being issued?				
Is the correct PPE available and being used?				
Is the asbestos material being contained correctly?				
Are the correct disposal methods being used and the appropriate dockets available and completed in full)?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Is the Asbestos Contractor an approved remover with current certification?				
20.0 Lasers				
Is appropriate signage in place and visible to all in the area?				
Is the equipment being used positioned so as Not erected at eye level?				
Has a Laser Safety Officer been appointed on-site for (class 2 or 3A)?				
21.0 Noise				
Has a noise assessment been conducted to identify if any excessive levels exist?				
Has any personnel monitoring been carried out in noisy areas?				
Is the correct PPE available, been issued, worn and maintained by the workers and others?				
Is the correct signage erected to inform workers and others as required?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Is a medical assessment conducted with each worker exposed to high noise levels?				
22.0 Explosive Power tools				
Are Operators trained and hold the correct certification?				
Are warning signs visible and in place to warn workers and others?				
Is the correct PPE available, been issued, worn and maintained by the workers using the tool and other in close proximity?				
Is the tool placed in a secure container?				
Does the tool display and has current certification?				
23.0 Confined spaces				
Has the Hazard/Risks been Identified for the confined space?				
Has a JSEA been prepared with the engagement of the workers and, issued?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Is air monitoring completed prior to entry and during work within the confined space and recorded?				
Is breathing apparatus available and used by workers and have they received the required training?				
Is a rescue plan developed and appropriate rescue equipment available?				
Is an entry permit prepared and complete correctly?				
Are all those involved trained and competent workers for the confined space work?				
Standby/Spotter are in place and trained to respond?				
All Isolation of external hazards are in place, checked and verified complete?				
All workers familiar with confined space requirements?				
24.0 Explosives				
Has a Blasting Management Plan been prepared and approved by the Engineer?				
Site location/plan approved by the Engineer?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
Storage facility designed and approved for the explosives?				
Transportation of explosives is in compliance with legislative controls and procedures?				
Controls during blasting operations are in-place and effective?				
Blasting operations under the control of a qualified and certified Blaster?				
The Engineer is notified within the specified time-lines set within the contract?				
Buildings and services are provided with adequate protection to prevent damage from flying debris?				
All precautions are in-place to ensure no harm to individuals during blasting operations?				
Police control traffic movement within 400 m of the blasting operations?				
All signs are in place to warn others of the blasting operations?				
The use of a Vibro-metre is in place during blasting?				
Weather condition have been assessed (Lighting Storms etc.)?				

`

Note: Full compliance record Y=Yes and record positive findings – For partial compliance record N=No and record findings to correct.				
Item	N/A Y N	Comments and Corrective actions if required	Close-out By (date)	Initials
24.0 Other – Specify Activity:				
JSEA reviewed by all relevant workers?				
JSEA controls being implemented and review as required?				
Has the work environment changed since commencement?				
Does the JSEA require revision and has this been done on a regular basis?				

`

CLOSE OUT OF PREVIOUS CORRECTIVE ACTIONS

Have all the hazards/risks identified and documented in the previous site safety inspection checklist dated (insert date) ___/___/_____ been rectified.

Yes/No ☐ If No give details: -

Name:	Signature:
Position:	Date:

Reviewed by Project Manager.

Name: _____ Signature: _____

Date: _____

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Annex 11. Pest Management Plan

A PMP should be prepared in all cases of significant direct purchasing and usage of pesticides or if significant pest management issues are anticipated in individual subprojects that are to be financed under Component 2 of the project. The applicants will be required to complete a pest management screening checklist along with the matching grants application. This screening checklist will require information on the (i) significance of the pest management issues to be addressed (ii) type, amount and anticipated extent of usage of pesticides: (iii) proposed storage, disposal and usage practices to be employed; and (iv) potential environmental impacts. Based on a scoring scheme that is defined in this document, a determination would be made if a full blown PMP would be needed. The content of the PMP should apply to all the activities and individuals working. It should be emphasized also that non-chemical control efforts will be used to the maximum extent possible before pesticides are used. The PMP should be a framework through which pest management is defined and accomplished. The Plan should identify elements of the program to include health and environmental safety, pest identification, and pest management, as well as pesticide storage, transportation, use and disposal. The PMP is to be used as a tool to reduce reliance on pesticides, to enhance environmental protection, and to maximize the use of integrated pest management techniques.

