KYRGYZ REPUBLIC

COMMUNITY DEVELOPMENT AND INVESTMENT AGENCY

SUSTAINABLE RURAL WATER SUPPLY AND SANITATION DEVELOPMENT PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Rehabilitation of water supply system

Kyrgyz Ata subproject

February 2017

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

Introduction

The objective of Sustainable Rural Water Supply and Sanitation Development Project (SRWSSDP)[1] 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.

An Environmental and Social Management Framework (ESMF) for the project consistent with Environmental Assessment (OP 4.01) requirements was prepared and found satisfactory by the World Bank. The ESMF public consultations were held on February 11, and June 23, 2016 in Bishkek and February 16, June 24 2016, in Osh –including participants from each target rural community. The final ESMF documents in both Russian and English languages were disclosed in country and on the Bank Infoshop on July 4, 2016 and July 6, 2016 respectively. 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 Assessment2, 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 Kyrgyz-Ata subproject. .

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

Description of the project area

The subproject "Kyrgyz-Ata" includes the rehabilitation of water supply systems of the villages Kyrgyz-Ata, Ak-Bulak, Borko and Kotormo located in Nookat rayon of Osh oblast. The villages under the subproject "Kyrgyz-Ata" are located at a distance of 49 km to the city of Osh. 11 km south of the district center – Nookat. The nearest railway station is at a distance of 54 km from the site of construction.

According to data received the number of people living in villages by 01.01.2016 is 20 545 people. There are 3058 households. Today the water supply system is managed and maintained by Ayil Okmotu (AO). A total of 3,051 households are not connected to the water supply system.

[1] In accordance with the proposal of ARIS and Department of Water Supply and Sanitation (DWSS) the project name was changed from RWSSP-3 (Third Rural water supply and sanitation project) on SRWSSDP (Sustainable Rural Water Supply and Sanitation Development Project)

Climate in Nookat rayon varies depending on the altitude, from the piedmont valley zone (below 1200 m ASL) where summers are hot and winters are moderately cold to the nival zone (above 3000 m ASL) where climate is harsh and very cold. Average temperature in January is -2.6°C in valleys and -6.9°C in mountains. Average temperature in July is +24.4°C in valleys and +15.5°C in mountains. Average rainfall is 270-300 mm.

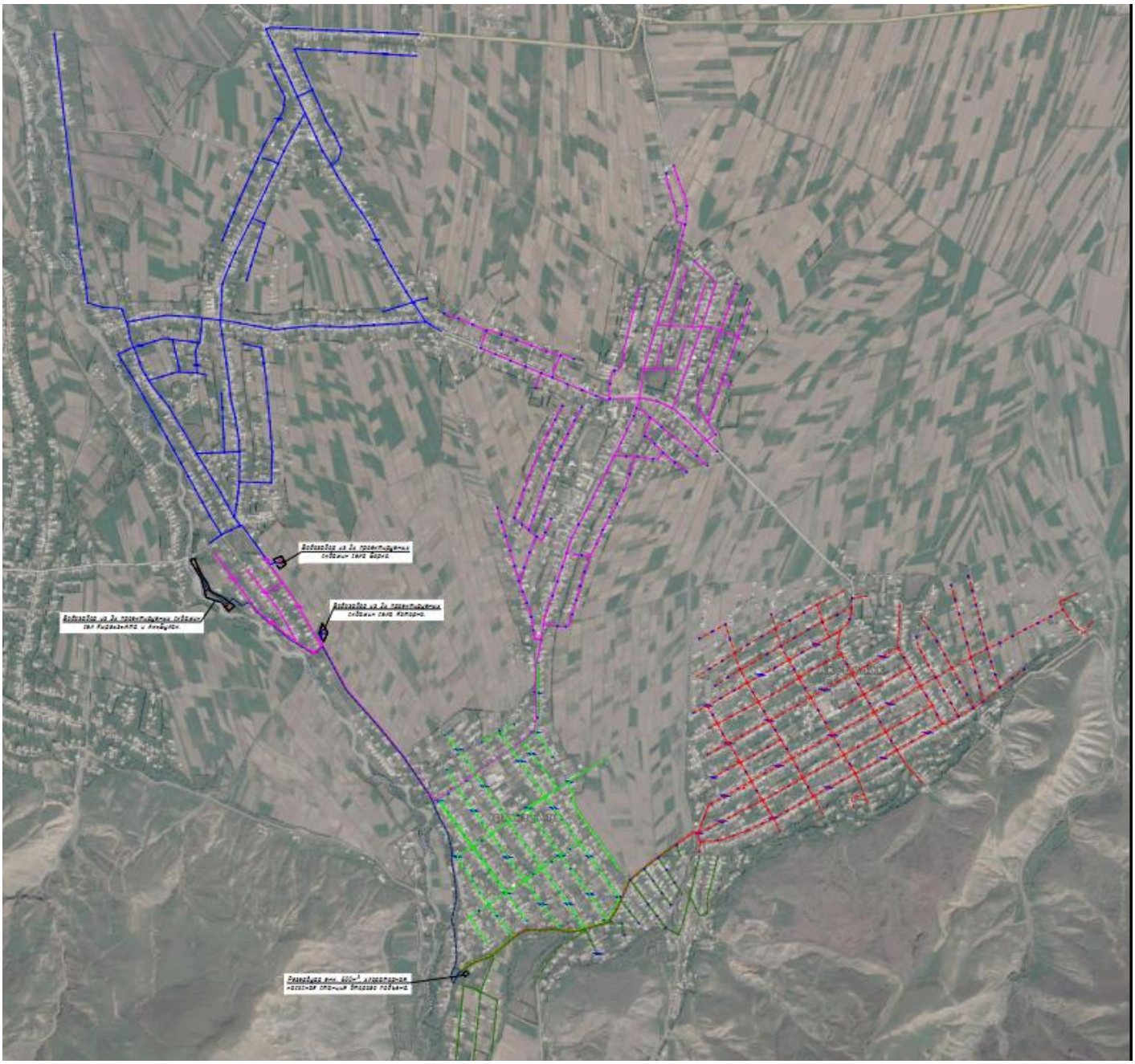
The main rivers in the area are Kyrgyz-Ata, Khoshchan, Chilye, Shankol and Abshir-Sai, which originate in the Alai and Kichik-Alai Ridges. Water from the Kyrgyz-Ata and Chilye Rivers flows to the Naiman reservoir via an artificial channel.

