REPUBLIC

COMMUNITY DEVELOPMENT AND INVESTMENT AGENCY

SUSTAINABLE RURAL WATER SUPPLY AND SANITATION DEVELOPMENT PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Rehabilitation of water supply system

Sultan 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 Sultan 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

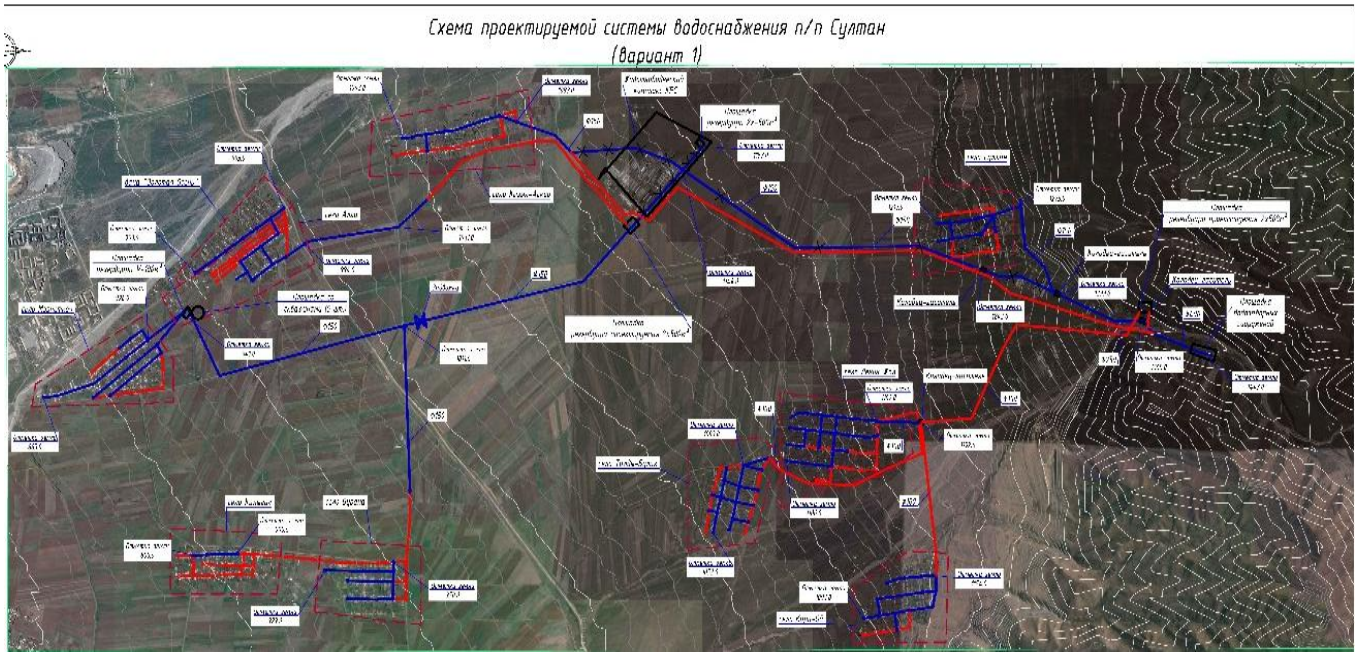
"Sultan" sub-project consists of 9 villages, located within administrative limits on the territory of three ayil okmotu as follow: 5 villages in Ibraim Ayil Okmotu: v. Sultan; v. Kara-Oi; v. Lenin-Jol; v. Taldy-Bulak; v. Kyzyl-Asker; 3 villages in Burana Ayil Okmotu: v. Alga; Country cooperative"Golden Autumn"; v. Meenetkech; v. Burana; and one village in Ak-Akbeshim Ayil Okmotu: v. Kalygul. Villages are located close to each other and 3.0 km to the south of the district center of Tokmak city of Chui rayon of Chui oblast of the Kyrgyz Republic. The project area is located in the Chui Valley. In 2016 the population of 9 villages is 6920. Today the water supply system is managed and maintained by Ayil Okmotu (AO).Today, a total of 464 households have individual connections to the water supply system. The survey showed that Alga, Sultan and Meenetkech villages under the Sultan subproject had the largest percentage of households connected to the water system. Most complaints are about water turbidity and sand and bio-material in water. According to the respondents, drinking water sources in almost all subproject villages often contain worms and insect maggots.