The PMP shall typically contain pest management requirements, outlines the resources necessary for surveillance and control, and describes the administrative, safety and environmental requirements. The Plan should provide guidance for operating and maintaining an effective pest management program/activities. Pests considering in the Plan may be weeds and other unwanted vegetation, crawling insects and other vertebrate pests. Without control, these pests provoke plants' deceases. Adherence to the Plan will ensure effective, economical and environmentally acceptable pest management and will maintain compliance with pertinent laws and regulations. The recommended structure of a PMP is presented in the Attachment 2.

Reviewing and approving PMP. As handling and usage of pesticides and other chemicals might cause harm to the environment and to the farmers' health, in the case of such types of subprojects the beneficiaries have to prepare a PMP that is attached to the subproject proposal, including the following information: (a) types of pesticides and fertilizers and its amount; (b) storage conditions; (c) ways of field usage; (d) measures to be undertaken to control possible hazard scenarios; and (e) responsible person. The subproject proposal along with the PMP will be reviewed by the PFIs and the RRA Environment Specialist who will provide his approval. These documents are also subject to World Bank prior review for the first two such types of subprojects from the each PFI. Based on experience of the RESP II, it is anticipated that the use of pesticides and pest management would not be significant and could be addressed through training, extension and technical support to improve farmer awareness on the safe application, storage and disposal of pesticides and the pest management through extension, training and demonstration in IPM approaches.

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Annex 12. Minutes of ESMF and RPF public consultations

Social and environmental risk management framework document under
the Regional Economic Development Project in Batken Oblast.

Venue: Batken city, conference hall of the administration of the Plenipotentiary Representation of the Government in Batken oblast.

Date: November 18, 2021, 02:00 p.m.-4:00 p.m.

Public hearings were held in order to comply with the requirements of the environmental and social standards of the World Bank and the national legislation of the Kyrgyz Republic and inform the population of the Batken oblast about the main goals of the Second Regional Economic Development Project in the Batken oblast (RED-2), its possible negative impact on the environment and social environment and the current WB environmental and social standards aimed at mitigating and addressing these impacts.

RED-2 is funded by the World Bank and will support the Government of the Kyrgyz Republic to enhance regional economic development through targeted interventions in Batken oblast. Project activities will include a specialized package of investments/activities aimed at: (i) increasing the region's unique economic potential and removing mandatory constraints, while maintaining (ii) improving living standards; and (iii) strengthening institutional and private sector capacity in targeted sectors.

The total project budget will amount to $ 50 million and consists of the following components:

Component 1: Supporting municipal infrastructure and basic public services;

Component 2: Strengthening Agri-Food Clusters;

Component 3: Promoting local economic development through the Small Grants Program;

Component 4: Contingent Emergency Response Component (CERC);

Component 5: Operational Support .

Agenda: Discussion of the Social and Environmental Risk Management Framework Document of the Regional Economic Development Project in Batken Oblast.

The public hearings were attended by:

Chairman - Zh.M. Isakov - Deputy Plenipotentiary Representative of the President of the Kyrgyz Republic in Batken region

ARIS consultants: Chonoev U.K, Kydyralieva N.N.

Participants: Representatives of urban and rural municipalities, quarter villages of Batken oblast, as well as representatives of territorial bodies of the Ministry of Natural Resources, the Ministry of Culture, the Ministry of Agriculture, architecture, NGOs, an international organization and the media.

A total of 84 people took part. (The list is attached)

LISTENED:

1. Isakov Zh.M.

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He provided information on the planned activities within the framework of the Economic Development Project of Batken Region, on the goals of holding public hearings with the participation of representatives of all municipalities of the region, as well as representatives of the public, so that you can ask questions, and also submit your suggestions and comments on the planned activities. He also informed about the progress of work within the framework of the PDER-2 with the participation of the mayors of the three cities of Isfana, Kadamjay, Batken with representatives of the World Bank to assess, discuss the problems of the region, prepare a long list of social facilities for inclusion and implementation within the framework of the project.

