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KHUJAND WATER SUPPLY IMPROVEMENT PROJECT

Social Assessment and Stakeholder Participation

Final report, November 2003

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ABBREVIATIONS

ACTED	Agence d'Aide à la Coopération Technique et au Développement
ASDE	Association to Support and Development of Entrepreneurship
ASDP	Agency Support Development Process
ASTI	Association of Scientific and Technical Intelligentsia
CESVI	Cooperazione E SViluppo (Cooperation and development)
EBRD	European Bank for Reconstruction and Development
ECHO	European Commission Humanitarian Office
ICA-EHIO	International Cultural Affairs – Empowerment for Human Involvement Organisation
IFRC	International Federation of Red Cross and Red Crescent Societies
ISW	International Secretariat for Water
NGO	Non Governmental Organisation
NSIFT	National Social Investment Fund of Tajikistan
PHAST	Participatory Hygiene And Sanitation Transformation
PIU	Project Implementation Unit
RRDP	Rehabilitation, Reconstruction and Development Program
SEC	Sanitary and Epidemiological Control
TJS	Tajik Somoni
UNICEF	United Nations Children's Fund
UNOPS	United Nations Office for Project Services
USD	United States Dollar (1 USD = 3,12 TJS = 0,9 EUR)

CONTENTS

1. Scope of this report	4
2. Water management and stakeholder participation in Tajikistan	5
2.1. National framework and policy on water management	
2.2. Local government and civil society	
2.3. Civil society in Tajikistan	
2.4. Experiences in stakeholder participation in water supply and sanitation	
3. The Water Supply System in Khujand	9
3.1. The City of Khujand	
3.2. Technical aspects of the water supply	
3.3. Sewage water	
3.4. Organisational aspects	
4. Social and stakeholder assessment in Khujand	14
4.1. Social organisation in Khujand	
4.2. Perception of the water service	
4.3. Opportunities and threats	
5. Critical success factors for the Project	19
6. Social engineering component of the Project	21
6.1. Objectives	
6.2. Activities	
6.3. Means	
6.4. Organisational set up	
6.5. Backstopping	
6.6. Logical Framework	
6.7. Detailed budget	
Annexes	37

1. SCOPE OF THIS REPORT

The City of Khujand has problems with its municipal water supply and sewage schemes, which need to be addressed urgently. Bad water quality is adversely impacting the health of residents and worn-out pumping equipment and distribution network are causing frequent supply interruptions to parts of the municipality. The sewage treatment plant is completely out of order and the untreated wastewater runs in the river.

The City of Khujand and the Soghd Oblast approached the European Bank for Reconstruction and Development (EBRD) for assistance to address water quality and reliability, which is considered a national priority. The EBRD, and probably also some grant donors, show interest to prepare and implement a small investment programme of approximately 6 M € in value.

In order to improve the efficiency, the impact and the sustainability of the potential water project, the EBRD wants to ensure that users and non-governmental organisations are consulted and participate meaningfully in the preparation and design of the project.

Therefore, EBRD assigned the International Secretariat for Water (ISW) to identify and formulate a process of civil society implication in the Khujand Water Supply Improvement Project.

The services to be delivered by the ISW include:

- a stakeholder analysis in order to identify the local actors who can play a role in the Project;
- the assessment of experiences and lessons learned;
- a baseline survey among the customers of the water scheme in Khujand in order to understand their behaviour, problems and expectations;
- the elaboration of a framework for a social engineering component of the Project, focussing on civil society implication and on an improved recovery of the water service costs through an increased willingness to pay among the customers.

The Terms of Reference of the assignment are given in Annex 1.

A first mission, conducted by engineer Stef Lambrecht from September 18th to October 4th, focussed on the stakeholder analysis and the assessment of experiences.

From October 2nd to 24th, a local team, with the backstopping from the ISW consultant, made a base line survey at the level of 520 households. The questionnaire and guidelines for the survey can be consulted in Annexe 4.

During a second mission, from October 19th to 27th, engineer Lambrecht analysed the results of the base line survey and formulated, together with the local stakeholders, a logical framework for the social engineering component of the Project.

The activities and contacts developed during these missions are given in Annex 2 and 3.

This report summarises the analyses made by the consultant and proposes a framework for action for the social engineering component. Some ideas with respect to the infrastructure component are also highlighted.

The analyses, ideas and proposals developed in this report are the individual responsibility of the consultant and are not necessarily shared by the EBRD.

2. WATER MANAGEMENT AND STAKEHOLDER PARTICIPATION IN TAJIKISTAN

2.1. National framework and policy on water management

In Tajikistan, 65% of the population uses tap water for domestic and drinking needs. In rural areas, only 51% of the population are provided with tap water, while still 34% of the water supply lines fail to meet sanitary norms.

Water supply is the responsibility of local government and three types of water utilities managed the infrastructure in the Soviet time :

- *Vodokanal* is the public utility in the urban areas and is directly accountable to the *khukumat* of the city;
- the Tajik Sylchoze Vodoprovotsroj delivered water to nearly 10% of the Tajik population, especially in small towns; nowadays, this utility still exists on paper but is not functional;
- the autonomous water utilities in the Kolchoses and Solchoses covered nearly 40% of the population but collapsed completely after the independence.

During the civil war, the communities took over the management and maintenance of the water utilities in the small towns and rural areas, and, where they received assistance from NGO's, they are now organised in water users committees.

As in most countries of the former Soviet Union, water meters do not exist and consumers pay a standard amount for water use, which has no relation to their actual water consumption.

The collector and drainage waters enriched with salts and agricultural waste returning to river basins deteriorate the quality of water resources, lead to deterioration of the ecological condition of water, soil and life conditions of the population. Especially, in this respect it is necessary to mention the Syrdarya river basin where the mineralisation of water amounts to 1-2 g/l and the sources of river pollution are the irrigated lands of the Ferghana valley, which is shared with Uzbekistan and Kyrgystan.

There is an important commitment from the international development agencies to invest in the water supply and sanitation sector. Among the most active we mention :

- The European Commission, through the ECHO-program, which invests around 1 M EUR per year since 1999 in water supply and sanitation. ECHO focuses on rural areas and the rehabilitation of schemes in small towns and cities. ECHO implements his projects through the RRDP (small towns and cities) and NGO's with an experience in the sector in Tajikistan, such as the French NGO ACTED, the Italian NGO's CESVI and COOPI and the Aga Khan Foundation. In April 2003, a new 10 M EUR program has been approved and 30% of this budget is allocated to the water and sanitation sector.
- The World Bank focuses on the rehabilitation of the water supply scheme of Dushanbe and on the set up of a new policy for "privatised" services in rural areas where water users committees become the legal owner and manager of the water supply scheme.
- Among the bilateral donors, the Swiss government, the German government (rehabilitation Dushanbe), the British and Japanese government (support to the UNICEF-program) are the most important. USAID is not directly involved in the sector but supports some American NGO's with their water and sanitation activities (e.g. CARE, Mercy Corps).

Most of the water and sanitation projects are actually implemented by international organisations and NGO's, such as the UN-linked RRDP, UNICEF, Red Cross and Crescent, ACTED, CESVI and Mercy Corps.

UNICEF takes the lead in the co-ordination of the agencies involved in the sector.

2.2. Local government and civil society

The Law on Local Self-government and Local Finance, passed on February 23rd 1991 initiated the establishment of local self-government and the revision of the administrative territorial structure according to principles of decentralisation. In December 1994, the Parliament adopted the Constitutional Law on Local Public Administration and the Law on Self-government in Towns and Villages. Further changes and amendments were passed by national referendum and added to the Constitution in September 1999.

The administrative-territorial division of the country consists of three tiers of local government:

- First tier, community level: village and town governments in rural areas.
- Second tier, district level: administrations of cities and *raions* subordinated to *oblasts*.
- Third tier, *oblast* (regional) level, directly subordinates to the national government.

The administration on district, city and *oblast* level is a *khukumat*. His head simultaneously wields executive authority and act as local council chairman.

The local governments of the first and second tier are in charge of the economic and environmental public services, including water supply, sewage, electricity, gas and central heating, waste collection and disposal, street cleaning and environmental protection.

Local governments are institutions of legislative and executive authority elected by the citizens of a given administrative territory. Local governments have a financial base and they have the right to develop and implement their own budgets and to establish local fees, taxes and duties. The principles of local self-governance include:

- direct citizen participation in local council elections, referenda and public hearings;
- the accountability of local self-government institutions and their employees to the local population;
- local financial autonomy.

The Law on Local Self-governance in Towns and Villages does not address other grassroots institutions of local self-governance that are currently active, such as the *Makhallia* committees, the *micro-raion councils* or the housing block committees. These bodies operate according to their own statutes and provisions but play an important role in Tajik society.

Makhallia, or community groups, have long existed in Tajikistan, founded on traditional Islamic concepts of social justice and the behaviour of individuals in the community. Traditionally, *Makhallia* are governed by a council of elders that helps resolve social problems and conflicts within the community. Mostly, the chairman of the *Makhallia* receives a small contribution from the local government, but the *Makhallia* is strictly independent from the *khukumat*. However, in some *raions* and cities, the *Makhallia* co-operates closely with the state government.

2.3. Civil society in Tajikistan

From 1996 on, USAID supports an important program on increased citizen's participation in political and economic decision-making. The program focuses on the following objectives :

- strengthening of local NGO's and civil society organisations;
- make information on domestic economic policies and politics more widely available;
- encourage the Government to become more responsive and accountable to citizens and citizens' organisations.

The program trained representatives from more than 1,000 NGO's and local community groups; the Public Association Law has been adapted and voted by the parliament and more independent media are given support.

Most of the Tajik NGO's are very young and work in rural areas.

2.4. Experiences in stakeholder participation in water supply and sanitation

The rehabilitation of the water supply scheme in Dushanbe, with an estimated budget of nearly 50 M USD, will be managed by a project unit and with support from a German consultant. A few local governments, such as the Sogd khukumat, invest limited amounts in the upgrading of their scheme and manage themselves the works.

All other water supply and sanitation projects are implemented through international organisations (RRDP and UNICEF) or foreign NGO's (ACTED, Red Crescent, CESVI, Aga Khan Foundation and others).

Basically, they all follow the same approach:

- a physical infrastructure component with an intermediate technology : spring protection, boreholes with hand pumps, protected shallow wells... in the rural areas, and the rehabilitation of the simple water networks constructed in the Soviet times in the cities;
- hygiene education and awareness training in order to optimise the use of the water and the installations, to increase the impact on health and to sensitise the customers to pay the water fees;
- the set up of water users committees for local management of the water facility.

This approach seems to be very effective with respect to education and community building, resulting in a change of mentality and behaviour. Water becomes "everybody's business" and customers become familiar with paying for the maintenance of the water service.

