

SURKHANDARYA AND NAMANGAN REGIONAL WATER PROJECTS – FEASIBILITY STUDY

NAMANGAN OBLAST
NON-TECHNICAL SUMMARY
European Bank for Reconstruction and Development

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ABBREVIATIONS

Company, Client, Enterprise	State Unitary Enterprise “Namangan Suvoqava” (Namangan Oblast Water & Wastewater Company)
EBRD, Bank	European Bank for Reconstruction and Development
E&S	Environmental and Social
EHS	Environment, Health and Safety
ESAP	Environmental and Social Action Plan
LTIP	Long-Term Investment Program
NTS	Non-Technical Summary
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
PIP	Priority Investment Program
PR	EBRD Performance Requirements
SEP	Stakeholder Engagement Plan
SPZ	Sanitary-Protection Zone
WTP	Water Treatment Plant
WW	Wastewater
WWPS	Wastewater Pumping Station
WWTP	Wastewater Treatment Plant

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1 Introduction

Uzbekistan is divided into twelve oblasts (incl. Namangan Oblast), one autonomous republic and one independent city (Tashkent). Each oblast has its own Suvoqava (Vodocanal), a state unitary enterprise responsible for water and wastewater services in the whole oblast. State Unitary Enterprise “Namangan Suvoqava” (hereinafter referred as “Company” or “Enterprise”) provides water and wastewater services in Namangan Oblast.



Figure 1-1 Location of Namangan Oblast

The State Unitary Enterprise “Namangan Suvoqava” is 100% owned by Ministry of Housing and Utility Services of the Republic Uzbekistan. The Company provides municipal services including water and wastewater services to residential customers, industries and organisations. The Company’s responsibilities cover provision of services to consumers in Namangan, neighbouring settlements of Chust, Chartak, Uchkurgan, Namangan, Yangikurgon, Kosonsay, Norin, Uychi, Mingbulok, Turakurgan and Yangikurgan districts, and 450 local rural water supply systems. Part of the rural water supply in the Namangan Oblast is provided by the separate enterprise – JSC “Kishlok ichimlik suv taminot” (JSC “Rural Potable Water Supply”).

The total population living within the Company’s service area is about 1.3 mln people. According to Company data, water supply services are provided to about 61% of the population, or 795,00 people, living in the Company’s service area.

The majority of customers do not have an access to the round-the-clock water supply. For example, less than 30% of the customers are provided with water on 24/7 schedule. The most of such customers live in the city of Namangan. Other customers receive water only during the daytime, no more than 6-10 hours/day. About 60,000 consumers receive water from water tank trucks, notwithstanding that they are connected to the network. This is caused by insufficient pipeline capacity and ineffective urban planning of infrastructure development.

The Company operates two main water intakes which abstract water from surface sources (the Northern Namangan and Fergana Canals) and one ground water intake for water supply (Zhyidakapa comprising 49 wells) for Namangan and surrounding areas. In addition, the Company has in operation about 490

local ground water wells, which provide water supply for individual villages. Usually there is a single water well with a water tower and local distribution network with a diameter of no more than 150 mm.

Mainly water is supplied to the network from three sources:

- › Kyzyl-Rovat surface water intake combined with a WTP (design capacity of 200,000 m³/day) supplies up to 150,000 m³ of water to the network per day. Water abstracted from the North-Namangan Canal is treated in horizontal sedimentation tanks and rapid filters, with addition of gaseous chlorine and aluminium sulphate. Water from Kyzyl-Rovat surface water intake mainly supplied to the Chartak city, district and northern part of Namangan city through the Uchkurgan-Namangan water supply system. 37,796 people of the Chartak district and Chartak city are provided with drinking water or only 65.0%. In connection with the increase and expansion of the northern part of the city of Namangan, which is provided with drinking water from the Uchkurgan-Namangan main water conduit, there is currently a shortage of drinking water. In this regard, at present, the city of Chartak supplies water through the Uchkurgan-Namangan water conduit according to a schedule of 6-8 hours a day.
- › Kurashkhana surface water intake abstracts water from the left bank of the North-Fergana Canal (NFC) and also combined with a WTP, where from 10,000 to 30,000 m³ of water is treated per day. This plant was built in 1957. Water treatment technology at the WTP includes only clarification in radial and horizontal sedimentation tanks and addition of gaseous chlorine. This technology does not allow to ensure the required standard quality of drinking water. The local authorities have an intention to close the plant. The main clear water reservoirs (CWRs) (capacity of about 24,000 m³) are located at the site of the Kurashkhana WTP, where treated water is transported as well from the Zhyidakapa water intake.
- › Zhyidakapa ground water intake, which is in operation since 1975, located in the south-eastern part of the city (design capacity of 180,000 m³/day), supplies about 80,000-90,000 m³ of water to the network per day. The limited supply is due to failure of 20 out of 49 water wells. The water intake uses reserves of the Naryn underground water deposit.

Any network maps and hydraulic calculations are lacking. The rate of incidents related to water supply in the supply networks is about 2.7 incidents per 1 km per year. The total length of the water networks is approx. 2,600 km, including nearly 414 km of water mains. According to the Company's data, water losses are about 41%. The actual losses seem to be larger as there are no any water meters at the plants and water mains.

Monitoring of drinking water quality is performed by three laboratories of the Company. The main (central) laboratory of the Company is located in the Company's head office and occupies a separate floor. The laboratory has units for microbiological analyses as well as sanitary and chemical analyses. This laboratory carries out the water quality monitoring for all the Company's branches, the Zhyidakapa Water Intake, and also the Namangan city's water supply network. The laboratory is certified to perform internal quality monitoring of drinking water and wastewater in accordance with the requirements of the accreditation system of the Republic of Uzbekistan.

The number and frequency of laboratory tests of drinking water samples taken at the water intake points and in the distribution networks are established in compliance with the applicable legislative requirements of the Republic of Uzbekistan (State Standard of Uzbekistan O'zest 950: 2000 Drinking Water. Hygienic Requirements and Water Quality Control; SanPiN RUz No.0211-06 Hygienic Criteria and Water Quality Control of Centralized Domestic Water Supply System, 2006).

The in-process monitoring is carried out for 23 parameters. Samples are taken quarterly in water sources and monthly at the outlets to water mains and at approved points of the distribution networks.

In total, there are 86 monitoring points. Annually the central laboratory carries out approximately 18,000 tests and takes about 1,500 samples.

In addition, in-process monitoring of the key parameters (temperature, turbidity, pH) is carried out daily after the key treatment stages: after clarifiers and filters at the Kyzyl-Rovat WTP and after clarifiers at the Kurashkhana WTP.

Reports on the monitoring results are prepared once a month. They include data on the number of analyses performed and a share of non-standard samples. The analysis data are recorded on a digital medium and stored in a records room. The digital media are used for information storage only since 2018.