1. Chonoev U.K. - familiarized the participants with the history of the project, goals and Components, including information on the budget, approaches, implementation mechanisms. Provides information on the current social and environmental standards of the World Bank. Further, it was stated in detail what risks / impacts are planned during the implementation of subprojects within the framework of each component of the project and how it is supposed to manage these negative impacts on the environment.

2. Kydyralieva N.N. I drew the attention of the participants that the World Bank pays great attention to ensuring that environmental and social standards are strictly observed in countries implementing projects financed by the World Bank. It further elaborated on social risks such as impacts on forced land acquisition, restricted access and involuntary resettlement, as well as the health and safety of workers and local communities during the construction period, gender-based violence, forced labor, child labor, and disclosure and accessibility of information for vulnerable groups: women, people with disabilities, ethnic minorities, poor households.

3. Then the participants moved on to discussions:

Question. Isakov Zh.M.: I know that a similar project is currently being implemented in the Osh region. What is the main lesson ARIS learned so that we avoid such mistakes in implementation?

Answer. Chonoev U.K.: it is still difficult to say, since the work on the implementation of the components has not yet begun on PRER-1. To date, documentation is being developed for PRER-1, that is, terms of reference for the selection of consultants, companies for concept development, feasibility studies, design estimates, etc.

Question. Orozov Akylbek 1st Vice Mayor: Component 2 - who will issue loans and at what% rate? Offer to reduce% below the existing bank rates of Aiyl Bank.

Answer. Chonoev U.K.: For component 2, in order to receive assistance in the form of a loan, it is necessary to create a group for a specific cluster (for example, a value chain to increase and expand rice production). This group prepares a business plan in accordance with the requirements of the project. Lending will be carried out through the State Agency for the Management of Budget Credits. Interest rate to be clarified.

Question. Madaminov Avazbek: Children's rehabilitation center "Nur" - our center has a land plot that was given to us by the Batken City Hall, but there is no money to build a building. The existing building is outdated and in need of renovation. Are we eligible to apply?

Answer. Chonoev U.K.: yes, if this center belongs to the municipality. But the municipality itself must decide and determine the list of objects and their priorities.

Question. Madumarov Bekbolot is a farmer / entrepreneur: as everyone knows, farmers do not have sufficient collateral to receive loans, for example, from the Kyrgyz-Russian Development Fund. How will this issue be resolved in the project?

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Answer. Chonoev U.K.: as it was said above, according to component 2, in order to receive a loan, it is necessary to create a group for a cluster; individual farmers will not be given a loan. Loans are issued specifically to help create a "value chain", that is, to create a stable market from the production of goods to the receipt by the end consumer. The procedure and mechanisms of lending will be determined by separate guidelines.

Question Mamatisaev Mansurbek - 1st vice-mayor. Under Component 1, funds are allocated in the amount of $ 24 million. How will the funds be distributed between the cities of the region? Proportionally or otherwise?

Answer. Chonoev U.K.: I think that everything depends on the priority of the selected objects, which should be determined by the municipalities.

Question: Tazhibaev Asylbek - representative of the Kadamzhai city library: can we apply for the construction of the library. Funding is provided from the republican budget.

Answer: yes, you can.

Question: A participant from Kadamjai (did not introduce himself): from what funds will the design of design estimates for infrastructure projects be paid? Because city halls often spend a lot of money on the preparation of design estimates, and the project does not work.

Answer. Chonoev U.K.: Design and estimate documentation, as well as, if necessary, a feasibility study will be developed from the project funds. But if earlier design estimates were developed, you can use them, but after adapting them to the current legislation and analyzing the market value of materials and services.

Question-proposal: BOOST, project manager in Batken region, Firuiza: Our organization works in the Fergana Valley in all three regions of the Kyrgyz Republic and in three regions of Uzbekistan. We have gained experience and have developed training modules and trainers. How can we cooperate?
Answer. Chonoev U.K.: We will take into account your suggestions. Training will be provided in the preparation of business plans for small grants and for productive partnerships in accordance with the relevant Guidelines.
Offers:
Participant (did not introduce himself): it was said that component 4 will start acting in the event of an emergency, but we propose to consider, within the framework of the project, the construction of mudflow protection dams and diversion channels to prevent and protect territories from flooding.
Rakhmatullaeva Kayyrgul: I propose not to dissipate funds on small infrastructure projects, but to invest in the construction of a factory or plant in order to create more jobs in order to reduce migration and poverty of the population.)

