DEPARTMENT OF DRINKING WATER SUPPLY AND WASTEWATER DISPOSAL UNDER THE STATE AGENCY FOR ARCHITECTURE, CONSTRUCTION, HOUSING AND COMMUNAL SERVICES UNDER THE CABINET OF MINISTERS OF THE KYRGYZ REPUBLIC

Project Implementation Unit

CLIMATE RESILIENT WATER SERVICES PROJECT

Environmental and Social Management Plan

Rehabilitation of Water Supply System

Kyzyl-Suu subproject

Executor: U.A. Amanbaev,
Environmental and Resettlement Specialist

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Executive Summary

Environment and Social Management Plan (ESMP) for «Rehabilitation of water supply system of Kyzyl-Suu subproject» is developed in accordance with the Environmental and Social Management Framework (ESMF) elaborated under Climate Resilient Water Services Project financed by the International Development Association.

ESMP includes the procedures and arrangements of providing policy of the World Bank on safeguards and the law of the Kyrgyz Republic on Environmental Protection.

This ESMP provides with information about geographical coverage of the project, number of living people, the state of environment and seismic hazard in the project implementation area as well as location and information about selected facilities and their technical conditions.

The document contains information about decisions on holding capital repair works with description of main construction operation.

One of the key chapters of ESMP is the impact of the project on environment and its mitigation measures. In this chapter the ways and methods of decreasing the adverse impact of the project on environment are described.

Types of impacts on the surrounding and social environment during the construction and operation of buildings are given in the Chapter IV. This chapter describes about the proposed effects and mitigation measures on each environmental and social parameters (soil, water resources, atmospheric air, waste generation, noise effect, safety and health of employees and people etc.) indicating responsible people and organizations.

In order to monitor the impact of construction works on the environment and to take appropriate measures Chapter V has been developed, which specifies the parameters and methods of monitoring of the state of environment.

PIU will carry out monitoring using the checklist "Construction Sites Monitoring Checklist» (Annex 1 to ESMP).

This document describes the following information about:

- The potential impact of the project on the environment;
- The existing legal framework, regulating the protection and use of natural resources;
- Public hearings for population in the implementation of the project;
- Grievance redress mechanism, Beneficiary Feedback Mechanism.

The requirements indicated in this ESMP are the mandatory for all contractors.

1. INTRODUCTION. DESCRIPTION OF THE PROJECT AREA, WATER SYPPLY SYSTEM.

The objective of Climate Resilient Water Services Project (CRWSP) is to improve access and quality of water supply and sanitation services in the Participating Rural Communities; and to strengthen capacity of the Recipient's institutions in the water supply and sanitation sector.

The following environmental and social standards were adopted as the basis for the development of the ESMP:

ESS 1: Assessment and Management of Environmental and Social Risks and Impacts
ESS 2: Labor and Working Conditions
ESS 3: Resource Efficiency and Pollution Prevention and Management
ESS 4: Community Health and Safety
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

ESS 8: Cultural Heritage
ESS 10: Stakeholder Engagement and Information Disclosure.

The ESMF public consultations were held on March 16, 2023.

The final ESMF documents in both Russian and English languages were disclosed in country and on the Bank Infoshop. Each activity to be financed under the project will be reviewed for safeguards risks in line with OP4.01, and must obtain the clearances required by Kyrgyz national regulations.

The ESMF covers procedures and mechanisms that will be triggered by the Project to comply with the World Bank Policy 4.01 "Environmental Assessment", legislation and normative and legal acts of the Kyrgyz Republic governing preparation and implementation of environmental protection requirements.

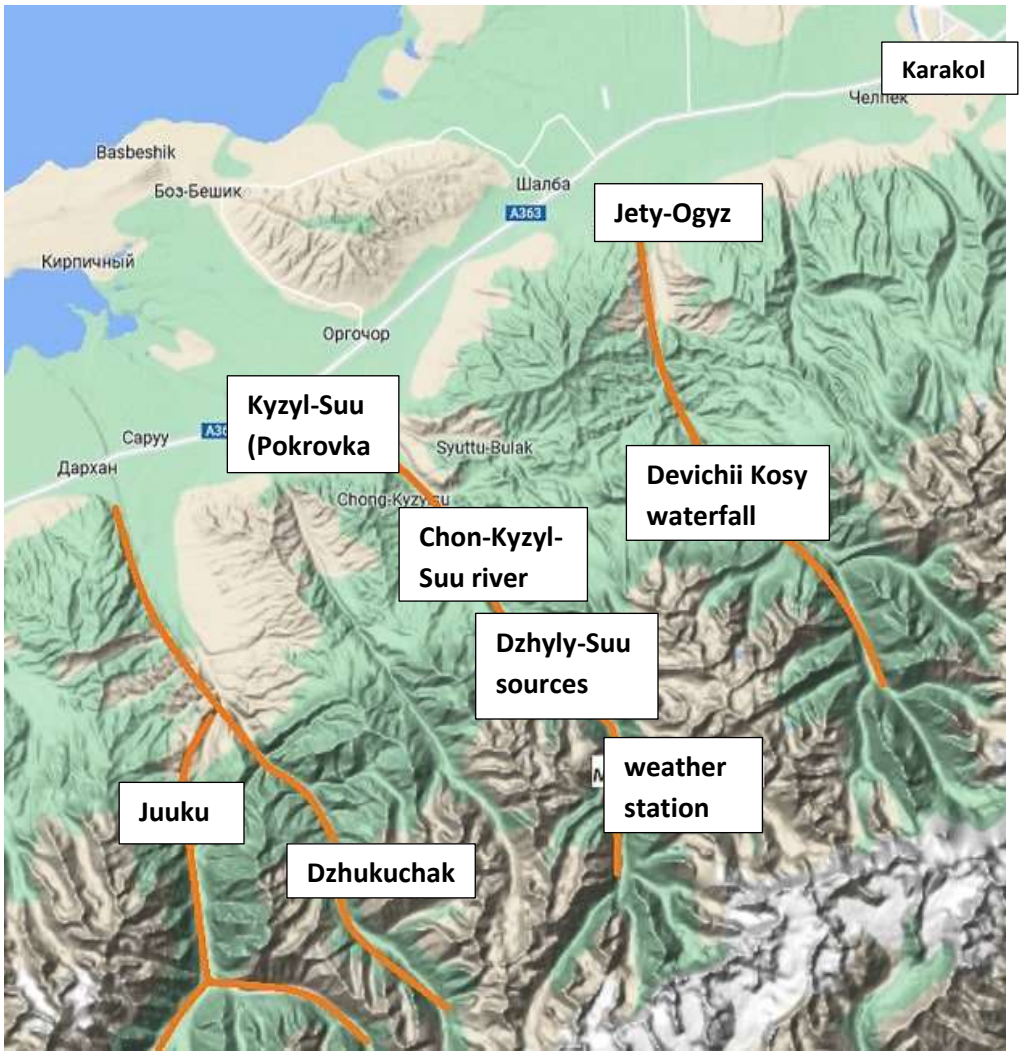
The present Environmental and Social Management Plan (ESMP) outlines environmental impacts and mitigation measures related to the rehabilitation of water supply investments in Kyzyl-Suu subproject.

Contractors are required to comply with the ESMP. The construction contractor shall have dedicated personnel responsible for the implementation of the ESMP during the construction phase. The PIU field specialist will monitor the implementation of mitigation measures and compliance with good practice prescribed by this document, and in case of detection of deficiencies, will notify the Contractors of the identified issues and require corrective actions to be taken.

ESMP activities will be included in bidding and contract documents as integral part of both construction and technical supervision phases.

Description of the Project Area

General Part 1.1 Location of the Kyzyl-Suu object. (Kyzyl-Suu, until 1992 - Pokrovka) - village and district center of Jeti-Oguz district of Issyk-Kul region. It is located about 10 km from Lake Issyk-Kul on the A363 road between the mountain gorge and the resort of Jeti-Oguz and Barskon.