The foothills of the Chu Valley are characterized by continental climate. In winters, the atmospheric pressure is high, resulting in fair cold weather with strong temperature inversions. In spring, early summer and autumn, the western and northwestern air intrusions become more frequent, bringing abrupt temperature changes and rainfall. The second half of the summer is typically dry and hot.

[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)

Water supply system

In these villages there is a system of potable water supply, the construction of that system started in the early 50's of the last century. The water source of the above villages, including village Koshoy (former Kalinovka), and several milk ranches and sheep barns (currently not functioning) were water intakes located approximately 2.5 km from the top village Sultan within a narrow valley of the Burana river on the northern slopes of the Kyrgyz ridge.



The right bank of the river is steep in the area of water intake, with a slope of 70°, the left bank is more flat to the terrace above the floodplain. The width of the bottom of the valley up to 100-120 m. Coming from the mountains, the river Burana flows through bajada formed by pebbly alluvial cone.

Based on survey data from the water intake site, produced by the hydrogeologist, it was found that in respect of the hydrogeological study the investigated rayon is confined to the area of formation of underground waters. More or less expressed on the surface the stratified aquifers are common in the southern foothills.

Earlier there were two drainage facilities on water intake site. At the time of the survey in 2010, the only one remains in force. The first functional drainage facility is situated on the upper terrace above the floodplain. The prefabricated wooden pipe Ø400 mm over five wells receiving the incoming water from the existing spring catchments on the western slope. The sixth well equipped with an overflow pipe. The seventh well equipped with a flap to stop the water for water pipe and waste piping repairs. Wells have no paving, ventilation and hatches. The part of water pipe from the catchment chamber straight to the first well is destroyed.

The second water collector, located on the lower terrace in the floodplain of the Burana river and represented the drains at the time of the survey, conducted in September 2006, due to mudflows and demolition of previously constructed alternately 2 dams, is covered with mud and ceased to exist as a source of water supply.

On the territory of the site of water intake there is a sodium hypochlorite building. The disinfection of water was produced by calcium hypochlorite. At the time of the survey chlorination system did not work, there was no equipment, the building required rehabilitation.I belt of the PSZ – mostly the site fencing was completely absent.

Water pipes supplying water from site of the water intake to the 9 villages, built of wood, and AC pipes. The Water distribution networks in rural areas – built of AC pipes.

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

The scheme of water supply of the subproject "Sultan" is considered as gravity, gravity-flow, without the use of electrical power supplies. The water from the existing water intake flows by gravity to the projected reservoirs, where is subjected to chlorination treatment, then clean water flows by gravity as well by pipelines to the villages to consumers. According to the adopted scheme of water supply project it is projected the following composition of structures:

List of planned works: replacement of water transmission lines; reservoir construction 500 m3; replacement of the village distribution network; water intake rehabilitation; construction of chlorination units; construction of fences around water intake areas.

Source of water supply: groundwater (spring and underflow) water.
Water intake facilities: for water supply of 9 villages and country cooperative are encouraged to use the existing head intake, wherefore it is projected:

1. Rehabilitation of existing drainage structure located on the upper terrace above the floodplain.
2. Rehabilitation of mudded drains, located on the lower terrace of the flood plain of the Burana river.
3. Construction of building of chlorination facility.
4. Construction of 2 reservoirs, each reservoir of 500 m3.
5. Replacement of water transmission lines and distribution network length of about 45 000m

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

Sultan 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 project 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 Sultan 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, ARIS will have overall supervision responsibility for ensuring that the measures indicated in the ESMP are being properly performed. 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. Appropriate training on Bank safeguards will continue to be provided under the SRWSSDP to local officials, contractors, and community representatives.

The project 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. The environmental screening process will check for the presence of physical cultural resources. In addition, chance find procedures will be included in all works contracts.

