



**PROJECT IDENTIFICATION FORM (PIF) <sup>1</sup>**  
**PROJECT TYPE: Full-sized Project**  
**TYPE OF TRUST FUND:SCCF**

**PART I: PROJECT IDENTIFICATION**

Project Title:	Increasing Climate Resilience through Drinking Water Rehabilitation in North Tajikistan		
Country(ies):	Tajikistan	GEF Project ID: <sup>2</sup>	4263
GEF Agency(ies):	EBRD (select) (select)	GEF Agency Project ID:	40717
Other Executing Partner(s):	KMK and Water Companies in each of the 7 participating cities	Submission Date:	2010-09-21
GEF Focal Area (s):	(select)	Project Duration(Months)	36
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>		Agency Fee (\$):	272,706

**A. FOCAL AREA STRATEGY FRAMEWORK<sup>3</sup>:**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
CCA-1 (select)	Outcome 1.2: Reduced vulnerability to climate change in development sectors	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	2,527,067	20,650,000
CCM-2 (select)	Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	200,000	1,920,000
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)				
(select) (select)	Others			
Project management cost <sup>4</sup>				

<sup>1</sup> It is very important to consult the PIF preparation guidelines when completing this template.  
<sup>2</sup> Project ID number will be assigned by GEFSEC.  
<sup>3</sup> Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.  
<sup>4</sup> GEF will finance management cost that is solely linked to GEF financing of the project.

<b>Total project costs</b>	2,727,067	22,570,000
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## B. PROJECT FRAMEWORK

<b>Project Objective: The improvement of the climate resilience of drinking water supplies in seven cities in Northern Tajikistan (Karaikkum, Kanibaidam, Isfara, Gaufurov, Taboshar, Chkalovsk and Khorog) by establishing a) encouraging water use efficiency, b) more reliable and climate resilient water sources and rehabilitating water supply infrastructure, and c) reforming water utility management including tariff reform, leading to more sustainable supplies of safe drinking water that are resilient to the expected impacts of climate change, and are environmentally and financially sustainable.</b>					
Project Component	Grant Type (TA/INV)	Expected Outcomes	Expected Outputs	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
1. Water conservation and rational use of drinking water	Inv	Improved efficiency of drinking water use, reducing pressure on water resources	<ul style="list-style-type: none"> <li>* Installation of water meters at points of delivery</li> <li>* Customer awareness of water conservation and rational water use enhanced through education campaigns</li> <li>* Water companies have equipment to maintain the renovated water supply systems</li> </ul>	0	10,150,000
2. Rehabilitation of drinking water supply	Inv	Reliable and climate resilient supply of drinking water, reducing pressure on climate vulnerable shallow water resources	<ul style="list-style-type: none"> <li>* Deep groundwater water intake, where appropriate, thus eliminating dependence on surface water sources for drinking water</li> <li>* Renovation of pumping stations that serve supply systems</li> <li>* Improved capacity and reduced losses in water storage</li> <li>* Increased recycling of wastewater reducing resource pressure</li> <li>* Reduced losses from water distribution systems</li> </ul>	2,527,067	10,500,000
3. Corporate	TA	Water companies	* Tariffs for water	0	1,550,000

development and governance of water companies and city authorities		are well managed and financially viable	services cover O&M, debt service and capex contribution so water companies are financially viable * Water User Committees established in each neighbourhood * Increased transparency in the management and governance of water companies		
4. Due diligence and M&E	TA	Projects are implemented cost effectively & transparently, with significant demonstration value	* Aquifer management plan created * Transboundary disclosure of impacts ensured * Baseline established * Progress of physical implementation as well as the institutional reform and development are carefully monitored * AMAT data available for impact tracking * Lessons are learnt, enhancing future climate adaptation activities of IFIs	200,000	370,000
	(select)				
	(select)				
	(select)				
	(select)				
	(select)				
	(select)				
Project management Cost <sup>5</sup>				0	0
<b>Total project costs</b>				2,727,067	22,570,000

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
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<sup>5</sup> Same as footnote #3.

National Government	Government	In-kind	500,000
GEF Agency	EBRD	Hard Loan	10,000,000
GEF Agency	EBRD - Water Fund	Grant	700,000
GEF Agency	EBRD - Early Transition Fund	Grant	370,000
Bilateral Aid Agency (ies)	Swiss Government	Grant	10,000,000
Bilateral Aid Agency (ies)	SECO	Grant	1,000,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
<b>Total Cofinancing</b>			<b>22,570,000</b>

**D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>**

GEF Agency	Type of Trust Fund	Focal area	Country name/Global	Project amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
EBRD	SCCF	Climate Change	Tajikistan	2,727,067	272,707	2,999,774
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				2,727,067	272,707	2,999,774

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

<sup>2</sup> Please indicate fees related to this project.

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

#### **A.1.1 THE GEF FOCAL AREA STRATEGIES:**

This project addresses the two key objectives of the SCCF by aiming to reduce the vulnerability of communities in Northern Tajikistan (SCCF objective 1) to the adverse impacts of climate change and climate variability through investments and awareness raising in drinking water conservation and use, and the rehabilitation of drinking water supply using reliable and climate resilient sources, and by increasing adaptive capacity (SCCF objective 2) to respond to the impacts of climate change and variability in the project area through targeted awareness raising, corporate development in water companies and city authorities including addressing tariffs and sustainable water management.

#### **A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:**

Tajikistan has ratified the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. It is a low-income country and is widely recognised as being highly vulnerable to climate change, as illustrated in a recent Oxfam report. Changes in hydrology and the availability of water resources is one of the main ways in which Tajikistan is likely to be affected by climate change over the coming decades. This proposed project is country driven and supports the Government of Tajikistan's goal of ensuring that the population has access to safe, reliable and sustainable water supplies, and is consistent with the priorities of the National Development Strategy, the National Environment Action Plan, the National Action Plan on Climate Change Mitigation and the Poverty Reduction Strategies. Furthermore, this activity complements the Pilot Programme for Climate Resilience (PPCR) in Tajikistan, as set out below in section B6. This project will make an important contribution towards improving the preparedness of communities in the project area for climate change, and is therefore focused on preventing adverse impacts on the population, rather than reaction. As well as making a direct contribution to improvements in the physical infrastructure that Tajikistan needs to become more resilient to climate change, it will also help to build the institutional capacity needed for this infrastructure to be managed and maintained in a sustainable manner, including financial sustainability.