Picture 1. **Location of the object.**

1.2 *Description of the area and a brief physical and geographical characteristics.*

The Issyk-Kul Lake basin has a temperate continental climate and is characterized by warm summers with higher temperatures in June, July and August; cool winters with low temperatures from November to March, and relatively short spring and fall periods. Although located at a fairly high altitude, Karakol is not subject to extreme seasonal temperature fluctuations, as the climate is mitigated by the mass of Lake Issyk-Kul, which does not freeze. Kyzyl-Suu is influenced by the local seven-arid climate. During the year, there is a small amount of precipitation. The average temperature is 5.4 °C and 336 mm is the average annual precipitation. Most precipitation is in July, an average of 48 mm, with an average temperature of 19.0 °C.

Table 1 Climatic zoning and zoning for construction.

Administrative unit, settlement	Climate region	Climate sub-region	Humidity zone
Karakol	II	IIB	Dry

Climatic zoning of Kyrgyzstan was developed on the basis of a complex combination of average monthly air temperature in January and July, average wind speed for the three winter months, and average monthly relative humidity in July.

Table 2 Climatic zoning.

Climate region	Climatic sub-region	Average air temperature in January, t0 C	Average wind speed for three winter month, m/s	Average air temperature in July, t0 C	Average monthly relative humidity in July, %
II	IIB	from -5 to +2	5 and more	from +21 to +25	more than 75

Table 3 Average monthly and annual air temperature (C)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	Annual
-5,5	-4,6	0,5	7,3	11,7	15,1	16,9	16,6	12,6	6,4	0,6	-3,7	6,2

Table 4. Average monthly, annual wind speed (m/sec) January

Year	N	NE	E	SE	S	SW	W	NW	Calm
	1,1	2,4	3,3	1,3	1,4	2,5	3.2	1,0	28

Таблица 5. Average rainfall (mm)

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XI	XI-III	IV-X	Annual
22	15	24	48	66	63	72	52	47	39	28	21	110	387	497

1.3. Vegetation and wildlife

Vegetation. Vegetation is mainly represented by trees planted along the route, decorative plants and flowers. No plants included in the Red Book of the Kyrgyz Republic were found in the construction area. There is no vegetation in the area of the water intake and in the planned construction of wells.

Wildlife. The wildlife is represented mainly by birds: sparrows, pigeons, thrushes, swifts, bluebirds, crows, eiders, etc.

The wildlife of the city is represented by a small list of mammals: bats, rodents (house mouse, gray hamster, rats).

The construction site is located in the residential sector, which determines the presence of synanthropic animal species.

No species included in the Red Book of Kyrgyzstan were found in the area of the water intake construction and in the adjacent areas.

1.4. Relief, geomorphology

Kyzyl-Suu village is located between the Kichi-Kyzyl-Suu river, which is the western border of Kyzyl-Suu village and the Chong-Kyzyl-Suu river, which is the eastern border of Kyzyl-Suu village, both rivers flow into the Pokrovsky bay.

Geomorphologically, the survey area is located on the alluvial-proluvial surface of alluvial cones of the Kichi-Kyzyl-Suu and Chong-Kyzyl-Suu rivers and belongs to the tectonic-accumulative plain.

The surface of the interfluve has a slope in the northern direction. The relief height difference reaches 45-50 m.

1.5. Geological and lithological structure

In the geological and lithological structure of the water pipeline routes in Kyzyl-Suu village to the investigated depth (3.5 meters) are alluvial-proluvial soils of upper quaternary-modern age, represented in the upper part of the lithological section by subsidence loam, less often by sands of various size, below by gravel soil with sandy filler, covered from the day surface by soil and vegetation layer and embankment soils.

1.6. Hydrogeological conditions and prediction of land flooding

The main waterways of the surveyed area are Kichi-Kyzyl-Suu river, which is the western border of Kyzyl-Suu village, and the Chong-Kyzyl-Suu river is the eastern border of Kyzyl-Suu village.

During the period of field engineering-geological surveys (August 2020) the level of groundwater is not penetrated by mine workings.

Within the projected construction site, the maximum possible depth of groundwater table in the annual and multi-year section is more than 10 m from the ground surface. According to the "Design Guide...." paragraphs 2.95 - 2.97 the site of the projected construction of floodability refers to areas potentially not flooded by groundwater.

1.7. Seismicity

According to changes №1 to the "Map of seismic zoning of the territory of the Kyrgyz Republic" approved by Order № 27 of the State Agency for Construction the Regional Development of the Kyrgyz Republic from 02.04.2012, SNiP KR 20-02-2009, Annex B, taking into account the changes which were introduced by order № 27 of the State Agency for Construction and Regional Development under the Kyrgyz Republic Government, the initial score of the seismicity of the projected area of construction is 9 points (with a magnitude M to 7.0).

II. SCOPE OF WORKS AND IDENTIFICATION OF ASSOCIATED ENVIRONMENTAL AND SOCIAL IMPACTS

Planned activities in the Kyzyl-Suu subproject.

1. Construction of 4-5 wells. Water intake facilities: five wells located on the northern outskirts of Kyzyl-Suu village. Energy efficient pumps with the efficiency factor of 74.0%, Q=50.0 m3/hour, H=140.0m, N=30.81 kW (4 working, 1 standby) are installed in the wells, which are lowered to an approximate depth of 100.0m according to the developed project of drilling.

Initial data on the designed well

- the depth of the well - 150.0 m;
- pump installation on depth - 100.0 m;
- estimated statistical level - 75.0 m;
- design maximum dynamic level - 93.0 m;
- design level lowering - 7.0 m;
- estimated flow rate - 2.0 l/sec;
- water-lifting pipe Ø114x7D length - 100.0 m;
- filter installation depth - 115.0-140.0 m

2. Station for disinfection of potable water. The disinfection system is provided with calcium hypochlorite in the chlorination building. The chlorination building will be placed on the site of tank No. 1. The chlorination system is placed in the metal insulated container with dimensions 12 m x 2,35 m and height 2,5 m. The chlorination unit shall be located in the building. The chlorinator consists of:

- technical room;
- laboratory room;
- chlorine storage.

3. Water intake construction.

4. Sanitary protection zone at the water intake site. The sanitary protection zone at the water intake site includes :

- the zone of the water supply source;
- the zone and the sanitary protection line of water supply facilities;
- a sanitary protection line of the water pipeline;

The zone of sanitary protection of the water supply source consists of three belts: the first - strict mode, the second and third - modes of restrictions.

The boundary of the first belt of the zone for the underground source of water supply is set at a distance of 30m from the well and may be reduced by agreement with local authorities of sanitary and epidemiological services, but shall be not less than 15m, accordingly.

The second belt of the zone for the source is designed to protect the aquifer from microbial and chemical contamination.

The boundary of the second belt of the water supply source is established by hydrodynamic calculations, taking into account the time of movement of microbial contamination of water 200 days and is 100m from the boundary of the I belt.

