Concept Environmental and Social Review Summary
Concept Stage
(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Kyrgyz Republic	EUROPE AND CENTRAL ASIA	P173734	
Project Name	Kyrgyz Republic: Water Security for Climate Resilience Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Water	Investment Project Financing	1/17/2022	3/31/2022
Borrower(s)	Implementing Agency(ies)		
Kyrgyz Republic	State Water Resources Agency (former Department of Water Resources and Land Improvement), State Water Resources Agency, Department of Drinking Water Supply and Wastewater Disposal		

Proposed Development Objective

The project development objective is to (i) increase access to water services in selected basins, and (ii) strengthen institutional capacities for climate-resilient water services delivery and water resources management at local and national level.

Financing (in USD Million)	Amount
Total Project Cost	60.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The project will build resilience in the water sector and strongly contribute to a green recovery, including through a focus on reducing the water and energy footprint of irrigation, water supply and wastewater services to support recovery from COVID-19.The project will improve in selected river basins the coverage, quality and efficiency of water supply, sanitation and irrigation services, and strengthen capacity for improved integrated water resources management and of relevant service providers in the selected basins. At national level the project will increase institutional capacities for inclusive and climate-resilient water service delivery and water resources management.

The project will build on the achievements and lessons learned from ongoing and previous World Bank projects that have improved access to sustainable rural water supply and improved irrigation management through institutional reforms at multiple levels. Infrastructure investments will focus on the Issyk-Kul-Tarim basin and Karadarya-Syrdarya-Amudarya (KSA) basin, with the choice of interventions informed by the needs assessment and analyses to be conducted during project preparation. The project interventions will be guided by decarbonization, climate-resilience and circular economy principles, such as the productive use of wastewater, energy efficiency measures and measures that increase adaptive capacity of rural and urban populations in the project areas. Investments will be aligned and guided by the River Basin Plans.

Infrastructure investments will be targeted to the KSA and Issyk-Kul-Tarim basins, which are facing heightened water security challenges. The KSA basin is the only basin in the Kyrgyz Republic containing areas facing extremely high-water stress conditions, where water withdrawals are more than 80 percent of the available freshwater supply . Because of climate variability and change and the poor condition of on-farm irrigation infrastructure, irrigators in the KSA basin face water scarcity, in particular during June-August . This lack of water often leads to disputes and conflicts in communities, especially among irrigators. Improved and reliability of water supply in these areas may help diffuse social tensions and stabilize agricultural incomes in the face of climate change. Located within the KSA basin, Batken oblast, has recently received a high priority status for development due to tensions with Tajikistan. The Issyk-Kul-Tarim basin is the second basin targeted in this project because of its strategic importance to the Kyrgyz Republic. The basin faces high water stress conditions and, more importantly, it contains the Issyk-Kul Lake: a primary attraction at the center of the country's tourism industry and key to the development of the Bishkek-Almaty economic tourism corridor, requiring climate resilient water and sanitation infrastructure . This significant socio-economic and environmental value calls for prudent river basin management to avoid overuse and pollution of water resources flowing into the lake and to adapt to the impacts of climate change, including potential higher glacial meltwater and evaporation rates.

Component 1: Infrastructure Investments and Service Improvements for Water Security. This component will contribute to implementation of high priority investments aligned with the river basin management plans. It will finance civil works, goods/equipment and services (design and supervision) to improve access to water (drinking water and irrigation water), sanitation service delivery, environmental services (quality of water and soil), and reduce energy footprint.

Component 2: Institutional Strengthening for Service Delivery, Water Resources Management and Dam Safety. This component will finance the acquisition and installation of equipment and will be designed to strengthen water resources planning, management and decision making in the selected river basins. The focus will be on improving the institutional knowledge and preparedness with regard to aspects of integrated water resources management,

including resilience to climate change, and operational capacity for service delivery at local level as well as strengthen capacities at national level for better planning , regulation and oversight.

Component 3: Project Management, Capacity Building and Professional Development. This component will support project operating costs, project management, monitoring and evaluation, fiduciary, environmental and social management, beneficiary satisfaction surveys, grievance redress mechanism, social mobilization, communications and awareness activities, audits, feasibility studies, environmental and social impact assessments, and technical designs studies of project-related as well as future investments, training and capacity building and professional development programs, with a dedicated focus on the strengthening employment opportunities of women in water sector entities.

