



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
Togotoi subproject

January 2017

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1. INTRODUCTION. DESCRIPTION OF THE PROJECT AREA, WATER SUPPLY 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. .

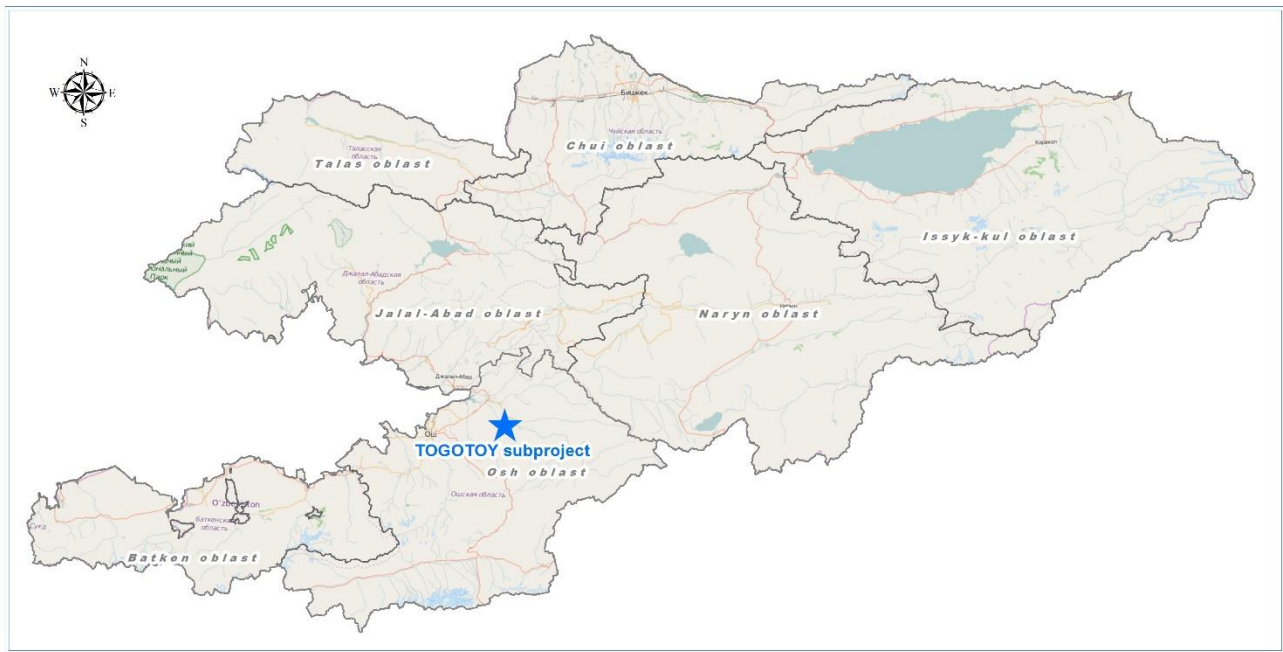
ESMP activities will be included in bidding and contract documents as part of both construction and technical supervision phases.

Description of the project area

The subproject "Togotoi" includes the rehabilitation of water supply systems of the village Togotoi, located in Kara-Kulzhinskyi rayon of Osh oblast. The village is located 25km from the town of Uzgen – the administrative center of Uzgen rayon. The projected site of the construction of water supply of the Togotoi village is located in the western part of the Kara-Kulzhinskyi rayon of Osh oblast at a distance of 21 km from the district center of the village of Kara-Kulzha. The nearest railway station is located 74 km away from the construction site. Water supply is currently managed by CDWUU. Today, a total of 131 households have individual connections to the water supply system.

Climate in Osh Oblast shows vertical zonation. Valleys and foothills are relatively flat-lying areas with subtropical climate: hot summers and mild winters with little snow. Kara-Kuldja Rayon is located in Southwestern Kyrgyzstan. The area comprises the Tar and Kara-Kuldja river basins and the Alai-Kuu, Adyshev, Chonboor and Uzgen mountains that are part of the Fergana Range.

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

Currently the Togotoi village has a centralized water supply system. The existing water supply system of the Togotoi village was built in the early 70s. The source of water supply of the village is underground water taken from the well.