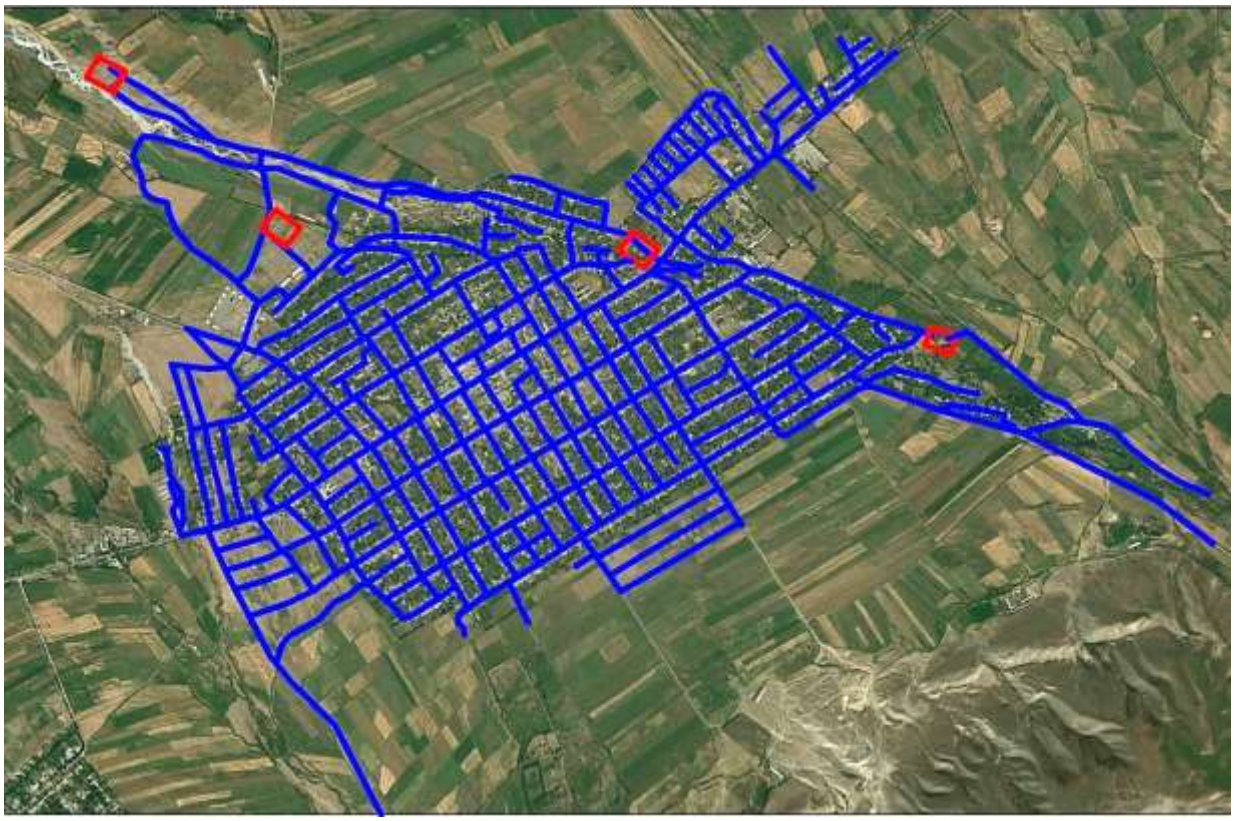
The third belt of the zone is designed to protect groundwater from chemical pollution, determined by hydrodynamic calculations, taking into account the time of promotion of chemical pollution of water to the water intake, which should be at least 25 years. The boundary of the third belt is set at a distance of 300m from the boundaries of the I belt.

5. The gatehouse with a container-type checkpoint.

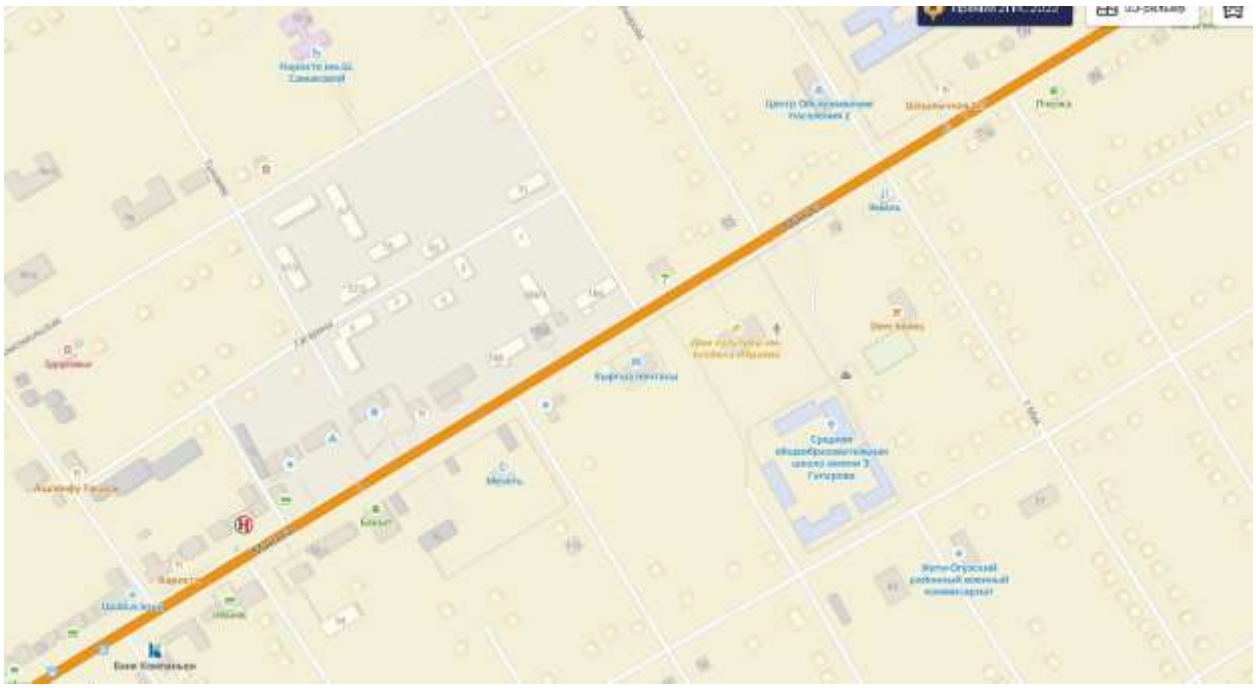
6. Construction of a distribution network.

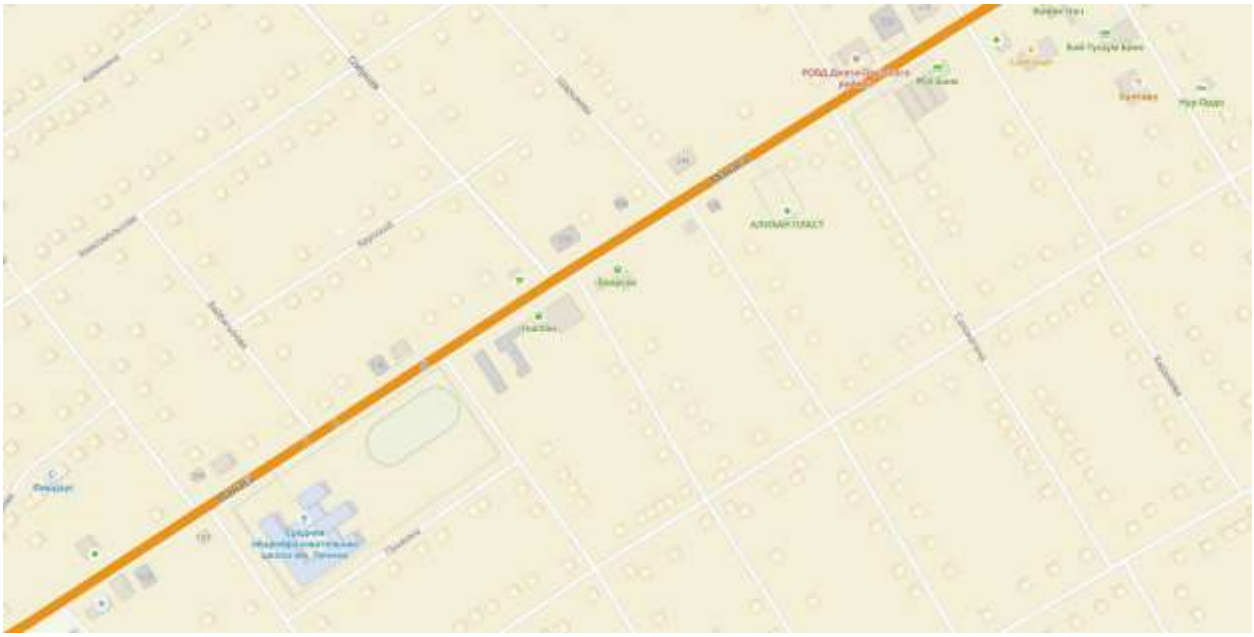
The estimated period of construction and rehabilitation works is 18 months. The defects liability period is 12 months.
During the winter period, works will be suspended. All facilities will be mothballed. All trenches will be buried, garbage will be removed from the facilities.

Map of the location of water supply network routes in Kyzyl-Suu village.