On the other hand, most of these implementing agencies are not really investing in an improved involvement of the local authorities or in the strengthening of the existing Vodokanal structures on the local level. The institutional and financial sustainability of the followed approach can therefore be questioned.

The water users committees are mostly officially recognised but are not the owner of the water system, since the Tajik law doesn't allow this set up.

Three organisations with a proved experience in participatory managed water supply and sanitation projects have also a regional branch in Khujand :

The International Federation of Red Cross and Red Crescent Societies and the Tajik Red Crescent Society work in the water supply and sanitation sector since 1997. The educational

component of their activities is based on the PHAST-method and, with the financial support of the ECHO-program, a set of 6 booklets has been developed. They are mostly based on situations in rural areas but can be adapted for the urban context. The regional branches of the Tajik Red Crescent have set up networks of volunteers for WATSAN education.

Since 1998, the French NGO ACTED implements an integrated water and sanitation program in the Sogd region, combining the building of ownership among key stakeholders (authorities and water users) with the provision of small to medium scale water supply systems. It advocates on a variety of issues such as developing payment structures for water consumption, equitable distribution and maintenance of supply systems and makes policy recommendations at regional and state level on issues relating to water.

The UN-office RRDP implements water projects with grants from ECHO and the Japanese government, among others. Their approach stresses on the set up of water users committees as a bridge between the implementing agency (and the exploitation agency after construction) and the water customers. They also have experience in urban context, but the social engineering component is more developed for rural areas.

3. THE WATER SUPPLY SYSTEM IN KHUJAND

3.1. The City of Khujand

Khujand is the second largest city in the Republic of Tajikistan with a population of 151.600 inhabitants for approximately 37.500 households (per Sept 1st 2003, according to the statistical department of the city). Khujand is the capital of the Sogd Oblast.

The city is divided in 26 “micro-districts”; 18 of them mostly occupied by private houses and small business, the other 8 with high storied buildings mainly state-owned, and on the right river of the Sir Darya. The 18 “private” neighbourhoods have a “Makhallia” Committee with a Head, nominated by the Head of the City, and elected members, in charge of the local organisation of the neighbourhood. The state-owned buildings also have a local Committee but mostly not very active.

According to the Regional Survey conducted in Khujand in November 2002, 23.000 people are working in the governmental sector while the private sector employs 16.000 persons. There are 18.500 pensioners in Khujand. The number of officially unemployed persons is 3.600. According to the survey, 1.540 persons work temporarily in other countries.

A household counts in average 2,4 adults and 1,2 children under 14 years.

The monthly average salary of the employed persons is 43,1 Somoni (13,81 USD) while the overall monthly family income is 63,3 Somoni (20,28 USD). An important part of this income comes from small cattle breeding, the kitchen garden, help from relatives and humanitarian aid.

These figures have to be seen in perspective since an important part of the economy in Khujand is very informal, and probably partly illegal. It is not sure that this part of the family income has been included in the survey.

The city has some industrial areas with small and medium sized factories, especially for textile, handling and processing of foods and beverages... Most of these enterprises are now in private hands, some of them in a joint venture with foreign enterprises.

The monthly family expenses are 67,6 Somoni (21,66 USD) where food is responsible for 68% of the expenses. According to the Regional Survey, an average family spends monthly 3 Somoni for the public utilities such as electricity, water and gas. Our own base line survey, which covered 520 households, shows the following average expenses for the public utilities (in TJS):

	Summer	Winter	Average
Gas	7,68	9,76	8,72
Electricity	2,80	3,24	3,02
Water			2,10

Interesting indicators of the dwelling conditions and public services are as follows:

	<u>Regional Survey</u>	<u>Our Base Line</u>
Private houses	37% of the households	
Privatised apartments	38%	
State owned apartments	22%	
Average dwelling space	32,8 m ²	
Connected to the water supply system	100%	99%
Use the water for drinking without boiling	49%	25%
Connected to the electricity network	100%	

Dwellings with water closet	59%	75%
Households with telephone	39%	

3.2. Technical aspects of the water supply

The existing Water Supply Scheme for the City of Khujand has been build in the 50ies and the only rehabilitation or upgrading of the system in the last 15 years was the renovation of one of the main intake stations in 2000, with a Japanese grant of 200,000 USD. The system takes his water essentially at 3 intake stations along the river. The intakes are boreholes at a depth of 100 to 120 meters, fed by the infiltration of the river water from the Syr Daria. Other boreholes scattered over the city reinforce the water production. The overall production capacity is around 250,000 m³/day but the actual daily production fluctuates between 100,000 and 150,000 m³.

The water is chlorinated and pumped to the customers. A buffer reservoir of 9,000 m³ allows an equilibration of the pressure in the system. The distribution network covers the whole city through metallic pipes. The network consists of 4 different and nearly independent schemes each supplied by one of the main intakes.

Most of the medium sized and big factories in Khujand have their own water supply scheme. The industrial area on the right river is connected to the network of the SHADA factory. This state-owned factory used to produce radio components during the Soviet time but the activities are now limited to the production and distribution of water. SHADA sells his water at 30 Diram/m³ while Vodokanal charges the factories at 50 Diram/m³. Moreover, the supply from SHADA is reliable and the water quality is better in terms of hardness and suspended substances.

Other factories have their own boreholes and enterprises that need very soft water, such as the bottling companies, buy the water at a borehole in the city of Chalovsk.

The use of water in Khujand is very irrational. Households with a regular supply use the water for domestic purposes, but mostly also for irrigation of the “kitchen garden”, watering of flowers, fountains in the yard... Closed taps without leakage are exceptional. The average per capita use of “domestic” water in the city is 1,000 l/day, largely exceeding the per capita use in all European countries (in Belgium, domestic water use counts for approximately 300 l per capita per day). On the other hand, some districts have a very irregular supply, due to their geographical situation (higher situated households don’t have water when lower houses drain it all in their gardens) or to the very regular breaks in the pipes or pump stations.

The distribution system has only water meters for the factories and organisations. Per August 1st 2003, 523 out of the 744 institutional customers have water meters. State organisations pay 0.10 TJS/m³ and business clients 0.50 TJS/m³.

The households pay a monthly lump sum according to the number of household members, the space of the dwelling and some other parameters. The lump sum is calculated on a theoretical quantity of water used by the household according to the different parameters. This theoretical water use is then charged at 0.08 TJS/m³. Some households never use this theoretical quantity since the water service is not continuous. Most of these clients refuse therefore to pay the water bill. On the other hand, the majority of households use a lot more water than the theoretical quantity. Water taps stay open, tap water is used for the garden, even fountains in the yard...

Vodokanal estimates that nearly 50% of his customers pay the water bill. According to our survey, only 13% declares not to pay the water bill.

This results in a huge gap between the water production and the accounted water consumption.

In 2002, yearly production was 36 million cubic meters, while, according to the theoretical billing, only 17 million cubic meters (47%) have been supplied to the customers, and only a part of these 17 million cubic meters are really paid. The other 19 million cubic meters (the Non-Revenue Water) were lost through leakage in the distribution network and are used by the households in addition to their theoretical consumption. We estimate that the households with a regular water service use at least twice the theoretical (and paid) quantity of water.

The quality of the water is very poor. Due to increased human activity in the Ferghana Valley, where the river takes his springs, the water is strongly contaminated with nitrates, sulphate, calcium, magnesium and also bacteriological contamination.

The water is chlorinated at the intakes but the monitoring devices are old. With every break of the pipes in the distribution network, contaminated water flows back into the pipes. The water analyses made by the SEC of Khujand give the following parameters:

	Tajik norms	Results
Total hardness	< 7 mg/l	14 to 20 mg/l
Sulphate	< 500 mg/l	500 to 700 mg/l
Total coliforms	< 100 /l	100 to 300 /l
E-coli	< 3 /l	3 to 15 /l

This poor water quality results in water related diseases such as typhus (6 cases reported in the hospital from January to August 2003), dysentery (21 cases), intestinal infections (352 cases) and hepatitis (143 cases)¹. Kidney stones is reported as a major health problem, caused by the hardness of the water, but quantitative data are difficult to find. According to the urological service of the city hospital, this year already 80 children had an operation for kidney stones and it is estimated that 60 to 70% of these cases are due to the hardness of the water.

In 1986, a Master Plan has been designed for the water supply of Khujand City, Gafurov and the neighbourhoods. The supply relies on an intake at the Khodja-Bakirgan river some 25 km south of the city. The system is designed for nearly 200,000 cubic meters per day of good quality water. With the collapse of the Soviet Union, works stopped in 1991. Since 1997, building continues very modestly with governmental budget. On October 1st 2003, a first part has been handed over to Vodokanal-Khujand and includes the supply of nearly 10% of the population of the city.

According to the UN-affiliated RRDP that was involved in the actualisation of the design, a financial input of 3 M USD can complete the implementation of the Master Plan. The leading municipal engineer of the Plan estimates the needed budget at 4,5 M USD while Vodokanal thinks on 6 M USD.

The advantages of the Plan are important: better water quality and a gravity fed supply. The risks are related to the relations with Kyrgistan where the river comes from. On the other hand, it is obvious that the actual distribution network in the city has to be rehabilitated before it can support the pressure of the gravity fed supply coming from the mountains.

Vodokanal and the Khukumat of Khujand don't give the first priority to this Master Plan since the rehabilitation of the old water intakes and pump stations are important for a quick and

¹ These diseases can also have other reasons but the bad water is surely one of the sources.

reliable supply. In their vision, the new project from the mountains can be planned in a second phase as an additional supply.

The main technical problems with respect to the water production and distribution are therefore:

- the quality of the water; the excessive hardness causes kidney stones and renders cooking and washing more difficult; the old-fashioned chlorinating devices, lack of good monitoring and the regular pipe breaks cause sometimes bacteriological contamination;
- the distribution system is completely worthless with daily breaks, non-existing spare parts, outdated design parameters, pipes that can't resist any pressure...
- the irrational use of water, facilitated by the lack of water meters;
- the water production facilities can not supply the irrational water demand: most intake and pump facilities are very old with regular breaks; the only accurate station is Intake 2, renovated with the Japanese grant, and a production capacity of 90,000 m³/day (which could be largely enough for the whole city if the basic rules of a rational use of water should be adopted).

3.3. Sewage water

Nearly 30% of the produced water comes into the sewage network, also managed by Vodokanal. The sewage is not only produced by the "Vodokanal water" since most of the factories with an own water production system are also connected to the sewage system, and some of them, such as the textile industries, discharge highly contaminated sewage water.

The sewage treatment plant downstream the city is completely out of order since some ten years and the sewage flows in the river Syr Daria and goes then to the Aral Sea.