Component 4: Contingent Emergency Response Component (CERC) to support the Government's emergency response in the event of an eligible emergency.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Landlocked in the heart of Central Asia, Kyrgyzstan neighbors China on the east and southeast, Kazakhstan on the north, Uzbekistan on the west, and Tajikistan on the south. Kyrgyzstan is a mountainous country, economy of which is defined at large by its altitude, terrain, and location. Spread over 200,000 square kilometers along with the spectacular Tian Shan and Pamir-Alai mountainous ranges capped with snow and glaciers, it has almost 90 percent of its territory at higher than 1,500 meters above sea level, and almost a half of it not habitable and accessible for use by the people. Kyrgyzstan has more than two thousand lakes, thirty thousand fast streams, and rivers fed by fertile watersheds. Mountainous ridges make up one-fourth of the country's territory, with the watersheds starting at the peaks at about 5,000-7,000 meters asl and stretching down to the lowland valleys. Mountainous rangelands and forests make 49 percent of the total land area, while arable land makes only 7 percent. Almost all crops (90 percent) are cultivated on 1.28 million ha of this arable land. These geographic and terrain conditions make agriculture extremely vulnerable to weather and climate variations. The country's population of about 6.5 million people lives mostly on 19 percent of the habitable land area.

Arable agriculture is only possible on about 5-7% of the land with 75% of it depending on irrigation. The main crops grown are wheat, barley, maize (for grain and silage), potatoes, melons, oilseed crops, and different types of vegetables. Fodder crops are also grown, especially lucerne (on the better-irrigated land) and sainfoin (on the less well-irrigated hill slopes). Water shortages occur during the growing season and are especially problematic in the southern region (Batken, Jalal-Abad, and Osh provinces). This limited water supply can cause crop and small harvest losses (decrease in yields of around 15-20%), especially in home gardens and household plots.

Agriculture is the leading sector of the economy and, at the same time, the most vulnerable to climate change. Major events that threaten to reduce agriculture productivity include extended summer drought, hailstorms, windstorms, late spring, and early fall frosts, and winter thaws.

There are over 20 ecosystems ranging from glaciers and snowfields to deserts, with rangelands covering over half the country's territory. Forest cover is relatively small, making about 5% of the total land area. The varied geography and climate account for its high biodiversity. A well-established, centralized system of protected areas with 87 Protected Areas falls under 4 IUCN categories and makes up 7% of the country's territory. Hazards such as drought, land and mudslides, avalanches, a breakthrough of glacial lakes, floods, river erosion and, earthquakes are all common occurrences.

The country holds 30% of the total water resources of Central Asia, mainly stocked in rivers, glaciers, and snow massifs, but also in lakes and groundwater. The world's second-largest high-mountain lake, Issyk-Kul, is in Kyrgyzstan. Kyrgyzstan can be divided into two hydrological zones: (i) the flow generation zone (mountains), covering 171,800 km2, (or 87% of the territory); and (ii) the flow dissipation zone of 26,700 km2 (or 13% of the territory). Most rivers are fed by glaciers and/or snowmelt. Peak flows occur from April to July, with 80–90 % of the flow in about 120–180 days extending into August or September.

The project will include national-level activities, basin-level activities (Karadarya-Syrdarya-Amudarya (KSA) basin and IssykKul-Tarim basin), and cities/towns/rural level activities. Infrastructure investments will focus on the Issyk-Kul-Tarim basin and KSA basin, with the choice of interventions informed by the needs assessment and analyses to be conducted during project preparation. River Basin Plans are being prepared under the ongoing National Water Resources Management Project.

D. 2. Borrower's Institutional Capacity

The proposed project builds on and complements previous and ongoing World Bank-supported projects, including the National Water Resources Management Project, Sustainable Rural Water Supply and Sanitation Project and, Agricultural Productivity and Nutrition Improvement Project.

The Borrower will be the Ministry of Finance. The State Water Resources Agency (SWRA) of the Ministry of Agriculture, Water Resources and Regional Development and the Department of Drinking Water Supply and Wastewater Disposal (DDWSWD) of the State Agency for Architecture, Construction, and Communal Services (GOSSTROY) which will share the overall responsibility for project implementation. SWRA will be in charge of implementing activities related to irrigation water, while the DDWSWD will be in charge of project activities in the drinking water supply and sanitation area. Each agency will be supported through a PIU tasked to carry out the fiduciary function (including environmental/social standards). This will be done in compliance with the World Bank requirements and the environmental and social policy and standards to be outlined in the Financing Agreement. The PIUs will each manage the flow of funds on behalf of SWRA and GOSSTROY. The Bank will carry out a full assessment of the PIUs during preparation. Furthermore, a Project Coordination Unit (PCU) for overall monitoring and evaluation, fiduciary management, and ESS compliance could also be established upon further discussion with the Borrower during project preparation. The Environmental and Social Framework (ESF) instruments will detail the role and responsibility of the three involved entities (the PIUs and the PCU).

The PIU of the SWRA has experience implementing WB-funded projects. It is adequately staffed and has established appropriate controls and procedures. The SWRA PIU has a long history of environmental and social safeguards supporting World Bank Water resources management and irrigation projects. It has an environmental and social development specialist responsible for all environmental and social issues, including environmental and social assessment, supervising preparation of site-specific ESMPs, monitoring and, reporting. However, to manage the

additional activities of this project, a full-time environmental specialist, social specialist and OHS specialist will also be hired.