Map of the Kyzyl-Suu village





The list of social facilities in Kyzyl-Suu village:

1) **Abdrakhmanov school**
2) **Lenin school**
3) **DK building**
4) **District hospital building**
5) **Aiyl okmotu building**
6) **Central Mosque**
7) **Public institutions (police department, prosecutor's office, tax office, etc)**
8) **Kindergartens**
9) **District administrations, etc**

Environmental Oversight

During the construction period, the main source of impact on the environment is construction and installation work:

- Vehicles working in the construction process. During construction, bulldozers, excavators, truck crane, and a truck for transportation of construction material will be used. Vehicles would be used for digging trenches for the installation of engineering communications.
- Earthworks. Excavation work consists of digging trenches for the sewerage system and utilities. Where possible, manual labor will be used and dedusting will be applied to reduce dust generation.
- Welding Work. Welding work is mainly foreseen in the construction of buildings at the water intake site and in the laying of the distribution network. Electrodes E42 A will be used for welding work.
- Paint and varnish works. At the paint work carried out when finishing buildings used primer GF 021, enamel PF 115.
- The life of the builders. The livelihood of the builders is expressed in the water consumption and disposal, as well as cooking and drinking needs. Accommodation of workers is not provided in the construction camp.
- Well rehabilitation works.

During activities implementation, environmental specialist will have overall supervision responsibility for ensuring that the measures indicated in the ESMP are being properly performed. Environmental specialist, social issues specialist and technical supervision engineers of the PIU

and environmental supervision specialist in collaboration with the local authorities and the Ministry of Natural Resources, Ecology and Technical Supervision will perform the activity's environmental monitoring during both construction and operation phases.
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Social Risks and Impact Mitigation

- possible industrial injuries of the local population and workers;
- community dissatisfaction regarding the suspension of utility services;
- involvement of women in the project;
- problems with connections to the water supply network of the poor;
- potential social resistance to tariff increase
- limited capacities of local authorities
- actual delay in implementation
- change in behavior and practice of water consumption

Section 4 describes social impact minimization measures, institutional responsibility and monitoring.
There are no significant social risks in this subproject. The activities planned under this subproject will have more positive social consequences.
An integral part of the strategy is to inform and take into account the views of communities and persons affected by the project. Thus, one of the main tools to prevent social risks / conflicts is the Beneficiary Feedback Mechanism, through which information is exchanged, is taken into account the views of communities at all stages of the project.
Below full information on BFM is provided.
Demographic data. The summative demographic data is as following: target population is 17696 people, including 8472 men and 9224 women. The total number of households is 4909. The main business activities are farming, agriculture. Women in the village are housewives mostly.
In addition to information-provision, PIU will collaborate with the Ayil Okmotu and the local community organizations dispute resolution set-ups such as court of aksakals overseen by the AO. This subproject covers one village.
The subproject will not impact cultural or national heritage monuments.

Involuntary Resettlement.

Land allotment and resettlement issues are covered by the World Bank OP 4.12 Involuntary Resettlement. As for involuntary resettlement, no significant impacts that could require land allotment, economic displacement or physical resettlement have been identified.
Resettlement policy framework (RPF) was prepared for the project. The RPF public consultations were held on including participants from each target rural community. The RPF provides guidance on the preparation of resettlement action plans (RAPs) during project implementation.
The final RPF is published on PIU site http:// www.tunuksuu.kg

The Resettlement Policy Framework (RPF) provides guidelines for development of appropriate mitigation measures, including compensations for mitigation and reparation of the damages due to impacts of land acquisition and resettlement, caused by future project activities.

RPFs are applicable to all sub-projects, which may have impacts in the form of:

- Resettlement or loss of shelter;
- Loss of assets or access to them;

- Loss of income sources or means of subsistence, regardless of the fact, whether people affected by the project impact (PAPs) are forced to resettle.

In case of allotment of land, relocation or damage to the assets of the population, a Resettlement Action Plan will be prepared guided by the RPF. Section 3.2 of RPF describes eligibility criteria and right to compensation.
Regarding the impact on private land, private land will not be affected during construction, all distribution networks, water pipelines will pass through the municipal lands. Conclusion: there will definitely be activities on cutting down trees; private land will not be affected. For possible cutting of trees, permits will be obtained, agreed with the Aiyl Okmotu, representatives of the MNRETS in the field. All cutting costs will be borne by the contractor.

Institutional Responsibility

№	Responsible Party	Activities
1	Municipalities of subprojects	• Inform of stakeholders. • Fulfill the provisions of agreement. • Render of assistance during public consultations. • Grievance redress in the course of RPF/RAP implementation.
2	Environmental specialist	• Consultations with PAPs • Identification of PAPs, examination of documents of entitlement and list of affected assets • Preparation of RPF and RAPs allowing for the fact that all expenses for acquisition of land and resettlement will be included in the budgets of the Ministry of Finance • Disclosure of information about RPF and RAP • Implementation of RPF and RAP • Conduction of socio-economic survey of PAP • Monitoring • Submission of information about RPF and RAP to the World Bank • Grievance Management
3	Social specialist	• Social Assessment and Social Services Recipient or Social Screening Report for a subproject • Compliance with legislation on social issues, as well as work with appeals from citizens • Monitoring and planning visits to rehabilitation subprojects • Develop training materials for construction contractors, service providers, and PIU staff as needed
4	PIU Grievance Redress Mechanism	• Obtaining prompt, objective information, evaluating and reviewing appeals (applications, proposals, complaints, requests, positive feedbacks)
5	Contractor	• Performs assigned tasks in the ESMP and periodically reports on the implementation of the ESMP and fills out a

		checklist together with the Technical Supervisor Engineer and the Environmental Supervisor

Cutting Down Trees.

During the construction of water supply networks, cutting of trees and bushes is possible. This subproject does not envisage mass cutting, only isolated cases.
Cutting of trees on the balance of the municipality will take place only with appropriate approvals. In case it is necessary to cut down municipal trees, the contractor must request permission for cutting from Aiyl Okmotu. Then AO with the agreement of local environmental authorities will obtain approval to cut the specified number of trees. When the water line route is completed, a tree inventory should be conducted with the municipality to identify potential trees to be cut for compensation.

Grievance Redress Mechanism.

The main objective of the beneficiary feedback mechanism is the process of obtaining prompt, objective information, evaluating and reviewing appeals (applications, proposals, complaints, requests, positive feedbacks), at all stages of CSP implementation that come from citizens / beneficiaries to further improve their work. Strengthen communication with project beneficiaries and provide channels for feedback, and identify and address problems, increasing transparency and accountability.
At all stages of project implementation, project stakeholders may submit appeals on issues of their interest through the information transfer channels of the PIU GRM.
PIU GRM channels:

- WhatsApp: + 996 (700) 120318, phone: + 996 (555) 579872,
- PIU web-site address: www.tunuksuu.kg,
- E-mail: uamanbaev@tunuksuu.kg,
- Social networks;
- Verbal or written appeals;
- Handwritten letters;
- Reception: 0312 317831

PIU, in turn, will provide a response to each appeal in a timely and objective manner in accordance with the internal order of the PIU and the legislation of the Kyrgyz Republic regulating the procedure for considering citizens' appeals.

III. ENVIRONMENTAL LEGISLATION

The main normative documents governing the environmental protection activities under subproject are[1]:

- The Constitution of the Kyrgyz Republic 2010
- The Law "On Environmental Protection"[2]
- Law on Environmental Expertise[3]
- The Law of KR "On General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic"[4]
- The Law of KR "On Water"[5]
- The Law of the KR "On Interstate Use of Water Bodies, Water Resources and Water Management Facilities in the Kyrgyz Republic"

Over laws and normative acts on environmental protection can be found at http://www.nature.gov.kg/lawbase/index.htm.

While conducting construction/rehabilitation works, the Contractor is obliged to comply with all requirements of the Kyrgyz legislation, SNiP, SanPiN and as well as environmental and social safeguards requirements of the World Bank. Otherwise, the PIU has the right to stop the construction works until the corrective actions are taken and approved by the PIU.

[1] The documents below are described in the main ESMF document for the Climate Resilient Water Services Project.

[2] Dated June 16, 1999 #53 (with amendments and additions dated February 4, 2002 #22; June 11, 2003 # 101; August 11, 2004 # 113; August 6, 2005 # 124; April 27, 2009 # 131).