The customers are charged for this service with a lump sum based on the theoretical water use: 0.06 TJS/m³ for households, 0.082 TJS/m³ for utility organisations and 0.25 TJS/m³ for enterprises.

Vodokanal has been reviewed by the environmental authorities of Tajikistan and levied (in principle) with a 180,000 TJS fine for each year of pumping untreated sewage in the river. Vodokanal has demonstrated its inability to pay this fine and to remedy the situation.

3.4. Organisational aspects

Vodokanal is a public utility with the City as the only shareholder. The status, targets and tasks of Vodokanal, and his relationship with the municipal authorities are governed by the Charter of Khujand Vodokanal giving an important autonomy to the management team of the water utility. Tasks and activities are very diverse. The main target is "profit earning" and the company has, besides water production and distribution, the possibility to carry out very various activities such as "growing, production and sales of agricultural products, poultry and fish products".

The company has 561 staff members. 42 of them are controllers, in charge of the collection of the water bills and, in theory, the control of rational water use. It is generally recognised that there is a lot of irregularity in their work.

Most neutral observers see a very important impact from the Khujand Khukumat on the decision-making mechanisms and even on the daily management of Vodokanal.

The company hasn't any equipment worth this name: the last investment in vehicles or in the mechanical shop has been done end of the 80ies; the company has only two computers; the

mechanical shop and the garage are a graveyard for rust-eaten pumps, containers, machines and trucks.

The proposal submitted to EBRD includes:

- the complete renovation of the sewage water treatment plant;
- renovation of the water intakes and pump installations;
- construction of water treatment facilities to reduce the hardness.

According to Vodokanal, the proposal should also include the renovation of nearly 70% of the distribution scheme and the re-equipment of the company.

The renovation of water intakes, pump installations and gross water treatment can't be effective without a renovation of the distribution network and a more rational use of water, e.g. through the installation of water meters. Once water meters installed and leakages in the distribution network avoided, one can expect that the already installed production capacity will be largely sufficient.

Today, Vodokanal hasn't the technical capacities or the equipment for a sound implementation of the project, and probably even not for a sound exploitation of the water and the sewage network. The most recent training or knowledge upgrading dates from the 80ies... The Japanese co-operation subcontracted the implementation of their project to the UNOPS/RRDP-unit.

With respect to the Project, it seems therefore essential to contract the implementation of the physical rehabilitation to an implementing agency with enough technical and logistical capacities for a sound and professional management of the works. RRDP is interested in these tasks, while Vodokanal and the City Khukumat have a good cooperation experience with this UN-agency and his Khujand branch.

A re-equipment and capacity upgrading of Vodokanal seems also essential for a sustainable management of the infrastructure after project completion.

4. SOCIAL AND STAKEHOLDER ASSESSMENT IN KHUJAND

4.1. Social organisation in Khujand

Social live and civil participation in the city of Khujand is organised through the Makhallia committees. The leaders of the different streets and families in the neighbourhood are member of these traditional structures. They are active in the 18 neighbourhoods of the city and the 8 state owned neighbourhoods with the multi-storage buildings have a similar system with micro-raion committees.

Some of these Committees are really functional and co-ordinate and stimulate a community organisation of the local affairs, while also playing their role as information channel between the khukumat and the public utilities on the one hand and the people of the neighbourhood on the other hand. Makhallia committees organise sometimes public meetings dealing with communal services. In a few neighbourhoods, the committee is already involved in the management of drinking water related activities, such as the rehabilitation of a pump, borehole or distribution pipe with the financial contribution of the water customers.

Other committees don't work very systematically.

A few NGO's start working with the Makhallia committee as a grass root organisation in the urban area.

The head of each Makhallia committee is nominated by the mayor of the city and is a member of the Khukumat co-ordination committee.

Besides this neighbourhood organisation, there exist some professional organisations. The most important one seems to be the Association of Entrepreneurs in Sogd-Region, with the most important businessmen as members. The small businessmen are rather linked to the Association to Support and Development of Entrepreneurship.

The city also counts some youth movements, cultural and sport organisations and so on.

Khujand also has a lot of local NGO's or local branches of national and international NGO's. Almost all of them are working in the rural areas and there activities in the city are very limited. They are not organised in a local association or federation.

4.2. Perception of the water service

From October 2nd to 25th a base line survey interviewed 520 households in the city in order to understand their problems, their actual and their expected behaviour with respect to water and the water infrastructure.

The results of this survey can be consulted in annex 5.

The survey shows that the water distribution system of Vodokanal is the most important source of water for the whole population, but some 10% of the population has to complete his needs with water from wells, boreholes and water tankers, especially in spring and summer.

The level of service rendered by the Vodokanal is very poor :

- only 22% of the population has a regular 24 hours service;
- nearly 70% has no more than 12 hours of functional water distribution a day; the problem of the intermittent service is aggravated by the lack of system in the interruptions and by a poor communication by Vodokanal; therefore, people in poorly supplied areas leave their taps open when going out hoping to capture some water in the bath or other devices when their neighbourhood is served for a few hours;

- 7% of the interviewed population declares to have no water at all, even if they have a connexion to the water distribution system; most of them are probably multi-storage inhabitants where the water pressure doesn't bring the water to their apartment; they take water at the tap in the yard or in another flat in the same building on a lower floor;
- only 3,7% of the sample didn't remember an interruption in the water delivery during the last month; 27% of the households had more than 5 interruptions during the last month;
- the quality of the water is estimated to be bad : only 22,7% of the interviewed households are satisfied with the quality, half of the people find the water too hard and more than half of the people find a bad taste in the water; one third of the population therefore estimates the water not safe for drinking purposes.

More than 90% of the interviewed households declare to use the water from Vodokanal only for domestic purposes (drinking, cooking, hygiene, toilets) while nearly 10% also uses the water in the vegetable garden or for flowers, car washing and so on. The number of taps in the household is very limited and only 20% of the households have three taps or more.

A small minority (1%) doesn't use the tap water for drinking nor cooking while most of the people boil the water before drinking. 25% of the population drinks it sometimes without boiling and 11,5% buys water in bottles for drinking.

The customers are not very interested in the payment of water.

Actually, 12,7% of the people don't pay and 36,7% pays 1 Somoni or less per month.

Even with a better water service (drinking quality, no interruptions, 24 hours a day service), the willingness or capacity to pay remains low.

	Actual payment	Willingness to pay for qualitative water service
Not to pay	12,7%	5,0%
Less than 2 somoni/month	45,7%	68,7%
From 2 to 5 somoni/month	30,0%	20,8%
From 5 to 10 somoni/month	4,2%	2,3%
More than 10 somoni/month	2,1%	1,3%
No answer	5,2%	1,9%

According to this survey, people do accept to pay for the water service (only 5% claims free water) but will or can just give a small amount of their monthly budget. Only 25% of the interviewed households accept voluntary to pay an amount exceeding a symbolic contribution of 2 somoni per month. The actual payment rate, for a service that is badly appreciated, is even higher than the voluntary willingness to pay for a qualitative service. Knowing that more than 10% of the population buys his drinking water in bottles, at nearly 0,5 somoni/litre, it is amazing to see that just 4% of the population wants to pay more than 5 somoni (the cost of 10 litres of bottled water) for a good drinking water during a whole month.

This reflects the important challenge to inform and sensitise the water customers of the real costs and benefits from a good water service.

The contributions for gas and electricity are much higher than the water bill. An average household pays 7,7 to 9,8 somoni/month for gas and 2,8 to 3,2 somoni for electricity (the lower figure is in summer months, the higher in winter). 17% of the gas customers and 18% of the electricity customers do not pay for the service and nearly one third of them are

disconnected. This clearly reflects that at least 10 to 18% of the population lives in extreme poverty without even the means to pay for their heating system in the cold winter months.

An average household, with 3,7 members and an average water consumption behaviour of 150 l/day (which is nearly the West-European average for domestic water use) uses 17 m³ of water per month. At the actual rate of 0,08 somoni/m³, this represents 1,36 somoni/month what seems to be very realistic according to the capacity and actual willingness to pay. With an increased sensibility for the real costs and benefits related to a qualitative water distribution service, we can easily expect that an average contribution of 2 to 4 somoni per household and per month will be accepted by the Khujand population, on the understanding that an equitable mechanism to protect the poor is put in place.

For the individual households, the most important problem of the actual water service is the frequent interruptions, which trouble 83% of the population. 50 to 60% of the customers don't see a problem with the water quality or the price for water.

The local enterprises have a different perception of the water service. They make their assessment according to economic and financial parameters. The enterprises need a guarantee of continuous service and stable water quality before they even envisage to get connected to the drinking water system. Even if these conditions should be guaranteed (which is not the case today), the price for the Vodokanal water should be lower than the price of any alternative supply. Enterprises with their own boreholes produce water at a price of 0,12 to 0,14 somoni/m³ while the Vodokanal water is charged at 0,25 to 0,50 somoni/m³ according to the status of the enterprise.

State organisations are an important client for the water utility. More than 30% of the water is consumed by state organisations. They include the governmental administrations, but also hospitals, schools, other public utilities and state owned companies. But their capacity or willingness to pay the water bill is surely not higher than among the private customers and the overall debt of these state owned (or linked) customers to Vodokanal is impressive. In the same time, the water use in state organisations seems not rational and is still inspired by the soviet time where it was of great importance to show the wealth with flowers and ever spouting fountains.

The main problems in the relationship between Vodokanal and his stakeholders are :

- the practice of the state organisations and of a lot of private customers to consider the water supply system as the only supply for all real and perceived water needs, including irrigation, street washing and flower watering... this results in an over-consumption of water and in an under-evaluation of the real value of good water;
- the lack of water meters as an incentive for rational water use and as an instrument for an equitable share of the water costs;
- the poor capacity and willingness to pay for the water service; this can be understood in the actual situation of very bad services in terms of regularity and in terms of water quality, but mechanisms have to be developed in order to increase the willingness to pay if one would raise tariffs in a socially acceptable dynamic;

- the communication between Vodokanal and his customers is very poor; the Makhallia-committees advocate for solutions in their district, but the lack of funds at Vodokanal level hinders co-operation between the customers and the water utility;
- transparency of Vodokanal is limited and the water utility doesn't feel himself accountable to his clients; this results in a lack of mutual understanding and confidence between the company and the client; which contributes to a poor willingness to pay, a low payment rate of the water bills and a lack of custom-oriented attitude among the Vodokanal staff.