DDWSWD is responsible for developing both the rural and urban water supply and sanitation sectors, including policy, planning, and sector coordination. Its responsibilities will include overall executing agency for water supply, sanitation, and wastewater; overall sector coordination and policy support; government and donor liaison; participation in all procurement activities; identification and prioritization of sector interventions; and coordination of the institutional-support activities at the national level. DDWSWD has not been directly involved in the implementation of World Bank-financed projects. A PIU within DDWSWD has been established. The DDWSWD PIU has experience with International Financing Institutions. The DDWSWD PIU has experience implementing ADB-financed wastewater projects and currently has both an environmental and a resettlement specialist within the PIU team to support project preparation. However, the capacity of the PIU under DDWSWD requires to be expanded to support the project implementation including hiring a social specialist and an OHS specialist prior to the project becoming Effective.

As the Bank's ESF is new to the two PIUs, a training program to develop and expand professional skills and capacity in ESF issues for staff involved in project implementation will be organized through the two PIUs. The training program will reinforce existing capacity by providing specialized training to enhance environmental and social assessment, management, and monitoring skills and practices.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) — Substantial

Environmental Risk Rating — Substantial

The project's environmental risk is rated Substantial due to the type of the project activities and their geographic coverage over two river basins. This risk rating also takes into account that both SWRA and DDWSWD are not familiar with the World Bank new ESF policy and standards and will need to build their capacity in this regard. The proposed activities are expected to result in economic, environmental, and social benefits by rehabilitating irrigation and drainage systems preventing excess energy and water loss, soil waterlogging and erosion, salinization of farmlands and adjacent landscapes, and reducing pollution on water surfaces and groundwater through improving wastewater management. Nevertheless, potential adverse environmental impacts and risks are also expected and are mainly linked to the activities to be undertaken under Component 1. This component will cover civil and electrical/mechanical installations for water supply production (boreholes, well-fields, intakes, as well as disinfection and energy-efficient/renewable energy pumping as required), and works for transmission and distribution of water (networks, storage, meters) to households in the project areas, along with wastewater management infrastructure, sewerage collection, conveyance, treatment and disposal/re-use facilities. It also includes activities for the improvement of existing irrigation and drainage schemes in KSA. The Irrigation works include rehabilitation of irrigation headworks (main and secondary canals) and existing pumping station and water harvesting ponds and drainage canals. The risks and potential adverse impacts associated with the above activities are expected to include: (i) increased pollution due to construction waste; (ii) generation of dust, noise, and vibration due to the movement of construction vehicles and machinery; (iii) associated risks due to improper disposal of construction

waste and asbestos-containing materials (ACMs) that could be encountered in the pipes of the old water supply systems, (iv) operational or accidental spills of fuel and lubricants from the construction machinery; (v) improper reinstatement of construction sites upon completion of works; (vi) management of fecal sludge; (vii) traffic and OHS issues, and (viii) disturbance and pollution of natural ecosystem and biodiversity. 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).

Social Risk Rating Moderate

The social risk is expected to be Moderate at this stage. The social risk rating will be revisited during the project preparation as the nature and scale of investments are not finalized yet. Hence it is difficult to predict fully the risks and impacts thereof. The potential adverse risks and impacts are not likely to be significant. The Project design will not include complex and/or large-scale interventions (proposed subprojects for water supply and wastewater are expected to serve rural settlements and small towns (up to 20,000 people). No significant risks related to labor influx, or community health and safety are expected under the Project, as most project workers will be recruited locally. This will need to be monitored and confirmed throughout project implementation. The project is expected to have positive social impacts such as improved water (drinking and irrigation) accessibility, hygiene, and sanitation standards in the project communities, which in turn have positive impacts on the quality of life, especially for women, children, and vulnerable groups. Improved sanitation practices and greater awareness of the population are expected to have a trickle-down effect on the health situation of the population. Although the end project result will benefit all people in the proposed project area, the project interventions are likely to have social risks and impacts involving land acquisition, exclusion risks resulting from connection barriers for disadvantaged and vulnerable groups/households (i.e. their ability to pay for connection costs, future tariffs/fees, permit regulation) and communication barriers for project-affected people to participate meaningfully in project-related consultations. Hence, the followings are the main social risks of the project: (i) land acquisition and involuntary resettlement necessitated due to (a) new construction and/or rehabilitation of water supply and sanitation infrastructure and (b) rehabilitation and modernization of irrigation infrastructure; (ii) affordability and equity concerns around water tariffs (including connection costs), water permits, and irrigation service fees especially for disadvantaged and vulnerable groups; and (iii) low institutional capacity to deal with issues of tariffs/fees and permits regulation, planning, and oversight.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

The environmental risk rating is Substantial, and the social risk rating is Moderate. Accordingly, the project overall ESF risk rating is Substantial. Based on the initial E&S screening, the project activities trigger ESS 1, ESS 2, ESS 3, ESS 4, ESS 5, ESS 6, ESS8, and ESS 10. Since the exact location of the drinking and irrigation water supply and sanitation schemes are unknown and subject to cost-benefit assessment at this stage, the project will use the framework approach. Accordingly, the client will need to prepare, to the satisfaction of the Bank; consult on; and disclose one set of the following instruments during project preparation: (i) Environmental and Social Management Framework (ESMF); (ii)

Labor Management Procedures (LMP); (iii) Resettlement Framework (RF); (iv) Stakeholder Engagement Plan (SEP); and (v) Environmental and Social Commitment Plan (ESCP).