Nookat rayon is accessed by the Osh-Nookat-Kyzyl-Kiya, Nookat-Aravan and Nookat-Papan motor roads. Nookat rayon comprises the Nookat basin, which is 45 km long, up to 12 km wide and 120 km^2 in size, with elevations varying from 1200 to 1700 m ASL. It includes the Karavan-Kokjar basin in the west and northern slopes of the Kichik-Alai Ridge (4454 m) in the south. Mountains occupy 88% of Nookat rayon and valleys make up the remaining 12%.

The water distribution network of Kyrgyz-Ata village is located on the floodplain terraces of the Kyrgyz-Ata River (right bank). The terrain is smoother in this area, with minor sloping to the north and northwest.

Water supply system

Currently, there is the unified centralized system of water supply in the villages of Kyrgyz-Ata, Ak-Bulak, Kotormo and Borko with the offtake from an open source (Kyrgyz Ata-channel) and from existing wells located on the northern outskirts of the village Kyrgyz-Ata.



The existing underflow drain located on the surface of the first terrace of the Kyrgyz-Ata river (right bank) and built in 1969 of the last century, is now disconnected from the water supply system due to the complete siltation and absence of water in it. The existing reservoir and chlorination plant constructed at the same time, are disconnected as well and not used in the water supply system of four villages so far.

The aquifer recharge is carried out due to water filtering from the rivers, as well as from the irrigation network and precipitation, and depends entirely on the dryness of the year.

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

The project provides for the following technical process: drinking water will be pumped by submersible pumps from boreholes to a reservoir; water will be disinfected by chlorination and then directed to consumers. The system also allows for 2 …. water intakes that will be equipped with variable frequency drives. The water will be supplied directly to the distribution network for use by consumers. The

disinfection system will include germicidal lamps and will be installed at the water intake site. The water supply system will be a *pumped* system and use electrical equipment (first and second stage pumps).

Planned activities:

1. Drilling 7 new boreholes, 100-120 m deep;
2. Installation of water pipes from the boreholes to the reservoir, about 15 km;
3. Construction of 4 fenced water intake sites: 0.25 ha, 0.42 ha, 0.35 ha and 0.4 ha;
4. Construction of a 1000m3 reservoir;
5. Construction of 2 buildings (chlorination building, gatehouses);
6. Construction of water transmission lines, about 65 km in total length.