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 project. It is critical to ensure equal participation, consideration and reflection of interests and opinions of women throughout the project implementation.

Demographic data.

The target population is 6920 people. The total number of households is 1468. The main business activities are farming, private entrepreneurship and food retail. The average percentage of households that bring water (households that not connected to the water supply network) is 27%. Women in the village are housewives mostly. Usually women are responsible for delivery of water (Data from AO passports).

Proceeding from the demographic data, we can say that the possibility of interethnic conflicts and other social tensions is unlikely in this project site. Following visits to the Sultan 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. These issues will be mitigated through an 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 could require land allotment, economic displacement or physical resettlement have been identified.

According to the results of a preliminarysurvey, no physical resettlement is anticipated. Additionally, green plantations have not been identified on the planned pipeline lines. However, the experience shows that trees or shrubs subject to removal can still be identified during construction. In the event of cutting private trees, RAP (in accordance with RPF) will be prepared and implemented before the start of construction.

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 documents 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 1of the Project Operations Manual.

3. ENVIRONMENTAL LEGISLATION

The main normative documents governing the environmental protection activities under Sultan 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**	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. The permissible sound pressure levels during day hours (from 08.00 a.m. to 08.00 p.m.) are 55 dBA for the equivalent noise level and 70 dBA for the maximum level (MNS 2.04-0.3-2005). 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	Pollution of soil and water by the product (sediment) of	Use proper agreed placement sites only. Basic proper construction norms and	Criteria / specifications to be incorporated into	Field technical supervision engineer of ARIS is responsible

[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 treatment or during leakage detection; pollution of 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	standards applied during the construction period Daily checks of machinery of leaking of oil; ban to wash machinery at construction site Topsoil removal Landscaping in accordance with the project.	bidding and contract documents. It is not considered as a separate cost item	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.
Air Quality	Dust emissions during retrofitting activities would be minor and temporary. Air pollutant emissions are expected from: - earth handling; - ground leveling; - electric welding.	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	Criteria / specifications to be incorporated into bidding and contract documents. It is not considered as a separate cost item.	
Water resources	Types of impacts: carry-over of solids with river water at worksites, accidental spills of petroleum products from operating equipment, waste generation (domestic solid waste). The following impacts on soils are expected at construction sites: accidental spills or	***During the construction phase***, surface waters of the Burana River will be impacted by earthworks (pipeline crossing construction). Prior to the construction of foundations, diversion layouts should be prepared to minimize impacts on surface waters. For this purpose, a temporary embankment will be constructed: 3 m in width (top) and 2 m in height. The crossing will be constructed during the low water	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

	petroleum products during equipment operation and waste generation (domestic solid waste)	period, with the works timed to the minimum flows in the river. To prevent surface runoff from entering the water intake structures, the tops of both existing and proposed wells will be lifted 1.0 m above the natural ground level, with the construction of protective embankments and impervious surfaces (1.0 m wide) around the wells. Working areas with machinery, cement mixers, and fuel tanks are located beyond water protection zones. Permits from local authorities are required to carry out operations in the buffer (protection) zone of the Burana River. **During the construction phase, no wastewater will be discharged to the water stream.** Wastewater will be discharged to a watertight cesspit. When full, the cesspit will be emptied by a sewage truck and transported directly to municipal wastewater treatment plants in the town of Tokmok for disposal. **During the operational phase**, there will no impacts on surface water sources.		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	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.

		and timely removal of waste should be arranged by local SES agencies.		
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 Field technical 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	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..

		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.		
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		ARIS
	Suspension of utility services	Timely notification of communities about planned cutoffs; rapid restoration of utility services		ARIS
	Gender	Equal participation and representation of women throughout the project implementation 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.		ARIS
	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
	There are households that have own water wells. They may not be willing to connect to the new water supply system.	Awareness raising activities and trainings will be conducted in respect of water quality issues.		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 maintenance 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.		Operator, Local authorities

5. MONITORING PLAN

Environmental Monitoring Plan

Subproject implementation stage	**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**
Construction	Noise Air quality Transportation Waste Disposal and handling Soil and water pollution Decommission	At the construction and disposal site At and near the construction site At construction and disposal site At construction site At construction site	Portable noise meters Portable measuring devises Visual In accordance with the plan and observation. Visual and measurement devise	Continuous Weekly Continuous In accordance with the plan but at least weekly Continuous In accordance	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	After takin over of site possession by contractor

	ing of construction site Safety of workers	At construction site	Visual Visual	with the plan Continuous		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	

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 February 8, 2017 in Kalygul 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 Sultan subproject of the Sustainable Rural Water Supply and Sanitation Development Project.