End of the public discussion.
Isakov Zh.M. thanked the participants for their active participation, and expressed the hope that the project will come into force soon and contribute to regional economic development by improving agricultural production and the quality of municipal services. He noted that during the implementation of the project, all municipalities, as well as the parties involved, must comply with the social and environmental standards of the World Bank and national legislation regulating issues of environmental protection, sanitation and public health.

Secretary of the meeting: Kydyralieva N.N.

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Annex 13. List of participants in public hearings

СПИСОК

участников общественных слушаний по обсуждению социально-экологических документов по второму проекту «Региональное экономическое развитие Баткенской области»

г. Баткен 18 ноября 2021 г.

№ п/п	Ф.И.О. участника	Подпись
1	Джаныбаева Махмуда Келдибековна	
2	Жадигира Абдыхалил	
3	Мансуров Сооронбай	
4.	Атиев А. Т.	
5	Таласбаев Асылбек М.	
6.	Мурзакматов Нурлан	
7	Кудайкулов Ч. Д.	
8	Жунусов Б. Т.	
9	Эшимкулов А. К.	
10	Бакиров А.	
11	Суюнбай уулу Марипжан	
12	Мамадалиев Аваз бек	
13	Курбанов Ш. А	
14	Бегалиев Б	
15	Талаев Ч	
16	Пазилов А.	
17	Мурзабеков Д. Архитектура Сулюкта	
18	Калбаев, зам. гл. а/о Найман	
19	Каримов Аманбай	
20	Каримов Коныбай	
21	Асранов Азамат	
22	Маликова Чолпон	
23	Маматисаев Мансурбек	
24	Маматкеримов Давранбек	
25	Тургунов Курбанович	
26	Байтобаев Сайфулла	

№ п/п	Ф.И.О. участника	Подпись
1	Нурманатов Ж.Д	
2	Акимбеков У.И.	
3	Уркебаев А.А	
4	Бабраков Д.Д.	
5	Мирзалиев А.А	
6.	Наврузов К.Б.	
7	Козубаев Т.М.	
8	Уркебаев С	
9	Базаев Р	
10	Ашимбек у А.	
11	Джумабаева Ю	
12	Султанмонов Р.	
13	Ахмедов А.	
14	Мусаев А.	
15	Орозов А.К	
16	Мамедов	
17	Жапаров А.	
18	Бапаев С	
19	Мамасалиев А.	
20	Таабалдиев Р.Ч	
21	Турдукеев К.Б	
22	Сатыбалдиев С.З	
23	Рахмабаева С.Ж.	
24	Нарбаев У.	
25	Бактыбаев А	
26	Асанов А	
27	Гайпова Б.А.	
28	Кульбаев Н.А.	
29	Исамидинов А.	
30	Камчиев К.Т.	
31	Калмбеков А.С	

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№ п/п	Ф.И.О. участника	Подпись
1	Аманбаев Асан	
2	Хабибуллаев Зиядулло	
3	Мырзанов Абдрахман	
4	Мадымаров Бекболот	
5	Элчибеков Айбек	
6	Розов Санжарбек	
7	Таиров Шайлообек	
8	[illegible]	
9	Айтиматова Гулнора	
10	Анарботоева Айнура	
11	Сейитбаев Азатбек	
12	Саматов Абдулло. Ак-Суу А/О	
13	Султанов Достук Рай. отд. культура	
14	Дуйшеева Гулкайыр, проект PPNIP 0774418151	
15	Самиденова Фатиха проект Pearl 0777771549	
16	Ташканова Айчана Баткен 0705555514	
17	Исмаилджанова Дилафруз газета „Оруздар"	
18	Матисмаилова Бузахро М. пр. инспектор	
19	Досматов З. Совет а/о	
20	Жураев Азамат Совет а/о ВУС	
21	Садыков А. АРИС. ЭПРО	
22	Момунов Руслан Маргун а/о	
23	Гиясидинова Г. МЭР	
24	Рахматуллаева Г. Рай Адм.	
25	Экология Зам. Бердиев Т.А.	
26	Аркытмэрии А. Саитов вед. спец.	
27	Уч-Коргон айыл окмоту - Мырзаев Ш.Р.	