The largest number of non-standard samples accrues to remote local systems of rural settlements and district centers, where the share of non-standard samples by microbiological parameters is about 17%. Rather high mineralization and hardness of water in some water wells are more typical for a number of villages in the Namangan, Yangikurgan and Turakurgan districts. For example, water from the Tashbulak water intake (Namangan district) has a hardness of up to 14 mg-equ, and the Rovat water intake (Turakurgan district) delivers water with a hardness of up to 16 mg-equ.

Turbidity and thermotolerant coliform bacteria count (TCB) are the main parameters non-complying with the regulatory requirements within the Namangan city's area. The largest share of non-standard samples is recorded in the Kurashkhana Water Intake's area and the lowest in the Jiydakapa Water Intake's area.

Almost all tests are carried out by standard photolorimetric methods. Modern high-precision methods are not used, and inaccuracy at measurement can be quite high.

About 85% of private houses connected to the water supply system have water meters at the inlets, 76% of households in apartment buildings have individual water meters too. According to the Company's data, almost 100% of commercial and budgetary consumers are also provided with water meters.

There are 4 separate centralized wastewater collection systems in the Namangan Oblast. One of them is regional and serves the cities of Namangan, Kasansay, Turakurgan and Tashbulak. The second system serves the town of Chartak and the urban-type settlements of Uychi and Yangikurgan. The other two systems are established in the towns of Pap and Chust. The population of other settlements use freestanding cesspools, pit toilets and septic tanks.

About 1.3 mln people live within the Company's service area, of which about 14.5% are connected to the centralized wastewater system. The total region's population was about 2.75 mln people as of the end-2018 with the share of people connected to the wastewater system of about 7%. Others use cesspools, pit toilets, and septic tanks. The population has a limited access to the centralized wastewater services due to various reasons such as a high remoteness of the nearest sewers, inability of gravity discharge, or insufficient pipeline capacity. The total length of the wastewater networks in the Namangan Oblast is 357,9 km. The wastewater networks have been in operation since 1960s and the major part of them needs to be repaired or rehabilitated. The key problem is breakdowns and clogs (about 5 accidents per 1 km in 2018) in the gravity networks.

The total received wastewater is accounted equal to the water consumed (billed water) and amounted to 16,412,000 m³ in 2018, including 7,427,000 m³ of domestic wastewater. No reliable data on the actual amount of wastewater received from consumers and discharged to water bodies can be obtained since no flow meters are installed in wastewater networks and at facilities.

Sewage from septic tanks and cesspools is pumped out by sewage trucks of private companies. The discharge of sewage removed by the trucks is not properly organized nor supervised, and sewage is often discharged directly on the terrain. The Company provides free-of-charge reception of wastewater from no more than 5 sewage trucks (or 20 m³ of sewage) per day at the Namangan WWTP, but does not record it.

The low number of connections results from the fact that the topography prevents gravity flow of wastewater. To increase the number of connections, it is necessary to build new pumping stations. There are only 5 wastewater pumping stations (WWPSs) in the Namangan region, of which 3 WWPSs are on the Company's balance and 2 WWPSs belong to other organizations. All pumping stations are manually operated. Operators on duty attend them day and night, manually turning on/off pumps depending on the level of wastewater in the receiving chamber. Screen chambers are flooded in order to reduce the frequency of pump starts. There are no bar screens on any of the WWPSs. Electrical and mechanical equipment is worn out.

In Namangan Oblast there are four WWTPs located in the cities of Namangan, Pap, Chust, Uychi. The Namangan regional WWTP receives sewage from the cities of Namangan, Kasansay, Turakurgan,

Tashbulak and adjacent settlements. The plant was put into operation in 1965. The WWTP's original design capacity was extended up to 90,000 m³/day in 1987. The WWTP consists of mechanical treatment facilities (screens, sand traps, primary clarifiers), biological treatment facilities (aerotanks, secondary clarifiers), and wastewater disinfection facilities (contact tank, chlorinator room, chemical workshop), sludge treatment facilities (sludge beds, sand beds). A part of facilities is in emergency condition and not functioning. Wastewater does not undergo treatment process. It just flows via civil structures of the WWTP while being subject to a secondary bacterial contamination due to anaerobic fermentation of accumulated sediment. After the WWTP, wastewater is discharged through an open drain-collector into the Syr-Darya river.

The Uychi WWTP was put into operation in 1987. The plant receives sewage from district centres Uychi, Chartak, Yangikurgan. The design capacity of the WWTP is 2,700 m³/day. The wastewater treatment plant consists of sand traps, primary clarifiers, aerotanks, secondary clarifiers. All facilities are in emergency condition. Wastewater does not undergo treatment, it just flows via the WWTP's civil structures and through an open drain-collector into the Naryn river which is a tributary of the Syr-Darya river.

The Pap WWTP was put into operation in 1982. The WWTP receives sewage from the town of Pap. The design capacity of the WWTP is 4,200 m³/day. The plant consists of sand traps, primary clarifiers, aerotanks, wastewater disinfection facilities, based on calcium hypochloride. Facilities are in emergency condition. Wastewater does not undergo treatment process, it just flows via the civil structures and through an open drain-collector into the Syr-Darya river.

The Chust WWTP was put into operation in 1984. The WWTP receives sewage from the town of Chust. The design capacity of the WWTP is 400 m³/day. The plant consists of mechanical treatment facilities, biological treatment facilities, sludge treatment facilities and wastewater disinfection facilities. Wastewater is transported through an open drain-collector to filtration fields. Data on the current conditions of the plant are absent. An inspection will be performed at a later stage of the assignment.

It was not possible to obtain reliable data on actual flows since there are no flow meters at the inlet and outlet of the WWTPs.

1.1 Why the project in the water sector of Uzbekistan is needed?

This Project is based on technical, financial and institutional assessment of the water supply and wastewater treatment system of the area serviced by SUE "Namangan Suvoqava". It incorporates the technically and financially sound investments aimed at achieving a safe and reliable wastewater treatment to households residing in the project area in an environmentally and economically sustainable fashion.

The objectives of the project are:

- › improvement of Company's operational efficiency;
- › reduction of operational costs;
- › reduction of water losses;
- › improvement of services' reliability and quality;
- › reduction of wastewater leakages and minimisation of impact on water quality (public health); and, last but not least,
- › minimisation of negative environmental impacts.

Implementation of PIP projects will allow reaching significant effect in social environment due to increasing of total operating reliability and sustainability of wastewater removal and treatment.

The activities included into PIP were defined as priority because they:

- › Improve the reliability of the service;

- › Create new connections;
- › Improve the compliance with the national regulations and EBRD PRs;
- › Improve the quality of water and wastewater treatment;
- › Improve of the operational efficiency, the safety of the employees and the quality of the work;
- › Are financially feasible.