The estimated period of construction and rehabilitation works is 18 months. The defects liability period is 12 months.

Kyrgyz Ata subproject will not finance any activity with significant or irreversible environmental impacts, and therefore has triggered OP 4.01 with classification as Environmental Category "B."

The identified positive environmental impacts of the subproject include (i) improved citizens' skills and awareness in planning and implementation of local activities, with particular attention to environment protection, and (ii) sustainable management of improved infrastructure by communities, which will bring environmental and social benefits related to natural resources management.

Expected potential environmental issues in connection with small/medium-scale activities in local communities are constrained to construction-related temporary disturbances and will impact a number of environmental components (these impacts and risks are discussed in Section 4).

Handling of asbestos-containing materials (ACM).

Visits to the Kyrgyz Ata sub-project site showed that the existing water distribution network is made of asbestos cement (AC) pipes. During water system rehabilitation, existing asbestos cement pipes will not be removed. Every effort will be made to leave the old pipes in the ground. New pipelines will be installed parallel to the existing ones. In the event of removal of asbestos cement pipes asbestos contained materials waste will be collected, transported and finally disposed by applying special protective measures in accordance with the hazardous waste handling standards. See Section 6 for detailed information on disposal of asbestos-containing materials.

Environmental oversight

During activities implementation, safeguard specialist of ARIS will have overall supervision responsibility for ensuring that the measures indicated in the ESMP are being properly performed. Safeguard specialist and engineers of ARIS in collaboration with the local authorities and the Kyrgyz Forestry and Environment Preservation Agency will perform the activity's environmental monitoring during both construction and operation phases.

The subproject will not finance Category-A activities, will not support activities that target natural habitats or protected sites, and will not finance those activities that can cause a significant loss or degradation of any significant natural habitat.

Social aspects

In addition to environmental aspects, social impacts, including gender and conflict sensitivity, should be considered. While social impacts do not fall under safeguards, they are critical for successful implementation of the subproject. It is critical to ensure equal participation, consideration and reflection of interests and opinions of women throughout the project implementation.

Demographic data.

The summative demographic data is as following: target population is 20,545 people, including 10,267 men and 10,278 women. 99.5% of the population are the Kyrgyz, the remaining 0.5% are Kurds, Russians, Uzbeks, Kazakhs and Azerbaijani. Given this, ethnic conflicts are unlikely.

The percentage of vulnerable social groups is 15% (3,114 people), including 1,350 pensioners, 739 welfare recipients, 553 persons with disabilities, 93 war and labor veterans, 20 single mothers, 227 unemployed persons, and 132 children with disabilities (Data from Kyrgyz-Ata AO passport).

The majority of able-bodied residents are engaged in the farming, forestry and education sectors. Other areas of activity are construction, government administration, healthcare, private business, and food retail.

Proceeding from the demographic data, we can say that the possibility of interethnic conflicts and other social tensions is unlikely at this project site. Following visits to the Kyrgyz Ata subproject site, potential conflict trigger factors were identified: perception of or actual delay in implementation; potential social resistance to tariff increase; changes in water consumption behavior and practice;; limited capacities of local self-governments; potential problems with connecting low-income households to the water system, potential inequality of services. These issues will be mitigated through a proper information sharing, availability of GRM and greater engagement of women in project activities.

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 may require land allotment, economic displacement or physical resettlement have been identified.

There are many trees and shrubs in this project area, so some tree cutting is expected. Most of the trees in the project area are owned by the municipality.

One of the new drilling sites will be located in an apple orchard in Kyrgyz-Ata Village. The orchard and all trees are owned by the municipality, there are no private trees there. No trees owned by the municipality will be cut down until all necessary permits obtained.

The size of impact on private trees or shrubs has not been measured to date. In the event of cutting private trees, RAP (in accordance with RPF) will be prepared and implemented before the start of construction. Pipeline installation will require cutting private trees, apple trees mostly. During planning and construction, every effort will be taken to avoid impacts on privately owned trees.

As for the impacts on private properties, no private land will be affected because all water transmission and distribution lines will be installed on municipal land.

Conclusion: some private trees will definitely need to be cut; private lands will not be affected.

Section 4 describes social impact minimization measures.

Grievance redress mechanisms.

ARIS will use corporate system for managing grievances and appeals from citizens. Guidelines (Regulations) developed to set procedures for managing grievances and appeals, delineate responsibilities between ARIS officials and specify follow-up measures. This Guideline covers all programs and projects implemented by ARIS, and all ARIS' staff and consultants without exception are to adhere by the requirements of this Guideline.