The existing water intake is located 500 meters to the north from the village outskirts. The water intake has a zone of sanitary protection, made of barbed wire on reinforced-concrete posts. On the territory of water intake there are two wells: the first well drilled in 1969 to supply the village (currently not in operation), and the second well drilled in 2013, at the moment it is equipped with pump. On the territory of the site of water intake there is an elevated tank of 10 m³ by capacity, mounted on metal poles height of 6 m. The drinking water disinfection system is absent.



The existing main water line to the village is made of steel tube Ø50 mm. The distribution network of the village – a ring type, with some dead ends on the streets. The network is made of asbestos cement pipes Ø100mm. In the distribution network, there are water wells, in which the street standpipes were installed. Water conduit wells – round type, made of prefabricated concrete elements. Wells are blocked, floor slabs are in ruins, and there are no cast iron manhole covers. All wells are in need of rehabilitation, such as: cleaning, completing with the missing building blocks, replacing the stop-regulating and water fittings.

The water supply system is in manual mode, the water pump is switched on in order to fill fully the water tower. The level control system in the tower is absent. Once the water tower filled with water then the operator turns off the pump. The water from the water tower flows in a gravity-flow-discharge mode to the distribution network of the village.

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

List of planned works: replacement of water pipe lines; replacement of water tower drilling of new well; replacement of pipe net on site ; construction of fences around water intake areas, electricity, disinfection system.

Planned activities:

1. Drilling of a new borehole, 100 m in depth
2. Construction of a water transmission line using PE 150 mm pipes; pressure is 6 bar, length is 500 m
3. Manufacturing and installation of a water tower (Rozhnovsky system) with 50 m³ tank capacity; height is 12 m
4. Onsite pipework using PE 100 mm pipes; pressure is 6 bar, total length is 7,576.3 m

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

Togotoi 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 Togotoi 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 2267 people, including 1100 men and 1167 women. The total number of households is 504. The unemployment level in the Togotoi sub-project is high. Due to high unemployment, there are a lot of low-income households, and the percentage of pensioners is about 10%. The main business activities are farming, private entrepreneurship and food retail. Women in the village are housewives mostly. Section 5 describes social impact minimization measures.

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

No trees owned by the municipality will be cut down until all necessary permits obtained.

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 of the Project Operational Manual.

3. ENVIRONMENTAL LEGISLATION

The main normative documents governing the environmental protection activities under Togotoi subproject are³:

- **The Constitution of the Kyrgyz Republic 2010**
- **The Law “On Environmental Protection”⁴**
- **Law on Environmental Expertise⁵**
- **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 | <p><i>During the construction phase</i>, sources of temporary noise will be the engines of construction and road equipment.</p> <p>Noise levels can also increase temporarily along the materials supply routes.</p> | <p>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.</p> <p>Equipment will work from 08.00 a.m. to 08.00 p.m. only, no operations will be carried out during night hours.</p> <p>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.</p> <p>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.</p> <p>There will be no sources of noise <i>during the operational phase</i>.</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |
| Pollution Soil and water pollution | <p>Pollution of soil and water by the product (sediment) of water treatment or during leakage detection; pollution of water with oil products from</p> | <p>Use proper agreed placement sites only.</p> <p>Basic proper construction norms and standards applied during the construction period</p> <p>Daily checks of machinery of leaking of oil; ban to wash machinery at construction site.</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> |

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.

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| | <p>machinery use</p> <p>The following types of work will be carried out during the construction phase:</p> <ul style="list-style-type: none"> - earthworks: cut and fill, backfill, levelling; - construction equipment operation; - solid waste generation; - borehole drilling. | <p>Topsoil removal</p> <p>Landscaping in accordance with the project.</p> | <p>separate cost item</p> | <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |
| <p>Air Quality (dust generation)</p> | <p>Dust emissions during retrofitting activities would be minor and temporary. Air pollutant emissions are expected from:</p> <ul style="list-style-type: none"> - motor vehicles; - electric arc welding; - drilling operations. | <p>Dust prevention measures and good housekeeping practices such as water spraying to prevent dust and use of curtains and screening of the construction area.</p> <p>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.</p> <p>Limitation of the speed of vehicles and selection of relevant transportation routes for minimization of impact on the receptors sensitive to dust.</p> <p>Equipping the machinery transporting granular materials with removable canvas covers. Supply of cement to construction sites in pre-pack hermetic packages.</p> <p>The equipment will be used in certain operations only and will not be present at the construction site all the time.</p> <p>Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases is not allowed.</p> <p>Burning of construction and domestic waste at working area is prohibited.</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item.</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |

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| | | <p>It is needed to ensure cleanliness of adjacent area, not allowing construction waste to minimize dusting and contamination.</p> <p>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.</p> <p>Therefore, air pollutant emissions during the construction phase will not exceed the existing standards.</p> <p>No pollutant emissions will take place <i>during the operational phase</i>.</p> | | |
| | Use of calcium hypochlorite (bleach powder). | <p>During construction, no chlorine will be used, so the impact is ruled out.</p> <p>During the operational phase, there can be an impact on people who will work with chlorine directly (in the work area).</p> <p>INSTRUCTION <i>On Purchase, Sale, Storage, Accounting and Transportation of Highly Toxic Substances</i>, approved by Resolution #513 of the Government of the Kyrgyz Republic of September 21, 1999</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item.</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |
| Water resources | <p>Borehole drilling:</p> <p>Disturbance of surface-water flow.</p> <p>Disturbance of natural ground water flow level (dewatering, overwatering of soil)</p> | <p><i>During the construction phase</i>, there will be no direct impact on surface waters of the Kara-Kulzhaa River. The distance from the construction site to the water body is approximately 2 km.</p> <p>During the construction period, there will no impacts on surface water sources.</p> <p>Refuse from excavations beside groundwater occurrence.</p> <p>Working areas with machinery, cement mixers, and</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item.</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |

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| | | <p>fuel tanks are located beyond water protection zones.</p> <p>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</p> | | |
| Construction waste | Contamination of adjacent area, soil, water resources | <p>Separation of all types of waste streams, reuse and recycling wherever possible</p> <p>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</p> <p>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.</p> <p>All documents on waste removal and disposal should be maintained properly as a proof of appropriate management of waste at the site.</p> <p>As for domestic waste, installation of collection tanks and timely removal of waste should be arranged by local SES agencies.</p> | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p> | <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |
| Construction hazardous waste | Some construction debris may contain asbestos | Detailed impact mitigation measures are discussed in Section 6. | <p>Criteria / specifications to be incorporated into bidding and contract documents.</p> <p>It is not considered as a separate cost item</p> <p>Contractor shall develop site-specific measures where requirements to ACM and asbestos waste will be contained.</p> | <p>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.</p> <p>Field technical supervision engineer of ARIS is responsible to monitor and supervise the activities, including monitoring of potential environmental risks.</p> |

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| | | | | <p>Representative of contractor is responsible to execute the mitigation measure.</p> <p>Safeguard specialist and infrastructure engineer of ARIS are responsible for overall oversight.</p> |
| 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 | <p>Plan to decrease disturbance to surroundings and neighbors (including plans to ensure proper traffic management on access roads to site)</p> <p>Fencing off the site or access to site with proper safety signs</p> <p>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.</p> | <p>Negligible costs</p> <p>Contractor costs</p> | <p>Will be further defined with specifications in the design documents</p> <p>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.</p> |
| 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 |

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|----------------------------------|--|---|------------------------|--|
| 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 | | |

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| | Suspension of utility services | Timely notification of communities about planned cutoffs; rapid restoration of utility services | | |
| | Gender | <p>Equal participation and representation of women throughout the project implementation</p> <p>No less than 30% of meeting/hearing participants will be women.</p> <p>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.</p> | | 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 |
| 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 | | <p>Ensure use of environmentally acceptable fuels</p> <p>Regular technical maintenance</p> <p>Ensure all attests and certificates have been acquired in particular for fire protection and monitoring of emissions/concentrations in air</p> <p>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.</p> | | Operator of CDWUU, Local authorities (representative of AO) |

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 cost¹⁰ 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 taken 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.

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|---|----------------------|---|---|--|--|--|
| 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 24, 2017 in Togotoi 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 Togotoi subproject of the Sustainable Rural Water Supply and Sanitation Development Project.

Venue and time of event: Togotoi village

11:30 a.m., January 24, 2017

Rahmanberdi u.S., 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: Environmental issues that were discussed are very relevant for our villagers. The environmental situation is deteriorating, especially the air. Won't the planned construction / rehabilitation of the water intake worsen the situation?