Venue and time of event: Kalygul village

11:00 a.m., February 8, 2017

Sabyrov T., head of Ibraim 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: Will preservation of topsoil be envisaged in the design?
Meerim Kerimbekova: Yes, these measures are envisaged including stripping topsoil off, transporting and stockpiling in special areas for further reinstatement of broken lands.

Question 2: How deep will the trench be? What materials will be used?
Korchubai uulu Erlan: The designed trench depth will be 1.6 meters and plastic pipes will be used as per the design.

Question 3: Who will supervise safeguard measures during the works?
Meerim Kerimbekova: Inspection of construction sites is carried out by ARIS to ensure compliance with ESMP. 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. 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

Question 4: 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 5: There are asbestos cement pipes in our subproject. Will the old (existing) pipes be dismantled?
Kerimbekova M.: Existing asbestos cement pipes will not be removed. 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.

Question 6: Will be the designed source capable of supplying required amount of water for all villages?
Korchubai uulu Erlan: According to hydrogeological opinion, the explored flow is 40 litres/second; according to estimates, this amount will be sufficient for all villages covered by the subproject.

Question 7: Will all social facilities be connected to the water supply?
Korchubai uulu Erlan: In accordance with the design, all social facilities will be connected to water system.

Question 8: Adjacent areas are polluted during the works quite often. Will such areas be cleaned up?
Kerimbekova M.: All measures to clean up the territory will be respected during the construction process: 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.

THE DECISION TAKEN:

Participants of the public hearing supported the subproject for rehabilitation of water supply system in Sultan subproject and acknowledged it as a vital one to ensure the uninterrupted supply of clean drinking water to the residents of Sultan subproject. ESMP was approved by the residents the subproject area.

The head of Ibraimov aiyl okmotu **Sabyrov T.**

Safeguards Specialist: **Meerim Kerimbekova**

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

Место и время проведения: с. Калыгул
8 февраля 2017 г. в 11:00 часов

Сабыров Т. – глава Ибраимовского аыйл окмоту 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: Учтено ли в проекте сохранение плодородного слоя почвы?
Ответ Керимбекова М.: Да, данные мероприятия предусмотрены. Снятие почвенно-растительного слоя, транспортирование и укладка его в кавальеры для хранения в специально-отведенных местах с последующим использованием для восстановления нарушенных земель.

Вопрос 2: Какова будет глубина траншеи? Какие материалы будут использоваться при строительстве?
Ответ Корчубай у.Э.: Глубина планируемой траншеи согласно проекта предусмотрена 1,6м., также согласно проекта предусмотрены пластиковые трубы.

Вопрос 3: Кто будет контролировать меры безопасности во время строительства?
Ответ Керимбекова М.: Инспекция строительной площадки осуществляется со стороны АРИС для обеспечения соответствия с ПУОСС. Государственные инспекторы Департамента архитектурно-строительного надзора (ДАСН) будут проводить надзор за выполнением проектных решений в ходе строительных и установочных работ либо в ходе реконструкции объектов, за качеством строительных материалов, сооружений. Они будут участвовать при сдаче в эксплуатацию завершенных объектов строительства. ДАСН, осуществляющий государственный экологический надзор, имеет право на надзор в установленном порядке после предоставления соответствующих идентификационных документов согласно экологическим положениям, нормативам, мероприятиям по охране окружающей среды в ходе реализации проекта

Вопрос 4: Когда начнется строительство объекта и в какие сроки закончится?
Ответ Корчубай у.Э.: Строительство начнется в июне 2017 года по предварительному плану и будет продолжаться 18 месяцев.