The project will have the following outcomes:

- › Reduction of environmental impacts in respect to land, water and groundwater contamination;
- › Reduction of community health risks related to the secondary contamination;
- › Improved natural resources management through operation of low-energy equipment;
- › Improvement of reliability of water services as well as the quality of life in the communities as a result of better Company's asset management and improved occupational health and safety (OHS) and labour conditions;
- › Improvement of the quality of water supplied to consumers compared to existing supplies and other sources used by the local communities;
- › Operating in compliance with national legislative requirements.

1.2 Who will pay for the improvements?

EBRD is considering a senior loan Government of Uzbekistan to finance priority investments in rehabilitation and modernisation of the water intake facilities as well as water distribution networks and reconstruction of the wastewater treatment plant for Company. The Project is expected to allow connection of the new customers, improve quality and reliability of services, reduce losses, as well as enhance the operational and financial efficiency of the Company.

A loan from the Bank will be the source of the financing of the Project. The loan is expected to be repaid from cost savings and increased revenue generation.

Project Categorised as "B" in accordance with the EBRD's Environmental and Social Policy 2014. The Environmental and Social Due Diligence (ESDD) for the proposed Priority Investment Programme (PIP) for the Project was carried out as part of the Feasibility Study by independent consultants engaged under the IPPF. It included a review of current practices, an assessment of the Project's potential E&S impacts and a review of the Company's E&S provisions and management capacities. All PIP components in the future will be subject to local permitting procedures and passing the local EIA process (OVOS – local Environmental Impact Assessment). An Environmental and Social Action Plan (ESAP) has been developed for the Project and forms an integral part of the Loan Agreement.

The Company has assigned H&S and HR personnel with understanding of environmental and social national legal responsibilities related to its operations. The Company is operating in compliance with national legislation and related permits (where issued) with some non-compliances addressed with corrective measures in the ESAP.

Project Environmental and Social Due Diligence (ESDD) was carried out within the scope of the Feasibility Study so as to identify risks, impacts and benefits and to structure the Project to comply with the EBRD Environmental and Social Policy (ESP) (2014) and Performance Requirements (PRs). The works undertaken within the scope of ESDD included, among others:

- › Identifying existing and Project-related environmental and social impacts and risks (including implications in terms of gender and for vulnerable groups);
- › Describing and characterising relevant environmental and social baseline commensurate with the risks posed by the current site operations and the Project;

- › Addressing gender issues in the ESDD and through the PRs related to the Project, including employment opportunities for women and tailored stakeholder engagement provisions;
- › Reviewing the Project Company existing environmental and social management systems, policies and practices, including human resources and employment, occupational health and safety, and pollution prevention measures available at the facilities.

Carrying out an Environmental and Social Assessment and developing a draft Environmental and Social Assessment Report in accordance with the Bank's requirements as defined in the ESP, including a Summary table on Compliance with the Bank's PRs.

2 Description of the new system

Priority investments program (PIP) proposed to implement activities on integrated reconstruction and modernisation of water supply and wastewater facilities of Namangan oblast. Long-term investment program for the modernization of the water supply and wastewater treatment systems involves much more extensive list of projects, including projects for wastewater treatment modernisation. All projects are developed using modern technologies and standards and meet national requirements and the requirements of the EU.

PIP includes the following components:

1. *Modernization of water supply system in Chust district;*
2. *Modernization of water supply systems in the town of PAP and Uygur urban-type settlement;*
3. *Modernization of water supply systems in Namangan district;*
4. *Construction of Water Main D1200 from WPS Kyzyl-Rovat;*
5. *Delivery of maintenance and repair equipment and special vehicles;*
6. *Modernization of WTP Kyzyl-Rovat;*
7. *Modernization of street sewerage networks and main sewers, Chust;*
8. *New construction of street sewerage networks and main sewers, Chust, Dzhumashui;*
9. *Construction / reconstruction of WWTP in the town of Chust.*

For the purposes of this report some of the components with similar possible environmental and social impacts will be analysed together:

1. *Modernization of water abstraction facilities in Chust, and in the city of Pap and Uygur urban-type settlement;*
2. *Modernization of water supply system (networks) in Chust, Namangan districts and in the city of Pap and Uygur urban-type settlement, and construction of Water Main from WPS Kyzyl-Rovat;*
3. *Modernization of WTP Kyzyl-Rovat;*
4. *Modernization and new construction of street sewerage networks and main sewers in Chust and Dzhumashui;*
5. *Construction / reconstruction of WWTP in the town of Chust;*
6. *Delivery of maintenance and repair equipment and special vehicles.*

2.1 Modernization of water extraction facilities in Chust and in the city of PAP and Uygur urban-type settlement

2.1.1 Chust

Water supply of Chust and adjacent settlements is provided from several underground water intakes at Karnon water intake. Their total productivity of the Karnon water deposit is not more than 10,000 m³ per day. No capital repair has been carried out during the past 15 years. The mechanical and electrical equipment is in an unsatisfactory condition. The fencing of the sanitary protection zone is partially destroyed, a path runs through the water intakes' site, livestock roams there, part of the land is ploughed and used for crops growing, the SPZ's protection regime is violated.

Open holes and leaks are visible in the collection pipeline, which have not been remedied for a long time. The mechanical and electrical equipment is in an unsatisfactory condition.

The poor condition of wells does not allow water supply to reach all consumers and limits the possibilities for the socio-economic development of the Chust district.

2.1.2 Pap and Uygur

Water supply of the city of Pap and Uygur settlement is provided from groundwater intakes. Water from existing sources has a high hardness up to 11–12 milligram equivalent and water quality is deteriorating. Only 30% of 50,000 people living in the Company's service area have access to the centralized water supply services.

Water is also supplied to Pap and Uygur urban-type settlement by the Kelachi groundwater intake, which requires urgent repair and modernization in order to provide satisfactory volumes and water quality.

Expected environmental and social benefits include:

Expected environmental and social benefits for the city of Chust and surrounding areas:

- › Providing water supply services for additional 35,000 people;

Modernization of water supply system in the city of Pap and Uygur settlement will allow:

- › Providing additional 20,000 people with water supply services;
- › Improvement of water supply mode and water quality for 30,000 people;
- › Increasing the efficiency of water supply systems in the city of Pap.

2.2 Modernization of water supply system in Chust, Namangan districts and in the city of PAP and Uygur urban-type settlement, and construction of Water Main from WPS Kyzyl-Rovat

2.2.1 Chust

About 50% of 90,000 people living in the Company's service area have access to centralized water supply services. However, the mechanical and electrical equipment of water intakes and water distribution plants (WDP) is completely worn out and there are often breakdowns and accidents.