#### **A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAs, NIPs, PRSPs, NPFE, ETC.:**

Promoting resilience to climate change is a top priority for the Government of Tajikistan. In 2008 the World Bank identified Tajikistan as the most climate vulnerable country in the ECA region. Since then, climate change has risen to the top of the Government's agenda and has been further promoted by the PPCR (see section B6). Improving the reliability of urban water supplies is also a high priority of the Government. EBRD's focus on improving urban water supplies enjoys the full support of the Government of Tajikistan, which recognises climate change adaptation and water resource management to be high priorities. It is consistent with the priorities of the National Development Strategy, the National Environment Action Plan, the National Action Plan on Climate Change Mitigation and the Poverty Reduction Strategies. Furthermore, this activity complements the PPCR in Tajikistan, as outlined in section B6. The importance attached by the Government of Tajikistan to water resource management issues is illustrated by the fact that they hosted the UN High Level International Conference on the Mid-term Comprehensive Review of the Implementation of the International Decade for Action, "Water for Life," in June 2010.

### **B. PROJECT OVERVIEW:**

#### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

Tajikistan's economy is highly vulnerable to both climatic extremes and climate change. The state has the lowest per capita GSP (US \$580 in 2007) of the countries in which EBRD operates. More than 80% of the population lives below the poverty line as defined by the United Nations. Furthermore, Tajikistan is the most vulnerable country to climate change in the ECA region. Global climate models project changes in temperature and precipitation that are highly likely to affect the availability of water resources. Water

availability, as suggested by the Second National Communications scenarios, will become increasingly erratic and insecure, and local communities and economies will continue to suffer from water scarcity for essential needs, such as drinking water and water for other household needs.

Reflecting the current and historical economic challenges faced by the country, urban water supply and wastewater treatment infrastructure in some of Tajikistan's cities are failing. Water supplies are intermittent and of poor quality. Supply and delivery infrastructures have been poorly maintained, often inoperable or unreliable. Water supplied to customers is generally unsafe because of lack of treatment and leakage of contaminated water into the distribution network. Health impacts associated with water borne diseases heavily impact the population. Wastewater treatment systems are either absent or unable to service demands and meet environmental guidelines. Water utilities and municipalities tend to set tariffs below cost recovery. This, together with low collection rates, means that users regard municipal water supplies as a virtually free service and consequently use water irrationally and often wastefully.

### **Climate impacts on drinking water supply**

The capacity of existing drinking water infrastructure to deliver clean and reliable water is likely to be negatively affected by climatic extremes and climate change. Supply reliability could reflect short-term fluctuations in precipitation and availability of surface water, as well as the longer-term impacts of climate change on these and the glacial melt-water that is the principal source of water. Urban water infrastructure may also be affected by competition for water between other users (particularly agriculture). This situation means that Tajikistan's dilapidated water infrastructure is not able to cope with the expected impacts of climate change.

The situation of dilapidated infrastructure and climate change vulnerability is particularly acute in the cities of Northern Tajikistan (Kairakkum, Kanibadam, Isfara, Gaufurov, Taboshar, Chkalovsk). Drinking water in these cities, which are located within the Ferghana Valley, are highly likely to be negatively affected by climate change.

- Reduced availability of surface water resources due to climate change
- Resource availability reductions exacerbated during summer periods due to increased irrigation demands on surface water resources due to higher summer temperatures

Moreover, Tajikistan as a whole and local water companies in particular have a relatively low adaptive capacity. As such it is crucial that investments are made climate proof and climate friendly.

### **Root causes**

The root causes of these problems lies in the neglect and under-investment over the last twenty turbulent years since the collapse of the Soviet Union. However, the poor condition of the remaining drinking water and wastewater infrastructure means that it – and the populations that it is meant to serve – are extremely vulnerable to the projected impacts of climate change. Furthermore, business-as-usual investment in water supply rehabilitation that does not factor in climate change vulnerability and adaptation options is likely to be an inadequate response to the forecast climate-driven pressures on water supplies over the coming decades.

### **Cities included in this project**

Key characteristics of the seven cities included in this project are given in the table below:



	Population (2010)	Population projection (2025)	Inhabitants connected to water supply, 2010), and % of inhabitants	Estimated actual water demand, m <sup>3</sup> (2010) <sup>6</sup>	Drinking water access (hours/day)	Reliability of supply (2010)
Isfara	43,400	57,500	23,200 (53 %)	1,965,900	0-18	45%
Kanibaidam	49,100	66,015	25,500 (52 %)	1,134,500	0-24	25%
Kairakkum	13,900	18,400	9,850 (71 %)	1,000,900	1-4	50%
Gafurov	16,800	22,200	14,800 (90 %)	2,565,800	0-4	86%
Taboshar	14,100	17,000	10,500 (75 %)	745,200	1-4 some 24h, 10 mo / yr	45%
Chkalovsk	24,800	32,889	16,700 (71 %)	7,706,200	1-7	85%
Khorog	28,200	33,800	17,700 (63 %)	1,979,100	1-12	75%

### Baseline drinking water use and efficiency

Urban water systems in the participating cities are currently subject to significant water losses. In the specific case of the project area utilities, the water supply system is characterized by:

- Large levels of wastage by consumers – leaving taps running, poor internal plumbing
- High levels of water theft through illegal connections
- Very high levels of network leakage

Losses are therefore considerable as shown in the table below which provides estimates of losses from domestic wastage, network leakage and other losses for the project cities:

	Domestic wastage 2010		Network leakage 2010		Other losses 2010		Total losses 2010	
	%	m3/year	%	m3/year	%	m3/year	%	m3/year
Isfara	14%	285,000	41%	1,788,000	16%	690,000	<b>71%</b>	2,763,000
Kanibaidam	31%	350,000	57%	2,595,000	9%	430,000	<b>97%</b>	3,375,000
Kairakkum	21%	210,000	41%	830,000	15%	310,000	<b>77%</b>	1,350,000
Gafurov	10%	310,600	44%	1,318,000	9%	280,000	<b>63%</b>	1,908,600
Taboshar	11%	190,000	45%	750,000	11%	175,000	<b>67%</b>	1,115,000
Chkalovsk	5%	440,000	47%	4,300,000	12%	1,050,000	<b>64%</b>	5,790,000
Khorog	11%	210,000	44%	1,150,000	13%	350,000	<b>68%</b>	1,710,000

Sustained efforts are therefore needed to reduce water demand. Even where supply-side options exist reducing demand is likely to increase the robustness of the system and its ability to scope to improve demand-side operations through a combination of reduction in physical losses, and increased control and accountability by the end user through improved metering and billing and better tariff setting.