[3] Dated June 16, 1999 # 54 (with amendments and additions dated June 11, 2003 # 102; February 26, 2007 # 21)

[4] Dated May 8, 2009 # 151 (with amendments and additions dated March 6, 2012 # 19)

[5] Dated January 14, 1994 # 1423- XII

IV. Environmental and Social Management Plan.

Environmental and Social Elements	Impacts and risks	Proposed mitigation measures	Institutional responsibility for mitigation (Cost of mitigation activities)	Monitoring
Construction period				
Physical environment				
Noise	During the construction phase, sources of temporary noise will be the engines of construction and road equipment. Noise levels can also increase temporarily along the materials supply routes.	The use of noise protection measures should be provided, and the equipment will be equipped with a silencer. Application of vibrator equipment compliant with standards and vibration- and noise-protection equipment. Equipment will work from 08.00 a.m. to 18.00 p.m. only, no operations will be carried out during night hours. No works shall be carried out on week-ends. During operations, covers of engines and generators, air compressors and other driving mechanisms should be closed; equipment	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item	PIU technical supervision engineer and AO technical supervision engineer is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Environmental specialist and infrastructure engineer of PIU are responsible for overall oversight.

		should be located at the maximum distance from residential premises. Noise levels during the construction phase, considering that day-time operations only are planned, will not exceed the existing sanitary standards on maximum and equivalent noise levels. There will be no sources of noise during the operational phase.		
Water and soil pollution	Pollution of water by using of machinery (fuel shedding), refuse The following types of work will be carried out during the construction phase: - earthworks: cut and fill, backfill, levelling;	Use proper agreed placement sites only. Basic proper construction norms andstandards applied during the construction period Daily checks of machinery of leaking of oil; ban to wash machinery at construction site.	Criteria / specifications to be incorporated into bidding and contract documents.	
	- construction equipment operation; - solid waste generation;	Topsoil removal for further use during restoration works	It is considered as a separate cost item	

		Landscaping in accordance with the subproject design.		
		For service staff on the territory of the water intake, the construction of a wooden toilet with a concrete pit and the installation of a hand-washing sink is envisaged	It is considered as a separate cost item in the BoQ	
Air Quality (dust generation)	Dust emissions during retrofitting activities would be minor and temporary. Air pollutant emissions are expected from: - motor vehicles; - electric arc welding; - levelling. -drilling	Dust prevention measures and good housekeeping practices such as water spraying to prevent dust and use of curtains and screening of the construction area. Use of masks, work gloves and clothes by workers. All vehicles delivering dusty construction materials to the site or removing debris will be enclosed and covered to prevent release of dust. Limitation of the speed of vehicles and selection of relevant transportation routes for minimization of impact on the receptors sensitive to dust.	Criteria / specifications to be incorporated into bidding and contract documents. Irrigation of dirt roads with water (wet dust suppression of in-site roads and sites) is considered as a separate cost item in bill of quantities.	

		Equipping the machinery transporting granular materials with removable canvas covers. Supply of cement to construction sites in pre-pack hermetic packages. The equipment will be used in certain operations only and will not be present at the construction site all the time. Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases is not allowed. Burning of construction and domestic waste at working area is prohibited. It is needed to ensure cleanliness of adjacent area, not allowing construction waste to minimize dusting and contamination. All emissions will be temporary and short in duration. It should be noted		

		that construction of facilities will not be simultaneous, but will be carried out consecutively on a step-by-step basis—one facility after another. Therefore, air pollutant emissions during the construction phase will not exceed the existing standards. No pollutant emissions will take place during the operational phase.		
	Calcium hypochlorite (bleach) usage	During the construction period it is not expected to work with chlorine, so exposure is excluded. During operation, exposure is possible to people working directly with chlorine (in the work area). INSTRUCTION "On the order of purchase, sale, storage, accounting and transportation of strong poisonous substances". Approved by the Resolution of the Government of the Kyrgyz Republic of September 21.	Criteria/specifications to be included in bidding and contract documents. Not considered as a separate item of expenditure	

		September 21, 1999 N 513		
Water resources	Borehole drilling works Surface sewage disturbance Pollution of groundwater Soil Fill	During the construction period, there will no impacts on surface water sources. Refuse from excavations beside groundwater occurrence. Working areas with machinery, cement mixers, and fuel tanks are located beyond water protection zones. During the construction phase, no wastewater will be discharged to the water stream. During the operational phase, there will be no impact on surface waters.	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.	Field technical supervision engineer of the PIU is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Environmental specialist and infrastructure engineer of the PIU are responsible for overall oversight.
Construction waste and construction basic housekeeping	Contamination of adjacent area, soil, water resources	Separation of all types of waste streams, reuse and recycling wherever possible Disposal of wastes that cannot be reused or recycled, transport and disposal of wastes at designated landfill site and	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item	

		in cooperation with the local waste management company; no open burning Mineral waste from construction and dismantling works should be separated from common waste and organic, liquid and chemical waste through sorting and keeping in special containers. All documents on waste removal and disposal should be maintained properly as a proof of appropriate management of waste at the site. As for domestic waste, installation of collection tanks and timely removal of waste should be arranged by local SES agencies. Asbestos-containing materials will not be used in this project		
Occupational Health and Safety	Industrial accidents	All works will be carried out though safe and discipline methods to minimize negative impact from industrial process on	It is not considered as a separate cost item	Representative of contractor is responsible to execute the mitigation measure. Environmental specialist

		population and environment. Individual protective means should meet safety standards (obligatory application of helmets, protective face masks, when needed, protective glasses, safety belts and boots). The contractor should provide workers by: • drinking water during working hours; • portable bio-toilet (for brigade of more than 8 people); • medical first-aid kits for each construction site; • noiseless earplugs. Compliance with all fire safety requirements in accordance with the Law of the KR dated June 7, 2016 No 78 “On fire safety”.		and infrastructure engineer of the PIU are responsible for overall oversight.

		Appliance of properly functioning equipment. Compliance with the approved labor safety instructions. Sites will be provided with proper information boards and signs informing the workers about the rules and norms of works to be followed. During the discussion of the ESMP with the public, the following question was addressed: Public safety risks due to improper construction, housekeeping, construction delays, equipment mobilization, etc. This issue will be monitored by a technical supervisor and an environmental supervisor		
Chance findings	Damage and degradation of site structures	In case of chance finds or other significant discoveries during excavation works stop all construction works and inform relevant		Representative of contractor is responsible to execute the mitigation measure. Environmental specialist and infrastructure engineer

		authorities prior to proceeding		of the PIU are responsible for overall oversight.
Setting up of construction site and removal of site upon completion of works	Possible disturbances decommissioning	Plan to decrease disturbance to surroundings and neighbors (including plans to ensure proper traffic management on access roads to site) Fencing off the site or access to site with proper safety signs After completion of works, site will be restored to previous conditions and all wastes will be cleared in line with the provisions of this ESMP, all machinery will also be removed from site. Since the use of asbestos-containing material is not foreseen, there are no high disposal costs	Negligible costs Contractor costs	Representative of contractor is responsible to execute the mitigation measure. Environmental specialist and infrastructure engineer of the PIU are responsible for overall oversight.
Tree and shrub removal during pipeline installation	Trees and shrubs will be cut down or trimmed along the pipeline routes only after all necessary permits from local environmental agencies are obtained, in coordination with local authorities and with due		Costs are included in EBOQ (Environmental Bill of Quantities)	Contractor

	regard to compensatory planting. All permits will be obtained before the start of construction. In the event of cutting municipal trees, there will be compensation in the form of seedlings (the amount for compensation is in the BoQ).The contractor will give seedlings to AO, and they will be planted in the places where the AO points out. In the event of cutting private trees, the RAP will be prepared according to OP 4.12. If there will be cutting of trees of several owners, it will be possible to prepare a single RAP for subproject.			
Topsoil removal	Topsoil removal, transportation, stockpiling and storage at designated location for further use in rehabilitation of disturbed lands.		Costs are included in EBOQ (Environmental Bill of Quantities)	
General issues	Regular inspections Trainings for staff (workers), safety trainings, other trainings			Contractor

	WB safeguards trainings for local authorities, contractors and communities will be continued under CRWSP.			Local authorities and communities (AO, CDWUU) PIU
Social aspect				
Safety of population	Industrial accidents	Local inspections controlling construction works and environmental safety and local population should be properly notified on forthcoming project works. Local communities will be properly notified on works by means of publications and /or notices in mass media and/or bill boards in public places (and at work sites). All permission required by legislation for use of waste landfill, as well as permissions from sanitary inspection etc. in construction and rehabilitation works at this site, have been obtained.	Contract organizations Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item	Representative of contractor is responsible to execute the mitigation measure. Environmental specialist and infrastructure engineer of the PIU are responsible for overall oversight.