4.3. Opportunities and threats

Leverages for change include:

- the rather successful introduction of cost recovery mechanisms for electricity and gas consumption; the installation of meters is generally accepted for these sectors, and people start to see the similarity with water distribution;
- the importance people give to safe water; people seem to be well informed of the disadvantages and risks of the actual water quality;
- the sensitisation activities conducted by Red Crescent with respect to water use, sanitation, hygiene and diseases; the campaign already has interesting leaflets (made for rural areas but they can be adapted) and is now building up a network of volunteers for the city;
- the successful experiences of water users implication in the rural areas around Khujand; local NGO's, press media and health workers know these experiences;
- a rather common analysis among NGO's and international organisations with respect to the structural problems related to water distribution and management: misuse of water by customers, mismanagement by the water utility, urgent need for more quality even if the quantity has to be re-evaluated, need for important structural changes at the level of Vodokanal as a public service provider;
- initiatives taken by spontaneous neighbourhood solidarity when pumps or pipes break; often, the neighbours organise themselves to collect money and labour for reparations;
- some key players see, at least in their talk, the importance of a better relation with the Makhallia and with the water users in order to increase bill recovery, to increase credibility in the city (and probably also in order to avoid the continuous complaints and to attract funding agencies); among these "open" key players we identify the Deputy Director of Vodokanal and the Head of the External Relations of the Sogd Region.

Threats include:

- the bureaucratic apparatus of Vodokanal : rather old staff, very familiar with the management culture of the Soviet period, in general not very confident in the need to inform or co-operate with his clients;
- a certain fearfulness among local NGO's and civil society organisations to get involved in changing processes at the level of powerful state institutions such as Vodokanal and his relationship with the City Khukumat; they see the need for this changing process but are afraid to fully come into the picture with their own organisation as driving force for these changes;

- the implementing capacity of Vodokanal; it seems very risky to give Vodokanal the full responsibility for the execution of the project;
- the need for a longer term involvement in the institutional and social components of the project, beyond a rather short term intervention for the physical rehabilitation; one can imagine that the interest of the local authorities and of Vodokanal direction for the social and strengthening component will be obvious in the first stage, but decreases once the physical rehabilitation and re-equipment of the company are finished.

Elements of strategy in order to tackle these risks and to fully valorise the existing opportunities can include:

- information campaigns through mass media and inclusion of local NGO's and civil society organisations in the social engineering component so that the water project becomes "everybody's business" ;
- backstopping of the social engineering component by a recognised international organisation so that the local stakeholders benefit from professional inputs while there is a political backing of the process;
- a longer-term public-public-partnership between Vodokanal and a public water utility from Western Europe for the same reasons.

5. CRITICAL SUCCESS FACTORS FOR THE PROJECT

Each intervention in the water supply and/or sewage sector in Khujand city should consider a holistic approach, including:

1) An infrastructure component, where the priorities are:

Priority # 1 :

- the improvement of the water quality through the installation of a new water treatment plant or through the completion of the Master System; a comparative study has to clarify this choice in function of investment and exploitation costs, risk assessment; environmental criteria a.o.
- the rehabilitation of the distribution network in the city in order to stop the supply interruptions, the important water losses and the high exploitation costs;

Priority # 2 :

- the complete reconstruction of the sewage water treatment plant;
- eventually, after a detailed needs assessment, reinforce or assure the production capacity of the water supply through investments in pump stations or boreholes².

2) A Vodokanal strengthening component, where the priorities probably include:

- Financial and Operational Performance Improvement Plan;
- technical capacity building;
- re-equipment of the company;
- an improved regulatory and legal framework with management performance and accountability incentives.

An innovative strategy could include a partnership with a public owned water utility in Western Europe since the needed reform process at the level of Vodokanal will surely go beyond the duration of the EBRD project.

3) A customers information and sensitisation component in order to promote the rational and good use of water and the valorisation of this service through an increased financial contribution by the water users.

4) The introduction of improved communication, transparency and accountability mechanisms between the City, the water utility and the customers.

The need for the Institutional Strengthening Component (# 2) is evident: Vodokanal does actually not have the equipment, the technical nor managerial capacity, the tariff and water use policy, the institutional mechanisms... to guarantee a sound management of an improved water supply system and will therefore not be able to sustain an acceptable water delivery service to his clients, and thus, generate the funds for the reimbursement of the loan.

Components 3 and 4, the so-called Social Engineering Component are also key factors for success. Without radical change in behaviour at the level of the customers and at the level of the water utility, the actual vicious circle of over-consumption, parts of the city without access to water, unwillingness to pay for the bad service, corruption, lack of means for maintenance and repairs... can not be broken.

² As shown before, I believe that an improved tariff structure, the installation of water meters and the elimination of water losses in the network will considerably reduce the water use in the city, and that the already installed water production capacity is probably sufficient for the next years.

The Social Engineering Component is therefore essential for the following reasons :

- efficiency and performance of the water utility : without transparent reporting mechanisms and accountability of the water company to his clients, there will be a lack of incentives for an improved performance or a client-oriented behaviour; on the other hand, responsible customers can contribute to a better performance through increased water payment, more rational water use, individual and community initiatives for a better maintenance of the infrastructure, reporting mechanisms to Vodokanal in the case of broken pipes or valves or illegal connections, community initiatives to stimulate bad payers or irresponsible water-users to respect the agreed rules...
- social reasons : one can not reform tariff structures without the implication of the water users since increased tariffs without a better understanding of the real costs and benefits, and without sound accountability guarantees of the water utility will be seen as an unjustified tax for a basic service to an already poor population; experiences in all developing countries with authoritarian tariff reforms have resulted in an impressive increase of illegal connections and in some cases even in social conflicts;
- financial reasons : good governance of the water utility, rational water use and increased willingness to pay are essential if one expects to reform the water utility to a bankable company;
- health reasons : the population has to understand the risks of unsafe water and poor hygienic behaviour;
- environmental reasons : a rational water use is essential for an equitable and sustainable distribution of the available water without a burden on the environment and on future generations.

The proposal presented in chapter 6 gives an answer to these threats and opportunities. With an investment of nearly 3 USD/inhabitant, the Social Engineering Component gives good chances for an equitable, sustainable and efficient water service, for an increased impact on health and environment, and, finally, for the creditworthiness of the water-project through an improved governance of the water utility and an increased willingness to pay by the customers.

6. SOCIAL ENGINEERING COMPONENT OF THE PROJECT

6.1. Objectives

The physical rehabilitation of the water supply scheme of Khujand-city cannot lead to a sustainable improvement of the water service without :

- a **rational water use** where the water consumption is in balance with the economic, technical and ecological possibilities for a sustainable water production and water delivery;
- an increased **willingness to pay** for the water services so that the costs of the water service are covered by the contributions of the customers (and, probably in the first years, an additional subsidy by the local authorities for the most vulnerable water users);
- an improved **performance of the water utility** in terms of water quality, reliability of the water service, cost-efficiency, transparency and accountability, communication with customers.

These three pre-conditions need a changed mentality at the level of the water customers and at the level of the water utility. The Social Engineering Component of the Khujand Water Improvement Project will lay the foundation of this mentality change.

The objectives of the Social Engineering Component are therefore :

1) To change the behaviour of the water customers towards rational water use, sound hygienic behaviour, fair and sustainable cost recovery mechanisms of the water service with an increased willingness to pay and towards an increased responsibility of the water customers in the water management.

The mentality change of the customers will be achieved through an intensive information and awareness campaign. The expected impact of this campaign is :

- a reduction of the water consumption at household level to 300 l/day/person or less at the end of the project;
- a better understanding of the management mechanisms of the water supply and the importance of good water quality and sound hygienic behaviour;
- an active implication of the water users in their representative committees;
- a regular payment of the water bills by at least 80% of the customers.

2) The set up of transparent and efficient communication and co-operation mechanisms between the water utility, local authorities and water customers. This will result in :

- functional Water Users Committees at the level of each micro-region; suggestions of the WUC will be taken into account by Vodokanal and the local authorities;
- public reporting mechanisms between Vodokanal and representatives of these WUC and of socio-professional organisations;
- a sound follow-up by Vodokanal of the relevant complains raised by the water customers.

The Logical Framework of this Social Engineering Component is added in § 6.5.

The following measurable results will be achieved :

Result # 1° : The population of Khujand will be informed on the principles of sustainable and efficient water use and management and on the importance of their individual behaviour.

Result # 2° : A network of volunteers, community workers and key professionals will have an in depth understanding of these principles and will stimulate behaviour changes in their neighbourhood and professional environment.

Result # 3° : Representative Water Users Committees will be functional in the 26 micro-regions.

Result # 4° : Representatives of these WUC and of socio-professional groups will be involved in an open and permanent dialogue with the water utility and the local authorities regarding the management of the water utility and the water service.

6.2. Activities

1. Awareness-raising of end-users through education campaigns and fostering of civil society initiatives

1.1. Mass media information campaign

The project will link with various local media to launch a broad information campaign. All available means will be used, including radio, TV, newspapers and magazines.

The campaign will focus on : rational and sustainable water use, the technical and organisational aspects of the Khujand Water Improvement project, hygienic behaviour and the value of good water quality, the cost of the water service, the participatory mechanisms, the importance of the individual behaviour of each water user.

In order to make the message as far-reaching (clear and understandable to all) as possible, the project will link to local partners who have a solid experience on media. In particular, co-operation is planned with the local NGO 'Fourth Power'.

1.2. Awareness training to individual households for the target population of the technical intervention.

The project will link with the local branch of the Red Crescent to co-ordinate and carry out visits to individual households in Khujand. A group of 160 volunteers will be trained and will conduct the household visits.

The purpose of the visits will be to illustrate:

(a) Ecological, technical and economic need for rational water use → Explanation that water is a scarce resource and that its overuse can harm the environment and that the irrational water use of some customers harms the availability of water for other customers.

(b) Cost recovery aspects → Explanation of the new system of tariffs that will be implemented by Vodokanal; explanation of the real cost of the water service.

(c) Health aspects → Examples of good and bad hygienic practices, the impact of good water.

(d) Participatory mechanisms → Explanation of the concept of "water is everybody's business" where each water user has his individual responsibility for a sustainable and equitable access to water for everyone and of the organisational mechanisms which allow the participation of the water users.

The project will also link with the local NGO ASDP who will carry out a survey on households behaviour every 6-months in order to assess the impact of the awareness campaign.

1.3 . Information, education and communication materials

Leaflets, calendars, posters, booklets, calendars and brochures will be handed out to the educators and the beneficiaries. They will treat topics as water borne diseases, water conservation, technical, environmental, financial and organisational aspects of the water supply system. Competitions will be organised through which the best drawings, songs and poems made by the beneficiaries will form the illustrations for the campaign materials, thereby allowing the beneficiaries to understand the dangers of water borne diseases and the importance of water conservation in a way that they can easily refer to. Field-testing will allow draft versions to be made, after which last changes are made before final printing. The already existing leaflets and other educational materials of the Red Crescent and of ACTED can inspire the development of these materials.