It is important to note that in the context of this project, research has indicated a number of variations:

- Although supply side wastage is high, actual per capita use is often much lower than the commonly cited figures due to the low reliability of supplies (that only operate for a few hours each day)
- Many customers recognise the advantages of metering – they perceive this as a means of only paying for what they use rather than being subject to the application of norms which are unrealistically high
- The water utilities increasing recognise the need for stakeholder engagement.

<sup>6</sup> With losses and taking into account reliability of supply.

The water companies in these cities also lack sufficient equipment needed to carry out daily maintenance and repair activities. The lack of basic spare parts and repair facilities are limiting the amount of needed repairs and maintenance activities. Normally, only emergency repairs are carried out, and only when this is economically possible. The situation has resulted in worn out and poorly performing infrastructure.

### **Baseline supply of drinking water and use of shallow water resources**

The current situation for water supply in the seven participating cities has been assessed by EBRD through a detailed feasibility study, with key results for each city presented in the tables and text below:

*Isfara:* the sources of water supply are underground water boreholes and surface water. The system is worn out and at present water is supplied 2-4 hours per day. The water intake needs to be renovated and a water treatment plant constructed. The distribution system, laid in 1963-1968, needs to be upgraded to provide reliable supply. The city has a wastewater collection system and a treatment plant, but selected wastewater improvements are required to maintain minimal function of the system. Isfara has the potential to use the Isfara River as a source. However, surface water sources are heavily used for agricultural purposes and are, in accordance with conflict reduction measures, subject to regulated flows in order to meet international commitments. As such, and given the availability of deep groundwater resources, the preferred option is to extend and renew the existing water abstraction facilities. In the absence of such investment lower quality and reliability would be achieved.

*Kanibaidam:* there are 4 boreholes in the city, but the water supplied is not potable. Water is also taken from the Fergana Irrigation Channel, which is heavily polluted and dry 8 months of the year. The city relies on 17 water distribution trucks to provide minimum subsistence levels to the population. This method comes at high cost with each family receiving 3-4 m<sup>3</sup> for 65-75 TJS (approximately USD 15) per month. The WB and the Government have pledged USD 850,000 to rehabilitate pumping stations and replacement of 2.2 km of pipes, but this intervention does not cover the investment needs in the water sector in the city. A similar situation exists in Kanibadam as in Isfara. However, in the case of Kanibadam there is the potential to use Artesian flows originating from deep groundwater sources thereby reducing the need for pumping and enhancing climate resilience.

*Karaikkum:* at present, water is supplied 3 hours in the morning and 3 hours in the evening. The quality of the water supplied is low and it is possible that a new source is required for sustainable water supply. In addition the pipe network and pumps need rehabilitation/replacement. At present, untreated wastewater is discharged into the Kairakkum Water Reservoir, which means that the currently practice of using used surface water runs the risk of contaminating drinking water supplies.

*Gafurov:* the water supply in Gafurov is totally worn out. At present there are 15 boreholes in various locations. These boreholes produce 12,000 m<sup>3</sup> in the winter and 25,000 m<sup>3</sup> in the summer, but due to leakages only 6,000 m<sup>3</sup> is delivered to the consumers. The pumps run for 5 hours in the morning and 5 hours in the evening, but this only transmits into water supply for about 3 hours each session for consumers. There is no reservoir and no back up system. The city does not have a wastewater treatment plant. The City currently uses moderately deep wells. The extension of these wells to extract from the lower groundwater layers (250m total depth) is proposed in order to improve reliability and quality (based on available pumping records over the last decade or so)

*Tabashar:* the water supply system has almost collapsed in the city with water losses amounting to at least two-thirds of supply. Water is pumped from a source outside of town. The population receives water for 2 hours every 3 days. People store water in all possible ways and the city has constructed 10 public toilets for the population to use. There is a source of water inside the city, but it can only be used for watering parks, as the water contains uranium. At present there is no wastewater treatment at all. The potential for utilizing both surface and groundwater sources in Taboshar has been evaluated. The adopted strategy represents a mixed approach (maintaining source diversity), but re-balances source demands so as to reduce the reliance on surface water in the interests of achieving a more climate resilient system.

*Chkalovsk*: needs to upgrade its water supply system by replacing the pipe network, which is 50-60 years old. In addition, pumping stations need to be rehabilitated. In the winter the city has permanent water supply, except during electricity cuts when the pumping stations stop. In the summer, water is supplied according to a schedule. The City currently has the possibility of using both surface water and deep groundwater, but in the absence of investment the groundwater abstraction system will become unusable and result in reliance solely on surface water, which is more vulnerable to climate change and to conflicts with other water users (e.g. irrigation).

*Khorog*: water is supplied from three sources: the Khufak Source, Siyob-Khorugh Water Pipe and an underground water intake. The volume from water intakes is adequate, but the distribution system, installed 40 years ago, is in a dilapidated state with water losses reaching 50 per cent. During the winter when electricity is restricted, water is supplied according to a schedule based on electricity supply. In Khorog the concerns for sustainability relate both to water resources but also to energy use. The present reliance (to a large extent) on deep wells presents a substantial energy burden (and a financial burden which the company is currently not meeting). The proposed solution is source diversification to be achieved by maintaining existing deep wells while using shallow groundwater from riverside boreholes upstream.

### **Baseline management and financial situation in water companies**

Agricultural use of water for irrigation and rural water supplies fall under the responsibility of Ministry of Water Resources and Melioration, whereas urban drinking water supplies are the responsibility of Khojagii Manziliu Kommunalni (KMK) and individual cities/municipalities. However, the Ministry of Water Resources and Melioration in cooperation with the Geological administration remains responsible for managing water balances and determining schemes of complex use. As such the mechanism for the resolution of conflicts between different uses is at the level of the Ministry.

The current arrangement is sub-optimal and further policy dialogue is needed between the Tajik authorities and the wider development community to improve this situation and improve water management across sectors, both in urban and rural settings. Reform is planned and measures are being taken by the Ministry of Melioration and Water Resources. This is a long-term sector reform issue that will require time and the engagement of a wide range of development partners. It is a complex, sector-wide governance issue that cannot be resolved by EBRD alone, and certainly not by this project alone. While agricultural irrigation reforms are outside the scope of this project, which is focused on addressing the urgent needs of urban populations for safe, reliable and climate-resilient water supplies, EBRD is very conscious of the need for wider sector reform to improve water sector governance.

The participating water companies from the seven participating cities are, with the exception of Chkalovsk, owned by KMK, a state owned holding company responsible for the delivery of basic municipal services such as water supply and wastewater services. All seven companies have significant scope to improve corporate management and performance including:

- Control over assets and service agreement
- Organisation (current corporate status, management structure, internal and external reporting lines, decision making bodies, and staff employed).
- Management Information Systems
- Revenue Improvement Measures
- Accounting, budgeting and cash management
- Revenue Collection Procedures
- Operational efficiency
- Environmental management
- Public and customer relations

EBRD is actively involved in policy dialogue on water sector reforms and is contributing through its current support (as part of the Corporate Development, Stakeholder Participation and City Support Programme of the South Tajikistan Water Rehabilitation Project) for the transformation of KMK into an independent water sector regulator.