		The contractor should: • organize parking of equipment at a safe distance from social facilities (schools, kindergartens, hospitals, etc.); • protect dug trenches with warning signal strips; • install road signs, safety signs for pedestrians and drivers; • provide residents with a sufficient number of safe bridgeheads (through trenches).		
Aesthetics and landscape	Landscape alterations	Use of landscaping methods; minimization (where possible) of major excavations (deep cuts, high fills)	Contractor	Design institute PIU
Human communities	Suspension of utility services	Timely notification of communities about planned cutoffs; rapid restoration of utility services	Contractor	Local authorities PIU
	Gender	Equal participation and representation of women throughout the project implementation	Local authorities	PIU

		No less than 30% of meeting/hearing participants will be women. Under the project, it will be suggested to communities that village water committees should be established, with no less than 30% of women included as committee members.		
	Poverty	A subsidy strategy will be developed under the project to connect low-income households to water systems. This strategy will be introduced under component 3 of each subproject	Ayil Okmotu (AO) Municipal enterprise on water supply	PIU
	Potential social resistance to tariff increase	Social mobilization, awareness raising (welfare activities, community consultations, development and implementation of outreach campaigns). Tariffs will be developed with due regard to the views of communities gathered during public consultations.	Ayil Okmotu (AO) Municipal enterprise on water supply/ CDWUU under the PIU support	PIU
	Limited capacities of local authorities	The project allows for a range of capacity building activities and technical	PIU	PIU

		assistance to local authorities.		
	Actual delay in implementation Or a delay in construction that could pose a threat to public safety	Delays in the implementation of construction work can cause some discontent. In such cases, explanatory work will be conducted with local communities.	Contractor PIU	PIU
Sourcing of labor and implications of any potential labor influx will be closely monitored by the PIU. Civil works contractors will be advised to recruit necessary labor, where feasible, locally. Labor recruited from outside the community where civil works will be done will abide by a 'code of conduct'.				
Operation period				
Proper Operations	Failure of the system, breakdown of equipment. In this project, the risk of equipment failure is very small, if there are breakdowns is possible only for a short time, as the contractor is interested in accelerating the construction work.	Ensure use of environmentally acceptable fuels Regular technical maintenance (The defects liability period is 12 months). Ensure all attests and certificates have been acquired in particular for fire protection and monitoring of emissions/concentrations in air Ensure proper, efficient use of water resource, and avoid water losses, leakages and abusive		Operator of CDWUU, Local authorities (representative of AO)

		consumptions – install, operate and periodically verify the water meters for each water user.		

V. Environmental Monitoring Plan

What parameter is subject to monitoring?	**Where** will monitoring of parameter be carried out?	**How** will monitoring of parameter be carried out/type of monitoring equipment	**When** will monitoring of parameter be carried out-frequency	**Monitoring cost** What cost of equipment or expenses of contractor required to conduct monitoring?	**Institutional responsibility for monitoring**	**Date of commencement**
Noise from vehicles and equipment	At the construction and disposal site	Portable noise meters	Continuous	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost items)	1. Inspection of construction sites is carried out by PIU to ensure compliance with ESMP. 2. State inspectors of Architecture and construction supervision department (ACSD) will supervise fulfillment of design solutions in construction and installation works or reconstruction of facilities, quality of construction materials, structures, and participate in commissioning of completed construction facilities.	After takin over of site possession by contractor
Soil and water pollution	At construction site	Visual	Continuous			
Air (dust generation)	At and near the construction site	Portable measuring devises	Weekly			
Transport (parking in designated areas, car washing)	At and near the construction site	Visual	Continuous			
Construction waste (waste storage and disposal)	At construction site	In accordance with the plan and observation	In accordance with the plan but at least weekly			

					3. State ACSD carrying out state environmental supervision have a right to supervise in established procedure on presentation of official identification papers in compliance with environmental provisions, normative quality, environmental protection activities in project implementation.	
Decommissioning of construction site	At construction site	Visual	In accordance with the plan			
Safety of workers	At construction site	Visual				
PIU will carry out monitoring using the checklist "Construction Sites Monitoring Checklist " (Annex 1 to ESMP).					Environmental specialist Engineer Field technical supervision engineer	After takin over of site possession by contractor

VI. Collection, temporary storage and transportation of wastes.

The amount of waste stored at the designated site must not be greater than permitted by the standards.
Industrial waste collection sites and access ways must not be blocked up.
Keeping foreign items, individual or working clothes, or personal protection equipment, or having meals at waste collection sites is not allowed.

Movement and transportation of waste.

During handling operations, workers must comply with applicable handling requirements and general safety rules. All operations should be carried out mechanically, using labor-saving lifting and transport equipment.

Hazardous wastes should be transported to the landfills by properly equipped vehicles, either own or of a specialized third party carrier.

The transport vehicles should be constructed and used in a manner that prevents potential incidents, losses and environmental pollution both on the way to the landfill and when transferring waste from one vehicle to another. All activities that involve loading, transportation and unloading of waste at main and auxiliary sites should be mechanized and use leak- tight equipment. Solid and dusty wastes should be transported in special containers or containers fitted with gripping devices for unloading by truck cranes. Using hooks and other sharp tools in handling operations is not allowed.
All operations in connection with loading, transport, unloading and disposal of waste must be mechanized. The waste must be transported in a way to prevent transportation losses and environmental impacts.

VII. Measures to prevent the spread of the COVID-19.

To avoid the spread of virus diseases (including COVID-19), precautionary measures should be taken in the workplace at the construction site.
Construction workers may be at risk in terms of their level of immunity. This is due to frequent exposure to the outdoors, reduced immunity, and as a result, greater exposure to infectious diseases.

The virus is transmitted both by airborne droplets and through household objects, so if canteens use ordinary utensils, it is recommended to change them for disposable ones.
It is also necessary to pay attention to where workers are in their free time and it is recommended to limit their presence in places of mass gathering of people. As mandatory safety measures and prevention of the spread of viral diseases at construction sites according to the Decree of the Government of the Kyrgyz Republic № 244 of May 11, 2020 "On additional measures to reduce the risk of spread of coronavirus infection (COVID-19)", the following must be done:

Requirements	**Conditions for compliance at construction sites during the resumption of economic activity**
Organization of an "input filter"	- measuring the employees' body temperature with a non-contact thermometer or contact method by the person in charge at the entrance; - interviewing (questioning) employees about the presence or absence of respiratory symptoms of family members, examining employees (cough, fever, weakness, headache, etc.);

	- mandatory exclusion from the workplace of persons with fever and signs of infectious disease
Conducting regular wet cleaning using disinfectants	- In the dressing room and catering areas, providing a supply of disinfectants at the rate of at least 5 days; - Ensuring daily (every shift) cleaning and washing of production facilities, wiping down doorknobs, telephones, toilet room doorknobs, sinks for washing hands, flushing cisterns, etc.
Creating conditions for compliance with the rules of personal hygiene	-providing conditions for hand washing (running warm water), personal hygiene products (liquid soap, towels, disinfectant solutions and wipes, antiseptics); - installation of sanitizers at the entrances to the dressing room and catering areas; - posting instructions on the rules of hand washing
Keeping the distance, preventing crowds of people	-ensuring and controlling the distance of 1.5-2 m between employees; - making a meal schedule for employees in the canteen; - in the absence of a canteen - prohibition of eating at the workplace, allocation of a specially designated room or part of the room for eating, with a sink equipped for washing hands

VIII. Supervision and reporting

Field technical supervision engineer must be at the site at all times. In addition, environmental specialist or infrastructure engineer of PIU visits construction sites at least once a month in order to supervise fulfillment of ESMP during subproject implementation. More visits may be required if any issues are identified. During the discussion of this ESMP with the Bank representatives, it was decided to involve an environmental supervisor for quality control, who will constantly be on site and will monitor contractor compliance with all the requirements reflected in the ESMP. The environmental supervisor will constantly report on the status of the site according to the TOR. If there are topical environmental issues, PIU should continue its supervision during facility operation.