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Annex 14. Photo report of public hearings

Annex 15. ESF/Safeguards Interim Note COVID-19 Considerations in Construction/Civil Works Projects

This note was issued on April 7, 2020 and includes links to the latest guidance as of this date (e.g. from WHO). Given the COVID-19 situation is rapidly evolving, when using this note it is important to check whether any updates to these external resources have been issued.

INTRODUCTION

The COVID-19 pandemic presents Governments with unprecedented challenges. Addressing COVID-19 related issues in both existing and new operations starts with recognizing that this is not business as usual and that circumstances require a highly adaptive responsive management design to avoid, minimize and manage what may be a rapidly evolving situation. In many cases, we will ask Borrowers to use reasonable efforts in the circumstances, recognizing that what may be possible today may be different next week (both positively, because more supplies and guidance may be available, and negatively, because the spread of the virus may have accelerated).

This interim note is intended to provide guidance to teams on how to support Borrowers in addressing key issues associated with COVID-19 and consolidates the advice that has already been provided over the past month. As such, it should be used in place of other guidance that has been provided to date. This note will be developed as the global situation and the Bank's learning (and that of others) develops. This is not a time when 'one size fits all'. More than ever, teams will need to work with Borrowers and projects to understand the activities being carried out and the risks that these activities may entail. Support will be needed in designing mitigation measures that are implementable in the context of the project. These measures will need to take into account capacity of the Government agencies, availability of supplies and the practical challenges of operations on-the-ground, including stakeholder engagement, supervision and monitoring. In many circumstances, communication itself may be challenging, where face-to-face meetings are restricted or prohibited, and where IT solutions are limited or unreliable.

This note emphasizes the importance of careful scenario planning, clear procedures and protocols, management systems, effective communication and coordination, and the need for high levels of responsiveness in a changing environment. It recommends assessing the current situation of the project, putting in place mitigation measures to avoid or minimize the chance of infection, and planning what to do if either project workers become infected or the work force includes workers from proximate communities affected by COVID-19. In many projects, measures to avoid or minimize will need to be implemented at the same time as dealing with sick workers and relations with the community, some of whom may also be ill or concerned about infection. Borrowers should understand the obligations that contractors have under their existing contracts (see Section 3), require contractors to put in place appropriate organizational structures (see Section 4) and develop procedures to address different aspects of COVID-19 (see Section 5).

CHALLENGES WITH CONSTRUCTION/CIVIL WORKS

Projects involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the project such as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

DOES THE CONSTRUCTION CONTRACT COVER THIS SITUATION?

Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017), which contains no 'ESF enhancements', states (in the General Conditions, clause 6.7) that the Contractor will be required:

- to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
- to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
- to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation

- to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics

These requirements have been enhanced through the introduction of the ESF into the SPDs (edition dated July 2019). The general FIDIC clause referred to above has been strengthened to reflect the requirements of the ESF. Beyond FIDIC's general requirements discussed above, the Bank's Particular Conditions include a number of relevant requirements on the Contractor, including

- to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities)
- to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
- gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
- requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
- to provide an easily accessible grievance mechanism to raise workplace concerns

Where the contract form used is FIDIC, the Borrower (as the Employer) will be represented by the Engineer (also referred to in this note as the Supervising Engineer). The Engineer will be authorized to exercise authority specified in or necessarily implied from the construction contract. In such cases, the Engineer (through its staff on site) will be the interface between the PMU and the Contractor. It is important therefore to understand the scope of the Engineer's responsibilities. It is also important to recognize that in the case of infectious diseases such as COVID-19, project management – through the Contractor/subcontractor hierarchy – is only as effective as the weakest link. A thorough review of management procedures/plans as they will be implemented through the entire contractor hierarchy is important. Existing contracts provide the outline of this structure; they form the basis for the Borrower to understand how proposed mitigation measures will be designed and how adaptive management will be implemented, and to start a conversation with the Contractor on measures to address COVID-19 in the project.