1.4 . Educational based awareness raising

The project will work very closely with schools in Khujand, promoting activities on water conservation and sound sanitation and hygiene practices. Ideas to raise awareness among students include: having special class projects on how to reduce water consumption; holding competitions in which the best class is rewarded with a cultural trip; involve pupils in design of posters, leaflets, stickers, drama and videos (depending on age group and interest).

Pupils (especially the younger ones) will also be encouraged to spread the message within their own household, a methodology that is very effective in changing household behaviour. In addition the project aims to introduce child to child and/or child to adult education, as effective methods for information sharing and learning.

To ensure the success of the above activities, the project will hold special training workshops with schoolteachers, encouraging their active participation in terms of teaching and ideas.

1.5 . Health education events

The Khujand theatre show will be contracted to perform a show on water borne diseases and water conservation. Field stories collected by educators will form the basis of the show, thereby tackling unhealthy belief in a way that the beneficiaries can easily refer to.

1.6 Support to activities for Youth groups

The project will involve Khujand's lively student and youth scene to play an active role in the educational campaign. Youth and university societies will be encouraged to hold promote activities with a special emphasis on the importance of keeping a clean and waste-less environment in the city of Khujand. Examples of their involvement include: organising water conservation days, holding seminars and public debates, conducting research on water pollution, etc....

2. Facilitation of transparent communication and creation of feedback mechanism between Vodokanal, local government and consumers

2.1 Creation of and support to Water User Committees (WUCs)

One WUC will be set up for each Makhallia / neighbourhood. Their members will be chosen by the residents and will be responsible for the flow of information between the consumers on the one hand and the Vodokanal and the authorities on the other. More specifically they will:

- Be updated of any progress with the infrastructure repairs and inform the population
- Be warned of any water cuts/shortages that are likely to affect their constituencies and inform the population
- Be informed and consulted of any changes in price level and any difficulty in receiving payment from beneficiaries
- Serve to channel consumer complaints to Vodokanal and the authorities on water issues

The project will help creating the various WUCs. An information campaign about the importance and foreseen roles of the WUCs will be followed by meetings with the communities from each Makhallia / neighbourhood. WUCs will be empowered through training and provision of material.

The various WUC representatives will meet monthly to share information and co-ordinate their citywide approach in the Forum of Water User Committees (FoWUC). This will also be facilitated by the project.

2.2 Creation of a forum for exchange and communication between all major Khujand water stakeholders

These will be channelled into an advisory committee, which will meet every three-month and involve WUC representatives, major industries, local authorities and Vodokanal. The participants will discuss passed and foreseen improvements and problems with Khujand's water supply. Among the key questions that will be discussed will be price setting, infrastructure maintenance and consumer complaints.

The project will facilitate the meetings of the advisory committees and participate in an observer role.

2.3 Provision of training to Vodokanal

The project will aim to circuitously target the strengthening of the Vodokanal as a means of symbiotically supporting and sustaining the WUCs. Vodokanal will be encouraged to participate at the project's training and seminars, which will expose them to the importance of consumer participation in decision-making and problem-identification in order to have a successful and sustainable water supply system in Khujand.

2.4 To encourage transparency in decision-making

The media will be encouraged to participate to all FoWUCs and Advisory Committee meetings. Minutes of the meetings will be distributed to consumers and other stakeholders (WUCs, industries, Vodokanal, media, local authorities).

6.3. Means

Capital inputs

The overall capital cost of the project is estimated at 415,385 USD.

The breakdown of the capital cost is as follows:

Mass media campaign	29.040 USD
Training and educational materials	102.800 USD
Household visits	59.840 USD
Events and meetings for awareness building	14.000 USD
Set up and training of the water users committees	33.840 USD
Set up of institutional and organisational mechanisms	48.900 USD
Project Implementation Unit	67.080 USD
Overhead costs	24.885 USD
Backstopping by the International Secretariat for Water	35.000 USD

Human resources and support

Technical assistance and support will be required for the smooth execution of the project and relate to:

- two technical backstopping and monitoring missions, by a ISW-appointed international consultant, specialised in participatory mechanisms for urban water supply;
- an evaluation mission at the end of the project, by a ISW-appointed international consultant;
- the contracting of a specialised international organisation with local branch in Khujand as the co-ordinating agency for the implementation of the project; the French NGO ACTED seems to be the best partner for this contract;
- co-operation with local NGO's for specific tasks : Fourth Power for the mass media campaign, the Khujand branch of the Tajik Red Crescent Committee for the household visits and ASDP for the monitoring of evolutions in knowledge, attitudes and practices of the target groups.

ACTED as the implementing agency

ACTED was founded in France in 1993 and operates in 10 countries in Asia, the Balkans, Congo and Nicaragua. The regional office for Asia is based in Dushanbe and covers Tajikistan, Kyrgyz Republic, Uzbekistan and Afghanistan.

ACTED has been working in Tajikistan since 1996. Its main focus is poverty alleviation and it has three fundamental guiding principles, which underpin all its work: an emphasis on people (building ownership), cross fertilisation between programmes and a regional approach. Its five main programme areas are poverty alleviation, micro-finance, health promotion, support to basic education and cultural heritage.

ACTED actually implements an integrated water and sanitation programme in Sughd Province, Tajikistan, combining the building of ownership among key stakeholders (authorities and users of water) with the provision of small to medium scale water supply systems. It advocates on a variety of issues such as developing payment structures for water consumption, equitable distribution and maintenance of supply systems and makes policy recommendations at regional and state levels on issues relating to water.

ACTED brings into this programme its specific added value to due to :

- knowledge and understanding about water user's perceptions and behaviour in Khujand/Sughd province and through 5 years of working in the water, sanitation and health sectors in Tajikistan and more specifically in Khujand/Sughd;
- a proven ability to mobilise communities, develop their capacity and enhance their potential as key stakeholders in the management of water;
- expertise and technical knowledge;
- experience of working with communities and track record in interventions which change the behaviour and perceptions about water;
- experience of working with regional and national authorities to develop long-term sustainable solutions to issues of maintenance.

6.4. Organisational set up

A Steering Committee will be formed, including as members:

- A representative of the Sogd region (Chair)
- A representative of the city khukumat of Khujand
- A representative of Vodokanal
- A representative of the EBRD
- A representative of other funding agencies involved in the project

The Steering Committee may invite, as observers or experts, any other person contributing to the project.

The Steering Committee will be responsible for:

- Setting up the structures required to carry out the project.
- Overseeing the execution of the commitments undertaken by the respective parties.
- Providing overall policy guidance and feedback to the Project Implementation Unit (PIU).
- Assessing the project progress and the results achieved on the basis of the reports presented by the PIU.
- Approving any adjustments or modifications to the intermediate results or activities, while both adhering to the specific objectives and the overall budget as presented in the project document.
- Approving eventual work plan modifications proposed by the PIU.
- Resolving all management problems concerning financial or material resources that may arise to ensure that the project runs smoothly.
- Resolving all eventual problems with respect to the interpretation of the project document.
- Approving the final report and concluding the project.

The Steering Committee will have the following ordinary sessions:

- at the beginning of the project to adopt the definitive work plan and procedures, proposed by the PIU;
- three-monthly meetings to appreciate the progress of the project;
- an evaluation meeting after the accomplishment of the project.

The SC can also be convoked on demand of one of the members.

The SC will meet in Khujand and will be convoked and chaired by the representative of the region. Decisions are taken by consensus.

Under the umbrella of the Steering Committee, ACTED-Khujand sets up a **Project Implementation Unit** including:

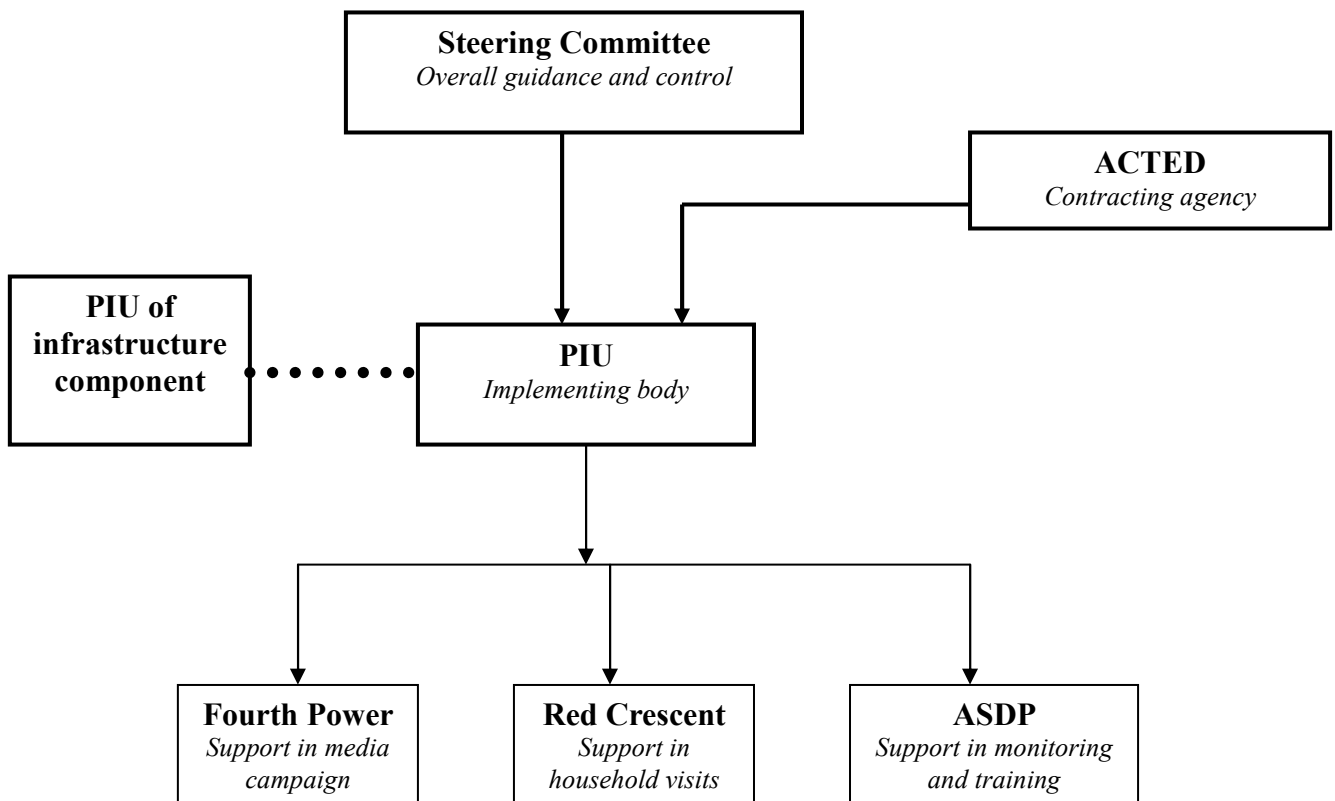
- a Project Co-ordinator;

- 4 staff members in charge of :
 - the mass media campaign and the development of educational materials;
 - the training and monitoring of the volunteers for the household visits;
 - the organisation of all other educational and mobilising events;
 - the set up and training of the water users committees.