**B. 2. INCREMENTAL /ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:**

**Project objective**

This project will improve the climate resilience of drinking water supplies in six cities in Northern Tajikistan (Karaikkum, Kanibaidam, Isfara, Gaufurov, Taboshar, Chkalovsk), and one in the autonomous region of Gorno Badakhstan (the City of Khorog). The project will seek three main outcomes:

- a) Promoting water use efficiency,
- b) Establishment of more reliable and climate resilient water sources and rehabilitating water supply infrastructure, and
- c) Improved management of water utilities including tariff reform to ensure cost recovery.

The project is designed to result in more reliable and sustainable sources of drinking water that will be identified with consideration of likely climate change impacts, greatly reduced water losses through the rehabilitation of leaky distribution networks and pumps, the installation of metering, which, together with improvements in billing and collection efficiency and tariff reform at the national level, will encourage more rational and efficient use of water resources. These measures will significantly improve the climate resilience of water supplies and reduce the vulnerability of populations to climate change in the target areas.

The project activities will be implemented through four closely related components:

**Component 1: Water conservation and rational use of drinking water**

*Outcome 1: Improved efficiency of drinking water use, reducing pressure on water resources*

The outcome of the first project component is to improve the efficiency of urban water use, thus reducing pressure on water resources and improving climate resilience. This outcome will be achieved through the installation of water meters at points of delivery, the raising of customer awareness of water conservation and rational water use through education campaigns, and the provision of equipment allowing water companies to maintain the quality of their services into the future. Water meters will be installed in all participating cities in both domestic and commercial properties. The awareness component will seek to enhance public ownership by encouraging water conservation, increasing public participation in the provision of water services (service quality, rehabilitation activities, tariffs integrating poverty and social issues) and raising public awareness on issues related to the project implementation and water use through establishment of the Water Users Committees (“WUC”). Furthermore, this project component will integrate poverty and social issues into the proposed tariff reforms and thereby assist the Companies to improve their corporate governance. Finally equipment is needed by water companies for daily maintenance and repair activities, including jetting equipment, trucks, mobile cranes, compressors and basic tools including welding equipment, etc. This component is entirely funded by EBRD (loans) and the EBRD multi-donor Water Fund (grants). The activities proposed include:

Action	Cities	Adaptation Relevance	Co-Benefits for Utility
Metering of consumer supplies	New water meters will be installed in all cities	Reduced leakage and hence resource requirement	Reduced operating costs Increased transparency of charging system and associated increases in willingness to pay and predictability of revenue stream
Consumer education	Consumer education to take place in all cities	Reduced resource wastage	Reduced operating costs due to lower supply volumes
Renewal (R) or construction (C) of supply network	Gafurov (C), Taboshar (R), Chkalovsk (R)	Reduced leakage and hence resource requirement	Reduced operating costs

As a result of project activities, despite growth in overall demand, the system losses will reach the estimates given in the table below:

	Domestic wastage 2025		Network leakage 2025		Other losses 2025		Total losses 2025	
	%	m3/year	%	m3/year	%	m3/year	%	m3/year
Isfara:	0%	0	32%	1,218,000	6%	220,000	38%	1,438,000
Kanibaidam:	9%	33,000	48%	2,800,000	3%	180,000	60%	3,013,000
Kairakkum:	7%	100,000	30%	480,000	5%	80,000	42%	660,000
Gafurov:	0%	0	29%	586,000	7%	140,000	36%	726,000
Taboshar:	7%	90,000	37%	490,000	7%	90,000	51%	670,000
Chkalovsk:	5%	220,000	31%	1,450,000	8%	400,000	44%	2,070,000
Khorog:	7%	150,000	35%	890,000	4%	100,000	46%	1,140,000

## Component 2: Rehabilitation of drinking water supply

*Outcome 2: Reliable and climate resilient supply of drinking water, reducing pressure on climate vulnerable shallow water resources*

The project will improve the supply of drinking water to seven cities through activities to create or improve deep groundwater water intake, where appropriate, thus eliminating dependence on surface water sources for drinking water; renovate pumping stations that serve supply systems; improve capacity and reduced losses in water storage; increase recycling of wastewater reducing resource pressure; and reduce losses from water distribution systems. As a result of project investments in water supply, the climate vulnerability of the urban populations will be sustainability reduced. The investments proposed include:

Action	Cities where action is likely to take place	Adaptation Relevance	Co-Benefits for Utility
Renovation (R) or construction (C) of groundwater extraction from the lower aquifers (150m)	Isfara (R), Kairakkum (R), Gafurov (R + extension), Chkalovsk (R),	Increased reliability of supply in face of greater fluctuations in shallow aquifer recharge	Improved water quality due to reduced impact of surface contamination
Renovation (R) or construction (C) of artesian wells arising from lower aquifers	Kanibadam (C), Taboshar (R), Khorog (R)	As above, plus reduced reliance on electrical energy (the reliability of which will potentially reduce as a consequence of climate change)	Reduced operating costs
Renewal (R) or construction (C) of reservoirs	Isfara (C), Kanibadam (R), Kairakkum (C), Gafurov (C), Taboshar (R), Khorog (R)	Improved reliability of supply since water can be stored from a range of water sources	Reduced operating costs and quality of service
Renewal of pumping apparatus	Kairakkum (R), Chkalovsk (R), Khorog (R)	Increased efficiency and reduced reliance on electrical energy supply	Reduced operating costs
Wastewater collection and treatment	Isfara (R), Kanibadam (R), Kairakkum (R), Khorog (R)	Reduced potential for source contamination Potential for safe use of treated water and sludge as resource – hence reducing primary resource pressures	Improved revenue arising from better service and associated increase in willingness to pay Reduced pollution charges

As a result of project activities it is projected that the reliability of drinking water supply will improve significantly in the seven participating cities. Along with demand side actions (outcome 2 below) this will result in a limited growth of water demand (in some cases a reduction despite population growth) as shown in the table below. In the case of Kanibaidam there is significant improvement in reliability of supply, a growing population, with a comparatively modest increase in water demand.