Answer given by Meerim Kerimbekova: As for the activities to prevent the negative impact on the air during the implementation of this project, all potential air pollution impacts were considered and measures were developed to minimize them, a monitoring plan was developed and responsible people were assigned for implementation of these activities. As I said earlier, the action plan includes such measures as covering of bulk materials transported to the construction sites, wet dust suppression on roads during excavation for laying water pipelines routes, speed limits to minimize the impact on receptors sensitive to dust, deliver of cement to the construction sites is allowed only in pre-packaged airtight bags, etc.

Question 2: Is there a risk of depletion of groundwater resources?

Erlan Korchubay uulu: When designing the water intake facility, not only the current need for water, but also potential use of ground water for domestic needs in the future is taken into account. The water content of the territory is sufficient taking into account the long-term growth. Concerns about the depletion of groundwater resources are groundless.

Question 3: In the asphalt cover of roads will be damaged during construction works, will it be recovered once the construction is complete?

Meerim Kerimbekova: The Plan for organization of construction works shall include restoration of the damaged road surface under any project. The contractor must bear responsibility for failure to comply with this requirement.

Question 4: How many and where will the trees be cut down during the construction / rehabilitation? Will they be restored?

Meerim Kerimbekova: Felling of trees and shrubs, as well as the cutting of crowns will be carried out strictly along the water pipeline route to be laid. Prior to launching construction works, the contractor will obtain all the necessary permits, including compensatory planting of greenery from the territorial environmental control agencies in coordination with the aiyl okmotu.

Question 5: What will be the tariff for water? Will it be increased?

Erlan Korchubay uulu: The tariff will be calculated, the local self-government bodies will calculate and set the tariff using a methodology they will be trained on; this issue will also be discussed with the aiyl kenesh.

Question 6: What length of water mains will be laid per day?

Erlan Korchubay: Once a contractor is selected, a calendar schedule of works will be developed and the best schedule will be settled upon.

Question 7: Will the old (existing) pipes be dismantled?

Kerimbekova M.: 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.

Question 8: At whose expense will the household connections be made?

Erlan Korchubay uulu: Household connections will be made at the expense of the households.

Participant of the public hearings: considering the fact that we are experiencing serious problems with drinking water supply to the population, supply is limited, we would wish the project to start earlier. We support such public hearings, open discussions of environmental issues, and we intend to continue close cooperation with the ARIS.

THE DECISION TAKEN:

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

SRWSSP was approved by the residents the subproject area.

The head of Togotoi aiyl okmotu

Rahmanberdi u.S.

Safeguards Specialist:

Meerim Kerimbekova

Secretary:

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

Место и время проведения: с. Тоготой
24 января 2017 г. в 11:30 часов

Рахманберди у. Ш. – глава айыл окмоту Тоготой открыл слушания, поприветствовав приглашенных и представил 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: В настоящее время обсуждаемые экологические вопросы очень актуальны для жителей нашего села. Состояние окружающей среды ухудшается, особенно воздух, планируемое строительство/реабилитация водозабора не ухудшит ситуацию?

Ответ Керимбекова М.: Что касается мероприятий по предотвращению негативного воздействия на атмосферный воздух при реализации рассматриваемого проекта, то все возможные воздействия от загрязнения атмосферного воздуха предусмотрены, разработаны мероприятия по их минимизации, предусмотрен план мониторинга и закреплены ответственные за выполнение данных мероприятий. Как я говорила ранее, в плане мероприятий предусмотрено: укрытие сыпучих материалов, завозимых на строительные площадки, мокрое пылеподавление на дорогах при проведении земляных работ при прокладке трасс водоводов, ограничение скорости движения транспорта для сведения к минимуму воздействия на рецепторы, чувствительные к пыли, завод цемента на строительные площадки разрешен только в расфасованных герметических мешках и т.д.

Вопрос 2: Существует ли риск истощения запасов подземных вод?

Ответ Корчубай у. Э.: При проектировании водозаборного сооружения учитываются не только настоящие потребности в воде, но обязательно предусматривается перспективная возможность использования подземных вод на хозяйственно-бытовые нужды населения. Водность данной территории достаточна с учетом перспективного роста. Опасения об истощения запасов подземных вод напрасны.

Вопрос 3: При проведении строительных работ в случае нарушения асфальтового покрытия дорог, предусмотрено ли восстановление после окончания строительства?

Ответ Керимбекова М.: План организации проведения строительных работ в обязательном порядке должен предусматривать восстановление нарушенного дорожного покрытия любого проекта. За невыполнение данного требования строительная организация должна нести ответственности.

Вопрос 4: Сколько и где будет вырубаться деревьев при строительстве/реабилитации? Будут ли они восстановлены?

Ответ Керимбекова М.: Вырубка деревьев и кустарников, а также подрезка крон будет проводиться строго по пути прокладки трасс водоводов. До начала строительных работ подрядная организация оформит все необходимые разрешительные документы, с учетом компенсационного озеленения в территориальных органах охраны окружающей среды по согласованию с айыл окмоту.

Вопрос 5: Каков будет тариф за воду? Поднимутся ли цены?

Ответ Корчубай у. Э.: Тариф будет рассчитываться, органы местного самоуправления будут рассчитывать и устанавливать тариф по методике, по которой будет проводиться обучение, это будет также обсуждаться с айыльным кенешем.

Вопрос 6: Какая длина волновода будет прокладываться в день?

Ответ Корчубай у. Э.: Когда будет отобран подрядчик, будет составляться календарный график, будет выбираться оптимальный график

Вопрос 7: Будут ли демонтироваться старые (существующие) трубы?

Ответ Керимбекова М.: При реабилитации системы водоснабжения существующие асбестоцементные трубы не будут демонтироваться, максимально будет предусмотрено возможность оставить существующие трубопроводы в земле. Линии новых водопроводов будут расположены параллельно существующих. В случаях демонтажа существующих асбестоцементных трубопроводов отходы асбестосодержащих материалов будут собраны, вывезены и полностью уничтожены с применением специальных защитных мер в соответствии со стандартами обращения с опасными отходами.

Вопрос 8: За чей счет будут домовые подключения?

Ответ Корчубай у. Э.: Домовые подключения будут за счет населения.

Участник общественных слушаний: в связи с тем, что мы испытываем большие проблемы с доставкой питьевой воды населению, подается в ограниченном количестве, хотелось бы чтобы проект быстрее заработал. Мы поддерживаем такие общественные собрания, открытые обсуждения, касающиеся экологических вопросов, и в дальнейшем намерены тесно сотрудничать с АРИС.

РЕШИЛИ:

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

Глава айыл окмоту Тоготой



Рахманберди у. Ш.

Специалист по мерам безопасности:

Керимбекова М.



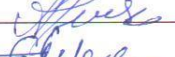
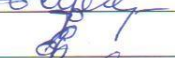











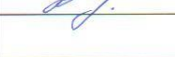



Секретарь:

СПИСОК

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

г.Бишкек

24 января 2017г.

| № п/п | Ф.И.О. участника | Организация/Должность | Подпись |
|----------|-----------------------|--------------------------------|---|
| 1. | Коринков Солиба | с. Влодоев |  |
| 2. | Уркумбаев Тасибаев | с. Влодоев |  |
| 3. | Труев Азиз | с. Влодоев |  |
| 4. | Сурабаев Беклан | дем. топтуу башчысы |  |
| 4. | Бикиев Орунбай | дем. топтуу мургу |  |
| 5. | Бакиров Мамин | дем. топтуу мургу |  |
| 6. | Ысак у Исарбаев | айылдык тургуну |  |
| 7. | Рабов Абдилот | Сов.п. жетек |  |
| 8. | Маматурдуу уулу Манас | айылдык тургуну |  |
| 9. | Аликуев у. Тогодой | Делунам |  |
| 10. | Абдумалик у. Азиз | айыл тургуну |  |
| 11. | Исачалиев Турсун | айыл башчы |  |
| 12. | Абдураманов Рауан | айыл тургуну |  |
| 13. | Турдыев Саганбаев | интер. турак жай бу-ча адис |  |
| 14. | Эргимов Мадикаров | ЭПРО Кара-Кермея |  |
| 15. | Манасалиев Тасибаев | Ынтымак айыл башчы |  |
| 16. | Чынышев Ч. | АРИС |  |
| 17. | Коркубаев у. Т. | инженер АРИС |  |
| 18. | Керимбекова М. | студ. по истрам бу-ти |  |
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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.