Вопрос 5: В нашем подпроекте есть асбестоцементные трубы, будут ли они демонтироваться?
Ответ Корчубай у. Э.: Существующие асбестоцементные трубы не будут демонтироваться, линии новых водопроводов будут расположены параллельно существующих. В случаях демонтажа существующих асбестоцементных трубопроводов отходы асбестсодержащих материалов будут собраны, вывезены и полностью уничтожены с применением специальных защитных мер в соответствии со стандартами обращения с опасными отходами.

Вопрос 6: Обеспечит ли планируемый источник требуемого объема воды для всех сел?
Ответ Корчубай у. Э.: Согласно заключению гидрогеолога, разведанный объем воды составляет 40 л/с, по предварительным расчетам данный объем хватит для всех сел, включенных в подпроект.

Вопрос 7: Все ли социальные объекты будут подключены к системе водоснабжения?
Ответ Корчубай у. Э.: Согласно разработанному проекту все социальные объекты будут подключены к системе водоснабжения.

Вопрос 8: Очень часто в процессе строительства загрязняют прилегающие территории. Будут ли очищаться территории?
Ответ Керимбекова М.: Все меры по очистке территории будут соблюдаться во время строительного процесса: сортировка всех видов отходов, повторное использование и переработка, при возможности. Утилизация отходов, которые не могут быть повторно использованы либо переработаны; вывоз и утилизация отходов на отдельные отвалы и в сотрудничестве с местной компанией по утилизации отходов; запрет на открытое сжигание мусора. Минеральные отходы от строительства и демонтажных работ должны быть отделены от общих и органических отходов, жидкие и химические отходы должны сортироваться и храниться в специальных коптейнерах. Все документы по вывозу и утилизации отходов должны вестись соответствующим образом в качестве доказательства надлежащей утилизации мусора на площадке. Что касается бытовых отходов, местные службы СЭС должны организовать сборные резервуары для сбора и временной утилизации мусора.

РЕШИЛИ:

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

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

Глава АО

LIST OF REGISTRATION

СПИСОК

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

8 февраля 2017г.

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
1.	Мамбетбаев Н.Т.	Глава Ак-Бешим а/о	[signature]
2	Абдыкалыков В.	Ардагер	[signature]
3	Джеенбаев	Айыл башчы	[signature]
4	Аманов Р.	а/б с Мээнеткеч	[signature]
5	Жунушалиев М	Мээнеткеч	[signature]
6	Асаналиев А	с Калыгул	[signature]
7	Надырбеков Т	с Калыгул	[signature]
8.	Бакаев Р.С.	а/б с. Бурана	[signature]
9	Осмонкулов О	с Бурана	[signature]
10	Чукуев Б	с Бурана	[signature]
11	Рыскулбеков Ж.	с Бурана	[signature]
12.	Шакенов З	с/о "Калыгул"	[signature]
13	Джумабаев К	с. Кызыл-Аскер	[signature]
14	Омуров А С	с Кызыл-Аскер	[signature]
15	Акжолтоев З.А	с Калыгул.	[signature]
16	Асанов. М.	с Калыгул	[signature]
17	Жунушалиев К	с. Бурана	[signature]
18	Арунов Талант	с. Ленин-Жол	[signature]
19	Омуров Болот	с. Алга	[signature]
20	Кокоев Руслан	с Алга	[signature]
21	Исраилов У.	с. Алга а/б	[signature]
22	Мусаев И.И.	ЦПЗ и ГСЭН г Токмок	[signature]
23	Исраилов М.А.	глава Буранинского а/о	[signature]

СПИСОК

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

8 февраля 2017г.

№ п/п	Ф.И.О. участника	Организация/Должность	Подпись
24	Фурсунов С.М	с. Калыгул	
25	Макишов М.А.	с. Калыгул.	
26.	Джолдубаев Н	с. Ленин-жол	
27.	Бобтров Б.С.	с. Ленин-жол	
28	Осокеев З А	с. Калыгул	
29.	Тюреканов А.К	с. Калыгул	
30.	Аскарбеков С.Н.	АРИС	
31.	Коргубаев [illegible]	АРИС	
32	Кершибекова 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.