Similarly, the wear of networks causes high water losses and incidents (more than 3 incidents per 1 km of network).

The poor condition of networks and facilities does not allow water supply to reach all consumers and limits the possibilities for the socio-economic development of the Chust district.

2.2.2 Pap and Uygur

Water is also supplied to Pap and Uygur urban-type settlement by the Kelachi groundwater intake, which requires urgent repair and modernization in order to provide satisfactory volumes and water quality. The water supply is limited to 4 hours a day, in some areas of the city there is no water supply. Mechanical and electrical equipment of existing water intakes and water distribution plants (WDP) is completely worn out; there are often breakdowns and accidents. The wear of the networks causes high water losses and accidents (more than 4 accidents per 1 km of the network). Poor condition of networks and facilities does not allow providing of water supply to all consumers and limits the possibility of socio-economic development of the territory.

2.2.3 Namangan

Water supply in 4 settlements of the Namangan district is provided from a water duct connected to the Zhiydakapa water intake.

Only 30% of 24,000 people living in the Company's service area, have access to centralized water supply services. The water supply is limited to 4 hours a day for most consumers, in some settlements there is no water supply. Poor condition of the main water duct, causes frequent accidents, which worsens the water supply regime both in the villages and in the city of Namangan. The number of accidents is about 2 per week. Poor condition of networks and facilities does not allow providing of water supply to all consumers and limits the possibility of socio-economic development of the territory.

2.2.4 Construction of Water Main Kyzyl-Ravat – Pakhtalikkul

Currently water from WTP Kyzyl-Ravat is transported to Namangan city via a single line of water main D1200 with the total length 34 km. The water main is made of steel and operated since 1987.

Water supply systems of settlements of Uichinsky and Chartaksky districts, including the towns of Chartak and Uichi, and the Namangan city are connected to the water main. The number of connections amounts to 50 with the population of the serviced area totalling to 402,000 people, including about 300,000 residents of the Namangan city.

The lack of the second line does not allow to increase the flow from WTP Kyzyl-Ravat to the design capacity. This limits the water supply to the city, particularly to its Northern districts, located at higher elevations. Consequently, those districts are supplied with water according to a schedule, for 6-8 hours per day, on the average.

Inspections of the water main revealed permanent leaks with largest losses faced along the initial 22 km of the pipeline where the major part of consumers in Uichinski and Chartaksky districts are connected.

The following projects are assumed to be implemented during construction of Water Main Kyzyl-Ravat – Pakhtalikkul:

- › The project includes construction of a water main D1200 (the diameter might be corrected during the design subject to actual water losses).

The water main will be laid along the existing one according to the original design. It will be connected to an earlier constructed section of the second line from PK00 to PK20 and existing conduits across the channels.

Expected environmental and social benefits include:

Expected environmental and social benefits for the city of Chust and surrounding areas:

- › Providing water supply services for additional 35,000 people;
- › Improvement water supply for 40,000 people;
- › Reduced water losses (through leaking pipes);
- › Optimization of metering system of water production and consumption, ensuring the control of the water balance.
- › Increasing the efficiency of water supply systems.

Modernization of water supply system in the city of Pap and Uygur settlement will allow:

- › Providing additional 20,000 people with water supply services;
- › Improvement of water supply mode and water quality for 30,000 people;
- › Reduction of water losses;
- › Optimization of metering system for water production and consumption, ensuring the control of water balance;
- › Increasing the efficiency of water supply systems in the city of Pap.

Modernization of water supply system of Namangan district will allow:

- › Providing additional 6,000 people with water supply services.
- › Improvement of water supply mode and water quality for 20,000 people.
- › Reduction of water losses.
- › Providing socio-economic development of the district.
- › Increasing the efficiency of water supply systems in the city of Namangan.

Construction of Water Main from Kyzyl-Rovat will allow:

- › Providing additional 45,000 people with water supply services.
- › Reduction of water losses - 8000000 m³ per year.
- › Optimization of metering system for water production and consumption, ensuring the control of water balance.

2.3 Modernization of WTP Kyzyl-Rovat

The water treatment plant Kyzyl-Rovat was put into operation in 1997. Their total capacity is 200 thousand m³ per day, these facilities cover more than 40% of the current needs in water in the Namangan agglomeration.

Since the beginning of operation, the facilities were not the subject of any planned repair. Today most of equipment (valves, electric drives, automation devices, check valves etc.) are damaged or in inoperative state. There are numerous leaks from two horizontal settlers. The drainage system of filters and gravel-sand filter loading do not provide the required level of filtration, which leads to the removal of turbidity and periodic water quality deviations. The roofs of buildings have leaks, wooden windows and doors require replacement. The reagent supply equipment is outdated. If the operation is continued without the overhaul of structures, the performance of the facilities will decrease and the quality of the supplied water will deteriorate during the next 5-7 years.

Expected environmental and social benefits include:

- › Restoration of normal operation of WTP;
- › Reduced operating costs;
- › Improving sanitary and social living conditions, reducing the epidemiological risks associated with poor water quality.

2.4 Modernization and new construction of street sewerage networks and main sewers in Chust and Dzhumashui

According to the priority analysis it is proposed to take measures for the comprehensive reconstruction and modernization of waste water discharge facilities in the city of Chust, Namangan oblast. Further, considering the complete modernization of the housing and public buildings, the development of industry, it is proposed to include a new sewage system in the district centre of Dzhumashui village.

Benefits from the implementation of this PIP component are the following:

The implementation of this component will:

- › Reducing the environmental damage from waste water spillage during blockages and breakthroughs of sewage networks;
- › Ensuring stable waste water discharge (waste water supply to WWTP), possibility of sewage connection for new areas;
- › Ensuring the development of regional centers;
- › Development of industrial zones;
- › Connecting new areas to sewerage, increasing the number of subscribers
- › Improving sanitary and social living conditions, reducing epidemiological risks.

2.5 Construction / reconstruction of WWTP in the town of Chust

Today waste water from the city of Chust is supplied to settlers, where a slight decrease in the concentration of contaminating substances is taking place. After settlers, the wastewater is discharged through an open channel to the relief. There are no metering devices at the inlet and outlet from WWTP. According to the Company, the volume of incoming wastewater to the treatment plant is about 1 thousand m³ /day.

There are no equipment and engineering systems in the facilities, including auxiliary buildings. The buildings and structures are destroyed. Fencing and landscaping are partially destroyed.

The reconstruction of the WWTPs will allow eliminating the discharge of the nearly untreated waters into surface water bodies and soil. This will contribute to the significant improvement of the sanitary conditions of the area and of the river and eliminate negative impact from the wastewater discharge since it is anticipated that after reconstruction the effluent quality will meet national and EU standards for wastewater treatment. It will also prevent the Company from the payment of any environmental penalties for the discharge of the untreated wastewater into the natural water bodies.