After site monitoring visit report of environmental specialist should be submitted by coordinator of project in the event of non-compliance with environmental protection measures, a statement specifying the remedial period for contractor should be drawn up.

When conducting social and environmental monitoring special attention will be paid to the accidents. In case of identifying any accident, it will be included into the report and classified as SEVERE, SERIOUS, and INDICATIVE with description of type and reason of the accident. «Environmental protection» section will be included in regular Progress Reports prepared by field technical supervision engineer and delivered to PIU. The section should contain compressed information and briefly describe monitoring activities as well as any arising issues and the ways to address them.

The final responsibility for the implementation of the ESMP remains with the Project Implementation Unit, as per the World Bank environmental safeguards, the bidding and contractual documentation will allow for the responsibility of implementing specific mitigation measures to be transferred to the contractor from the PIU.

IX. Public Consultations

The ESMP public consultations were held on March 16, 2023 in Kyzyl-Suu village. Heads of Ayil Okmotu, deputies of Aiyl Kenesh and local population took part in public hearings. The total number of participants was 156 people, 74 of them men and 82 women, that is, 52%. The interested parties and the population were provided with information on the technical part of the upcoming subproject, as well the information on the possible social and environmental impacts of the planned construction / rehabilitation of the water supply system. Information on Beneficiaries Feedback Mechanism was disseminated to all beneficiaries of subproject. As a result of the discussion of this document, all those present at this event unanimously approved this ESMP and discussed all possible risks and mitigation measures for the impact of construction on this site and community.

Annex 1.

MINUTES OF PUBLIC HEARINGS
Discussion of Environmental and Social Management Plan
Rehabilitation of Water Supply System of the Kyzyl-Suu village, Jeti-Oguz district, Issyk-Kul region
Climate Resilient Water Services Project

Venue: Kyzyl-Suu village. March 16, 2023. 15:00 o'clock.

Public Hearings were held by: "Climate Resilient Water Services Project" Project Implementation Unit
Together with the Head of the Kyzyl-Suu aiyl aimak R.T. Eshmambetov
Information about the public hearings was brought to the attention of the public by a letter dated March 11,2023 №023/23 PIU to the Head of the Kyzyl-Suu aiyl aimak R.T. Eshmambetov about assistance in holding public hearings

Participants of the event:

1) R.T. Eshmambetov– Head of the Kyzyl-Suu aiyl aimak
2) A.K. Muktarov– PIU Director
3) C.T. Chynaliev– Institutional development specialist
4) R.B. Mamatov– Senior engineer of the project
5) U.A. Amanbaev– Environmental and resettlement specialist
6) E. Semenov– LLC "ENCON" engineer
7) Residents of the village – list attached

Agenda of the public hearings:

1) Providing the public with the participants of the public hearing – Head of the Kyzyl-Suu aiyl aimak R.T.Eshmambetov
2) "Climate Resilient Water Services Project" Director's speech about the tasks of this project – A.K.Mukatrov
3) Providing the public with the "Environmental and Social Management Plan" of the Rehabilitation of the Water Supply System of the Kyzyl-Suu sub-project - Environmental and resettlement specialist U.A.Amanbaev
4) Presentation of the Detailed Design – LLC "ENCON" engineer

5) Questions, suggestions and comments from representatives of the public:

The Decision Taken:

Participants of the public hearings supported the Climate Resilient Water Services Project in Kyzyl-Suu sub-project and acknowledged it as a vital one to ensure the uninterrupted supply of clean drinking water to the residents of Kyzyl-Suu aiyl okmotu.

The Head of the Kyzyl-Suu aiyl okmotu R.T. Eshmambetov

Environmental and resettlement specialist U.A. Amanbaev

ПРОТОКОЛ

общественных слушаний по обсуждению

Плана управления окружающей и социальной средой

Реабилитации систем водоснабжения подпроекта с. Кызыл-Суу Кызыл-Сууйского а/о. Джети-Огузского района Иссык-Кульской области. Проект «Улучшение водохозяйственных услуг, устойчивых к изменению климата»

Место и время проведения: с Кызыл-Суу 16 марта 2023 года. В 15-00

Общественные слушания организованы: Отделом реализации проекта «Улучшение водохозяйственных услуг, устойчивых к изменению климата»

совместно с главой Кызыл – Сууйского айыльного аймака Эшмамбетовым Р.Т

Информация о проведении общественных слушаний доведена до сведения общественности посредством: письма от 11 марта 2023 года № 023/23 ОРП главе Кызыл – Сууйского айыльного аймака Эшмамбетову Р.Т об оказании содействия в проведении общественных слушаний

Участники мероприятия:

1) Эшмамбетов Р.Т.- Глава Кызыл – Сууйского айыльного аймака
2) Муктаров А.К – Директор Отдела Реализации Проекта
3) Чыналиев Ч.Т.- специалист по институциональному развитию проекта.
4) Маматов Р.Б. – Старший инженер проекта
5) Аманбаев У.А. – специалист по охране окружающей среды и переселению.
6) Семенов Е. – инженер проектного института « Энкон»
7) жители села – список прилогается

Повестка дня общественных слушаний:

1) Предетавление общественности участников общественного слушания - Глава Кызыл – Сууйского айыльного аймака Эшмамбетов Р.Т
2) Выступление директора проекта « Улучшение водохозяйственных услуг, устойчивых к изменению климата» о задачах данного проекта.- Муктаров А.К
3) Представление общественности презентации «Плана управления окружающей и социальной средой» Реабилитации систем водоснабжения подпроекта с. Кызыл-Суу – специалист по охране окружающей среды проекта Аманбаев У.А
4) Презентация: Проектно- сметной документации проекта - инженер проектного института «Энкон»

5) Вопросы, предложения и замечания представителей общественности:

Решение:

Участники общественного слушания поддержали Проекть« Улучшение водохозяйственных услуг, устойчивых к изменению климата», как жизненно важный для бесперебойного обеспечения чистой питьевой водой жителей с. Кызыл-Суу.

Глава Кызыл – Сууйского
айыльного аймака Эшмамбетов Р.Т

Специалист по охране окружающей среды и переселению Аманбаев У.А.

№	ФИО	дареги	эскертүү
1.	Мазниченко С. Я.	МТС „Ак-Жол" Бух.	[signature]
2	Доулетова Ж.	Ул Садовые	[signature]
3	Шитманов И. С.	ул Крупская	[signature]
4	Султангазиева. С	ул Тынаева	[signature]
5	Жакыбашева. Ж	ул Тынаева	[signature]
6	Канаева Ш	ул Юматова	[signature]
7	Казыбеков Н	ул Молочная	[signature]
8	Искендерова Ж.Б	С Абдрахманов	[signature]
9	Байсытов [illegible]	[illegible]	[signature]
10	Шеранова Алер	Гагарина	[signature]
11	Садыкова Гулназ	Гагарина	[signature]
12	Бурабаев Омурбек	ул Ленина	[signature]
13	Киселев Александр	Ак-жол	[signature]
14	Жендарбаева [illegible]	Москов-я 3	[signature]
15	Идрисова А	Гагарина	[signature]
16	Бозумбаева В	Гагарина 8/3	[signature]
17	Сырымбаева Н	Гагарина 5	[signature]
18	Молдоева Г	Московская 10	[signature]
19	Омуракунов Б	Намазбекова 54	[signature]
20	Асанканов Э	Ошмпийская	[signature]
21	Урмамбетов Б	Ибраева 17	[signature]
22	Князова Э	Москов-я 21	[signature]
23	Кадыкова Б	Чынаева 22	[signature]
24	Досотоева А	Гагарина 22	[signature]
25	Кожоева Э	Манас 9/1	[signature]
26	Абдулинова Б	Гагарина	[signature]
27	Кайратова Н	Гагарина	[signature]
28	Шишкина Лидя	квар Манас	[signature]
29	Асамбекова Э	Э. Топоров	[signature]
30	Муктаров А	Бишкек	[signature]
31	Османов А	Намаз-ва 185	[signature]
32	Эрдебельников Н	Водоканал	[signature]
33	Ибек к Б	Водоканал	[signature]
34	Толдошбек к Т.	— // —	[signature]
	Жумаргов		
	Шарменбаева А. К.	Э. Топоров	[signature]