	Population growth from 2010 – 2025 (%)	Projected water demand, m <sup>3</sup> (2025)	Change in water demand from 2010 to 2025 (%)	Reliability of supply (2010)	Reliability of supply (2025)
Isfara	32%	3,576,800	82%	45%	95%
Kanibaidam	34%	3,347,600	195%	25%	60%
Kairakkum	32%	1,446,700	45%	50%	90%
Gafurov	32%	1,996,500	-22%	86%	100%
Taboshar	21%	4,729,500	-39%	45%	88%
Chkalovsk	33%	1,159,400	56%	85%	100%
Khorog	20%	2,259,700	14%	75%	90%

### Component 3: Corporate development and governance water of companies and city authorities

*Outcome 3: Water companies are well managed and financially viable*

Under the project alternative the following outputs will be delivered:

- Tariffs for water services cover O&M, debt service and capex contribution so water companies are financially viable,
- Water User Committees established in each neighborhood, and
- Increased transparency in the management and governance of water companies

Tariff reform is a critical element of this institutional support. Following the structure of EBRD's South Tajik Water Rehabilitation Project (currently under implementation), the Loan Agreement for the North Tajikistan Water Rehabilitation Project will covenant a revised tariff setting methodology securing full cost recovery within the frames of affordability constraints. The seven cities will sign Project Support Agreements with EBRD. These will include covenants such as securing timely payment of water bills from public institutions and signing of a Public Service Contract with the Vodokanals. The Public Service Contract will structure the relation between the cities and the Vodokanals. It will cover service provision such as production volume and quality.

The project includes specific tariff conditionality for each city that will be covenanted in the EBRD loan agreements. A new draft tariff policy has been developed within the framework of EBRD's South Tajik Water Rehabilitation Project. This tariff policy, which is currently under review by KMK and the Anti-Monopoly Agency, would help the water companies to cover operating costs, depreciation, debt service and a contribution to capital expenditure, while protecting low income families from hardship. Conditionality in the agreements will induce the cities to pressure public sector entities within their control to pay their bills to the water utility.

Within the current project, the following specific tariff conditionality will be covenanted in the loan agreement:

- Formal adoption of above revised tariff policy, securing cost recovery within affordability constraints
- Implementation of the revised tariff policy
- Average collection rates of 80% in 2011, 85% in 2012, 90% in 2013, and 92% for 2014 and at all times thereafter
- Increase water and wastewater tariffs in real terms as follows:
  - Chkalovsk: 100%
  - Gafurov: 100%
  - Isfara: 150%
  - Kanibaidam: 200%
  - Karaikkum: 35%
  - Khorog: 50%
  - Taboshar: 80%
- Annual review and adjustment of the water tariffs in accordance with the revised tariff policy
- Public sector entities to pay 100 per cent of their bills

WUCs will be set up at the level of neighbourhood associations by the existing Makhalla Committees. The Consultant will help the Makhalla Committees to create and mobilise the WUCs. An information campaign about the importance and planned roles of the WUCs will be followed by meetings with the communities from each Makhalla. In particular, the project will strongly encourage the Makhalla Committees to ensure an equitable representation of all population groups (in particular women) on the WUCs. Furthermore, the Consultant will assist the WUCs with training and provision of material.

The main tasks of the WUCs will comprise:

- Gathering concerns and complaints of their area's private household clients and ensure that they are forwarded to Company and/or the City (e.g. quality of service, affordability of tariffs);
- Representing the clients in the consultation process carried out by the Company and the local authorities on issues related to water provision (e.g. programming of rehabilitation measures, introduction of water meters, tariff changes);
- Assist the Company with the dissemination of information to the clients (e.g. regarding construction works, installation and treatment of meters, water cuts and shortages).

This project component will assist the water companies to with public procurement processes, as well as to improve their commercial standing, service and environmental performance by supporting the identification and implementation where necessary establishment of the corporate, financial, operational and environmental management required to meet the related covenants included in the EBRD financing documents. The project will assist participating water companies to develop medium-term focused corporate development plans and to improve their corporate planning capacity to assist ongoing transition towards becoming self-sustaining entities and commercial operations, as well as implementing the Environmental and Social Action Plan (“ESAP”)

The project will also take actions to address barriers at the national level by providing support to KMK and the Anti-Monopoly Agency (“AMA”), subject to the formal decision of the Tajik authorities to establish these regulatory authorities. The idea is to establish AMA as an independent multi-utility regular (tariff regulation) and convert KMK as a technical regulator at one point. The long term objective is that water utilities will be released from KMK ownership and become independent under municipalities’ supervision. KMK will become a water sector regulator (technical). The support within the frames of the present assignment will lay the ground for KMK transformation into a regulator.

#### **Component 4: Due diligence and M&E**

*Outcome 4: Projects are implemented cost effectively & transparently, with significant demonstration value*

Component 4 will focus on ensuring that the projects in each city are implemented cost effectively and in a transparent manner and that the demonstration value of SCCF funding is maximized. Activities under this component include:

- Development of an aquifer management plan for the project region
- Application of the principles of the Espoo convention with respect to transboundary disclosure of information about potential project impacts - i.e. the authorities in neighbouring Uzbekistan and Kyrgyzstan will be informed of the intention to renovate deep aquifer wells near their borders. This will be integrated into the Stakeholder Engagement Plans for each city.
- Establishment of project monitoring baselines
- Monitoring of the physical implementation as well as the institutional reform and development during the course of the project
- Timely tracking and reporting of adaptation impacts using the GEF Adaptation Monitoring and Assessment Tool (AMAT)
- Synthesis and communication of lessons from the project to enhancing future climate adaptation activities of IFIs.

#### **The Adaptation Benefit and Project Additionality**

The Project as a whole has been designed on the basis of a long-term plan, which considers a range of potential changes over time, including water resource availability, water demand, population and use patterns. In particular, the project has sought to ensure a more sustainable approach to both the selection and the use of water resources, taking into account the expected impacts in climate change. In particular, the prior assessment of vulnerability has led to the identification of project activities that will assist the water utilities in becoming both climate resilient and resource efficient. In particular, investments targeted towards reducing water losses while shifting towards the use of deep groundwater sources provide a direct adaptation benefit.

SCCF funding has been strategically identified for additional project components that will make a significant contribution towards improved climate resilience. Specifically the SCCF funding will be used for the following investments:



Investments	Cities where action is likely to take place	Estimated amount (USD)
Renovation (R) or construction (C) of groundwater extraction from the lower aquifers (>150m)	Isfara (R)	252,033
	Kairakkum (R)	516,989
	Gafurov (R + extension)	429,209
	Chkalovsk (R)	553,610
Renovation (R) or construction (C) of artesian wells arising from lower aquifers	Kanibadam (C)	783,186
	Taboshar (R)	90,473
	Khorog (R)	101,567

Without SCCF support, the project would only be able to cover more modest climate resilient options, e.g. relying on surface water sources instead of maintaining highly climate resilient deepwater infrastructure. This proposal draws upon SCCF funding to create a positive impact across varied dimensions of the Tajik economy and water infrastructure. With SCCF support, this project will support the country's transition to a more sustainable and climate resilient water infrastructure. At the same time, the scale of this project can create synergistic benefits that multiply the overall impact, leading to the use of more climate resilient water sources.