Reconstruction of the WWTPs together with implementation of the other projects (construction of discharge stations and replacement of pressure sewage collector) will minimize the risk of the leakage of the untreated wastewater into the soils and groundwater. At the operation stage internal pipe networks do not interact with soil cover in case of normal operation. There is, however, a risk of pollution in case of accidental leakages. In order to prevent those accidents scheduled checks and maintenance are necessary. It should be noted that impacted soil cover is within the facility borders where lot of the surface is paved. Therefore, the described impacts and mitigation measures are only relevant to green plots.

At the operational stage air impact will be minimal; however, appearance of the unpleasant odour may be anticipated. With proper operation and maintenance of the facilities the odour issue should not be a serious problem.

The implementation of this project leads to the increase of the cost of waste water treatment, as additional power, reagents, fuel and maintenance personnel will be required.

The total number of residents planned to be connected to the central sewerage system is at least 60.000 people, the public buildings (educational institutions, hospitals, administrative buildings, etc.) will also be connected.

After the construction of WWTP, a potential effect can be considered the possibility of using treated waste water and treated sludge for agricultural needs and urban landscaping (planting). Using these resources will reduce the operating costs for their disposal and transportation.

Benefits from the implementation of this PIP component are the following:

- › Wastewater treatment instead of untreated wastewater discharge;
- › Positive impact of re-use of treated effluents;
- › Improvement in environmental sanitation health and reduction in associated health hazards within the settlements;
- › Improvement in quality of life, human dignity and increased productivity;
- › Odours from operational plant;
- › Eliminating the risk of imposing environmental fines on the enterprise;
- › Ensuring the possibility of developing a wastewater system and the construction of new houses with their connection to the sewerage system;
- › Expected to be compliance with national and EU requirements on wastewater treatment.

2.6 Delivery of maintenance and repair equipment and special vehicles

Currently the Company is experiencing a shortage of equipment for the maintenance and repair of utilities and facilities. Most branches do not have machinery to eliminate accidents. Due to the lack of equipment and machinery many accidents are not eliminated for months, most valves are inoperative, numerous leaks cause water deficit, the volume of planned repairs and the Company's production efficiency are reduced.

As a result: (i) many emergencies are not recovered for months, (ii) majority of valves are out of operation, (iii) the sewerage system is clogged, (iv) wastewater pollutes the environment, and (v) the scope of scheduled repairs and maintenance is very low.

It is rather difficult to estimate the numerical values of the effects, since using the equipment does not give a direct economic effect. It is assumed that the procured equipment will be used by the existing personnel of the Company. There will be some increase in fuel and lubricants consumption and a reduction of costs for routine maintenance of old machinery.

No additional negative environmental impacts will arise at the operation stage.

Benefits from the implementation of this PIP component are the following:

- › Improving the efficiency of the Company's daily operating activities;
- › Reducing the duration of emergency shutdowns of water;
- › Reducing of water leakage losses;
- › Reducing of environmental damage from waste water spillage during blockages on sewer networks.
- › Increasing the scope of works on the reconstruction of networks and other facilities;
- › Increasing the volume of planned repairs.

3 Summary of E&S Report

3.1 What will be the Project impacts?

The Environmental assessment process involves an assessment and comparison of potential major impacts which may occur during some of the Project phases and the identification of adequate measures for mitigation of negative impacts, as well as for enhancement of possible positive impacts.

3.2 Environmental and Social impacts and benefits

The main immediate positive effect from the Project implementation will be connection of new customers in Namangan city and Namangan region's settlements to the reliable water supply and wastewater removal services. This will significantly improve the sanitary conditions and minimise the risk of morbidity by water-borne infectious diseases. Project implementation will also allow reaching 24-hour supply of better quality water for the existing customers in Namangan city.

The Project implementation will allow improvement of the wastewater treatment. Reconstruction of the WWTP in the town of Chust will eliminate discharge of the untreated wastewaters from Chust to the land and water bodies. This will contribute to the improvement of the sanitary condition of the area, better water quality and elimination of potential environmental penalties to the Company.

The negative impacts have, mostly, a short-term nature and relate to the construction stage. They are mostly localised to construction sites, within existing boundaries of Company sites, except for the projects related to modernization of water mains and distribution networks, which imply the works implementation outside the Company's existing operational sites. These impacts include noise generated by equipment, local short-term increase of traffic intensity and corresponding air emissions, soil and landscape disturbances during excavation works; and waste management. There is also the potential for labour, working condition and OHS impacts, if not managed appropriately. These impacts can be mitigated by proper works organization, in particular, by implementation of measures recommended by the Consultant in the Environmental and Social Action Plan.

There is a potential for economic displacement associated with (2) Modernization of water supply system in Chust, Namangan districts and in the city of PAP and Uygur urban-type settlement and (4) Modernization and new construction of street sewerage networks and main sewers in Chust and Dzhumashui. Physical and economic displacement may occur at (5) Construction / reconstruction of WWTP in the town of Chust as a family is in residence there. It should be noted, that the exact locations and routes of new pipelines or pipes to be replaced is not yet determined. This will be determined in detailed design. The works will be designed to avoid and minimise displacement wherever possible which, for the most part for pipes should be possible. Any land requirements for the laying of pipes will be temporary in nature. The only site where a building has been identified is at Project (5). Where physical and/or economic displacement occurs, a Land Acquisition and Livelihoods Restoration Plan in line with EBRD PR5 will be required.

In order to reduce the key impacts associated with reconstruction/construction types of PIP projects, a selected main contractor (or main contractors if different for various projects) has to develop a Construction Environmental Management and Monitoring Plan (the "CEMMP") in the framework of PIP implementation. The CEMMP shall be prepared with due consideration of the identified risks and impacts as well as mitigation measures proposed for the construction phase in the ESDD Report and described in the ESAP. Therefore, it is expected that the PIP implementation can potentially cause moderate impacts which can be reduced to minor through appropriate management of the construction works.

The Company will be required to provide a regular performance monitoring of the contractors and/or subcontractors in respect to CEMMP compliance.

The long-term effects of the overall PIP implementation have mostly a positive social character and relate to the provision of better services to the population, i.e. improvement of water supply services; and creation of possibilities for new connections to the water-supply and sewerage systems. It should also be noted, that among all groups of customers the main beneficiaries of PIP implementation will be women since traditionally in Uzbekistan they do most of the housekeeping. Lack of water and waste water infrastructure puts disproportionate time burden on women (i.e. finding and collecting water, boiling water for drinking, washing, cooking, bathing children and other family members, etc.), thereby diverting them from potentially income-generating activities, such as formal and/or informal work ranging from agricultural labour to small businesses. The lost potential is damaging to women and their families but is also impacting communities and the local economy. The responsibility of carrying water for domestic use often relies mostly on women and children, who can spend many hours per day fetching water, depending on the topography, distance from water source and size of the family. When water is scarce, women and girls may have to travel longer distances to obtain water, which can expose them to danger and further to gender based violence. Implementation of PIP will contribute to solving above described gender issues and providing better life standards for women in the region.