All appeals and complaints from citizens received under the SRWSSDP will be delivered to the corporate system for further processing and follow-up.

People can use GRM to submit complaints, suggestions and recommendations concerning the ARIS and project related activities in writing or orally, meanwhile ARIS and its staff are obliged to accept and register these in accordance with the provisions of this Guideline.

Grievance redress mechanism will be available for project stakeholders to submit questions, comments, suggestions and/or complaints, or provide any form of feedback on all project-funded activities. The general process for managing complaints is described in Annex 1 of the Project Operational Manual.

3. ENVIRONMENTAL LEGISLATION

The main normative documents governing the environmental protection activities under Kyrgyz-Ata subproject are[3]:

- **The Constitution of the Kyrgyz Republic 2010**
- **The Law "On Environmental Protection"[4]**
- **Law on Environmental Expertise[5]**
- **The Law of KR "On General Technical Regulations on Ensuring Ecological Safety in the Kyrgyz Republic"[6]**
- **The Law of KR "On Water"[7]**
- **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.

[3] The documents below are described in the main ESMF document for the Sustainable Rural Water Supply and Sanitation Development Project.

[4] 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).

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

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

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

4. ENVIRONMENTAL AND SOCIAL MANAGEMENT/MITIGATION PLAN

Environmental and Social Elements	Impacts and risks	Proposed mitigation measures[8]	Institutional responsibility for mitigation (Cost of mitigation activities)[9]	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 is not provided, 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 08.00 p.m. only, no operations will be carried out during night hours. During operations, covers of engines and generators, air compressors and other driving mechanisms should be closed; equipment should be located at the maximum distance from residential premises. So, 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.*	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item	Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
Pollution Soil and water pollution	Pollution of soil and water by the product (sediment) of water treatment or during leakage detection; pollution of	Use proper agreed placement sites only. Basic proper construction norms and standards 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.	Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.

[8] Activities requiring financial expenses are to be included in BoQ.

[9] Cost of mitigation activities is defined by a contractor in relevant items in bidding documents.

	water with oil products from machinery use The following types of work will be carried out during the construction phase: - earthworks: cut and fill, backfill, levelling; - construction equipment operation; - solid waste generation; - borehole drilling.	Topsoil removal Landscaping in accordance with the project.	It is not considered as a separate cost item	Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
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; - drilling operations.	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. 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.	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.	Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.

		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***.		
	Use of calcium hypochlorite (bleach powder).	During construction, no chlorine will be used, so the impact is ruled out. During the operational phase, there can be an impact on people who will work with chlorine directly (in the work area). INSTRUCTION *On Purchase, Sale, Storage, Accounting and Transportation of Highly Toxic Substances,* approved by Resolution #513 of the Government of the Kyrgyz Republic of September 21, 1999		
Water resources	Borehole drilling: Disturbance of surface-water flow. Disturbance of natural ground water flow level (dewatering, overwatering of soil)	***During the construction phase***, there will be no direct impact on surface waters of the Kyrgyz-Ata River. 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, there will be no discharges to any water sources.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 ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.

Construction waste	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 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.	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item	Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
Construction hazardous waste	Some construction debris may contain asbestos	Detailed impact mitigation measures are discussed in Section 6.	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item Contractor shall develop site-specific measures where requirements to ACM and asbestos waste will be contained.	The contractor needs to train their workers on how to assess presence of asbestos containing materials and to establish a procedure of its safe removal using proper protection equipment, storage without breaking in air-tight containers and management by an authorized agency or company. Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure.

				Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
Chance findings	Damage and degradation of site structures	In case of chance finds or other significant discoveries during excavation works stop all works and inform relevant authorities prior to proceeding		Contractor and Site Supervision Engineer.
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.	Negligible costs Contractor costs	Will be further defined with specifications in the design documents Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS 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 regard to compensatory planting. All permits will be obtained before the start of construction.		Costs are included in EBOQ (Environmental Bill of Quantities)	Contractor
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)	Contractor
General issues	Regular inspections Trainings for staff (workers), safety trainings, other trainings WB safeguards trainings for local authorities, contractors and communities will be continued under SRWSSDP.			Contractor Local authorities and communities (AO, CDWUU) ARIS