### International waters and water conflicts

The Fergana Valley is a place where serious water conflicts exist between the 3 countries that meet there. Tajikistan is an upstream country, which could potentially mean that the groundwater might flow downstream to groundwater in the next country – Uzbekistan, triggering a water conflict, or it might deplete the groundwater that may recharge the rivers that drain to the downstream country.

Although detailed hydrogeological models have not yet been developed in Tajikistan, the analysis of water sources carried out for the preparation of this project was based on the extensive examination of borehole logs held by the State HydroGeological Administration, inspection of available pumping records from deep groundwater intakes and consultation with the experts of the State HydroGeological Administration. This review has indicated that there are reasonably abundant sources of deep groundwater with low levels of depletion on pumping and minimal changes in water composition as a result of abstraction. A moderate level of protection from upper layers appears to be evident with artesian pressure in some instances. The available evidence suggests low connectivity to local surface water resources and shallow groundwater, and a high degree of remote recharge that is estimated to be arising at the valley margins.

Although detailed river basin management plans have not yet been developed in Tajikistan, there is sufficient evidence to support view that the renovation of deep groundwater sources (and in Gafurov an increase of depth) will not exacerbate international water conflicts. Conversely the project **REDUCES** the likely level of conflict, over the baseline situation, since:

- The project focuses on drinking water supply. This is a minor source of overall water demand (less than 3.2% of total water demand in Tajikistan as a whole) according to the Second National Communication although it is highly important from a climate vulnerability point of view.
- The project, in some cities, moves the source of demand for drinking water supplies away from the “conflict zones” of surface water and shallow groundwater through renovation of existing deep wells (and in one case extension of depth from 150 m to 300 m), and in all cases improves the efficiency of use.
- The projected population growth between 2010 and 2025 of the cities involved in this project is above 30 % and supply is intermittent, with low reliability. If water demand were to continue along a business as usual path, water demand would be significantly higher than under the project alternative.

- The project includes a range of measures to reduce overall demand on water resources including leakage reduction, demand management and economic incentives (tariff reform and metered charging schemes). This means that the growth in demand for the seven cities is projected to be only 1.1 million m<sup>3</sup> between 2010 and 2025, out of a total drinking water demand of 15 million m<sup>3</sup> in 2010 (i.e. a growth of only 7.5% over 15 years, while significantly more people are covered with reliable drinking water supply).
- Moreover it should be noted that the scale of overall resource requirement for potable supply is minor in comparison with the volumes for the basin as a whole and the volumes, which are subject to international agreements aimed at reducing conflict – further detail on this issue is given below:

In considering the notion of “criticality” and impact, it is important to consider the possible scale of impact. It is of note that Aquastat estimates the available groundwater resource in the country as some 3 km<sup>3</sup> per annum. The northern cities consumption of 15 million cubic metres per annum would represent 0.5% of the total available groundwater resource of the Country as a whole. Considering the Syr Darya Basin in particular; this represents about 11% of the land area of the Country. Applying a rough pro-rata estimation would suggest the resource requirement in relation to the Tajik part of the basin, assuming that all drinking water were to be diverted to deep groundwater (which it will not), would be in the region of 4% of available resource.

It is also informative to consider the resource requirement in relation to precipitation in the area:

- Tajik part of Syr Darya Basin: 15,000 km<sup>2</sup>
- Average annual rainfall: 450 mm
- Total Precipitation: 7 billion m<sup>3</sup>
- Resource requirement as a percentage: 0.19%

As such it can be seen, even on the basis of these simplified calculations, that the level of resource demand is comparatively small and that impacts will be correspondingly small.

In terms of impacts of use of deep groundwater sources, it is important to consider whether the extraction of deep groundwater may have an impact on surface water flow. Whilst the interconnectivity of the two resources is acknowledged it is of note that the FAO Aquastat database indicates surface water – groundwater resource crossover for the whole of Tajikistan of about 3 km<sup>3</sup> per annum from a total resource of 63 km<sup>3</sup>. This indicates a low level of connectivity. As stated in a number of publications (including the Tajik National Communications) the Syr Darya is largely fed by glacial melt from Tien Shan glacier and the vast majority of flow derives from outside Tajikistan. As such the role of local groundwater within Tajikistan is small. Considering scale, as shown above the level of resource requirement represents a very small proportion of the total available resource. The flow to downstream countries in the Syr Darya basin is regulated by international agreement. In essence the agreement limits the amount of surface water resource that can be taken by Tajikistan from the Syr Darya to 0.66 km<sup>3</sup> per annum. There are two basic options for water abstraction for drinking water supplies; i) surface water sources and ii) deeper groundwater. Leaving aside the question of scale, the potential for transboundary conflict over water resources is far greater under i) than ii).

In order to ensure that any impacts on groundwater resources and other users of those resources are fully addressed, the project will include two dedicated activities: i) the development of an aquifer management plan and ii) the transboundary disclosure of information about project activities to the authorities in neighbouring Kyrgyzstan and Uzbekistan.

### **Aquifer management plan**

An aquifer management plan will be developed for the project area in collaboration with KMK and other Tajik authorities as appropriate. This plan will enable the Tajik authorities to plan and manage the use of aquifer resources in order to avoid the depletion of the aquifers and to avoid conflicts between different

water users (e.g. municipal water supplies, agricultural irrigation). The development of the plan will also be used as an opportunity to build the capacity of the Tajik authorities to manage aquifers sustainably in the future.

### **Transboundary disclosure of project information**

As most of the cities to be covered by the project are close to the borders with neighbouring countries (Kyrgyzstan and Uzbekistan), the renovation of deep wells in those cities may have transboundary impacts on aquifers that will need to be communicated to stakeholders across the border. In order to address this, the disclosure of information about project activities and potential impacts will be disclosed to the relevant authorities in Kyrgyzstan and Uzbekistan, in line with the requirements of the Aarhus Convention and the Espoo Convention, will be integrated into the stakeholder engagement plans to be developed and implemented as part of the project.