The project will be implemented in Karadarya-Syrdarya-Amudarya (KSA) basin and Issyk Kul-Tarim basin. The KSA and Issyk-Kul RBMPs will guide the choice of interventions. Draft RBMPs are already available and will be updated over the next four months. Updated plans will be consulted under NWRMP and approved by the National Water Council. The subprojects selection before appraisal will be based on screening the irrigation investments under the draft RBMPs and the priority national WSS program.

The environmental and social impacts of the proposed project will be largely positive. The identified positive impacts will include (i) improved water management and efficiency through replacement of leaking pipes and production systems, replacement of continuously running communal stand-pipes with household connections, and installation of individual meters, with support for improved operations and maintenance; (ii) help in protecting ground and surface water resources by promoting the construction and use of environmentally sound sanitation and wastewater collection and treatment facilities; (iii) economic, environmental, and social benefits through modernization irrigation and drainage systems preventing excess energy and water loss, soil waterlogging and erosion, and salinization of farmlands and adjacent landscapes; (iv) sustainable management of improved infrastructure by communities, which will bring environmental and social benefits related to natural resources management; and (v) improved citizens' skills and awareness during project planning and implementation.

The investments under Components 1 will cover civil works for improving small-scale rural drinking water supply, sanitation and wastewater treatment, and rehabilitation of existing irrigation and drainage schemes. These works are expected to cause a variety of small-medium scale, localized impacts which may include: (i) increased pollution due to construction waste; (ii) generation of dust, noise, and vibration due to construction vehicles and machinery movement; (iii) risks due to improper disposal of construction waste and asbestos-containing materials that could be found in old water supply pipes, (iv) operational or accidental spills of fuel and lubricants from construction machinery; (v) improper reinstatement of construction sites upon completion of works; (vi) increased traffic, and occupation and community health and safety issues. The above environmental impacts can be prevented, minimized, or mitigated. The ESMF will identify and outline detailed management and mitigation measures and implementation arrangements related to all investment activities, which will be defined during the Project implementation. For the activities designed and executed during the course of Project implementation, site-specific ESIAs/ESMPs will be prepared, disclosed, consulted on, and approved by the Bank before tendering or initiation of civil works. The site-specific ESIA/ESMP will also be developed in line with the World Bank's EHS General Guidelines and the specific Guidelines on Water and Sanitation. All construction works will follow WB COVID-19 guidelines during civil works execution. The ESMF will also include explicit exclusion criteria for the activities that would adversely impact cultural heritage and/or critical habitat. The ESMF and the site-specific ESIA/ESMPs will also address potential cumulative impacts.

The irrigation activities under Component 1 may be related to upstream existing dams that irrigation facilities to be financed by the project may rely on. In this case, the ESF/ESS4 Annex 1: Safety of Dam will be relevant. The ESMF and ESCP will include relevant requests on dam safety issues. Component 2 includes capacity building on dam safety management, the risk of these activities is rated low to moderate. During project preparation, it will be determined if the project will require an independent panel to advise on dam safety management.

The ESMF will include a specific section on Contingency Emergency Response Component (CERC) describing the environmental and social risk management procedures and providing a positive list of activities that can be funded under CERC.

The expected social and economic benefits of the project regarding irrigation include the creation of new jobs¸ improved food security and an expected decline in migration. Whereas, access to water, sanitation, and hygiene (WASH) decreases the incidence of diarrhea in young children and has an overall positive influence on the nutritional status of children, specifically stunting. Access to WASH can also have an impact on years of schooling by freeing up time that children spend collecting water to attend school. Although the project result will benefit all people in the proposed project area, the project interventions are likely to have social risks and adverse impacts involving potential land acquisition and involuntary resettlement, affordability and equitability concerns of project benefits for disadvantaged and vulnerable groups, and institutional low capacity to deal with these issues. The nature of impacts and extent of interventions will become clearer once the final designs of subprojects will be finalized. The ESMF will assess risks and impacts and provide guidance on appropriate mitigation measures to be taken. Additionally, the vulnerable and disadvantaged groups will be identified as part of SEP and consultations will be held with those groups and their concerns and views will be addressed in ESMF, SEP, RF, and project design. A Grievance Mechanism will be established to provide an avenue by which project-affected people can lodge a complaint regarding project activities and receive a timely resolution of concerns and complaints. ESS5 is relevant to the project and an RF will be prepared for the project. The RF will provide guidance on the preparation, disclosure, and implementation of site-specific Resettlement Plans (RPs) during the project implementation. The Borrower will conduct meaningful and participatory stakeholder consultations in the project area on prepared instruments (ESMF, RF, SEP). A project's ESCP will be prepared and disclosed by the Borrower, which includes appropriate measures to ensure compliance with the WB ESSs.