WHAT PLANNING SHOULD THE BORROWER BE DOING?

Task teams should work with Borrowers (PMU s) to confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:

- The PMU, either directly or through the Supervising Engineer, should request details in writing from the main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-

19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).

- In making the request, it may be helpful for the PMU to specify the areas that should be covered. This should include the items set out in Section 5 below and take into account current and relevant guidance provided by national authorities, WHO and other organizations. See the list of references in the Annex to this note.
- The PMU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
- Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
- On sites where there are a number of contractors and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PMU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member site manager
- (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all contractors and sub-contractors understand the risks and the procedure to be followed.
- The PMU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve interface with local services, in particular health and emergency services. In many cases, the PMU can play a valuable role in connecting project representatives with local Government agencies, and helping coordinate a strategic response, which takes into account the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity. • Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

WHAT SHOULD THE CONTRACTOR COVER?

The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19

may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). PMU s and contractors should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated (see sample References and links provided in the Annex).

Addressing COVID-19 at a project site goes beyond occupational health and safety and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PMU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the project response to COVID-19.

ASSESSING WORKFORCE CHARACTERISTICS

Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:

The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).

- This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
- Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
- Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.
- Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
- Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out

above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK

Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:

- Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
- Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID- 19 specific considerations.
- Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
- Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
- Checking and recording temperatures of workers and other people entering the site or requiring self-reporting prior to or on entering the site.
- Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
- During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

GENERAL HYGIENE

Requirements on general hygiene should be communicated and monitored, to include:

- Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
- Placing posters and signs around the site, with images and text in local languages.
- Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas;

where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.

- Review worker accommodations and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
- Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

CLEANING AND WASTE DISPOSAL

Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:

- Providing cleaning staff with adequate cleaning equipment, materials and disinfectant. •
- Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
- Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
- Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for as limited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation, and waste management for COVID-19).

ADJUSTING WORK PRACTICES

- Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:
- Decreasing the size of work teams.
- Limiting the number of workers on site at any one time.
- Changing to a 24-hour work rotation.
- Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
- Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).

- Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
- Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
- Consider changing canteen layouts and phasing mealtimes to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.
- At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

PROJECT MEDICAL SERVICES

Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:

- Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19). Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present, and the area/facilities should be cleaned prior to and after such use.
- Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
- Training medical staff in testing, if testing is available.
- Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
- If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on constructions sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.

- Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
- Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

LOCAL MEDICAL AND OTHER SERVICES

Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:

- Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
- Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
- Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
- Clarifying the way in which an ill worker will be transported to the medical facility and checking availability of such transportation.
- Establishing an agreed protocol for communications with local emergency/medical services.
- Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
- A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

INSTANCES OR SPREAD OF THE VIRUS

WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

- If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site. • If testing is available

on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).

- If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
- Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
- Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
- Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
- If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
- If workers live at home and has a family member who has a confirmed or suspected case of COVID, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
- Workers should continue to be paid throughout periods of illness, isolation, or quarantine, or if they are required to stop work, in accordance with national law.
- Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

CONTINUITY OF SUPPLIES AND PROJECT ACTIVITIES

Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

- Identify back-up individuals, in case key people within the project management team (PMU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
- Document procedures, so that people know what they are, and are not reliant on one person's knowledge.
- Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2-month interruption of critical goods may be appropriate for projects in more remote areas.
- Place orders for/procure critical supplies. If not available, consider alternatives (where feasible) Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations
- Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

TRAINING AND COMMUNICATION WITH WORKERS

Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them.

- It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
- Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
- Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
- Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
- Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

COMMUNICATION AND CONTACT WITH THE COMMUNITY

Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers' presence on the project site. The project should set out risk-based procedures to be followed, which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:

- Communications should be clear, regular, based on fact and designed to be easily understood by community members.
- Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.

- The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick.
- If project representatives, contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).