Social aspect				
Safety of workers and 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. All works will be carried out though safe and discipline methods to minimize negative impact from industrial process on 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). Sites will be provided with proper information boards and signs informing the workers about the rules and norms of works to be followed.	Contract organizations	ACSD Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks. Representative of contractor is responsible to execute the mitigation measure. Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.
Aesthetics and landscape	Landscape alterations	Use of landscaping methods; minimization (where possible) of major excavations (deep cuts, high fills)		
Human communities	Demolition of buildings, resettlement in connection with land withdrawal for construction	Use of procedures outlined in World Bank's OP 4.12 Involuntary Resettlement		
	Suspension of utility services	Timely notification of communities about planned cutoffs; rapid restoration of utility services		
	Gender	Equal participation and representation of women throughout the project implementation		ARIS

		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 each subproject.		ARIS
	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.		ARIS
	Limited capacities of local authorities	The project allows for a range of capacity building activities and technical assistance to local authorities.		ARIS
	Potential inequality of services (access and quality) in project areas. This relates to the opportunity of villages located upstream to receive more water than the consumption norm per capita compared to the villages located downstream due to lack of hydraulic regulation in gravity systems.	CDWUUs will be trained in equal distribution of water resources.		ARIS
Sourcing of labor and implications of any potential labor influx will be closely monitored by the safeguards consultant and ARIS. 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		Ensure use of environmentally acceptable fuels Regular technical maintenance		Operator of CDWUU, Local authorities (rrepresentative of AO)

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

5. MONITORING PLAN

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**[10] 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 ARIS 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. 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. NGO, local authorities (AO, CDWUU), CDWUU operator	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			

[10] Activities requiring financial expenses are to be included in BoQ.

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			
Decommissioning of construction site	At construction site	Visual	In accordance with the plan			
Safety of workers	At construction site	Visual	Continuous			

6. COLLECTION, STORAGE, TRANSPORTATION AND DISPOSAL OF ASBESTOS-CONTAINING WASTES.

Removal of materials that contain asbestos will be carried out in line with the local legislation, including construction standards, work safety issues, air borne emissions of hazardous pollutants and disposal of waste and hazardous waste (in the event that there is no local legislation, the Directive 2003/18/EC of the European Parliament will be used, that amends and supplements Directive of the Council 83/477/EEC on worker protection from workplace asbestos exposure risks: threshold values of airborne dust particles is 0.1 fiber/cm3; also use the Good Practice Note: Asbestos: Health Issues at Workplace and Community; World Bank). Asbestos materials shall be subject to immediate final disposal/burial under special conditions.

According to Order #885 of the Government of the Kyrgyz Republic *On Hazardous Waste Management in the Kyrgyz Republic* of December 28, 2015, asbestos-containing wastes should be disposed as follows.

The hazardous waste management process (waste lifecycle) consists of the following phases: generation, accumulation (collection, temporary storage, stockpiling), transportation, neutralization, recycling, reuse of recycled products, and disposal.

When asbestos is present at a project site, it should be clearly labeled as a hazardous material. Asbestos-containing materials should not be subject to cutting or breaking as this will result in dust generation. In reconstruction, all workers should avoid crushing/damaging asbestos-containing waste, stockpile such waste at designated locations within the construction site and dispose of it properly afterwards to a special location or landfill.

When asbestos-containing waste is subject to temporary on-site storage, they should be properly contained in leak-tight containers and labeled appropriately as a hazardous material. Safety precautions should be taken to prevent any unauthorized removal of such waste from the site.

Collection and temporary storage of waste

Asbestos waste generation should be minimized by using efficient technologies.

All asbestos-containing materials should be handled and disposed by qualified and experienced personnel only. The personnel should wear appropriate protective equipment (safety masks, gloves and overalls).

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.

When handling asbestos waste, the workers should necessarily wear special protective clothing, gloves and respirators. Prior to removing (if required) asbestos from the site, it should be treated with a wetting agent to minimize asbestos dust emission. Removed asbestos should never be reused.

Keeping foreign items, individual or working clothes, or personal protection equipment, or having meals at waste collection sites is not allowed.

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. Opening hazardous waste containers during transportation is prohibited.

Solid and dusty wastes should be transported in special containers or containers fitted with gripping devices for unloading by truck cranes. Transporting unpacked asbestos in open trucks or on flat wagons is not allowed.

Using hooks and other sharp tools in handling operations is not allowed.

No one except the driver and staff members authorized to escort the waste off site is allowed to be in vehicles transporting hazardous waste. The drivers of vehicles that will transport asbestos waste must be trained in safe transport requirements.