In terms of environmental benefits, one can expect mitigation of the risks of soil pollution, improvement of the drinking water quality over the existing situation associated with non-serviced supply e.g. wells and with water supplied through old and deteriorating pipes, tangible reduction of water losses, improvements of occupational safety and working conditions for the Company personnel. In general, more reliable functioning of the WS and WW systems is expected.

The PIP is an essential step in the complex upgrade of the water supply and wastewater system of Namangan city and nearby rural settlement as well as Pap district. It covers some of the major social and environmental problems; however, some of the investments from the long list were out of the PIP and will be implemented later. Suggestions for the EHS system modernisation for the Company are also provided in the ESAP.

In terms of water quality, the lack of long term, reliable datasets prevent concluding that EU standards can be met for all parameters, unless additional measures are implemented. Based on the available information, two EU parameters (Total Coliforms and turbidity) are currently not met. Turbidity exceeds the EU standards at both surface water sources and is within the limit at groundwater source, whereas Total Coliforms exceed EU standards on at Kurashkhana surface water intake, which is going to be closed as part of proposed PIP. To address the coliform contamination problem the company should ensure that water is chlorinated consistently and in accordance with the norms, which currently occurs on a periodic basis. The turbidity can be addressed by: (i) additional water treatment at Kurashkhana WTP (modernisation of this WTP is included into the previous PIP of 2018); and (ii) selecting and following the proper operational mode for the whole water supply system, e.g. closure of water supply from surface water sources in the period of high flood (and extreme turbidity) with the simultaneous water supply from the modernised underground source (Zhidakapa water intake). These items are included into ESAP.

There is, however, insufficient long-term data to determine whether these are consistent non-compliances and that all other parameters are met on a consistent basis. The proposed new groundwater sources which, based on verbal feedback, are generally uncontaminated sources, the provision of new pipes and the proposed treatment by chlorination at all sites may result in these parameters (Total Coliforms and turbidity) being met and therefore ongoing regular monitoring will be required to confirm this; regular monitoring is a key recommendation of the ESAP. Overall, the project will deliver an improvement to water quality over current conditions due to replacement of pipes that will prevent contamination of the water supply. If all the additional measures (chlorination, proper operational mode of water supply, proper water quality monitoring and immediate follow-up measures) are fully implemented in line with the ESAP, the water quality parameter are expected to meet both local and EU requirements.

The analysis of the PIP components shows that short-term adverse environmental and social impacts are possible during the implementation of construction works that can be managed through the ESMMP.

Overall, the project's implementation will indeed contribute to a tangible enhancement of the Company's environmental and operational performance and will reduce its impact on the environment.

The expected effects of the PIP implementation are outlined below.

Environmental effects

Negative impacts are mostly of a short-term nature and relate to the construction stage. These impacts include noise generated by equipment, local short-term increases in traffic intensity and corresponding air pollution, and soil and landscape disturbances during excavation works. These impacts can be mitigated by proper organization of works.

Wastewater treatment improvement

The project provides the construction of new facilities with capacity of 10,000 m³/day in the town of Chust and 2,500 m³/day in the Dzhumashui urban-type settlement. The total number of residents to be connected to the central sewerage system is at least 40 thousand people, the public buildings (educational institutions, hospitals, administrative buildings, etc.) will also be connected. After the construction of WWTP, a potential effect can be considered the possibility of using treated waste water and treated sludge for agricultural needs and urban landscaping (planting). Using these resources will reduce the operating costs for their disposal and transportation. It will have a pronounced positive effect to the conditions of surface water bodies as well as groundwater and soil.

Energy saving

During the PIP projects implementation outdated electrical installations will be replaced, and adequate conditions will be created for the selection of the most efficient operational mode of the overall system. However, due to the implementation of the energy consuming components of the PIP the resulting increase of electricity consumption after PIP implementation is estimated as approx. 5,035 MWh per year.

Water resources saving

Implementation of the water metering project, combined with the technical upgrade of the respective facilities will help to significantly reduce water losses in the water supply network and enhance water saving.

Greenhouse gases emission reduction

In the Namangan Oblast, a fairly significant increase in electricity consumption is expected in the amount of 5,035 MWh per year as a result of the project. In terms of GHG emissions (under Scope 2), this means an increase in emissions of 2,684 t-eq. CO₂ per year.

Social effects

Elimination of the liquid chlorine use

Construction of the new disinfection utilizing the electrolysis technique facilities will allow elimination of the use of the liquid chlorine. It will contribute to the safer operation of facilities. The risk of chlorine involving accidents will also be totally prevented which will have a positive effect on the health and safety of general public.

Physical and economic displacement

Implementation of the WWTP in Chust settlement on new proposed location (unfinished WWTP) will lead to the physical and economic displacement of one family – their temporary building (house) and farm (fruit garden) are located within sanitary protection zone of the proposed WWTP. The loss of income will be approx. 5.8 million UZS per one adult family member. In addition to that the compensation for their temporary house shall be estimated and paid to this family. The amount of this

compensation must be sufficient to buy the land plot and buy or construct the house of similar or better quality.

There is also the potential for a small amount of temporary economic displacement associated with new pipeline routes, depending on final alignments.

Improvement of water supply reliability

The projects related to networks development planning, rehabilitation of water supply networks and water intakes, and adjustment of operational modes will allow improvement of the operational reliability of the system, as well as reduction of the total failure rate and, correspondingly, the frequency of repairs and emergency disconnections of the consumers will allow to maintain water supply services for 170 thousand people in Namangan Oblast. Affordability of tariff reforms is analysed in the section 2.3 of the Main Report.

Connection of the new residential areas

Implementation of the project will lead to the development of the water supply and wastewater system of the region, and, thus, will create possibilities for new connections to the water supply system for additional 115 thousand people (about 75,000 new consumers to water supply system and about 40,000 new consumers to wastewater system) in the Namangan Oblast.

Improvement of drinking water quality supplied to consumers

Upon the implementation of a number of PIP projects such as the rehabilitation of water intakes and WDU facilities, new construction and rehabilitation of water supply networks the quality of drinking water supplied to households will be improved owing to the lower secondary contamination associated with the pipe obsolescence. Chlorination of the water supply will also guarantee disinfection of bacterial contaminants. This will reduce the risk of morbidity for 120 thousand people due to reasons related to non-compliance of water quality with regulatory requirements expected. Whilst the lack of data prevents confirmation that EU standards will be met for all parameters, the ESAP proposes that monitoring of potable water supply quality in comparison with EU and Uzbek standards will be performed by state sanitary authorities, as well as the Company's own laboratory on periodical basis.

Labour costs and Employment

It is expected that PIP components will allow creating 80 new positions (full time) for water supply components (cumulatively) in which will mainly be occupied by qualified staff. Future increase of services will also lead to the creating of new well-paid job positions. Therefore, the effect of PIP on the employment can be regarded as positive.

Gender related issues

No additional negative impact on women is expected from the project implementation if all mitigation measures (construction workplace arrangement at the first place) will be fully met. There is also a limited gender-related impact as stability of the water supply will benefit both gender, however, it is benefits housewives slightly more.

Mitigation

Project mitigation measures aligned with the ESAP will include steps aimed to eliminate and minimize project impacts:

Legal compliance – development of the separate EIAs (OVOS), Design for Maximum Permissible Discharges (MPD) under the national legislation and obtaining approvals and permits prior to start of any activities based on the development of legal compliance checklist. Including standardized clauses specifying that contractors shall comply with the Environmental, Social, Labour, and Health and Safety requirements as described in the requirements of the Uzbek legislation, best international practices and constant control (monitoring) will allow to minimize the risks of non-compliance.

Competence – company and governmental authorities will hire a suitably qualified Environmental, Health and Safety (EHS) Manager and Social (Labour & stakeholder engagement) Manager and Environmental specialist (or Environmental Engineer) to oversee implementation of legal and EBRD E&S requirements.

Environmental – development of EHS procedures and instructions based on the best international practices that can be applied in the frame of Republic of Uzbekistan legislation. Specific procedures/plans outlining correct practice and management for significant environmental impacts and risks covered below to be developed during the project implementation. The development of environmental indicators and monitoring against these indicators will allow to constantly monitor progress towards project aims and goals. Planning the construction works for reconstruction will be outside of the spawning period in order to minimize impact to the fauna.

Labour and Social – development of “feedback” procedures and internal grievance mechanism under a formalized HR policy will enable employees and non-employee workers including construction workers and other relevant workers to present their proposals on working conditions improvement as well as to submit their complaints.

An additional information campaign on the water meters’ installation before the project implementation will be undertaken.

Safety mitigation measures will include both administrative and physical actions, the development of a Construction Health and Safety Plan by the Contractor, a program to reduce cases of the secondary bacterial contamination of water, training program, Community Health and Safety Management Plan, development of emergency preparedness and response plan, as well as ensuring proper fencing and guarding of construction sites, preventing spreading of asbestos containing dust. Appropriate training on EHS subjects will positively minimize the safety associated risks.

3.3 Land Acquisition, Involuntary Resettlement and Economic Displacement

The Company has no established procedures for land acquisition and assessment of physical (including resettlement) or economic displacement. The procedure of determining compensation for potential displacement has not been specified either. In Uzbekistan, compensation requirements are subject of the regional authorities’ regulation, not the Company’s. At present, to resolve the issues of land use and establishing temporary easement, the Company follows the requirements of the national legislation.

There is a potential for economic displacement associated with (2) Modernization of water supply system in Chust, Namangan districts and in the city of PAP and Uygur urban-type settlement and (4) Modernization and new construction of street sewerage networks and main sewers in Chust and Dzhumashui. Physical and economic displacement may occur at (5) Construction / reconstruction of WWTP in the town of Chust as a family is in residence there. It should be noted, that the exact locations and routes of new pipelines or pipes to be replaced is not yet determined. This will be determined in detailed design. The works will be designed to avoid and minimise displacement wherever possible which, for the most part for pipes should be possible. Any land requirements for the laying of pipes will be temporary in nature. The only site where a building has been identified is at Project (5). Where physical and/or economic displacement occurs, a Land Acquisition and Livelihoods Restoration Plan in line with EBRD PR5 will be required.

During project implementation both physical and economic displacement shall be avoided through selection of preferred routes based on ground investigations and application of more selective selection criteria as more detailed planning is progressed.

For all sites where physical and economic displacement is unavoidable, in line with EBRD PR5 a Land Acquisition and Livelihood Restoration Plan will be prepared covering the extent of displacement, compensation requirements and methods of providing compensation. Ongoing activities shall include

the stakeholder engagement aspects, management of grievances and monitoring of the effectiveness in meeting the objectives established in the Land Acquisition and Livelihood Restoration.

No cultural heritage findings are anticipated in the work implementation area. Chance find procedures will be executed in accordance with the national law.

3.4 Tariff Affordability

An affordability analysis was carried out within the framework of feasibility study for water supply and wastewater systems modernization project in the Namangan oblast.

The EBRD affordability methodology has been applied, which defines affordability as “share of monthly household income/expenditure spent on utility bills”. The EBRD methodology applies different threshold levels for different utility services. For wastewater utility services threshold level of 5.0% is used, implying that tariffs resulting in household payments of more than 5.0% of household income/expenditure are considered unaffordable and, potentially, leading to decreased collection and increased water utility accounts receivables.

Based on the analysis for this project, it is expected that tariffs will not pose affordability constraints on households, as the expenditure for average income household is well below 1% during the highest years and substantially lower than the 5% threshold. It will be important that information about the tariffs will be distributed to the households in a timely manner and that there will be a clear link between the tariffs and the delivery of improved services.

Affordability of tariff reforms is analysed in details in the section 2.3 of the Main FS Report.

4 Summary of ESAP

According to the Environmental and Social Policy of the EBRD, an Environmental and Social Action Plan (ESAP) should be developed for and implemented during the Project in order to ensure implementation of the project according to the EBRD Performance Requirements (PRs).

The ESAP prepared for the proposed Project is related to the modernization of the wastewater system and includes the programs and systems to address the environmental and social impacts with allocated timeframes, responsibilities and resources required.

Main measures included in the ESAP are measures to enhance environmental and health and safety management systems and interaction with contractors, measures to ensure better quality of environmental monitoring, measures to ensure safe operation of the facilities and others.

The ESAP requires the Company to implement a number of improvements designed to meet the EBRD's PRs. The ESAP includes the environmental and social management systems and measures to be implemented:

- › by the Project Implementation Unit (PIU) during the design phase (preparation of documentation, procurement of works, and procurement of equipment from suppliers);
- › by the PIU and contractors during construction works;
- › by the Company during operation of the water supply and wastewater treatment system.