### **B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS(GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ [MAINSTREAMING GENDER AT THE GEF.](#)":**

Key socioeconomic benefits that will result from the project include resource savings in the form of reduced drinking water consumption, reduced leakage and water losses, and better access to cleaner and more climate resilient sources of water. Efficient water use is both a social issue at the local level and a political issue at the regional level, and its importance will only increase over time, as long-term scenarios consistently indicate increased aridity in arid and semi-arid regions of Tajikistan as the result of climate change.

The project will be implemented in such a way as to ensure the involvement of local communities, and efforts will be made to encourage the Makhalla Committees to ensure an equitable representation of all population groups (in particular women) in Water User's Committees to be formed under the project.

Furthermore, the associated economic benefits of reduced resource use will make participating cities more competitive, and can thus support better the well-being of their populations, in particular the vulnerable. This is particularly important for women who are particularly vulnerable to economic and climate risks, and who are often directly impacted by the ease of access to household water for domestic purposes (e.g. carrying water from remote sources can place a huge strain of female members of household with no reliable and safe in-house connection).

### **B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:**

#### Climate variability risks:

There is a theoretical risk that even deep groundwater sources may not prove to be fully climate resilient in the event that climate change impacts on Tajikistan's hydrology are far more severe than are currently predicted. However, the detailed climate vulnerability analysis carried out as part of the Feasibility Study was based on the best available climate change models and it is highly unlikely that deep groundwater sources will be affected in this way. Therefore, shifting from shallow to deep groundwater sources is the best insurance against this risk.

In the absence of analysis of the potential issues arising from climate change, a greater focus on the use of single water resources, particularly surface water and/or shallow groundwater would tend to prevail. However, with the knowledge of the likely impacts of climate change, both direct (change in resource) and indirect (changes in other sectors leading to changes in resource) the strategy here has been to focus

on developing deeper sources of groundwater that will be sustainable and climate resilient. It should be noted that a full regional water resources assessment has not been undertaken, nor have pump tests been carried out as part of the project. The examination of the impact of water resources has been based on available data and studies from the Hydro-geological Survey of Tajikistan and recorded data from the water companies. Examination of numerous records for deep boreholes in the area held by the Hydro-geological Survey and consideration of earlier studies indicate:

- Relatively high porosity in lower rock strata
- Some interconnection between lower and upper layers of groundwater
- Low levels of draw-down during pumping (small cones of depression) from deep boreholes during testing

In addition water company records for pumping from deep boreholes over many years do not indicate any significant impact on water availability from these sources, i.e. there have not been instances of wells drying out or of large and extensive cones of depression developing. Water levels within deep wells tend to return to their static level quite rapidly after the cessation of pumping. Therefore whilst the project itself has not undertaken tests, there is ample historical evidence from the last 20 – 30 years of the low level of impact that arises from the use of these deep boreholes for water supply purposes.

#### Environmental and social risks:

A number of localized and/or temporary risks may be posed during the construction phase (e.g. impacts on local water courses, nearby communities and biodiversity). However, the potential adverse future environmental and/or social impacts of the rehabilitation of the water systems are likely to be site-specific and can be readily identified and addressed through adequate mitigation measures. These risks will be managed in line with EBRD's established policies and procedures, which will require preparing an Environmental and Social Action Plan based on mitigation measures and corrective actions identified during project due diligence to cover the construction and operation stages. In addition, the associated Corporate Development, Stakeholder Participation and City Support Programme will help to build the capacity of the Vodokanals to manage environmental and social risks.

#### Institutional risks:

An institutional/credit risk to the project is posed by the creditworthiness of the Water Companies. In order to manage this risk, the loan/grant ratio has been carefully assessed compared to the creditworthiness of the water companies as well as affordability constraints. The SCCF grant will help to address this risk by reducing the loan/grant ratio. In addition, a commitment to improving water payment collection rates will be built into the Loan Agreement.

### **B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:**

Urban drinking water supplies are the responsibility of Khojagii Manziliu Kommunalni (KMK) and individual cities/municipalities, with the Ministry of Water Resources and Melioration in cooperation with the Geological administration responsible for managing water balances and determining schemes of complex use. The water companies from the seven participating cities are also key stakeholders, as are the city administrations. As borrowers and beneficiaries they will be actively involved in all project activities. Project activities will also engage local populations through the establishment of Water User Committees to be set up within the project at the level of neighbourhood associations by existing Makhalla Committees in each neighbourhood. Efforts will be made to ensure balanced representation (in particular of women) in these committees.

The project will coordinate with ongoing and new adaptation initiatives in Tajikistan. The Ministry of Environment Protection, which houses the GEF Operational Focal Point and promotes protection of natural resources, will also be a notable stakeholder in this regard.

## **B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

In 2009 Tajikistan was selected as one of eleven pilots for the Pilot Programme for Climate Resilience (PPCR), funded under the multi-donor Climate Investment Funds (CIF). Under the PPCR, EBRD together with the WB and ADB is supporting the GoT in developing and implementing a strategic programme for building Tajikistan's capacity to cope with the consequences of climate change. The impacts of climate change on the availability of safe drinking water for Tajikistan's population were considered during analytical work and stakeholder discussions during the preparation of the PPCR. However, the PPCR process is quite lengthy, centrally-driven and top-down, and is therefore better suited to activities such as institutional capacity building in central government and large infrastructure investments. Consequently PPCR funds tend to be released quite slowly, which may be suitable for some large-scale projects, but is unsuitable for meeting the needs adaptation needs of communities and municipalities, which often require a more flexible, responsive and bottom-up approach. While EBRD considers the rehabilitation of urban water supplies to be an important part of its overall approach towards promoting climate resilience in Tajikistan, it has chosen not to include this in the PPCR programme, as water supply projects tend to be smaller and faster moving (in response to the urgent demands of municipalities and communities), and therefore are better suited to more flexible and responsive adaptation funding sources such as the SCCF. This approach has been agreed with the Government of Tajikistan.

The EBRD is also coordinating closely with other actors in the field of water infrastructure rehabilitation. The overall coordination mechanism is provided by the Government of Tajikistan, under the leadership of the First Deputy Minister of Melioration and Water Resources. Within this structure, a number of international donor agencies are focusing on rural water supplies and irrigation, which is critical for Tajikistan's agriculture. This includes the World Bank and SECO (Switzerland), the European Commission, which decided in 2007 to allocate funds for rural water supply and sanitation, and the Japanese International Cooperation Agency (JICA), which is working with Tajik Selkhoz Vodoprovod Stroy (Tajik Rural Water Works Authority) in Kurgan-Tube zone area. In order to ensure a better division of labour between international agencies, and to ensure that investment is directed towards both rural and urban water supplies, EBRD has taken a clear decision to focus on the rehabilitation of urban (municipal) water supplies, building on its well established strengths in this area.