The PIU acts as the implementing body of the project. Besides the executive tasks, as described in the project activities (§ 6.2.), the PIU will :

- elaborate the reports to be presented to the Steering Committee every three months;
- propose to the Steering Committee, if needed, any modification of the project activities, respecting the results, the specific objective and the budget as agreed in the project document.

Organisational structure



6.5. Backstopping Component

The International Secretariat for Water (ISW) will give a support to the Social Engineering Component in order to:

- guarantee the quality of the program;
- give technical and methodological inputs to the implementing agencies;
- capitalize the lessons learned through the process for other similar programs the Bank or other development agencies want to develop.

The ISW brings into this program his specific added value due to :

- the technical and methodological expertise of the ISW consultant in charge of this program, with 20 years of experience in participatory water supply programs in more than 30 developing countries;

- the wide international network of the ISW allowing a broad view of innovative participatory mechanisms tested out in other programs;
- the active participation of ISW and his partners to the international debates and reflections regarding institutional and methodological reforms in the urban water supply sector, giving the opportunity to upscale the experience of Khujand.

The ISW will assign a project consultant in charge of the methodological and technical support to the implementing agencies and of the feed back to the ISW and his network. The ISW consultant will probably be engineer Stef Lambrecht, who was in charge of the preparation of this project.

The backstopping will include the following activities:

1° A first mission to Khujand at the very beginning of the project in order to assist the implementing agency with the detailed planning of the Social Engineering Component. This mission will result in a detailed business plan for the first year of implementation.

2° A second mission after 8 to 10 months of implementation in order to analyze the progress made, to assist the implementing agency with all eventual modifications needed for the planning of the second year, and to give methodological inputs with respect to the strengthening of the water users committees.

3° A third mission after 18 to 20 months in order to evaluate the results of the project, to capitalize the lessons learned and to assist the implementing agency, Vodokanal and the local authorities in the set up of sustainable mechanisms of organisational strengthening of the water users committees in order to scale them up to an active stakeholder of the water utility.

4° A critical analysis of the intermediate reports elaborated by the implementing agency.

5° Written technical and methodological input to the project manager of the implementing agency, among others with documents related to participatory mechanisms in similar urban public water utilities in other countries.

6.6. Logical Framework

	Intervention component	Objectively verifiable indicators	Data source	Assumptions
General objective	Support a sustainable, equitable and efficient water management in the city of Khujand	The water supply scheme distributes safe water to at least 99% of Khujand population with a 24 hours service for at least 360 days a year	Vodokanal reports.	Sound physical rehabilitation of the water supply infrastructure
			Reports from Water Users Committees	Upgrading of the technical and human resources of Vodokanal
		Amount of Non Revenue Water not higher than 20% at the end of the project	Vodokanal reports.	A progressive tariff structure subsidises the most vulnerable
		A comprehensive business plan of Vodokanal is understood, accepted and supported by his management, by the local authorities and by representatives of the customers	Reports from multistakeholder meetings	Open and transparent co-operation among all partners in the project
Specific Objectives	1) Change the behaviour of the water customers towards rational water use, sound hygienic practices, fair and sustainable cost recovery mechanisms of the water service and towards an improved implication of the customers in the water management	Water consumption at household level is not higher than 300 l/day/pers at the end of the project	Vodokanal reports	New tariff structure and water meters hinder water waste
			Monitoring visit reports (PIU and community)	
		At least 60% of the adult water customers know how the water supply is managed and have at least 2 contacts per year with their WUC or socio-professional representatives	Monitoring visit reports (PIU and community)	The technical component will be successful, strengthening trust between stakeholders and allowing participation and transparency.
			WUC reports	
80% of the water bills are paid regularly	Vodokanal reports	Tariff structure protects the vulnerable customers The technical component provides the predicted quality water to the predicted amount of end users.		

	Intervention component	Objectively verifiable indicators	Data source	Assumptions
Specific Objectives	2) Set up transparent and efficient communication and cooperation mechanisms between the water utility, local authorities and water customers	WUC are functional and Vodokanal and local authorities take into account their suggestions	WUC reports	Local authorities and Vodokanal are open for WUC suggestions
		Vodokanal reports are available to representatives of WUC and socio-professional organizations	WUC reports	Higher government encourages these transparency mechanisms
		Vodokanal and the local authorities discuss all strategic decisions, with an impact on the access to water or on the sustainability of the water service, with representatives of the WUC	Vodokanal reports	Higher government encourages these mechanisms of shared responsibility
		Vodokanal gives follow-up to the relevant complaints raised by customers	Vodokanal and WUC claims record book. Monitoring visit reports (PIU and community)	
Expected results	R.1. The population of Khujand is informed on the principles of sustainable and efficient water use and management and on the importance of their individual behaviour	90% of the population has seen at least 3 different communication tools 70% of the adult customers can mention and explain at least two key elements of the campaign	Random interviews with end-users from different groups (youth, elderly, etc.)	
	R.2. A network of volunteers, community workers and key professionals has an in depth understanding of these principles and stimulates behaviour changes in their neighbourhood	At least 80 Red Crescent volunteers, 100 community workers, 300 teachers and health workers have been trained	PIU reports	Sound co-operation with schools, Makhallia Committees and health centres
		At least 80% of them have disseminated their knowledge in their neighbourhood, and together they reach at least 80% of all households	Monitoring reports of Red Crescent and ASDP	

	Intervention component	Objectively verifiable indicators	Data source	Assumptions
Expected results	R.3. Representative Water Users Committees (WUC) are functional in each neighbourhood	Each "micro-region" of the city has an elected WUC after 9 months	Minutes of the WUC	Sound co-operation with Makhallia Committees
		At least 80% of the WUC meet quarterly or more and make minutes of their meetings In at least 70% of the "micro-regions", 50% or more of the population knows the WUC and feels informed about the water supply issues	Random interviews with customers	
	R.4. Representatives of WUC and socio-professional groups are involved in an open and permanent dialogue with the water utility and the local authorities regarding the management of the water utility and the water service	At least twice a year, open meetings are held between Vodokanal, local authorities, representatives of WUC and of socio-professional organizations	Minutes of the meetings	
		Internal procedures of Vodokanal include consultation and reporting mechanisms to the organized customers; and the procedures are followed	Vodokanal reports.	

6.7. Detailed budget

PROJECT BUDGET	All years					
	Financial expenditure	Unit	# of units	# of months	Unit rate (in USD)	Costs (in USD)
1. Information and awareness campaign						
1.1 Mass media campaign						
Radio broadcasts	5 minutes	480			14	6.720
Theatre Shows	60 minutes	48			70	3.360
Newspaper advertisements	Full page	24			15	360
Television broadcast	1 minute	240			15	3.600
Competition, contests	1 session	24			250	6.000
ACTED Coordinator	Per month	0,5	24		250	3.000
Journalistic support by 4th Power	Per month		24		250	6.000
1.2 Development and printing of training and educational materials						
Brochures	1 no.	30.000			1,5	45.000
Leaflets	1 no.	20.000			0,5	10.000
Calendars	1 no.	5.000			1,4	7.000
Posters	1 no.	5.000			1,6	8.000
Flipcharts	1 no.	800			36,0	28.800
ACTED Coordinator	Per month	0,5	24		250	3.000
Local artists	Lump sum					3.000

Financial expenditure	Unit	# of units	# of months	Unit rate (in USD)	Costs (in USD)
1.3 Household visits					
Selection and training of volunteers	Volunteer	160	4	5	3.200
Transport of volunteers	Volunteer	160	20	4	12.800
Stationery for volunteers	Volunteer	160	20	2	6.400
Stationery for trainings	Per month		12	60	720
Red Crescent coordinator	Per month	1	24	200	4.800
Red Crescent trainer	Per month	1	24	150	3.600
Transport for Red Crescent staff	Per month	1	24	150	3.600
Administrative expenses Red Crescent	Per month		24	80	1.920
Continuous monitoring by ASDP	Per month		24	200	4.800
ACTED trainer	Per month	2,5	24	200	12.000
ACTED coordinator	Per month	1	24	250	6.000
1.4 Costs for events/meetings/roundtables organization					
Seminars with schools and youth groups	Lump sum				800
Seminars for community health workers and teachers	Per quarter	8		100	800
Seminars at markets	Lump sum				800
Round Tables for specific audiences	Per quarter	8		100	800
ASDP trainer	Per month	1	24	200	4.800
ACTED coordinator	Per month	1	24	250	6.000
Subtotal Activity 1					205.680

Financial expenditure	Unit	# of units	# of months	Unit rate (in USD)	Costs (in USD)
2. Facilitation of transparent communication and creation of feedback mechanism between Vodokanal, local government and consumers					
2.1 Costs for events/meetings/roundtables organization					
Seminars for Makhallia committees	2/committee	52		30	1.560
Neighbourhood meetings	2/neighb.	52		50	2.600
Seminars for Water Users Committees	6/committee	156		30	4.680
Forums	Per quarter	6		500	3.000
Training materials	Lump sum				4.000
ACTED trainer	Per month	1	24	250	6.000
ACTED senior coordinator	Per month	0,5	24	1.000	12.000
2.2 Set up of institutional and organisational mechanisms					
Juridique assistance	Lumps				2.000
International consultant	Per month	1	6	5.000	30.000
+ travel expenses	Round trip	3		1.100	3.300
Workshops	Per quarter	8		200	1.600
ACTED senior coordinator	Per month	0,5	24	1.000	12.000
Subtotal Activity 2					82.740

Financial expenditure	Unit	# of units	# of months	Unit rate (in USD)	Costs (in USD)
3. Project Implementation Unit					
3.1 Human resources					
Accounting Assistant	Per month	0,5	24	250	3.000
Administrative Assistant	Per month	0,5	24	250	3.000
Translator	Per month	1	24	250	6.000
IT and logistics	Per month	1	24	250	6.000
Security and Office Support Staff	Per month	3	24	95	6.840
Drivers	Per month	2	24	150	7.200
3.2. Travel					
Local transportation	Per trip	24		90	2.160
City transport (hiring taxis)	Per month		24	100	2.400
3.3 Equipment, materials and supplies					
Purchase or rent of vehicles					
Rent of vehicles	Per vehicle	2	24	60	2.880
Furniture, computer equipment					
Computer equipment	Per unit	3		1.400	4.200
Furniture	Per office	1		3.000	3.000
3.4 Local office/project costs					
Cost of vehicle(s) (Including Fuel)	Per month	2	24	100	4.800
Office rent	Per month	1	24	250	6.000
Consumables - Office supplies	Per month	1	24	200	4.800
Other services (tel/fax, electricity/heating, maintenance)	Per month	1	24	200	4.800
Subtotal PIU					67.080

Financial expenditure	Unit	# of units	# of months	Unit rate (in USD)	Costs (in USD)
4. Overhead costs - ACTED (7%)					24.885
5. Backstopping costs - International Secretariat for Water					35.000
TOTAL BUDGET					415.385

ANNEXES

Annexe 1 Terms of reference

Annexe 2 Contacts

Annexe 3 Mission activities

Annexe 4 Questionnaire, guidelines and consultancy contract for base line survey

Annexe 5 Results of the base line survey

TERMS OF REFERENCE

KHOIJAND WATER SUPPLY IMPROVEMENT PROJECT

SOCIAL ASSESSMENT AND STAKEHOLDER PARTICIPATION

PURPOSE

The purpose of the services outlined in these Terms of Reference is to assist the staff of the European Bank for Reconstruction and Development (the Bank or the EBRD) in the preparation of the Khoujand Water Supply Improvement Project (the Project) for financing. The information gathered, opinions rendered and reports produced will be for the use of Bank staff in the preparation of the Project.

BACKGROUND

The City of Khoujand (population 200,000) has problems with its municipal water supply, which need to be addressed urgently. High mineral content in the water is adversely impacting the health of residents, particularly children in poorer households, and worn-out pumping equipment and poorly functioning boreholes are causing frequent supply interruptions to parts of the municipality. The City has also expressed interest to purchase new solid waste collection and handling equipment.

The City of Khoujand and Soghd Oblast have asked the EBRD for assistance to address these issues. In response, the EBRD met the City of Khoujand, Soghd Oblast, the Government of Tajikistan, the International Monetary Fund (IMF) mission, and potential grant donors to discuss a possible assistance programme. The conclusion is that Khoujand's infrastructure problem is considered a priority at the national level, and there is interest to prepare and implement a small investment programme of approximately € 6 million in value. The investment would be financed 50 percent with loan funds, 40 per cent with donor grant funds and 10 per cent local contribution

OBJECTIVES

In order to improve the efficiency, the impact and the sustainability of the potential water project in Khoujand, the EBRD would like to ensure that users and non-government organisations (NGO) are consulted and participate meaningfully in the preparation and design of the project. These approaches should include:

- an assessment and outreach to community based organisations in sensitisation activities with respect to improved water use, water conservation and hygiene;
- an assessment of current status and development of an action plan for the creation of the water committees;
- an assessment of the current status and development of an action plan for the creation of transparent and participatory cost recovery and reporting mechanisms.

The identification and formulation of potential participatory approaches would be assigned to the International Secretariat for Water, and would include the following:

- to assess the role of community based organisations and water committees to support improved water use, water conservation and hygiene;
- to assess possible division in labour between local authorities and community based organisations and water committees on information sharing, tariff and cost recovery issues; transparent reporting on service delivery; and, accountability of the water company to its customers.

For the consultant, community involvement should contribute to:

- mobilisation of the customers and fostering a change of mentality both in payment for services and water consumption and hygiene behaviour;
- women's participation as decision makers and agents of change;
- sound and transparent financial management and monitoring mechanisms as a factor for sustainability of the water scheme, but also as a basis for learning and empowerment;
- improved collaboration between local government and civil society.

TASKS OF THE CONSULTANT

The consultant is asked to identify and formulate a process that results in guidelines for the organisational set-up of the investment project, with an emphasis on the role of civil society partners and their interaction with local government and the water company. The guidelines should include:

- proposals, in terms of objectives, results, activities and roles of involved actors, with respect to the community mobilisation component of the project; these proposals should cover the preparation, the implementation and the exploitation phases of the water supply project;
- proposals, in terms of organisational and financial set-up, for the management of the water supply scheme, with an emphasis on the responsibility of the customers and the local government.

This identification and formulation process can include the following steps:

- a ***stakeholder analysis*** in order to identify the local actors who can play a role in the preparation and implementation of the water project. This mapping would include local and regional government, water company, local NGO's and community based organisations. The stakeholder analysis will assess the interest of each stakeholder for the project, his strengths and limits, and his relationship with other stakeholders;
- an ***assessment of experiences and lessons learnt*** by other development agencies in Tajikistan with respect to community involvement in water or other public service projects;
- a ***baseline survey among the customers*** of the water supply scheme in Khujand in order to assess their interest in the project, their behaviour and perception with respect to water use and payment, hygiene and the performance of the actual water supply, their willingness and capacity to pay for an improved water supply, their willingness and capacity to be involved in the set-up of the project and the management and information sharing mechanisms of the water utility;

- a ***Round Table with all local stakeholders*** in order to elaborate the guiding principles for the organisational set-up of the project, for the cost recovery and reporting mechanisms and for the social engineering component;
- the ***elaboration*** of the guidelines in a final report.

PROFILE OF THE CONSULTANT

The International Secretariat of Water (ISW) has been identified as the consultant to propose a methodology for this identification process due to its extensive experience with community involvement in water projects in the Ferghana Valley in the Kyrgyz Republic and Uzbekistan.

IMPLEMENTATION ARRANGEMENTS

The ISW will be assigned as the contractor for the assignment, with Mr. Stefan Lambrecht identified as the project manager and main service provider. Two field visits will be conducted according to the stages noted below.

DELIVERABLES

During a first two week visit (Field Visit One), the Consultant will conduct the stakeholder analysis, the assessment of other experiences and identify and contract a local consultant for the baseline survey. Terms of reference and methodology of the baseline survey will be detailed during this mission so that the first lessons of the stakeholder analysis and other experiences can fully be taken into account.

The local consultant will then conduct the baseline with the backstopping of the international consultant following Field Visit One. An interim report will be provided to the EBRD, summarising the main conclusions of the stakeholder analysis and assessment of experiences, and proposing detailed steps for the second visit (Field Visit Two) and a draft framework of guidelines.

During Field Visit Two the Consultant will propose the framework of guidelines to the local partners, conduct the Round Table and elaborate the guidelines together with local stakeholders.

The final report will include:

- the stakeholder analysis;
- the results of the baseline survey;
- the analysis of the lessons learnt from other similar experiences in Tajikistan;
- guidelines for a social engineering component and the management of the project.

All reports will be in the English language except the final report, which should be provided, in both the English and Russian language.

CONTACTS

ABDUCHAMIDOVA Gubachor	Volunteer sensitisation campaign Red Crescent Khujand
ABDUCHAMIDOVA Nargiza	Assistant Director ASDP-Nau
ABDUJALILOV Ibrahim	Deputy Director of Khujand Vodokanal
AMINOV Dr.	Physician on the Urology Department of Town Hospital
ATABAEV Anwar	Engineer of RRDP Khujand
BASELL Trudy	Mercy Corps; in charge of nation-wide WES-survey
BLANC Florentin	Regional Co-ordinator ACTED for Central Asia
BOBOEVICH Boboev Tohir	Technical Director “Abreshim” enterprise
BOYMURADOVA Malika	Manager Local Initiatives Support Fund programme of ASTI
DABRONOV Ikram	Assistant Project Officer WES UNICEF – Dushanbe
DADAJANOV Akmal	Manager of the Community Based Project of NSIFT
DEHQONOV Dr.	Head of surgery department of Town Hospital
FAIZIEV B.	Swiss Co-operation Tajikistan
FATOULAEVA Sanoat	Manager Sogd-Region for NSIFT
FIRUZ Parvona	Director of NGO The Fourth Power
GASANOV Muzaffar	Former manager of Tajik Solchoze and Kolchoze Water Supply
GIYOSOV Saydullo	Director General of the public market
GULOMJANOV Ilhom	Deputy Co-ordinator ACTED for Ferghana Valley
HASANOV Anwar	WATSAN-Engineer for Mercy Corps Khujand
HASANOV Olimjon	Director of the Rehabilitation of Water Supply System of Khujand City, Gafurov Township and Noviy Kvartal of Chakolvsk Town
IZADIFAR David	Country Director CESVI
JALOLOV Olimjon	Head of Khujand Khukumat
JALOLOVICH Homidov Bahodur	Chief Deputy of the Head of Khujand Khukumat
JOBOROV Abdujalol	Chief Doctor of Sanitary Epidemiological Control Sogd Province Unit
KELLERHANS Christian	Swiss Economic Co-operation Office
KHAIRULAEV Nematullo	Director Interproject
KHASHIMOV Mirzonarzullo	Director of “MMK” enterprise
KHUDONAZAROVA Angela	Water and Sanitation/irrigation Co-ordinator, Central Asia and Afghanistan; ACTED
KOSIMOV Tolib	Head of water sale department of Vodokanal
KUDRATOVA Aslima	Volunteer sensitisation campaign Red Crescent Khujand
MAMURHON Akramov	Director ASDP-Nau
Makhallia Committee of Chashma	
Makhallia Committee of Sirdaria	
MIRBAJDULOIEV Ubadulor	RRDP-Khujand

MOUKHTAROV Khayroullo	Director of “Dousti-Amirkhan” enterprise
MUCHAMADIEV Rahmon	Chief Sanitarian Doctor of the City of Khujand
NABIEV Naumdjon	Head of External Affairs for the Khujand Khukumat
NORMATOVA Madina	Head of Sogd branch Association to Support and Development of Entrepreneurship
PENA Fidel	Water and Sanitation Delegate; IFRC Tajikistan Delegation
PULOTOVA Mrs.	Deputy Director secondary school # 21
PUPULIN Luca	Co-ordinator ACTED for Ferghana Valley
ROGOZINA Svetlana	Deputy Director secondary school # 13
SAFAROV Bechrus	Head of the Reconstruction Project of Water Supply System in Dushanbe
SAIFIDINAVA Lola	Co-ordinator medical program Red Crescent Khujand
SAIFULLOEVA Munira	Director of ICA-EHIO
SANGINOV Mr.	Director enterprise “Cannery”
SHARIPOV Davron	Head of Department for External International Relations of Khukumat of Sogd Region
SHARIPOV Sharif	Project manager CARE Tajikistan
SULTANOV Mansur	Head of Technical Department Vodokanal Khujand
TESHEWEV Zafar	Project manager ECHO Tajikistan
TOURSOUN Abdoujaborov	Deputy Minister of Water Resources
USMANOV Muzaffar	Mission advisor EBRD Tajikistan
VAHOBOVA Munisa	Manager of Media Resource Centre Development
VALEYEV Nazar	Head of Khujand Branch for IFRC

MISSION ACTIVITIES

Thursday Sept 18 th	Flight Brussels – Almaty
Friday Sept 19 th	(Meeting with Deloitte & Touche cancelled on Sept 10 th) Flight to Dushanbe
Saturday Sept 20 th	Meeting with Deputy Minister of Water Resources Meeting with ACTED-Dushanbe
Sunday Sept 21 st	Documents
Monday Sept 22 nd	Meeting with ECHO Meeting with EBRD Meeting with CARE Meeting with International Federation of Red Cross and Crescent Societies Meeting with Red Crescent Tajikistan
Tuesday Sept 23 rd	Meeting with Deputy Minister of Water Resources and Interproject Meeting with UNICEF Meeting with ACTED-Dushanbe Meeting with CESVI Meeting with Mercy Corps and Action Against Hunger
Wednesday Sept 24 th	Flight to Khujand Meeting with ACTED-Khujand Meeting with Sogd Region
Thursday Sept 25 th	Meeting with Vodokanal Meeting with Khukumat of Khujand Joint meeting Khukumat and Vodokanal Meeting with NGO Fourth Power Meeting with NGO ASDP
Friday Sept 26 th	Meeting with NGO ASDE Meeting with NGO ASTI Meeting with IFRC Khujand Branche and RC-Tajikistan Khujand-Branche Meeting with RRDP Khujand-Branche Meeting with the Makhallia-Committee of Sirdaria Meeting with the Makhallia-Committee of Chashma
Saturday Sept 27 th	Visit of the existing water supply and sewage water system of Vodokanal in Khujand
Sunday Sept 28 th	Preparation of Questionnaire for base line survey Briefing note for EBRD
Monday Sept 29 th	Meeting with SEC Sogd province Meeting with NGO NSIFT Meeting with NGO ICA-EHIO Meeting with NGO ACTED Khujand branche
Tuesday Sept 30 th	Preparing base line survey with ASDP and ACTED Meeting with NGO Mercy Corps Meeting with NGO Fourth Power Visit Master System for water supply of Khujand city and area
Wednesday Oct 1 st	Meeting with SEC City of Khujand

	Preparing base line survey Joint meeting with Sogd region and Khujand Khukumat (Vodokanal didn't appear) Flight to Dushanbe
Thursday Oct 2 nd	Meeting UNICEF Meeting Red Crescent and IFRC Meeting EBRD
Friday Oct 3 rd	Meeting with the Project unit "Reconstruction of Water Supply System in Dushanbe" Report Flight to Almaty
Saturday Oct 4 th	Flight to Brussels
Sunday Oct 19 th	Flight Brussels – Istanbul – Tashkent
Monday Oct 20 th	Taxi to Khujand Joint meeting with Sogd region, Khujand Khukumat and Vodokanal Meeting with ACTED Meeting with ASDP-Nau
Tuesday Oct 21 st	Visit of "Cannery" (Fruit Juice Company) Visit of schools Visit of the public market Meeting with surgeons and urologist in hospital Meeting with representatives Swiss Co-operation
Wednesday Oct 22 nd	Meeting at Khujand Red Crescent Meeting with journalists Meeting with Khujand Khukumat and Vodokanal
Thursday Oct 23 rd	Visit of textile company "Abreshim" Visit of bottle company "MMK" Visit of company "Dousti Amirkhan" Meeting with bakers Meeting with ACTED
Friday Oct 24 th	Meeting with Vodokanal Finalising results of base line survey with ACTED and ASDP
Saturday Oct 25 th	Taxi to Tashkent Report
Sunday Oct 26 th	Report
Monday Oct 27 th	Tashkent – Istanbul – Brussels

**REHABILITATION OF KHUJAND DRINKING WATER SUPPLY
BASE LINE SURVEY**

Questionnaire

- 1) Name:
- 2) Address:
- 3) Number of people living in the house: Adults: Children:
- 4) What is the main source of the water you use in the house ? (Only one answer)

Water tap in the house, connected to the municipal water scheme	
Water tap in the yard	
Water tap in the neighbourhood	
Wells or boreholes in the neighbourhood	
Water delivered by tanks or trucks	
Others	

- 5) Are there other sources of water you use in the house or in the yard ? (Different answers possible)

Water tap in the house, connected to the municipal water scheme	
Water tap in the yard	
Water tap in the neighbourhood	
Wells or boreholes in the neighbourhood	
Water delivered by tanks or trucks	
Others	

- 6) Do you have a piped connection to the water supply system of the City ?

Yes		No	
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- 7) In average, how many hours a day is this connection functional ?

24 hours a day	
Between 18 and 24 hours	
Between 12 and 18 hours	
Between 6 and 12 hours	
Less than 6 hours	

- 8) How many interruptions of the water supply system did you have in the last month ?

None	
1 or 2	
Between 3 and 5	
Between 5 and 10	
More than 10	

- 9) How many water taps do you have in the house and in the yard ?

10) Where do you use the water from the tap for ?
 (give figures from 0 to 6 : 6 = most tap water is used for this purpose; 0 = we don't use tap water for this purpose)

Drinking, cooking...	
Bath, washing hands...	
Washing clothes...	
Toilets	
Cleaning house...	
Flowers, cleaning the yard, cleaning car...	
Vegetable garden, irrigation....	

11) How do we appreciate the quality of the water ? (Different answers possible)

Good quality	
The water is too hard	
The water has a bad taste	
The water is not safe for drinking	
The water is sometimes muddy	

12) Do we use the water from the tap for drinking ? (Only one answer)

No	
Yes, after boiling	
Sometimes without boiling	

13) How much do we pay monthly for the tap water ? (Only one answer)

We don't pay	
We normally pay 1 Somoni or less per month	
We pay more than 1 Somoni per month	
We pay more than 2 Somoni per month	
We pay more than 3 Somoni per month	
We pay more than 5 Somoni per month	
We pay more than 10 Somoni per month	

14) Besides this, do we spend money for other water resources ? (Different answers possible)

No	
Yes, sometimes we buy water at water trucks	
Yes, we buy bottled water for drinking	
Yes, sometimes we buy water in the neighbourhood	

15) In average, how much do we spend monthly for this other water resources ?

Not more than 2 Somoni per month	
Not more than 5 Somoni per month	
Not more than 10 Somoni per month	
More than 10 Somoni per month	

16) What is for you the most important problem of the municipal water system ?
 (Most important problem = 1; second most important problem = 2.... Not a problem = 0)

The service is frequently interrupted	
The water is too hard	
The water is not safe for drinking	
The water is too expensive	

17) If the water system should be repaired to give safe and soft drinking water 24 hours a day, each day of the year, how much can we contribute monthly for this service ?

Less than 2 Somoni per month	
From 2 up to 5 Somoni per month	
From 5 up to 10 Somoni per month	
More than 10 Somoni per month	

18) If water meters should be installed, and you pay the water according to the quantity you really use, for which of the following purposes should you use this paid water ? (Different answers possible)

Drinking, cooking...	
Bath, washing hands...	
Washing clothes...	
Toilet	
Cleaning house...	
Flowers, cleaning the yard, cleaning car...	
Vegetable garden, irrigation....	

19) In average, how much do we pay monthly for gas ?

In the summer	
In the winter	

20) In average, how much do we pay monthly for electricity ?

In the summer	
In the winter	

Guidelines

- i. The base line survey is conducted in the framework of the planned rehabilitation of the drinking water supply scheme of the City of Khujand. It aims a better insight in the actual behaviour and in the expectations of the population with respect to the water supply scheme. The actual state of service and the willingness of the customers to contribute to an improved service are also assessed.
- ii. The survey covers 520 households, selected at random. In each of the 18 Makhallia and in each of the 8 building compounds, an at random selection of 20 households will be questioned. The local consultant takes care of a sound “at random” distribution of the selected households in each neighbourhood.
- iii. In each household, only one questionnaire is answered. All questions are related to the situation of the house or the household as one entity. There is no need for individual survey.
- iv. The survey has to be conducted before October 20th. It is estimated that a team of 4 fieldworkers will need 2 weeks. The survey has therefore to start on October 6th for the latest.
- v. The local consultant works under the written guidelines of this concept paper. ACTED-Khujand is the liaison to the international consultant assigned by the EBRD. All questions the local consultant might have during the accomplishment of his mission shall be discussed with ACTED-Khujand.
- vi. The local consultant will conduct the following activities:
 - translate the questionnaire in Russian (or Tajik);
 - select, contract, train and supervise 4 fieldworkers;
 - make a copy of the questionnaire for each interview;
 - guarantee an at random selection of the surveyed households, according to the criteria given before;
 - analytic treatment of the data;
 - summarise the results of the survey in an English document.
- vii. The fieldwork has to be completed before October 20th; the summary of the results has to be completed not later October 25th.

Contract of consultancy services

In the framework of the preparation of the rehabilitation project for the water supply scheme of the city of Khujand, engineer Stef Lambrecht has been assigned by the European Bank for Reconstruction and Development to conduct a Social Assessment and Stakeholder Participation Study in Khujand during September-October 2003.

This Study includes: (i) a stakeholder and civil society information analysis; (ii) the review of local experiences and lessons learned; (iii) a survey of customers' behaviour, expectations and willingness to pay with respect to the water service.

For this study, Stef Lambrecht assigns:

ACTED-Khujand, based # 15, Nekrasova Street, Khujand,

who accepts,

as the main local consultant, according to the following terms and conditions:

- i. The tasks of the local consultant consist of:
 - facilitate meetings for Stef Lambrecht with civil society organisations, community based organisations, local authorities and other stakeholders in Khujand;
 - give regular feedback on the findings and proposals of Stef Lambrecht through the participation at some meetings with key stakeholders and through briefing meetings between the consultant and Stef Lambrecht;
 - initiate and conduct a Base Line Survey at the household level in the city of Khujand; the Survey includes 520 households, selected at random in the different neighbourhoods of the city.
- ii. The Base Line Survey should be conducted before October 20th and the analytic summary of the results should be available in English, not later than October 25th. The Questionnaire and Guidelines for the Base Line Survey are attached to this Contract and are accepted by the local consultant.
- iii. The consultant may eventually subcontract the implementation of the fieldwork for the Survey in order to respect the deadline. In that case, ASDP-Nau will be selected as subcontractor for his experience with base line surveys and analytic treatment of data. The main contractor remains fully accountable for the services and deliverables produced by the subcontractor.
- iv. For the mentioned consultancy services, Stef Lambrecht will pay ACTED-Khujand the non-revisable amount of 1,000 USD. The payment of this consultancy fee will include the costs of the Base Line Survey, even if the consultant decides to subcontract it to ASDP-Nau.
- v. The consultancy fee will be paid in USD at the end of the contract when the final report of the analytic summary of the Base Line Survey is handed over to Stef Lambrecht.

Done at Khujand, on September 24th 2003

Stef Lambrecht

For ACTED-Khujand

Annex 5 : results of the base line survey