The key ESAP actions are related to:

- › Namangan W&WW Priority Investment Programme require preparation of separate EIAs, Design for Maximum Permissible Discharges (MPD) under the national legislation. The Company will complete that and obtain the necessary construction and environmental approvals and permits prior to start of any activities. EHSSM Plan will include preparation of a checklist of permits for ensuring legal compliance to be used during inspections and audits.
- › Company and PIU will employ suitable qualified EHS (Environmental and H&S) Manager, Environmental Specialist (or Environmental Engineer) and Social (Labour & stakeholder engagement) Manager to oversee implementation of legal and EBRD E&S requirements and implementation of this ESAP at planning, tendering and construction stage.
- › Company will develop EHS procedures and instructions based on the notes and recommendations of the best international practices that can be applied in the frame of Republic of Uzbekistan legislation and circulate it through the Company.
- › Company will need to assign relevant budget for tasks related to environmental issues in a separate block in annual planning.
- › Standardized clauses specifying that all contractors shall comply with the Environmental, Social, Labour, and Health and Safety requirements (including development of "Construction Environmental Management and Monitoring Programme" (CEMMP) as described in the requirements of the Uzbek legislation, best international practices and ESAP will be developed and integrated into the tender documents and new contracts.
- › Contractors monitoring programme will be developed and implemented which will include briefing Contractors on the Project EHSS and labour requirements, and regular checks on their performance to ensure compliance with the E&S requirements.
- › Formalised HR policy and procedures/supporting documentation including "feedback" procedures and internal grievance mechanism in order to enable employees and non-employee workers including construction workers and other relevant workers to present their proposals on working conditions improvement as well as to submit their complaints will be developed as part of ESAP.

- › Including H&S clauses about briefing/training Contractors on the Project EHSS and labour requirements, and regular checks through inspections and audits on their performance to ensure compliance with the E&S requirements.
- › Public awareness program aimed to reduce cases of the clogged pipes and other accidents of sewage networks will be part of ESAP.
- › Actions aimed to prevent spreading of asbestos containing dust, especially during demolition of structures and excavation of old pipes, development of procedure for the handling of asbestos wastes will be the part of H&S actions.
- › development of tariff structure that would provide for the guaranteed subsidies to contain the tariff growth to the acceptable levels and implement a monitoring system to ensure affordability to low-income and vulnerable groups.
- › Company will develop a Land Acquisition and Livelihoods Restoration Framework which will cover an outline of the gaps between national legislation and EBRD PR5 and how these gaps will be addressed in principle where Company works may result in physical and/or economic displacement. Company will also prepare a Land Acquisition and Livelihoods Restoration Plan in line with the Framework where any works proposed will result in physical and/or economic displacement identifying specific affected persons and compensation requirements.

5 Proposed engagement of stakeholders

5.1 Who are the stakeholders?

The stakeholders are the organisations, institutes and individuals who are responsible for, interested in or affected by the proposed Project. The employees of the Company are the internal stakeholders of the Project. Other parties are the external stakeholders and may include suppliers and contractors, customers, national regulatory and certification authorities, investors, local civil society groups, trade unions, NGOs, political parties, other companies, and the press and social media.

5.2 How and when are the stakeholders engaged?

The Project Implementation Unit (PIU) will be established within the Project Implementation Agency (Ministry of Housing and Communal Services) during project planning and construction phase. The PIU will make sure that the Uzbek governmental agencies, local community organisations, the mass media and the general public including men and women and vulnerable people are informed about the Project and can participate in the process of identifying and communicating issues of concern, and in an analysis of the Project. The Project related information and consultation activities will be also carried out during all other phases of the Project preparation and implementation, so that concerns of people potentially affected by the Project could be known and addressed.

The information provided about the Project should be sufficient at least for describing what changes will be caused by the Project, where and when these changes are expected.

A stakeholder engagement and disclosure plan detailing methods and content of engagement and disclosure for each type of stakeholders is presented in SEP. Project ongoing engagement with stakeholders will be done mainly through:

- › information disclosure on the website;
- › ongoing engagement during routine operations, directly and in coordination with the Governmental responsible;
- › external feedback and grievance mechanism;
- › regular reports to EBRD;
- › development and disclosure of a Stakeholder Engagement Plan.

The Company will identify the most culturally adapted communication channels to target messages effectively so as to be fully transparent and informative. Possible methods to reach the target audience include, but are not limited to, the following:

- › meetings (individual or group, opened to all or focused to specific stakeholders);
- › brochures, posters and informative leaflets;
- › special events;
- › the media (newspaper, radio, TV);
- › website and social media: in particular, to keep ongoing communication with NGOs and other interested stakeholders.

All interactions with stakeholders will be documented and logged, and follow up activities recorded.

A major part of information about the Project preparation was provided to stakeholders during the Feasibility Study and the Environmental and Social Due Diligence. Draft Stakeholder Engagement Plan (SEP) was prepared and will be disclosed. The PIU will update the SEP and use it as an instrument for planning and recording of the public information and consultation activities. The updated versions will be disclosed.

5.3 Grievance mechanisms for stakeholders

At the stage of construction and operation of the Project facilities the comments, questions and possible complaints will be addressed within the grievance mechanism. The Project Stakeholder Engagement Plan includes special mechanism for receiving and addressing the grievances from the external stakeholders during the Project implementation. This grievance mechanism will be based on written forms, which can be filled in by any affected person or organisation and submitted to the SUE “Namangan Suvoqava” of Namangan oblast or the Project Implementation Unit in Namangan city, who will take action, if required, and inform the author of grievance on the action taken in response to the submitted grievance within 15 days if the answer does not need involvement of other parties or site visits and 30 days if involvement of other parties or site visits are required.

Claims of persons and companies are to be submitted at:

Uzbekistan, Namangan city, Alisher Navoi Street, 26

Phone: (+998-36922) 233-28-34, 233-48-92

Fax: 233-25-47

If the claims are related to the implementation of this Project, they will be further transferred to Project Implementation Agency (Ministry of Housing and Communal Services) during project planning and construction phase.

Public Grievance Form

Reference No:			
Full Name			
Contact Information <i>Please mark how you wish to be contacted (mail, telephone, e-mail).</i>	By Post: <i>Please provide mailing address:</i> _____ By Telephone: _____ By E-mail _____		
Preferred Language for communication	<input type="checkbox"/> Uzbek	<input type="checkbox"/> Russian	_____ Other
Description of Incident or Grievance: <i>What happened? Where did it happen? To whom did it happen? What is the result of the problem?</i>			
Date of Incident / Grievance:			
	<input type="checkbox"/>	One-time incident / grievance (date _____)	
	<input type="checkbox"/>	Happened more than once (how many times? _____)	
	<input type="checkbox"/>	On-going (currently experiencing problem)	
What would you like to see happen to resolve the problem?			
Signature:	_____ (personal signature)		
Date:	_____ (day-month-year)		
Please return this form to:	Name of Contact Person, Position and Title: _____		
	Address:	_____	
	E-mail:	_____	
	Tel.:	_____	
	Fax:	_____	