The main goal of this project is to provide a reliable, climate resilient and high quality long-term drinking water supply to the local population, and is therefore focused on municipal instead of agricultural water use. Nevertheless, during the feasibility study, attention was given to the issue of agricultural water use, given that agriculture is a heavy consumer of water resources in the region. Furthermore, changes in water resource availability in the project areas are expected to arise due to climate change, and these will necessitate improvements in irrigation practices. In order to maintain clear objectives and outputs, the current project is not focused on the introduction of such improvements for the following reasons:

- The focus of the current project is the municipal water services sector
- The management and administration of the irrigation systems in Tajikistan is not within the competence of the authorities (KMK in particular) for municipal services
- Irrigation water is derived from surface water sources
- Water for potable supply is almost entirely derived from groundwater sources at present and will increasingly be reliant on deeper groundwater sources in most locations
- The one area where surface water will be used, Khorog, is not subject to significant abstraction for irrigation since the terrain is unsuited to large scale agricultural activity

As such the opportunities for full-scale promotion of revised agricultural practices in the context of this project are limited. However it is important to note that the current project will serve to support ongoing and future improvements in water use as a whole by contributing to a greatly increased awareness amongst the population of the need to treat water as a valuable resource and to use it efficiently.

Lessons from this project will be disseminated and fed back into other adaptation efforts. In particular, this project will provide important lessons for EBRD's support for the rehabilitation of urban water supplies across Central Asia and other climate sensitive regions such as the Caucasus. The innovative model set out in this proposal, and the analytical approach behind it, will provide a very valuable template that could be replicated across the region so that EBRD's efforts in this area have much wider impact. The project will also provide important lessons for climate-resilience programmes in Tajikistan such as the PPCR, specifically on how adaptation funds can have a transformative impact on IFI investments, resulting in large flows of investment into pro-adaptation projects.

**C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:**

The European Bank for Reconstruction and Development (EBRD) was established in 1991 to nurture a new private sector in a democratic environment. EBRD provides project financing for banks, industries, and businesses, both new ventures and investments in existing companies. It also works with publicly owned companies, to support privatization, restructuring state-owned firms and improvement of municipal services. The Bank uses its close relationship with governments in the region to promote policies that will bolster the business environment. The Bank also has a strong environmental mandate and is committed to financing projects that are environmentally sound and sustainable. The comparative advantage of the EBRD for the GEF lies in the Bank's experience and track record in market creation and transformation, and ensuring sustainability through private sector and municipal environmental infrastructure projects at the country and regional level in the countries of eastern and central Europe and central Asia. The EBRD recognized from the start the strategic importance of municipalities in the transition and in the financing of projects with significant environmental benefits in the district heating, water, and waste sectors. Over recent years EBRD has developed considerable expertise in the area of climate change mitigation and energy efficiency, for example through its Sustainable Energy Initiative. EBRD is also interested in becoming active in the field of climate change adaptation and is interested in developing expertise in this area as well as forming new partnerships with other agencies to address the challenges of climate change adaptation in the EBRD region. The Bank has a strong, well-established presence in the ECA region and is therefore uniquely well placed to contribute to the challenge of climate change adaptation in the region. It has a network of around 200 professional staff located across the region to support project development, implementation and monitoring, together with sustained policy dialogue and business relationships with governments, local institutions, industry, banks, utilities and investors. The EBRD currently operates in 28 countries within the region and has at least one resident office within each of these. Some larger countries, such as Russia and Kazakhstan, also have sub-regional offices to bring EBRD staff closer to the business needs. Regional offices are typically staffed by a mixture of international and national staff and provide an in-depth knowledge of the social, economic, and political conditions within the country and help to generate and implement new projects as well as monitor existing operations, and facilitate dialogue and business relationships with governments, local institutions, industry, banks, utilities, and investors.

**C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

The EBRD will bring \$10,000,000 in investment funds and \$1,070,000 in technical assistance funds for non-investment and investment-related TA.

**C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:**

Tajikistan became a member of the EBRD in 1992. Until 1996, the Bank's operations were limited to technical assistance but since then, the Bank has approved 50 investment projects involving loans, equity and guarantees. The signed commitments currently stand at EUR 110 million, with approximately EUR

90 million disbursed. These projects are predominantly in microfinance, agriculture, and the municipal and transport sectors.

The EBRD country strategy for Tajikistan focuses on 4 priorities: provide access to finance to the private sector, reinforce the banking sector, tackle infrastructure bottlenecks and maintain a policy dialogue in order to assist the improvement of the investment climate. This project addresses both of these final two strategic priorities.

Following close consultation and collaboration with the Government of Tajikistan and municipal officials, this project will form part of EBRD's integrated approach to water supply rehabilitation in Tajikistan. This approach consists of three regional water supply rehabilitation projects in Southern Tajikistan (under implementation), Northern Tajikistan (under development) and Central Tajikistan (proposed). In addition, EBRD is working with the Tajik authorities on policy and administrative reforms that will create the conditions needed for the provision of water services that are financially and environmentally sustainable, and that can withstand the expected impacts of climate change. This includes technical assistance at the national level to improve the billing and collection efficiency of payments for water services, which is intended to improve water bill collection rates (including the enforcement of the use of meters installed during EBRD's rehabilitation projects) and the financial sustainability of water companies leading to more sustainable and reliable water services in the longer term. A further national-level technical assistance programme is being delivered to improve the governance of water services and promote stakeholder participation, thus contributing towards improved governance of water companies and effective stakeholder participation in water service improvement programmes.

Furthermore, the rehabilitation of municipal water infrastructure is fully in line with these objectives and the Government of Tajikistan has recently asked the EBRD to support a number of projects in this area. EBRD has supported water supply improvements in Khujand in a two-phased project. The South Tajik Water Rehabilitation project, presently under implementation, covers Dangara, Kulyob and Kurgan-Tube. The North Tajik Water Rehabilitation Project covers Karaikkum, Kanibaidam, Isfara, Gaufurov, Taboshar, Chkalovsk and Khorog. The Central Tajik Water Rehabilitation Project, for which the preparation is just starting up, covers Rudaki, Tursun-zade, Gissar and Shachrinav. In addition, the Bank has been requested to prepare a water improvement project for Dushanbe.


The regional office of the EBRD is based in Dushanbe and has a permanent professional staff of five and administrative staff of two.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Khursandkul ZIKIROV	Chairman	STATE COMMITTEE ON ENVIRONMENT	09/07/2010

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.</b>					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Marta Simonetti		09/08/2010	Craig Davies	+44 20 7338 6661	daviesc@ebrd.com