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.

Disposal of asbestos waste

Asbestos waste must be disposed to landfills for municipal solid waste or unrecycled industrial solid waste.

7. PUBLIC CONSULTATIONS

The ESMP public consultations were held on January 26, 2017 in Kyrgyz-Ata village. Heads of AO, staff of CDWUU, headmen, elderlies, deputies of aiyl kenesh and local population took part in public hearings. 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.

Minutes of public hearings
to discuss the Environmental and Social Management Plan for the rehabilitation of the water supply system under the Kyrgyz-Ata subproject of
the Sustainable Rural Water Supply and Sanitation Development Project.

Venue and time of event: Kyrgyz-Ata village
11:30 a.m., January 26, 2017

Maripov B. head of AO, opened the public hearings by welcoming the participants and introduced the ARIS staff involved in preparation of the SRWSSDP.

Erlan Korchubay uulu, the Project Engineer presented the design decisions.

Meerim Kerimbekova, the Safeguards Specialist, made a presentation on social and environmental safeguards stipulated by the project. She told about environmental safety and social safeguard measures.

Meerim Kerimbekova: Design and estimate documentation has been developed. It includes a section on Environmental Safeguards, which received positive opinion of the state environmental review. An Environmental and Social Management Plan was also developed to mitigate social and environmental impacts.

Question 1: What measures will be taken to minimize negative impacts on local communities? Does the project allow for any noise and dust control measures?
Kerimbekova M.: The project allows for a rigorous contractor selection process. One of the primary requirements will be the availability of new modern equipment that meets the Euro-3 standard and has noise control fixtures. The use of heavy equipment near residential areas will be limited during the night time. All construction works will be carried out at working days during normal working hours only. The contractors will be required to ensure proper dust control, including spraying water on the ground surface at the work sites, selecting effective transportation routes and establishing speed limits for trucks and other vehicles. Solid domestic wastes will be stored in special containers with lids.

Question 2: When will the construction of the facility start and when will it be completed?
Erlan Korchubay uulu: The construction will begin in first half of the summer 2017 and according to the preliminary plan and will continue for 18 months.

Question 3: There are lots of green plantations in our AO. What measures will be taken during extraction of trees? Will there be compensations paid and by whom?
Kerimbekova M.: In case plants are required to be extracted, compensations shall be paid by the Government of the Kyrgyz Republic. If a plant is on the AO accounts, then saplings will be compensation will a compensation e.g. 2 saplings would be planted for one tree extracted. If a private tree is extracted, Resettlement Action Plan shall be prepared followed by compensations.

Question 4: Where would saplings be planted as compensation?
Kerimbekova M.: Areas for planting new trees and shrubs should be provided by AO.

Question 5: Will water resources be affected?
Kerimbekova M.: Environmental risks are very low and necessary action will be take to minimize them: cleanup of construction sites, establishment of buffer zones along local waterways as required by law, timely containment and removal of petroleum and oil spills, prohibition of car and equipment wash at construction sites, and daily equipment inspections for potential oil leaks.

Question 6: At whose expense will the household connections be made?
Erlan Korchubay uulu: Household connections will be made at the expense of the households.

Question 7: Will residents of Borko Village have drinking water during the works?
Erlan Korchubai uulu: Yes, becvause new water mains will be constructed in parallel to the existing pipework where people are taking water from at present.

Question 8: What water source is envisaged by the design?
Erlan Korchubai uulu: In the detailed design, new wells will be drilled to serve as water source.

Question 9: Will amount of water extracted from wells be sufficient for all subproject villages?
Erlan Korchubai uulu: The estimation of demand for drinking water took account of the such aspects as estimation by number of residents, livestock watering and watering for beautification of areas.

Question 10: What measures are envisaged to preserve soil cover in our subproject?
Kerimbekova M.: For preservation of lands and soil, measures include stripping off topsoil, transporting and stockpiling in special areas for further use to reinstate broken lands; collect and store solid wastes in special closed bins for further transporting to a special dump area.

Question 11: Will there be an opportunity for local people to be hired by the Contractor that will built water supply system?
Kerimbekova M.: 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'.

THE DECISION TAKEN:

Participants of the public hearing supported the subproject for rehabilitation of water supply system in Kyrgyz-Ata and acknowledged it as a vital one to ensure the uninterrupted supply of clean drinking water to the residents of Kyrgyz-Ata aiyl okmotu.

SRWSSP was approved by the residents the subproject area.