EMERGENCY POWERS AND LEGISLATION

Many Borrowers are enacting emergency legislation. The scope of such legislation, and the way it interacts with other legal requirements, will vary from country to country. Such legislation can cover a range of issues, for example:

- Declaring a public health emergency
- Authorizing the use of police or military in certain activities (e.g. enforcing curfews or restrictions on movement)
- Ordering certain categories of employees to work longer hours, not to take holiday or not to leave their job (e.g. health workers)
- Ordering non-essential workers to stay at home, for reduced pay or compulsory holiday Except in exceptional circumstances (after referral to the World Bank's Operations Environmental and Social Review Committee (OESRC)), projects will need to follow emergency legislation to the extent that these are mandatory or advisable. It is important that the Borrower understands how mandatory requirements of the legislation will impact the project. Teams should require Borrowers (and in turn, Borrowers should request Contractors) to consider how the emergency legislation will impact the obligations of the Borrower set out in the legal agreement and the obligations set out in the construction contracts. Where the legislation requires a material departure from existing contractual obligations, this should be documented, setting out the relevant provisions.

ANNEX Advice for the public

- WHO advice for the public, including on social distancing, respiratory hygiene, self-quarantine, and seeking medical advice, can be consulted on this WHO website: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public

Technical guidance

- Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected, issued on March 19, 2020
- Recommendations to Member States to Improve Hygiene Practices, issued on April 1, 2020
- Severe Acute Respiratory Infections Treatment Center, issued on March 28, 2020

- Infection prevention and control at health care facilities (with a focus on settings with limited resources), issued in 2018
- Laboratory biosafety guidance related to coronavirus disease 2019 (COVID-19), issued on March 18, 2020
- Laboratory Biosafety Manual, 3rd edition, issued in 2014
- Laboratory testing for COVID-19, including specimen collection and shipment, issued on March 19, 2020
- Prioritized Laboratory Testing Strategy According to 4Cs Transmission Scenarios, issued on March 21, 2020
- Infection Prevention and Control for the safe management of a dead body in the context of COVID-19, issued on March 24, 2020
- Key considerations for repatriation and quarantine of travelers in relation to the outbreak COVID-19, issued on February 11, 2020
- Coronavirus disease (COVID-19) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety and health, issued on March 18, 2020
- Oxygen sources and distribution for COVID-19 treatment centers, issued on April 4, 2020
- Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response, issued on March 16, 2020
- Considerations for quarantine of individuals in the context of containment for coronavirus disease (COVID-19), issued on March 19, 2020
- Operational considerations for case management of COVID-19 in health facility and community, issued on March 19, 2020
- Rational use of personal protective equipment for coronavirus disease 2019 (COVID-19), issued on February 27, 2020
- Getting your workplace ready for COVID-19, issued on March 19, 2020
- Water, sanitation, hygiene and waste management for COVID-19, issued on March 19, 2020
- Safe management of wastes from health-care activities, issued in 2014
- Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (COVID-19) outbreak, issued on March 19, 2020
- Disability Considerations during the COVID-19 outbreak, issued on March 26, 2020

WORLD BANK GROUP GUIDANCE

- Technical Note: Public Consultations and Stakeholder Engagement in WB-supported operations when there are constraints on conducting public meetings, issued on March 20, 2020
- Technical Note: Use of Military Forces to Assist in COVID-19 Operations, issued on March 25, 2020
- ESF/Safeguards Interim Note: COVID-19 Considerations in Construction/Civil Works Projects, issued on April 7, 2020
- Technical Note on SEA/H for HNP COVID Response Operations, issued in March 2020
- Interim Advice for IFC Clients on Preventing and Managing Health Risks of COVID-19 in the Workplace, issued on April 6, 2020
- Interim Advice for IFC Clients on Supporting Workers in the Context of COVID-19, issued on April 6, 2020

- IFC Tip Sheet for Company Leadership on Crisis Response: Facing the COVID-19 Pandemic, issued on April 6, 2020
- WBG EHS Guidelines for Healthcare Facilities, issued on April 30, 2007

ILO GUIDANCE

- ILO Standards and COVID-19 FAQ, issued on March 23, 2020 (provides a compilation of answers to most frequently asked questions related to international labor standards and COVID-19)

MFI GUIDANCE

- ADB Managing Infectious Medical Waste during the COVID-19 Pandemic
- IDB Invest Guidance for Infrastructure Projects on COVID-19: A Rapid Risk Profile and Decision Framework
- KfW DEG COVID-19 Guidance for employers, issued on March 31, 2020

CDC Group COVID-19 Guidance for Employers, issued on March 23, 2020