Projects on International Waterways (OP/BP 7.50) will be triggered because the project will finance rehabilitation, improvement to rural drinking water supply systems, and existing irrigation and drainage schemes located within the KSA basin, which is transboundary. The project will improve existing irrigation and drainage schemes back to fully operational condition and allow for improved management of water and reduction in water losses. No new canals or structures that will allow an increase in the abstraction and supply of water are envisaged and no development of new irrigation areas will be financed. During project preparation, a memorandum on exception to the notification requirements of OP7.50 will be prepared for approval of the World Bank Regional Vice-President for Europe and Central Asia.

Areas where "Use of Borrower Framework" is being considered:

Borrower E&S Framework will not be used for the Project as a whole or for any of its parts.

ESS10 Stakeholder Engagement and Information Disclosure

This standard is relevant to the project. Stakeholder Engagement includes the following: (i) stakeholder identification and analysis; (ii) planning for stakeholder engagement; (iii) grievance mechanism; (iv) consultations on the ESMF, RPF, and SEP; and (v) continuous interface with and reporting to the stakeholders. The project activities will take place in several oblasts (Iss) yk-Kul, Jallabad, Osh, Batken) of the Kyrgyz Republic within two basins. Individuals and

groups likely to directly benefit are expected to be identified during project preparation and then further defined once specific subproject activities are agreed upon. At this stage the following primary project beneficiaries are identified: rural and small-town households, farmers, water user associations, water service providers (municipal enterprises, vodokanals) local village and town administrations (Ayil Okmotus). Other interested parties include, among others, regional and raion government, local businesses (tourism sector) , government institutions that may be involved in various ways in the project, as well as academia, civil society, international organizations, the media. Tailored engagement measures would also be needed to involve different sets of stakeholders including disadvantaged and vulnerable groups.

The project has a diverse stakeholder profile; their expectations and orientation, as well as the capacity to interface with the project, are different. The SEP will enable the project to identify different stakeholders and set out an approach towards engaging with them throughout the project's life. The SEP will also identify impediments, if any, at reaching out to stakeholders as well as reflect/build the capacity of the client in engaging with stakeholders. Finally, the SEP will be an important tool for addressing potential conflicts over water resources.

At this stage, under a PPG, a draft SEP has been prepared by the client to support continuous interactions and early stakeholder engagement in project development. The draft SEP will be updated as preparation progresses. The PIU will also update an existing Grievance Mechanism to enable stakeholders to air their concerns/ comments/ suggestions. It will also include procedures for addressing SEA/SH complaints. The SEP will include detailed procedures for consulting and disclosing all ESF instruments to be prepared for the project. A draft SEP will be disclosed prior to the appraisal and will be updated, as necessary, throughout the project implementation. A precautionary approach will be taken in stakeholder engagement activities to minimize the risk of COVID-19 transmission, taking into account WHO and WB guidelines.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

The standard is relevant. The project could encompass the following categories of workers: direct and contracted workers. Direct workers will be those deployed as 'technical consultants' and 'project specialists' by the PIU. They will be governed by mutually agreed contracts. Contracted workers will be employed as deemed appropriate by contractors, sub-contractors, and other intermediaries, details of which will be known as and when activities' implementation begins. Workers within rural communities may be involved in the project activities, but such workers would be employed by contractors and may not meet the criteria of community workers as per ESS2.

Labor risks in this project will be mitigated by the establishment and close adherence to 1) a labor-management procedure (LMP), 2) labor-management plan(s) as part of the Contractor's ESMP, and 3) a code of conduct for workers. Risks related to child and forced labor are considered to be low, potential risks and mitigation measures will be included in ESMP and LMP. The PIU will prepare an LMP for the project, prior to Appraisal, describing the types of workers, key elements of the national labor policy and regulations, and gaps with ESS2. The LMP will include provisions on working conditions and labor terms, fair treatment, and equal opportunities. Labor camps are envisaged but at this point, it is not possible to estimate the required number of workers. Provisions will be made to

train and hire as many as possible from local community members where the project activities are taking place. The ESMF will include sections on Environment Health and Safety (EHS) based on the World Bank Group EHS Guidelines (EHS checklists for expected types of works, codes of conduct; safety training, procedures for dealing with hazardous materials like asbestos and lead-based paint, etc.). The key OHS risk for project workers are associated with the construction activities for the water supply, sanitation, existing irrigation and drainage irrigation schemes, and COVID- 19. The project will regularly integrate the latest COVID-19 guidance and best practices as it evolves.

All project workers will be expected to adhere to standard Codes of Conduct that address measures to prevent SEA/SH. The project will also include a grievance mechanism for project workers, SEA/SH prevention measures, and incorporating labor requirements into the ESHS specifications of the procurement documents and contracts with contractors and supervising firms.

ESS3 Resource Efficiency and Pollution Prevention and Management

The standard is relevant as potential sources of pollution are associated with the civil works undertaken under component 1. Such activities include construction of water boreholes, wells, storage and network, sewerage collection, treatment and disposal, and rehabilitation of the irrigation and drainage schemes. The potential negative impacts related to these activities include dust and noise emissions, generation of construction waste, wastewater, and hazardous materials and waste (oil, grease, hydrocarbons, paint etc), sludge and solid waste disposal, emissions of hydrogen sulfide, methane, and odor expected during WWTP operation. These impacts are not likely to be significant or irreversible. The ESMF will include sections on resource efficiency and Pollution Prevention and Management, particularly dealing with air, water, and noise pollution, and the handling and disposal of construction waste (hazardous and non-hazardous), wastewater. The rehabilitation of the irrigation schemes could potentially lead to expansion in agriculture activities which means the potential for pesticide and fertilizer use is not negligible. The ESMF will include a dedicated section on pesticides and fertilizers purchase, transportation, storage, handling, use, and disposal. Assessment of risks and impacts and proposed mitigation measures related to relevant requirements of ESS 3, including water use; soil and air pollution; and hazardous materials management; and procedures for handling and disposing of material and hazardous waste will be included within the scope of site-specific ESIA/ESMPs, as relevant.

While the overall impacts associated with the project activities are likely to be positive, some sub-projects may require the development of detailed water balances, especially those that could impact downstream communities. Accordingly, the ESMF will include guidance and procedures on when water balances are required to be developed to mitigate any potential downstream impacts on communities. Further, as Component 2 will involve the “acquisition and installation of equipment” designed to strengthen water resources planning and management, the project will enhance related capacities for real water monitoring, including monitoring instruments for hydrometric measurements, evapotranspiration levels, sediment flow measurements, etc. This improved monitoring will inform reservoir management optimization, including reservoirs/dams that are not related to the specific irrigation subprojects. These will be described in the ESMF.

ESS4 Community Health and Safety

The standard is relevant. In order to address risks and impacts that might affect community health and safety, the ESMF will include an assessment of work-related health risks; works and road safety; excessive noise and dust levels, site safety awareness and access restrictions; labor influx (if any), and SEA/SH. All these issues will be screened and addressed in site-specific ESIA/ESMPs to be prepared once the investment locations are identified and detailed designs available. The ESMF will require that site-specific ESIA/ESMPs specify the necessary measures for ensuring efficient waste management, compliance with good labor-management practices, disclosing information, and maintaining effective communication with local communities throughout the duration of works. The ESMF will also highlight the need for training and will include specific guidelines and requirements, and provisions in this regard for PIU staff, local authorities, and project beneficiaries (farmers, Water Users´Associations (WUAs), and River Basin Organizations (RBOs)). The site-specific ESMPs will include emergency preparedness and response plans for the project's construction and operational stages to manage natural or man-made hazards/incidents (floods, fires, etc.) in the project intervention areas. They will also include measures to address SEA/SH risks, including, where necessary, action plans, Codes of Conduct, outreach, etc.

Component 2 will also cover the design and implementation of dam safety measures, including the following: (i) develop technical guidelines and increase institutional capacity for monitoring of dams; (ii) carrying out a dam safety risk assessment and formulate guidelines for the elaboration of dam safety plans and emergency plans; (iii) support the adoption of a regulatory framework for dam safety management; (iv) development and partial implementation of dam safety management plans for the KSA basin dams (Papan, Naiman, Tortgul and BazarKorgan); and (v) create a dam safety information module within the WIS including introduction of remote monitoring tools such as drone applications and remote sensing.

ESIAs/ESMPs will include studies related to the potential adverse impacts of the project components on the population. The impact on the safety and health of the population will be provided during construction works, during the digging of open trenches for the laying of a pipeline for drinking water and sewerage, due to emissions into the atmosphere during excavation work, driving of construction equipment on roads, noise from construction equipment. In addition, workers hired by the contractor and subcontractors who will temporarily reside in the places of work can be sources of the spread of diseases, including COVID-19.

ESIAs/ESMPs will include measures to ensure safety and mitigate the impact of construction and other works on the health of the population living in the project areas. All construction sites will be closed for unauthorized access by fencing off the territory. The project will develop and agree with the local government a Grievance Mechanism (GM), which will be available to the population living in the project implementation areas.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This ESS5 is considered relevant due to the potential investments under Component 1 which may require additional land and necessitate some temporary and/or permanent physical and economic displacement due to works to improve access to water (drinking water and irrigation water) and sanitation services. For example, Water Supply and Sanitation subcomponents will cover civil and electrical/mechanical installations for water supply production (boreholes, well-fields, intakes, as well as disinfection and pumping), and works for transmission and distribution of water (networks, storage, meters) to households in the project areas, along with wastewater management infrastructure, sewerage collection, conveyance, treatment and disposal/re-use facilities. Whereas, Irrigation and

Drainage subcomponents will include improvement of existing irrigation and drainage schemes located in KSA. The investment will cover: civil works for rehabilitation and modernization of irrigation headworks, main and secondary canals; modernization of existing pumping station to increase energy efficiency; and, construction of water harvesting ponds and drainage canals. The nature and extent of interventions and the impacts thereof are currently not known and will become clearer when investment activities are chosen. An RPF will be prepared, consulted upon, and disclosed prior to Appraisal. The RPF will establish how site-specific Resettlement Action Plans (RAPs) will be prepared, disclosed, and implemented. It is noted that all subprojects requiring land acquisition and involuntary resettlement will ensure that the RAP(s) are prepared and fully implemented prior to the commencement of works. In case designs of and investments for subprojects are identified during the project preparation, RAP(s) will also be prepared by Appraisal.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The standard is relevant. The project will support water supply activities, irrigation, and wastewater/ sanitation activities in the Karadarya-Syrdarya-Amudarya (KSA) basin (Batken oblast) and the Issyk-Kul – Tarim basin (Issyk-Kul oblast), both of which have important biodiversity areas.

The Karadarya-Syrdarya-Amudarya (KSA) basin has a rich biodiversity. The basin has the world largest walnuts and fruit forests covering 70,000 hectares. Vegetation is typically zoned by altitude. To the north, in the foothills (adyrs), there is wormwood-ephemeral-halophytic semi-desert vegetation. Higher at the slopes of the foothills and low mountains there are fescue feather grass steppes with piliferous couch grass westward and bulbous barley and saryndyz to the east. In the east, where there is more rainfall, fescue-feather grass steppes are followed by alpine meadows. To the south, in the Alai Valley, there are subalpine and alpine meadows, prairies, grasslands, and alpine desert steppes.

The fauna of the KSA basin is also diverse. In the walnut-fruit forests, there are foxes, wolves, badgers, weasels, brown bears, wild boars, roe deer, and porcupine. In the high mountains, there are mountain goats and snow leopards. A wide variety of birds also exists. Synanthropic species include sparrows, Afghan starling (myna), Eurasian blackbird (Turdus merula), large tit, magpie, rock pigeon (Columba livia), and turtledove. Some wild species include lark, quail (Coturnix coturnix), bunting (Emberiza), common wheatear (Oenanthe Oenanthe), and representatives of Coraciiformes (Coraciiformes). In the fields, there are predatory birds: a goshawk (Accipiter gentilis), a sparrow hawk (Accipiter ninus), common buzzard (Buteo buteo), a long-legged buzzard (Buteo Rufinus), a rumpet, a black kite (Milvus migrans), a snake-eater, a large spotted eagle, an ordinary kestrel, Eurasian hobby (Falco Subbuteo) and common vulture. Herpetofauna is represented by the following species: the lake frog, the green toad, the Central Asian tortoise, the gray gecko, the Turkestan agama, the deserted bare-eye (Phlegopsis), tessellated water snake (Natrix tesselata), the sand boa (Eryx), steppe ribbon snake (Psammophis Lineatriton), east steppe viper (Vipera renardi).

There are 17 State Reserves and Natural Parks that represent the national system of Specially Protected Areas in the Kyrgyz Republic. Out of these seven are located in the KSA Basin (with a total area of 196.9 thousand hectares) including four State Reserves (Kulun-Ata, Besh-Aral, Sary-Chelek, and Padysha-Ata) and three National Natural Parks (Kara-Shoro, Saimaluu-Tash, and Kyrgyz-Ata). Furthermore, approximately 20-30 km southeastward from Osh City there is the Ak-Bura Wildlife (Zoological) Refuge covering an area of 13,500 ha.

The water supply and irrigation activities in the KSA basin will be located in areas already under strong anthropogenic impact with ongoing human economic activities, including agricultural, industrial, transport, mining, communications.

The wastewater and sanitation activities in the Issyk-Kul– Tarim basin aim to reduce pollution on the Issyk-Kul Lake caused by tourist influx and resident population due to inadequate wastewater and sanitation infrastructure and supporting services presents. The Lake is a Ramsar site since 2003 and a UNESCO's Biosphere Reserve (IBR) since 2001. The lake plays a special role in biodiversity preservation for about 50,000–80,000 birds from 30–35 species during the winter season, as well as many other bird species who use the lake as a stopover and feeding ground during seasonal migration. Some waterfowl and migrant birds, whose habitats and nesting areas are along the shoreline, are listed as endangered species of the Kyrgyz Republic Red Data Book (2007). Wildlife found in the basin includes mammal species (9 are listed in the National Red Data Book and IUCN Red List), 267 bird species (18 listed), 9 endemic fish species, and more than 1,500 plant species. This rich biodiversity is also very important at the local level, providing numerous ecosystem services and goods. To ensure the sustainable development and management of the Issyk-Kul Biosphere Reserve, the Reserve, was designated and divided in accordance with UNESCO requirements and the GoKR Decree on Regulation of Biosphere Territory Issyk-Kul, January 24, 2000, # 40 into core, buffer, transition, and rehabilitation zones. This zoning has major implications on future development activities in the region, as the protection and development goals in each zone differ, as do the standards for use. Sub-project sites in Cholpon-Ata, Kadji-Say, and Bokonbaev are located on the shore of Lake Issy-Kul in the "transition and rehabilitation zones" devoted to "mainly anthropogenically affected, improvement and sanitation" activities as per the above regulation of the Biosphere Reserve.

The project potential sub-project sites will be located on the shore of Lake Issy-Kul in the "transition and rehabilitation zones" as per the above regulation of the Biosphere Reserve, in which economic development activities are permitted. Such activities include agricultural, industrial, transport, communications, defense, recreational houses well as the territories of settlements. Interested groups and citizens living in a given territory jointly participate in the production and long-term use of natural resources in compliance with environmental requirements that ensure the sustainability of the ecological and economic development of the territory.

During project preparation, consultations will be held with the state environmental authority to clarify the boundaries of specially protected natural areas that may be affected by the project. The ESMF will include biodiversity assessments of the two targeted river basins with a particular focus on potential project overlaps with protected areas, critical habitats, or other natural habitats. The ESMF will address relevant issues based on ESS 6 in the sections on sub-project screening, and the preparation of site-specific ESIAs/ESMPs or/and Biodiversity Management Plans (BMPs) to be implemented (in accordance with the mitigation hierarchy) to minimize impacts. . Subprojects with potential risks to protected areas or critical habitats will be excluded. As Project design progresses, the team will review potential identified activities against ESS 6 and include additional mitigation measures, if needed.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

This standard is not currently relevant, indigenous peoples defined by this standard are not considered to be present In the Kyrgyz Republic.

ESS8 Cultural Heritage

The standard is relevant. Although the work will be carried out on the existing territories, in the territories of settlements, and will not affect known historical and cultural values, planned activities will entail excavations with potential chance finds. Accordingly, the Project's ESMF and subsequent site-specific ESMPs for all activities which may involve any excavation of earth will include appropriate "chance find" procedures. A "chance find" clause will also be added to the contracts, defining procedures for contractors in the event that cultural heritage is encountered.

ESS9 Financial Intermediaries

The ESS 9 is not relevant since no financial intermediaries will be a party to the project implementation.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways	Yes
OP 7.60 Projects in Disputed Areas	TBD

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

No common approach has been considered and the World Bank will be the only financing partner for the Project.

B. Proposed Measures, Actions and Timing (Borrower's commitments)

Actions to be completed prior to Bank Board Approval:

1. Prepare and disclose an ESMF acceptable to the Bank.
2. Prepare and disclose an RPF acceptable to the Bank.
3. Prepare an LMP for project workers.
4. Update the SEP prepared under the PPG for the project preparation.
5. Prepare a draft Environmental and Social Commitment Plan.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

1. Environmental and social screening of subproject activities based on the ESMF.
2. Preparation of site-specific ESIAs/ESMPs, when and where required.
3. Continued stakeholder engagement throughout project implementation and beyond project closure, including a project GRM.
4. Adoption and implementation of the LMP, including a grievance mechanism for workers.
5. Preparation and implementation of a RAP or RAPs, when and where required.

6. Capacity building to enhance the environmental and social performance of the implementing agency and key stakeholders in ESF application and ESS compliance.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS	01-Feb-2022

IV. CONTACT POINTS

World Bank

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Borrower/Client/Recipient

Borrower: Kyrgyz Republic

Implementing Agency(ies)

Implementing Agency: State Water Resources Agency (former Department of Water Resources and Land Improvement)

Implementing Agency: State Water Resources Agency

Implementing Agency: Department of Drinking Water Supply and Wastewater Disposal

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s):	Abdulhamid Azad, Susanna Smets
Practice Manager (ENR/Social)	Anne Olufunke Asaolu Recommended on 28-Jun-2021 at 08:09:23 GMT-04:00

Safeguards Advisor ESSA	Agnes I. Kiss (SAESSA) Cleared on 28-Jun-2021 at 22:02:28 GMT-04:00