The head of Kyrgyz-Ata aiyl okmotu **Maripov B.**

Safeguards Specialist: **Meerim Kerimbekova**

Secretary:

ПРОТОКОЛ

Общественных слушаний по обсуждению
Плана управления окружающей и социальной средой при реабилитации системы водоснабжения в подпроекте Кыргыз-Ата рамках
Проекта устойчивого развития сельского водоснабжения и санитарии.

Место и время проведения: с. Кыргыз-Ата
26 января 2017 г. в 11:30 часов

Марипов Б.А. – глава айыл окмоту Кыргыз-Ата открыл слушания, поприветствовав приглашенных и представила сотрудников АРИС, участвовавших в подготовке ПУРСВС.

Корчубай у. Э.- инженер проекта представил информацию о проектных решениях.

Керимбекова М.– специалист по мерам безопасности, представила презентацию о мерах социально-экологической безопасности, предусмотренных в проекте. Подробно рассказала об экологической безопасности, социальных мерах защиты.

Керимбекова М.: На данный момент разработана Проектно-сметная документация, в состав которой входит раздел «Охрана окружающей среды» (ООС), который получил положительное государственное экологическое заключение. Также был разработан План управления окружающей и социальной по снижению воздействия на окружающую и социальную среду.

Вопрос 1: Какие меры будут предприняты для минимизации воздействия на местных жителей? Предусмотрены ли меры по минимизации шума и пыли?
Ответ Керимбекова М.: В рамках проекта будет строгий отбор подрядных организация, важнейшим условием будет наличие новой оснащенной техники со стандартом Евро-3, также техника будет оснащена глушителями, будут ограничения строительных работ с помощью тяжелой техники возле жилых районов в ночное время, выполнение работ строго по будним дням, в течение, стандартного рабочего времени. Будут применять меры по пылеподалению путем увлажнения территорий строительства, ограничение скорости движения транспортных средств и выбор подходящих транспортных маршрутов. Твёрдо-бытовые отходы будут храниться в специальных контейнерах с закрытыми крышками.

Вопрос 2: Когда начнется строительство объекта и в какие сроки закончится?
Ответ Корчубай у.Э.: Строительство начнется в первой половине лета 2017 года по предварительному плану и будет продолжаться 18 месяцев.

Вопрос 3: В нашем АО очень много зеленых насаждений. Какие меры будут предприняты при вырубке деревьев, будут ли компенсации? И за чей счет будут выплачиваться компенсации?
Ответ Керимбекова М.: В случае вырубки зеленых насаждений будут выплачиваться компенсации за счет Правительства Кыргызской Республики. Если дерево будет числиться на балансе АО, то компенсация будет в виде саженцев, за вырубку 1 дерева будет посажено 2 саженца. В случае вырубки частного дерева будет готовиться План действия по переселению, далее будут выплачены компенсации.

Вопрос 4: Где будут посажены саженцы, компенсационное озеленение?
Ответ Керимбекова М.: Места для высадки новых деревьев и кустарников должны предоставляться АО.

Вопрос 5: Предвидится ли загрязнение водных объектов?
Ответ Керимбекова М.: Будут применяться следующие меры: санитарная очистка территорий, отведенных под строительные работы, соблюдение режима водоохранных зон местных водотоков, своевременная зачистка территорий от нефти и мазутных проливов, запрет на мойку машин и механизмов на территории строительства, ежедневные проверки оборудования на предмет утечки масел.

Вопрос 6: За чей счет будут домовые подключения?
Ответ Корчубай у.Э.: Домовые подключения будут за счет населения.

Вопрос 7: Во время строительсва будет ли население села Борко обеспечено питевой водой?
Ответ Корчубай у. Э.: Да, потому что при истроительмтве водоводов, новые будут идти параллельно существующим, из которых в натоячщее время население берут пиьвую воду.

Вопрос 8: Какой источник водоснабжения предусмотрен в проекте?
Ответ Корчубай у. Э.: В ПСД источником вод-я предусмотрены нове скважины

Вопрос9: Будет ли хватать полученная вода из скажин на все села подпроекта?
Ответ Корчубай у. Э. При выполнении расчета на потребности питьевой воды были учтены следующие аспекты: расчет на жителей подпроекта, поение скота, полив на благоустройство территорий

Вопрос 10: Какие меры предусмотрены для сохранения почвенного покрова в нашем подпроекте?
Ответ Керимбекова М.: Для сохранения земельных ресурсов и почвенного покрова предусмотрено: снятие почвенно-растительного слоя, транспортирование и укладка его в кавальеры для хранения в специально-отведенных местах с последующим использованием для восстановления нарушенных земель; сбор и хранение ТБО в специальных контейнерах, закрытых крышками с последующим вывозом на специальную свалку.

Вопрос 11: Возможен ли найм на работу местных жителей подрядной организацией, которая будет строить систему водоснабжения?
Ответ Керимбекова М.: Подрядчикам, привлекаемым для осуществления общестроительных работ, будет рекомендовано набирать необходимую рабочую силу, по мере возможности, на местном уровне. Рабочие, нанятые за пределами сообщества, где будут осуществляться строительные работы, должны соблюдать Нормы поведения

РЕШИЛИ:

Участники общественных слушаний поддержали проект «Реабилитация системы водоснабжения в подпроекте Кыргыз-Ата», как жизненно важный для бесперебойного обеспечения чистой питьевой водой жителей айыл окмоту.
ПУОСС был одобрен жителями подпроекта.

Глава аыйл окмоту Кыргыз-Ата **Марипов Б.**

Специалист по мерам безопасности: **Керимбекова М.**

Секретарь:

СПИСОК

участников общественных слушаний по обсуждению Плана управления окружающей и социальной средой (ПУОСС) при реабилитации системы водоснабжения в подпроекте Кыргыз-Ата

г.Бишкек **26 января 2017г.**

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
1	Сагынбаев Р.	ЭППО АРИС	[signature]
2.	Кочкозов Э.Э	Ноокат ЦПЗ и ГСЭН гл. врач	[signature]
3.	Искендеров А	депутат а/к	[signature]
4.	Бабакулова А.	депутат Ооги. заде.	[signature]
5	Бозоев К.	а/башчы Борко	[signature]
6	Турков Э	пенсионер	[signature]
7	Келдибек уулу Б	депутат	[signature]
8.	Матиев О	а. б.	[signature]
9	Азимкулов Б.	Кызыл а/о [illegible]	[signature]
10	Абдурасулова	пенсионер	[signature]
11	Акбаев Абдималик	Ак-Булак айыл мураб	[signature]
12	Зулпуев Р	Борко к. кеңеш	[signature]
13	Бабамурзаев Р	депутат. С. Токтогул а/о	[signature]
14	Маликов Ю.А.	депутат Акбулак	[signature]
15	Бекматов Р.И.	Ноокат р.к ОКИКБ [illegible]	[signature]
16.	Абдимажитов А.	депутат Борко.	[signature]
17	Кожобеков К.А	[illegible] ГСЭН [illegible]	[signature]
18	Усенов У	депутат	[signature]
19	Ташбалта у Ыгтындык	ВУС.	[signature]
20	Исмаилов И.	ВУС	[signature]
21	Максатов А.А	Айыл башчы	[signature]
22	Маматали у М	ВУС	[signature]
23	Гаиров З.Д	Ак. деп.	[signature]

СПИСОК

участников общественных слушаний по обсуждению
Плана управления окружающей и социальной средой (ПУОСС)
при реабилитации системы водоснабжения в подпроекте Кыргыз-Ата

г.Бишкек **26 января 2017г.**

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
24	Маринов Б.	Глава АО	[signature]
25	Асанова С	Кочорнео-нур	[signature]
26	Заирова	депутат	[signature]
27	Жумабаев Р	СПА	[signature]
28.	Матиев Р	депутат	[signature]
29	Колмотов З	Колоекчое	[signature]
30	Каримов К.	директор	[signature]
31.	Максатов Д	директор	[signature]
32	Нурматов Н.	Дехкан	[signature]
33	Молдонов М	Дыйкан ал Бюджет	[signature]
34	Асанов А.	директор	[signature]
35	Алиев Р.	экс депутат	[signature]
36	Чыпашов Ч.	АРИС	
37	Коргубаев Г.	АРИС.	[signature]
38	Керимбекова М.	АРИС.	

8. SUPERVISION AND REPORTING

Field technical supervision engineer must be at the site at all times. In addition, safeguard specialist or infrastructure engineer of ARIS 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. If there are topical environmental issues, ARIS should continue its supervision during facility operation.

After site monitoring visit report of safeguard 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.

«Environmental protection» section will be included in regular Progress Reports prepared by field technical supervision engineer and delivered to ARIS. 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 (ARIS), 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.