35. Бектиянова Ж. Кызыл-Суу ул Гагарина 10 кв 7 [signature]
36. Исмаилов Ж. Нарын 81 [signature]
37. Сейитбаев Ж. К-Суу с/о [signature]
38. Жолдошев Ж. Комартенов [signature]
39. Исмаилов Кубан Водоканал ✓ [signature]
40. Бакиев Айбек Лицей №2 ✓ [signature]
41. Жолбеков Турат Водоканал ✓ [signature]
42. Арзыков Чынгыз Водоканал ✓ [signature]
42. Туркебаев Жолдошбек МТС-Актоо ✓ [signature]
42. Керимбаева Гульзе Зеленая 24 ✓ [signature]
43. ~~[illegible]~~ Бакирова Бактыгул Новый №134 ✓ [signature]
44. Бектемиров Жылдыз Гагарин директор ✓ [signature]
45. Усенова Гульнара Октябрь 39 ✓ [signature]
46. Кочкорова Анара Касымова 1/4 ✓ [signature]
47. Куртова Е. Абдрахманова 52 [signature]
48. Жумабаева Бактыгул кв. Сатымкулова ✓ [signature]
49. Омарова Г.Д. кварт Исакова [signature]
50. Жусаабаева Нараиз Сатыкманов [signature]
51. Усенов Сарыбай За горное 11 ✓ [signature]
52. Алымкулов Жолдош Ибраев 45 ✓ [signature]
53. Алымбаев Канат Новостройка ✓ [signature]
54. Момунов Урмат Новостройка ✓ [signature]
55. Абдраев Улан Токтаева 57 [signature]
56. Орозбеков Нурбек МТС „Ак-Жол" [signature]

Annex 2.

On March 16, 2023 in Kyzyl-Suu village public hearings of the project were held.

Director of the Project A.K. Muktarov spoke to the residents about the objectives of the project, how it will be implemented, timing, as well as a detailed explanation of the questions posed by residents

U.A. Amanbaev, an environmental and resettlement specialist, gave a presentation on the impact of this project on the environment and social sphere, spoke about mitigation measures and answered all questions of the residents.

E. Semenov, representative of the project company LLC "ENCON", told in detail and showed where the wells, water intake and distribution networks will be located and answered in detail many questions of the residents.

Voting of Kyzyl-Suu residents in support of the ESMP (unanimously)

Annex 3.

Construction Sites Monitoring Checklist

Project: «Climate Resilient Water Services Project»
Subproject: Rehabilitation of the water supply system of the Kyzyl-Suu subproject, Jeti-Oguz district, Issyk-Kyl region **Lot**
Contractor:
Inspected by:
Date:

1. GENERAL DOCUMENTATION / PLANS			**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
1	Environmental and Social Management Plan					
2	Work log					
3	Journal of instructing in labor protection and safety					
2. SUPPORTING CONSTRUCTION SITE			**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
4	GENERAL	Perimetral fence clean, preserved, fixed and firm				
5		Organization and Cleaning				
6		Information boards and signs informing the workers about the rules and norms of works to be followed				
7		Access Control				
8	SANITARY FACILITIES	Toilet for workers				
9		Washbasin workers				
10		Shower for workers				
11	DRINKING	Drinking water for workers				
12	DORMITORIES	Sufficient area available for the number of workers				
13		Proper electrical installations				
14		Heating runs properly				
15		Clean and organized				

16	FIRE FIGHTING	Fire Brigade trained and updated				
17		Proper storage of flammable materials				
18		Fire extinguishers within the expiration date				
19	PRO VISIO NAL ELECTRICAL INSTALLATIO NS	Protection against electric discharges from metal containers and equipment				
20		Extension cords and sockets in proper conditions				
21		Adequate lighting				

3. INDIVIDUAL PROTECTION EQUIPMENT		**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
22	Uniform				
23	Reflective vest				
24	Safety boots				
25	Rubber boots				
26	Safety glasses				
27	Protective gloves				
28	Hearings protection(earplugs)				
29	Masks/respirators				
30	Mask for iron welder				
31	Safety glasses for iron welder				
32	Safety belt				
4. COLLECTIVE PROTECTION EQUIPMENT		**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
33	Shoring excavations				
34	Footbridges				
35	Slope protection				
36	Ladders				
37	Structural masonry guard				
38	Medical kit				
5. WORKS IN CONFINED AREA		**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
39	Specific training for this activity				

40	First Aid Training					
41	Specific Individual Protective Equipment					
6. ACTIVITIES			**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
42	DEMOLITION	Power lines and buried infrastructure verified				
43		Isolation / signaling / movement of third parties on site				
44		Shoring of neighboring buildings / walls /posts				
45		Interference of buried and aerial networks				
46		Material removed deposited at ideal edge distance				
47	MECHANICAL LOAD MOVEMENT	Isolation / signaling / movement of third parties on site				
48		Sound device				
49	PAVEMENT	Isolation / signaling / movement of third parties on site				
50		Sound device				
51		Workers not involved in the activity at a safe distance				
7. ENVIRONMENTAL AND SOCIAL SAFEGUARDS			**YES**	**NO**	**N/A**	**OBSERVATIONS/ COMMENTS:**
52	AIR QUALITY	Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases				
53		Speed limit of vehicles and selection of routes for minimization of impact of dust				
54		Machinery transporting granular materials with removable canvas covers				
55		Cement to construction sites in pre-pack hermetic packages				

56		Proper storage and transportation of inflammable and contaminating materials (gas tanks, bitumen materials, paints, solvents, glass, and rockwool)				
57		Dusting during dismantling works and concrete works suppressed by sprinkling				
58	WATER RESOURCES	Oil products that can spill to underground waters with precipitation				
59		Machinery wash at the site				
60		Daily machinery inspection for oil leakages				
61		Working areas with machinery, cement mixers, and fuel tanks are located beyond water protection zones				
62		Site has measures to prevent bed deposits, including arrangement of hay blocks and/or silt-setting tanks to prevent waste discharge from facilities				
63	SOIL	Cutting and storage of vegetation to save it for further use				
64		Non-operating machinery at the working area				
65		Straits of fuels and lubricants, oily areas				
66	FLORA AND FAUNA	Tree cutting agreed with LSGBs and environmental agencies				
67		Environmental zones of habitat and protected areas marked				

68		Drive and parking of vehicles, operation of machinery closer than 1 m to tree crowns				
69		Placement of materials, equipment near trunks				
70	CONSTRUCTION AND DOMESTIC WASTE	Mineral waste from construction and dismantling works separated from common waste				
71		Organic, liquid and chemical waste are classified and stored in special containers				
72		Records on waste removal and disposal				
73		Asbestos materials are being buried				
74		Domestic waste, collection tanks and removal by local agencies				
75	NOISE	Vibrator equipment compliant with standards and vibration- and noise-protection equipment				
76		Covers of engines and generators, air compressors and other driving mechanisms are closed				
77	SAFETY OF POPULATIO	Local communities are notified on works by means of publications and /or notices in mass media and/or bill boards in public places (and at work sites)				
78		Fences				
79		Permission for use of waste landfill				
80		Are all wells closed? If open, are they fenced in?				
81		A sufficient number of transitional bridges for residents				

82		Records of inspections performed by State inspectors of Architecture and construction supervision department				
8. OTHERS			**YES**	**NO**	**N/A**	
83	Were there any accidents during the reporting period? Number of complaints?					

N/A NOT APPLICABLE

GENERAL COMMENTS:
