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UNITED NATIONS DEVELOPMENT PROGRAMME
Countries: Kyrgyzstan, Kazakhstan
PROJECT DOCUMENT

Project Title:	Enabling Transboundary Cooperation and Integrated Water Resources Management in the Chu and Talas River Basins
UNDAF/CP Outcome(s):	<i>Kyrgyzstan:</i> By the end of 2016 sustainable management of energy, environment and natural resources practices are operationalized. <i>Kazakhstan:</i> By 2015, communities, national and local authorities use more effective mechanism and partnership that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.
UNDP Strategic Plan “Changing With the World” (2014 – 2017):	Outcome #2: Citizen expectations for voice, development, the rule of law and accountability are met by stronger systems of democratic governance <ul style="list-style-type: none"> • Output 2.5 - Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation • Indicator 2.5.2. Number of countries implementing national and local plans for Integrated Water Resources Management
Implementing Partner/Responsible Party:	UNDP Kyrgyzstan
Brief Description: The project will enable integrated water resources management in the transboundary Chu-Talas basins, including development of the transboundary water commission of the Republic of Kazakhstan and the Kyrgyz Republic. This will represent a response to the threats posed by increasing water consumption to meet growing social, industrial and agricultural needs, compounded by climatic variability and change. Pressure on scarce water resources and aquatic ecosystems has been growing in recent years across the basins generating risks of conflicts between Kazakhstan and Kyrgyzstan over water allocation. The project will strengthen coordination and expand the role of transboundary institutions in balancing water uses and improving water quality and conservation of aquatic ecosystems, and strengthen monitoring capacity and technologies.	

Programme Period:	2014 – 2017	Total allocated resources (US\$):	\$7,239,397.04
Award ID:	00081980	GEF	\$1,000,000
Project ID:	00091092	Co-financing:	
PIMS #:	5167	Shared Waters Partnership (cash)	\$65,427.04
Start Date:	September 2014	Government of Kazakhstan	\$750,000
End Date:	September 2017	Government of Kyrgyzstan	\$1,170,000
Management Arrangement:	DIM ¹	Swiss Development Cooperation (cash)	\$2,200,000
PAC Meeting Date:	10 Nov 2014	Government of Finland (in-kind)	
		UNECE (cash and in-kind)	\$1,313,970
			\$440,000
		UNDP (in-kind)	\$300,000

Agreed by UNDP Kyrgyzstan

Agreed by UNDP Kazakhstan

¹ According to DIM Authorization for Kyrgyzstan Country Programme 2012-2016, Kori Udovički, Regional Director, dd. 11 January 2012.

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LIST OF ACRONYMS

ABD	Area Based Development
ADB	Asian Development Bank
ARIS	Agency for Development and Community Investments
ARNM	Agency of the Republic of Kazakhstan on regulation of natural monopolies
CACILM	Central Asian Countries Initiative for Land Management
CCH	Committee on construction and housing under Ministry of regional development of Republic of Kazakhstan
CTTWC	Chu-Talas transboundary water commission
CP	Country programme
CWR	Committee on water resources under the Ministry of environment and water resources of Republic of Kazakhstan
DWRUA	Drinking water rural users association
DWRM	Department of water resources and melioration under the Ministry of agriculture and melioration of the KR
EU	European Union
GEF	Global Environment Facility
GEF-SGP	Small Grants Programme of GEF
GIZ	German agency for international cooperation
ICSD	Intergovernmental commission on sustainable development
ID	Identification number
JICA	Japan agency for international cooperation
KR	Kyrgyz Republic
LSG	Local self-government
MAM	Ministry of agriculture and melioration of KR
MA	Ministry of agriculture of RK
MF	Ministry of finance of RK and KR
MJ	Ministry of Justice of RK and KR
MEWR	Ministry of environment and water resources of RK
MH	Ministry of Health of KR and KZ
MEA	Ministry of external affairs of KR and RK
M&E	Monitoring and evaluation
MINT	Ministry of industry and new technologies of RK
MOES	Ministry of education and science of KR
MOM	Management, operation and maintenance
ME	Ministry of Emergency of KR and RK
MRD	Ministry of regional development of RK
Media	Mass Media
NGO	Nongovernmental organization
NPD	National policy dialogue

OECD	Organization for economic cooperation and development
OSCE	Organization for security and cooperation in Europe
PB	Project Board
PIU	Project Implementation Unit
PMU	Programme Management Unit
PWG	Project working group
RAPEP	Regional action plan of environment protection
RECCA	Regional Environmental Center for Central Asia
RHC	Rural health committee
RSE	Republican state enterprise
RSC	Regional Service Centre
RK	Republic of Kazakhstan
SAACH	State agency for architecture, construction and housing under the Government of KR
SAEPF	State agency for environmental protection and forest under the Government of KR
SEF	State environmental fund
SDC	Swiss development and cooperation bureau
SAGMR	State agency for geology and mineral resources under the Government of KR
SIEYS	State inspectorate of ecological and technical safety
SPNA	Specially protected natural areas
TACIS	EU programme "Technical Assistance to the Commonwealth of Independent States"
TDA	Transboundary diagnostic analysis
TOR	Terms of reference
UN	United Nations Organization
UNDP CO	UNDP Country Office
UNECE	United National Economic Commission for Europe
UNDP	United nations development programme
USAID	US agency for international development
UNESCAP	UN Economic and Social Commission for Asia and the Pacific
WB	World Bank
WUA	Water Users Association
WUAF	Water users association federation
WURCC	Water users rural consumption cooperative

I. SITUATION ANALYSIS

Physical and socio-economic context

1. The Chu and Talas basins, shared by Kazakhstan and Kyrgyzstan, are located in the northern part of the Tien Shan Mountain and the eastern part of the Turan lowland. The Chu basin covers 62.5 thousand km², of which 26.6 thousand km² (42.5%) is located in Kyrgyzstan and 35.9 thousand km² (57.5%) in Kazakhstan. The Chu river is 1067 km long, of which 336 km in Kyrgyzstan. The Talas basin covers 52.7 thousand km², of which 11.43 thousand km² (21.7%) is found in Kyrgyzstan and 41.27 thousand km² in Kazakhstan. The Talas river is 661 km long of which 217 km in Kyrgyzstan. The climate within the basins is continental and depends on the altitude (2400 m – 600 m in Kyrgyzstan and 600 m – 500 m in Kazakhstan). Both basins are characterized by a broad diversity of geographic zones such as alpine and mountain-steppe (Kyrgyzstan), and mountain-steppe, desert-steppe and desert zones (Kazakhstan).

2. More than one million people populate the Zhambyl oblast of Kazakhstan within the two basins. In Kyrgyzstan close to 1.2 million people reside in three regions of the Chu basin and more than 220 thousand people live in the Talas oblast. The population density in the Chu basin is much higher compared to the Talas basin. Mining, food and feed industry and construction are dominating industries in both basins. In Zhambyl oblast chemical plants and fertilizer production contribute significantly to the local economy. Chui oblast is one of the most developed industrial regions of Kyrgyzstan, with important food production and processing, construction and other industries. After a long period of a declining economy, there has lately been a slight increase in industrial production and intensive development of the service sector.

3. Agriculture is the most important sector of the economy in the basins. Crop production from irrigated land and pastures, flood plains and hayfields is steadily increasing over the recent years and it accounts for more than two thirds of the total agricultural production.

4. The irrigated area in the Chu basin of Kyrgyzstan is about 330 thousand hectares in the Chui oblast and about 33 thousand hectares in Naryn and Issyk-Kul oblasts. In the Kyrgyz part of the Talas basin there is 115 thousand hectares of irrigated land. The total area of irrigated land of the two basins in Kazakhstan is about 231 thousand hectares in Zhambyl and 1.3 thousand hectares in the South-Kazakhstan oblast.

5. The total but marginally utilized hydropower potential is estimated to 360 MW in the Chu basin and 354 MW in the Talas basin. The exception is a cascade of small hydropower plants in the Chui Valley of Kyrgyzstan. The plain terrain of Kazakhstan provides no opportunities for the construction of hydropower facilities, and electricity is supplied mainly by the Zhambyl Thermal Electricity Power Station. The power supply of Chui and Talas oblasts in Kyrgyzstan comes from hydropower stations in the lower Naryn cascade, as well as from the Bishkek Combined Heat and Power Plant.

6. The environment in the basin is impacted by human activities - water pollution and excessive extraction, eutrophication, altered flow regimes, drainage and dumping of solid waste.

7. To a considerable extent the basins have lost their natural aquatic ecosystems, including wetlands and tugay forests. Steppe, desert and semi-desert ecosystems of the foot of the mountains and valleys, tree and shrub vegetation along the rivers are exposed to strong degradation from grazing. Cutting of trees and shrubs, collection of medicinal plants and flowers, unregulated hunting, fishing, etc., also lead to destruction of habitats. Deforestation is considered to be the most challenging process threatening the sustainability of the ecosystems.

8. There are three common types of erosion in the two basins - water, grazing and wind erosion. Degradation of the structure of the topsoil may reduce its productivity up to 40%. Starting in 1985, the area of degraded land has increased significantly and is now more than two thirds of agricultural land deemed susceptible to degradation. Agricultural soils have a low organic content of usually 1% to 3%.

9. Key causes of depletion and degradation of aquatic ecosystems in the Chu and Talas basins are:
- intensive exploitation of natural watercourses, often associated with inappropriate use of water;

- climate change, causing accelerated melting of glaciers and snowfields;
- contamination of land, ponds and reservoirs;
- reduction of forested areas and bush land;
- unregulated mining causing degradation along rivers, siltation and water pollution;
- discharge of untreated wastewater into surface water bodies and the environment;
- Uncontrolled disposal of municipal solid waste; and
- Unregulated storage of mining wastes.

10. The main problems associated with the negative impact of water in the Kyrgyz part of basin include water erosion on slopes, mudflows and landslides in the valleys, riverbed deformation during floods, as well as groundwater flooding of infrastructure.

11. A decrease of environmental flows can be noted in the lower reaches of the Chu and Talas rivers in Kazakhstan. This leads to degradation of wetlands, lakes and ponds as well as floodplains, meadows and hayfields. Degradation and desertification of land is common on the northern plains.

12. Average water flow in the Talas and Chu rivers is 27.5 m³/sec and 70 m³/sec, respectively. Chu and Talas basins water resources are generated from surface water, groundwater, and return water. According to studies the average annual water flow of the Chu and Talas rivers is 6.64 km³ and 1.62 km³, respectively. Water agencies of Kazakhstan and Kyrgyzstan agree on the need to develop more precise estimates as a basis for the further planning of water allocation between the countries.

13. Total contribution of groundwater is in Kyrgyzstan about 1.29 km³ per year in the Chu river basin, and 0.1 km³ in the Talas river basin. The average annual amount of return water in Kyrgyzstan for the Chu river basin makes up about 0.81km³, and 0.26 km³ for the Talas river basin. The volume of return water is estimated at 1-1.2 km³/year for the Kazakh part of the Talas river whereas there are no data available for the Chu river basin.

14. The groundwater reserves of freshwater in the two basins have not been well studied and the data available dates back to 1980-1995. The exploitable resources of such water in the four aquifers of the Talas region are about 228 thousand m³/day, although the estimated reserves exceed 925 thousand m³/day. Similar reserves of the Talas-Assinsky aquifer in Zhambyl oblast are estimated at 320 thousand m³/day. The exploitable resources of groundwater in the Chu basin in Kyrgyzstan are estimated to 5746 thousand m³/day, and the possible reserves are estimated to about 7648 thousand m³/day. The Kazakh part of the Chu basin has less significant groundwater resources that are confirmed to be about 323 thousand m³/day. Presently only 5-22% of the estimated exploitable reserves of groundwater in the different aquifers are used.

15. The quality of surface and groundwater resources in both basins is generally assessed as not fully satisfactory with periodic events of pollution over maximum allowable concentrations. Concentration of previously unusual substances - phenol, zinc, copper, fluoride, and other petroleum products is causing some concerns. Water pollution is caused by irrigated agriculture, livestock breeding and wastes, mining and processing industries as well as transport. Mining and industry wastes, in particular when containing radioactive and toxic substances, represent a serious threat.

16. The water consumption for irrigated agriculture in both basins depends primarily on the annual rainfall and the use of irrigated land. Use of water for irrigation in the Talas oblast of Kyrgyzstan declined from 0.82 to 0.61 km³/year 1990-1995, followed by a slight increase in 1996 – 2005. In the Chui oblast of Kyrgyzstan, the water supply for irrigation was reduced from 2.3 to 1.6 km³/year 1990-1995. In Zhambyl oblast of Kazakhstan, in both basins, the amount of irrigation water used declined over this period from 2.00 to 1.79 km³/year. However, it should be noted that official statistics are not completely reliable.

17. Extensive irrigation and drainage network have been established in both basins over the past 70 years. In the Zhambyl oblast irrigation facilities include 35 reservoirs, 3 large with capacity of more than 30 million m³, 11 water intakes, 34 public irrigation systems with 1330 km of inter-farm irrigation systems and 4710 km of on-

farm canals. Additionally, in the lower reaches of Chu (Shu) river in the South Kazakhstan, there are eight small reservoirs with a total capacity of more than 13 million m³. In the Kyrgyz part of the Chu basin there are 3434 water intakes and distribution networks, 1,629 km of inter-farm canals and 52,306 km of on-farm irrigation systems. The Kirovskoe water reservoir in Kyrgyzstan on the Talas river has a design capacity of 550 million m³ and supplies 640 water intakes and distribution networks, 721 km of inter-farm canals and 2208 km of on-farm irrigation systems.

18. Technical condition of water facilities, in particular on-farm irrigation and drainage network is unsatisfactory. This is due to lack of funds available to repair and upgrade infrastructure after 1991. However, in recent years there has been a gradual increase in the annual capital investment, primarily based on foreign credits and donor support for rehabilitation of irrigation systems.

19. Water resources are allocated between Kyrgyzstan and Kazakhstan as follows:

- on the Talas river the distribution follows the "Regulations on the division of flow in the Talas basin" of 31.01.1983 and Additional Protocols of 18.07.1983. According to these documents the 1.616 km³/year available at the Kirov reservoir are divided equally between the countries;

- on the Chu river following "Regulations on the division of flow in the Chu basin" of 24.02.1983 and Additional Protocols of 18.02.1985 the average volume of 6.64 km³/year are divided with 58% going to Kyrgyzstan and 42% to Kazakhstan.

20. The official position of both states is that the above conditions for water allocation are in the interests of both sides and should be applied in the foreseeable future.

21. Strategic interstate water facilities are located in Kyrgyzstan and include:

In the Chu river basin:

- Orto-Tokoy reservoir with a storage capacity of 470 million m³ and operational capacity of 275 m³/s;
- Bypass Chu Canals 40 km long and 70 m³/s capacity,
- West Big Chu Canal 147 km long and 55 m³/s capacity,
- East Big Chu Canal 97 km long and 55 m³/s capacity,
- Chumysh hydrosystem with 665 m³/s capacity

In the Talas river basin:

- Kirov reservoir with a storage capacity of 550 million m³ and operational capacity of 390 m³/s
- Kozh Canal with facilities on Talas river,
- Karataki Canal with facilities on Kurkuresuu river,
- Tomentamaga Canal with facilities on Kurkuresuu river
- Akmolda Canal on Kurkuresuu river.

22. Agreeing on the conditions for exploitation of these objects used for irrigation, as well as agreeing on a fair distribution of costs with regard to the maintenance and technical operations of the objects is the subject of bilateral interstate cooperation. In this regard, the restoration of their technical condition to an appropriate level ensuring their effective and safe functioning is one of the priority water management tasks for both states.

23. Currently, the system for monitoring the water resources and their use in the basins has significantly weakened. The number of hydro-meteorological stations has decreased significantly in the runoff formation zone in Kyrgyzstan. The dismantling of large observational stations such as "Alabel" and "Tuya -Ashu -North" has led to a significant deterioration in the quality of the stream flow predictions. There is presently practically no monitoring of the snow depth except for some measurements with permanently placed rods at meteorological stations and hydrological monitoring stations. No exploration and definition of reserves of groundwater is being undertaken and the number of wells to monitor groundwater has decreased by more than half on irrigated land.

24. The number of water flow meters in inter-farm irrigation network has seen no improvement since the 1990s, therefore most facilities of this kind require reconstruction and modernization of equipment. Improvement of water flow meters for on-farm irrigation systems and independent water users is another acute and challenging issue. While quality control in drinking water systems is regularly monitored, systematic monitoring of surface and ground water quality in both basins remain weak. The quality of surface water is monitored through water sampling and qualitative analysis in a very limited number of sampling sites that significantly limits the establishment of objectively verifiable indicators of water pollution.

Threats

25. Sharing of water resources in transboundary basins is an important factor for the bilateral and regional cooperation in Central Asia as the population, key sectors of the national economy as well as the environment depend on the availability of freshwater in sufficient quantities. A platform for a constructive dialogue between the two countries sharing waters is a necessity to avoid political and other problems. The cooperation between Kazakhstan and Kyrgyzstan with regard to the use of water in the Chu and Talas basins is functional with regard to water for irrigation but it does not cover all of the important issues at hand such as the protection of water eco-systems and water quality management.

26. Shortage of water resources is a long-term threat as well as a regular phenomenon during dry years. Until recently, the problem of potential water shortage was neglected, especially in Kyrgyzstan. This was due to the crisis in the economy and a temporary reduction of production in irrigated agriculture. Serious water shortages in 2012-2013 with substantial economic losses as a consequence raised the awareness of this problem. For the future, a gradual increase in water scarcity due to increasing demand for water is projected. The threat of water scarcity is exacerbated due to population growth in the basins, and also a consistent recovery and further development of the agricultural production and industry. In the longer term climate change may also have a negative impact on the availability of water as well as the seasonal flow regime.

27. Inefficient water use is an important factor leading to excessive use. This is due to outdated water infrastructure in the basin, weak human and technical capacity to oversee, manage and protect natural resources and environment, lack of effective mechanisms and incentives in advancing water saving technologies. Additionally, poor practices and discipline in water use is also caused by lack of awareness and unskilled labor in water intensive sectors such as irrigated agriculture.

28. While the understanding of the situation is limited, for the past two decades a degradation of aquatic ecosystems associated with the depletion and pollution of water can be observed in the two basins.

29. Until recently, water quality in the Kyrgyz territory of both basins was classified as pure, and in Kazakhstan as moderately polluted. A consistent increase is observed in the concentration of pollutants from upstream to downstream of the rivers. Quality of water resources used as well as the treated drinking water tend to deteriorate, especially in rural areas. These trends are mainly due to degradation of water infrastructure and sanitation/sewerage and treatment plants, as most water and sewage systems were put into operation in 1950 – 1970 and have not been renewed.

30. A limited quality of water can also be explained by other sources of environmental pollution and unregulated production in and use of sanitary protection zones along the rivers and in the vicinity of groundwater sources. Communities also negatively contribute to overall degradation trend regularly violating norms and rules of water protection, sanitation and hygiene. Public awareness of steps that need to be taken is generally low. It is likely that due to the depletion of water resources, population growth and intensification of economy in the basin, there is a risk that water quality will continue to deteriorate.

31. It is a drawback that the responsibility for monitoring and control of water quantity and quality are distributed among numerous agencies, which frequently leads to poor coordination and inefficient action. The information available on the two transboundary basins is dispersed between various agencies and databases in

the two countries, limiting the possibility to understand the situation and to develop policies for an integrated management of the water resources.

32. Early warning networks (for example on the Kirov dam on the Talas river) in general do not function or are not adapted to the needs of the new economic situation and local government agencies. The population has no access to the early warning systems and is often not aware of them.

The understanding of the quantity and quality of the water resources is limited by the monitoring capacity and network, limited analytical capacity and technology in particular in Kyrgyzstan. Currently, monitoring of water quality is generally undertaken just few times per year and the coordination and data exchange across the border is insufficient.

Baseline programmes and projects/Coordination with other initiatives

33. The Agreement between the Government of the Republic of Kazakhstan and the Government of Kyrgyz Republic on the use of interstate water structures in the Chu and Talas rivers from the year 2000 that is automatically prolonged after 5 years, provides the legal framework for transboundary water cooperation in the two basins. The following projects, financed by different donors, have significantly contributed to water cooperation development:

- EU-TACIS Project 30560 “Support to regional water resources management and Basin organizations capacity building for effective management of resources” (2004);
- UNECE/UNESCAP/OSCE Project “Cooperation development in Chu-Talas basin” (Chu-Talas phase I) (2003-2006);
- UNECE/OSCE Project “Cooperation development in Chu-Talas basin” (Chu-Talas phase II) (2007-2011);
- ADB/RETA Project 6163 «Joint water use improvement in Central Asia” (2003-2007);
- ADB/RETA Project 6163 «Joint water use improvement in Central Asia” (2009-2013)
- SDC Project “Promotion of interstate cooperation on water management of Chu” (Phase I: 2008-2012; phase II: since 2013);
- UNECE Project “ Dam Safety in Central Asia: capacity building and regional cooperation” (2010-2013);
- UNECE/UNDP/EC Project “Adaptation of water resources of Chu-Talas basin to climate change” (2010-2013)
- GIZ Project “Transboundary water resource management in Central Asia” (2010-2013);
- REC CA water initiative “Demonstration project in Aspara river” (2011-2013);
- EC water initiative programme on national dialogues on water policy in Central Asia (2008-2013);
- UNECE/REC CA Project “water quality in Central Asia” (2011-2012);
- EC/UNDP Project “Promoting IWRM and Fostering Transboundary Dialogue in Central Asia” (2009-2012).

34. In addition to these key international projects aimed at strengthening of intergovernmental cooperation on transboundary waters, a number of other international projects have been successfully implemented to rehabilitate public water infrastructure, increase access to water supply, hygiene and sanitation in Kyrgyzstan and Kazakhstan. In Kyrgyzstan the most important projects are:

- The World Bank Projects “On farm irrigation” (OFI-1 and OFI-2) were implemented in 2006-2013, with overall investments close to 29,0 and 20,5 million USD respectively, targeting rehabilitation of on farm irrigation systems and capacity building of Water Users Association;
- The World Bank Project "Improving the management of water resources" (WMIP) provided reforming of legal and institutional frameworks of the water sector in Kyrgyzstan, improving the quality of

irrigation services, modernization of more than 20 on-farm irrigation schemes, and support the development of WUAs and FWUAs. This project with investments of 28.1 million USD was implemented during 2008-2013.

- The World Bank Projects "Rural Water Supply and Sanitation" (RWSS-1 and RWSS-2), implemented in 2001-2008 and 2009-2012 with total budgets of 34.2 and 18.4 million USD respectively provided improved access of local communities to safe drinking water and public services, as well as improved hygiene practices.

Particular ties will be established with the established with the on-going EBRD project "Promoting Climate Resiliency of Water Supplies in Kyrgyzstan".

35. The proposed project will benefit from experiences of previous projects in its aim to ensure a more effective co-management of water resources of both basins while better protecting aquatic ecosystem.

36. Water management and protection activities in Chu-Talas basins are funded by national budgets of Kyrgyzstan and Kazakhstan including from water user fees of municipal, industrial and irrigation water. National and local environmental funds also contribute to the funding of environmental protection. More than 85% of national allocations to the water sector cover costs for the maintenance and operations of existing water infrastructure such as dams and canals. In Kyrgyzstan only foreign credit and donor assistance has been made available for infrastructure development and the use of new innovative technologies.

37. The main programmes and policy documents for the socio-economic development of Kyrgyzstan and Kazakhstan are: Sustainable Development Strategy of the Kyrgyz Republic 2017, Sustainable development transition programme of the Kyrgyz Republic 2017, Development Strategy of the Republic of Kazakhstan 2011-2015 and Kazakhstan-2050 Strategy: a new policy vision of the state as outlined by the President of the Republic of Kazakhstan in his speech in Astana, 14.12.2012. As a contribution to the Kazakhstan strategy-2050 a draft National Programme of Water Resources Management in RK 2014-2040 has been developed. The Ak-Bulak programme is the main strategic document in Kazakhstan guiding the development for supply of drinking water in 2011-2020.

38. Unlike in Kazakhstan, there is no approved national water strategy and comprehensive national program to develop water sector in Kyrgyzstan. It is therefore proposed that the Programme of the Kyrgyz Republic for Transition to Sustainable Development 2013-2017 is used as the base State Programme. The main provisions of the above-mentioned strategic documents endorsed by the governments of KR and RK are summarized in Table 1.

Table 1. Baseline national programmes

Programme, description, executive agency,	Segments of programme as part of GEF project, and issues addressed
Kyrgyz Republic. Key implementing agencies: SAEPF, MAM, MES, SAGMR, MEI, SIETS, LSGI The Republic of Kazakhstan. Key implementing agencies: MOE and WR, MARK, MEDT RK, MRD RK, MINT RK, MES RK, MoF RK, MFA RK, MIA RK, ARNM RK	
The programme of the Kyrgyz Republic for Transition to Sustainable Development 2013-2017 - Section 2.1.1. "Capacity building of state institutions and local governments". Para 8 –	- 2014-2015 approve regulations on departmental training programs, retraining and advanced training of employees;

<p>“Establish effective system of training and retraining of civil and municipal servants”;</p> <p>- Section 4.3. “Health care”. Para 91 - Prevention spread of waterborne infections among the population”;</p> <p>- Section 4.3. “Health care”. Para 92. Health and environment awareness raising;</p> <p>- Section 5.1. “Environment protection”. Para 139. “Environment monitoring capacity building”;</p> <p>- Section 5.2. "Water and drinking water" Para 146. "Strengthening public institutions for water management and training"</p> <p>- Section 5.2. "Water and drinking water" Para 147 "Improve the regulatory framework in water supply and sanitation"</p> <p>- Section 5.2. "Water and drinking water" Para 148. "Public participation in water and sanitation decision-making;</p> <p>- Section 5.2. "Water and drinking water" Para 151. "Minimization of water losses and rational use of water resources"</p> <p>- Section 5.3. "Provision of population and territories complex safety from natural and manmade disasters" Para 157. "Strengthen hydrological, meteorological capacity and background services for early warnings of natural disasters caused by hydrometeorological events”;</p> <p>- Section 8.2. "Development of agriculture. Improving efficiency of water use and land resources" Para 244. "Yearly adaptation of new irrigated lands, improvement of existing irrigation system and water resources efficiency"</p>	<p>- 2014-2017 create sustainable mechanism for adequate resources provision</p> <p>- 2015 implement integrated system of state supervision</p> <p>- 2015 monitor at least 80% of children</p> <p>- 2014 approve action plan to reduce morbidity of acute intestinal infection</p> <p>- 2013-2017 develop and implement educational and prevention programs for the public on health and the environment</p> <p>- 2013-2014 provide technical equipment and accreditation of environmental laboratories under SAEPPF</p> <p>-2013-2017 undertake regular assessments of treatment plants effectiveness in Bishkek, Tokmok, Kant, Kara-Balta, Sokuluk, Gidrostroitel</p> <p>-2014-2017 improve water and hygiene management processes</p> <p>-2015 legal and regulatory framework of drinking water supply and sanitation services to meet the needs of the sector.</p> <p>-2014 provide access to information of public and all interested groups</p> <p>-2017 decrease water losses by 12%.</p> <p>-2014-2016 improve the quality of forecasts and provide for re-observation points;</p> <p>-2014-2016 improve the quality of information products and increase the number of recipients of specialized information.</p> <p>-2013-2017 implement investment development program of reclamation systems associated with the construction of water facilities and the development of new irrigated lands;</p> <p>-2013-2017 implement activities to support irrigational systems functioning;</p> <p>-2013-2017 amend normative and legal regulations on water use to align with water code;</p> <p>-2017 complete institutionalization of Basin Water</p>
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	<p>Councils, demarcation of WUA and federation boundaries across all irrigated lands;</p> <ul style="list-style-type: none"> -2014-2015 develop and adopt legal acts providing for economic and administrative measures to prevent irrational water use; -2013-2014 develop and adopt normative legal acts regulating the tariff policy in water use.
<p>Water quality monitoring Programme (SAEPF, Kyrgyz Hydromet under MES) Priority direction 1 «Chu basin monitoring»</p>	<ul style="list-style-type: none"> - Periodic monitoring of Chu basin with 4 times sampling a year, ie quarterly basis (following hydrological regime of rivers); - Preparation of the combined report based on the data obtained while implementation of the Water quality monitoring programme by two agencies responsible for the analysis and evaluation of the quality of surface water, which reflects profile and condition of the water facility for future decision-making and preventive measures
<p>Action plan of Water resource management national plan of Kazakhstan 2014-2040 Section 1.1. "Provision of surface water resources" Para 1.1.1. "Transboundary water equitable allocation" Para 1.1.2. "Internal regulation of river flaws", provision 19 Section 1.2. "Provision of ground waters", P.27. Section 1.2. "Provision of ground waters", P. 28. Section 1.2. "Provision of ground waters", P.29. Section 2. "Rational use of water resources", P2.1. "Population", P 31. Section 2.2. "Environment" P 36.</p>	<ul style="list-style-type: none"> - sign an intergovernmental agreement on cooperation in dam safety in Central Asia; - ensure participation of the Kazakh-Kyrgyz Commission on water facilities sharing on the Chu-Talas basin to address the issues of cooperation; - ensure construction of five new small vessels for the settlement of river flows and flood waters in Zhambyl oblast; - exploration and extraction of groundwater for SNP; - development of complex use scheme of groundwaters in RK; - hydrogeological exploration for approval and /or reapproval of stocks, groundwater sources identification for pastures irrigation; - implementation of "AkBulak" sectoral programme. - scientific and environmental impact survey of natural water recreational facilities (sea, lakes, wetlands); - justification and clarification of environmental releases with consideration of growing anthropogenic stress and climate change;

Section 2.2. "Environment" P. 42.	- development of environmental flow (releases conservation) methodology study in river basins.
Section 2.2. "Environment" P 43.	- development of the hydrological and environmental monitoring national system;
Section 2.2 "Environment" P 44.	- automation, scheduling systems management and use of water resources and water facilities; - organizational and technical activities to protect population and economy from flood (melt water);
Section 3. "Prevention of harmful water impacts" Para 3.1. "Ensuring the optimal management of water resources" P. 69.	- research and assessment of waters hydrological condition;
Section 3. "Prevention of harmful water impacts" P.3.1. "Ensuring the optimal management of water resources" P.72.	- development of complex approaches to water saving public outreach and advocacy;
Section 3.2. "Improvement of water facilities hydrological regime" P.73.	- information and educational seminars, water conservation issues visibility in media resource, educational documentaries and social videos on "Water for Life" and "Springs. Rivers, Lakes of Kazakhstan"
Section 4. "Water saving information programme" P. 75.	- training of water professionals, following best practices and international experience.
Section 4. "Water saving information programme" P. 76.	
Section 5. "Human resources" Para 78	

Long term solutions and barriers

39. In order to establish conditions for:

- Good cooperation between the two countries sharing the water resources in the Chu and Talas river basins (the barrier being a limited scope of cooperation in the framework of the Chu-Talas Commission)
- An efficient and sustainable use of the water resources in the basins(the barriers include a limited understanding of the situation as well as an inefficient use of water resources)
- An improved protection of eco-systems (the barriers include a limited understanding of the situation and uncoordinated efforts by agencies/countries)
- A good water quality management (the barriers include a limited understanding of the situation and uncoordinated and insufficient efforts by agencies/countries)

A number of measures need to be taken in the framework of the project:

1. Work on the national level to improve the efficiency of water use, in particular in the irrigation sector.
2. Improved coordination on the respective national levels between agencies involved in the management of surface and groundwater as well as ecosystems monitoring and management.

3. Development of improved and coordinated basin-wide monitoring of water quantity as well as water quality leading to a better and shared – across agencies and countries - analysis of the situation.
4. Broadening of transboundary water cooperation in the framework of the Chu-Talas Commission in particular to include the discussion and management of water quality and ecosystems.

40. According to the Regulation “On the Commission of the Republic of Kazakhstan and the Kyrgyz Republic on interstate facilities use in Chu-Talas river basins” approved 26.07.2006, the Commission's mandate includes a relatively wide range of functions and powers. However, in the previous period the practical work of the Commission was primarily focused on the following issues:

- Negotiating and agreeing on the use of interstate water facilities and co-funding of their maintenance and operations;
- Agreeing on limits for water collection and distribution in both basins;
- Agreeing on the water release regimes from the water reservoirs;
- Adjustment of regimes and water use depending on the actual water availability and needs of water users.

41. The planning and cooperation on the protection and rational use of water resources, assessing and forecasting the water situation taking into account climate change, improving infrastructure and technologies for water resources monitoring and the strengthening and capacity building of staff are weak areas. In order to overcome these weaknesses the project will target the broadening of the mandate of the Commission in these directions. Directions of work will aim to:

- Achieve sustainability of aquatic ecosystems in Chu and Talas rivers;
- Strengthen the coordination and cooperation between water and environmental authorities of Kyrgyzstan and Kazakhstan in the two basins;
- Strengthen integrated water resources management in the two basins;
- Strengthen the capacity of local governments to participate in the water management;
- Raise awareness of local authorities, water users and the public.

Successful implementation of these tasks is currently constrained by the following key barriers:

42. **Barrier 1:** Suboptimal distribution of functions and mandate, and inefficient interaction between national and regional/local organizations with regard to water management in the two basins.

Key regional regulators of water management in Kyrgyzstan are Chui and Talas Basin Water Resources Management and Irrigation Department under the MAM and Chu-Talas Inspection on Regulation and Protection of Water Resources and "Kazvodhoz" State Enterprise responsible for public water schemes management in the Water Resources Committee under the Ministry of Environment and Water Resources in Kazakhstan. Regional authorities responsible for water conservation and management are Chu-Bishkek-Talas Territorial Environment Protection Division of the State Agency for Environment Protection and Forestry under the Government of the Kyrgyz Republic and the Environmental Department of the MEWR of Republic of Kazakhstan in Zhambyl oblast.

Local government institutions, local state administration, regional offices of water-consuming sectors of the economy, central agencies regulating health, energy, hydrogeology, emergencies, forestry and hunting, land relations, as well as local water and sewage utilities and independent associations of water users are also involved in water resources management and administration within their competencies and functions. Repeated reforms of the administrative structures in both countries, especially in Kyrgyzstan, tend to have weakened the responsible institutions. Nevertheless, certain steps have been taken to strengthen the interaction of

stakeholders, for example, in the framework of Commission activities as well as the National Policy Dialogues under the EU Water Initiative implemented in the two countries. However, continued work and external support is needed to support the involvement and interaction of stakeholders and further cooperation between authorities.

43. **Barrier 2:** Significant differences between Kazakhstan and Kyrgyzstan with regard to the legal and institutional framework for water management.

Specific features of Kazakhstan and Kyrgyzstan, related to their respective political and demographic situation, geography, economic growth rates, natural and water resources and other objective factors, has led to certain differences with regard to their respective national interests and priorities including with regard to water policy and management. Consequently, although the water legislation of the two countries has some similarities, the enforcement and implementation of policies are somewhat different. These differences are reflected in the basic laws and regulations as well as management systems. In Kyrgyzstan, for example, water management organizations are subordinated to authorities responsible for agriculture, whereas in Kazakhstan the Water Committee reports to the Ministry of Environment and Water Resources. Another difference is that the Chu-Talas basin water management department is under the two basin (oblast) organizations in Kyrgyzstan, while Kazakhstan has one institution, the Shu-Talas agency that is responsible for both basins. A detailed legal analysis of two countries can identify and interpret provisions that could potentially make transboundary water cooperation difficult. Significant differences in the normative standards for water quality in Kazakhstan and Kyrgyzstan provides is a typical example. To facilitate cooperation, it is necessary to understand the contradictions and find ways for cooperation under the Commission. To overcome this challenge external support and facilitation in the framework of the project is potentially of great value.

44. **Barrier 3:** Lack of investments to maintain and develop water management facilities in Chu-Talas river basins including for the monitoring of water resources.

45. In Kyrgyzstan and Kazakhstan, water management and protection are primarily financed from two sources: the state budget and water supply service fees as well as other taxes and levies. Due to an economically difficult situation for the state as well as the population, especially in Kyrgyzstan, the funding of the water sector is insufficient to fully cover expenses for maintenance and operations. In Kyrgyzstan rehabilitation and modernization of equipment and water infrastructure as well as the introduction of new technologies in the water sector is completely dependent on external credits and technical assistance from donors. Also the expected decisions and recommendations that will be the result of this project will also need to be supported by external sources of funding.

46. In addition to these constraints, there is also a lack of political will to reform the water sectors of the two countries, as well as poor participation of beneficiaries (water users), NGOs and other stakeholders in the planning and implementation of water management and protection policies. The development of coordinated monitoring also of water quality as well as support to raise awareness of stakeholders and the public as components of the proposed project can contribute to the elimination of these barriers.

II. STRATEGY

47. The Governments of the Kyrgyz Republic and Kazakhstan seek GEF support to overcome barriers to find long-term, sustainable solutions to further strengthen mutually beneficial cross-border cooperation and adopt mechanisms of integrated water resources management. The key objective of the project is to strengthen transboundary cooperation and promoting integrated water resources management in the Chu and Talas River Basins, and strengthening cooperation mechanisms such as the Water Commission of Republic of Kazakhstan and the Kyrgyz Republic.

48. The proposed project is consistent with the long-term GEF priority objectives in international waters management, providing for "the promotion of collective management for transboundary water systems and subsequent implementation of the full range of policy, legal and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services." Specific objectives of the proposed project are consistent with GEF-5 Objective 1 and expected outcomes to "catalyze multi-state cooperation to balance conflicting water uses in transboundary surface and groundwater basins while considering climatic variability and change" in particularly strengthened transboundary institutions for joint ecosystem adaptive management. Additionally, the project addresses climatic variability and change, stakeholders participation in management processes, and gender mainstreaming, therefore aligning with the GEF International waters strategy.

49. The proposed project is a logical follow up and significant strengthening of completed and current projects providing assistance to Kazakhstan and Kyrgyzstan in implementation of the 1997 Agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on cooperation in the field of environmental protection, and the Agreement on the use of water facilities of inter-governmental use on the Chu and Talas rivers from 2000. The project is developed to advance transboundary water cooperation facilitating the protection of water ecosystems and water quality improvement, as well as the joint use of water resources.

50. Global benefits of the project, as determined by the Priority area strategy related to international waters, will be achieved by promoting more extensive and effective bilateral cooperation in the management and protection of water resources. Thus, the proposed project will meet the needs of both States and the specific requirements of the GEF.

51. The planned activities of the project are clustered into three components with in total 11 outcomes and 13 outputs.

Component 1: TDA including climate scenario analyses to inform adaptive integrated management of the Chu-Talas shared water resources.

Outcome 1: Science based consensus among the countries on major transboundary problems of the basin and their root causes.

Outcome 2: Improved understanding of the transboundary implications of the shared nature of the Basins' water resources.

Outcome 3: Improved knowledge of the consequences of extreme weather situations.

Outcome 4: Capacitated local stakeholders ready to minimize negative consequences for economic sectors as well as the environment in the basin.

Outputs and Activities

(1) Transboundary Diagnostic Analysis (TDA) of the Chu and Talas River Basins

The main technical role of a TDA is to identify, quantify, and set priorities for environmental problems that are transboundary in nature. In particular, the TDA aims to:

- Identify & prioritize the transboundary problems
- Gather and interpret information on the environmental impacts and socio-economic consequences of each problem

- Analyze the immediate, underlying, and root causes for each problem, and in particular identify specific practices, sources, locations, and human activity sectors from which environmental degradation and other threats arise

Ultimately, a TDA provides the factual basis for the formulation of an SAP but the TDA is also part of a larger facilitative process of engagement and consultation with all the key stakeholders from the initial TDA steps through to the subsequent development of alternative solutions during the formulation of the Strategic Action Programme. The TDA is a mechanism to help the participating countries to 'agree on the facts' - many conflicts are driven by perceptions and removing these can be an enormous step in itself. Furthermore, the TDA should be seen as more than just an analysis of data and information. It is a powerful process that can help create confidence among the partners involved (<http://manuals.iwlearn.net/tda-sap-methodology>).

To support preparation of a TDA:

- Expert group of national consultants and international expert will be created;
- Draft TDA will be broadly discussed by the commission and other interested stakeholders in Kyrgyzstan and Kazakhstan during project meetings;
- Revised TDA will be endorsed by the Commission to provide for primary agreed data base for project implementation and SAP development.

(2) Scenarios of Water Futures with a focus on climate variability and transboundary issues

A set of Scenarios of Water Futures with a focus on climate variability and on transboundary issues, and incorporating projections from numerical modeling and the new insights generated by an enriched knowledge base from the UNECE-UNDP climate change adaptation project presently implemented. The Scenarios building exercise will be developed considering the identified “drivers of change”, by national and international experts and will include stakeholder consultations.

Local consultants with support of international expert will develop:

- Possible scenarios of water resources shifts in the basin of Chu and Talas rivers with consideration of climate variability and aquatic ecosystems, increased water consumption, surface-groundwater interactions, cross-border and other key influencing factors;
- Minimum three projection scenarios of changes in surface and underground water resources inventory (e.g. optimistic, pessimistic, and inert) and justify the probability of each of them. These scenarios will be developed based on the advanced methodologies and software products used globally;
- In-depth analysis of the potential impacts associated with climate change, water resources and increasing water consumption;
- Tentative plan of joint adaptation measures.

The resulting scenarios will feed into the TDA, and contribute to the identification of possible solutions of transboundary problems requiring joint actions.

(3) Seminars for stakeholders on adaptive management

On the basis of the TDA conclusions on extreme weather situations and following needs for joint action, a series of seminars will be organized for relevant stakeholders such as water user associations, farmers and decision makers on the local level.

Local consultants in cooperation with international experts will develop programmes for the seminars based on the best practices of other projects. Seminars will include the main issues identified during implementation of activities leading to outcome 3 and build the capacity of stakeholders to be aware of and adapt to climate extremes.

Component 2.: Building the foundation for broadened and improved bilateral water cooperation

Outcome 5: Visioning process and agreement on priorities for action opens the way for systematic cooperation in the integrated management of the transboundary Chu Talas River Basins.

Outcome 6: Strengthened collaborative mechanism for bilateral cooperation framework for the further improvement of joint management of the Chu and Talas basins.

Outcome 7: Steps taken for the involvement of stakeholders in the decision making process.

Outcome 8: Project experiences and lessons disseminated globally and regionally

Outputs and Activities

(1) A Strategic Action Program (SAP) formulated and approved by the countries at Ministerial level (Horizon 5 years) addressing main issues of transboundary concern and containing concrete actions (legal, policy, institutional reforms, and investments).

Based on the research completed under Component 1, local experts with support of international experts will develop and agree on a SAP with all stakeholders.

The SAP is a negotiated policy document that should be endorsed at the highest level of relevant sectors of government. It establishes clear priorities for action (for example, policy, legal, institutional reforms, or investments) to resolve the priority transboundary problems identified in the TDA. A key element of the SAP is a well-defined baseline, and a clear distinction between actions with purely national benefits and those addressing transboundary concerns with global benefits. Another key element involves the development of institutional mechanisms at the regional and national levels for implementing the SAP and monitoring and evaluation procedures to measure effectiveness of the outcomes of the process.

The following are some of the key underlying principles incorporated into the TDA/SAP approach:

- Adaptive management
- The ecosystem approach
- Sustainable development
- Poverty reduction
- Gender mainstreaming
- Climate variability and change
- Collaboration
- Stakeholder consultation and participation
- Stepwise consensus building
- Transparency
- Accountability
- Inter-sectoral policy building
- Donor partnerships
- Government commitment

(<http://manuals.iwlearn.net/tda-sap-methodology>)

To prepare the SAP:

- An expert group of national and international consultants will be established;
- A draft SAP will be presented for discussion to the Commission and other stakeholders in Kyrgyzstan and Kazakhstan during project meetings;
- A modified SAP will be endorsed by the Commission and submitted to the competent authorities of the countries for coordination and Ministerial approval in due course.

(2) Establishment of Inter-ministerial committees in each recipient country, or strengthening of existing inter ministerial coordination mechanisms

The project will facilitate the establishment of an effective coordination mechanism among the various governmental sectors which have direct or indirect relevance for water resources management and protection (Water, Agriculture, Environment, Planning, Treasury, etc.).

The following activities are proposed:

The expert group will examine the existing mechanisms for inter-ministerial coordination (for example, Coordinating Councils of the National Policy Dialogues on integrated water resources management, established and operating in Kazakhstan and Kyrgyzstan in partnership with OECD and UNECE - see <http://www.unece.org/env/water/npd/countrydialogues.html>) and provide recommendations for improving existing coordination mechanisms, or establishing new ones, to be approved at high governmental level.

(3) A Stakeholder involvement, gender mainstreaming and outreach communication strategy

A stakeholder involvement, gender mainstreaming and outreach strategy will be developed and implemented.

Local experts will develop a list of potential stakeholders to participate in the discussion and decision-making, including representatives of government authorities from both countries, local government, various associations of water users, water-consuming enterprises, local communities, NGOs including women's NGOs, academia, human rights organizations, etc.

The experts will also analyse the experience and effectiveness of participation in these processes such previously established structures and mechanisms like the National Policy Dialogues, Basin water councils, WUA, WUAFs, CDWUU, SPKV, CPS and others and establish gender indicators in these structures. In addition, with the help of international experts the corresponding international experience will be examined and discussed.

Based on the analysis, the PWG will develop and provide for the Commission's approval a draft program of stakeholder engagement and gender equality in the process of discussion and decision-making.

Once this programme is approved, a seminar will be organized to inform new stakeholders on the roles, rights and responsibilities in the process of discussion and decision-making. Further, within this program, representatives of interested parties will receive access to relevant information on water relations across the two basins. The most active group will also get the opportunity to participate in seminars and trainings, workshops and other events organized by the project and under the auspices of the Commission. At the same time, comments and constructive suggestions received from stakeholders will be taken into account during the preparation of the project, the Commission's decisions, or forwarded for consideration to the regional water governments.

(4) Revised Statutes of the Commission/Secretariat and establishment of a joint Environmental Expert Group under the Commission with clear mandate and work plan.

The agreement between the Government of the Republic of Kazakhstan and the Government of the Kyrgyz Republic on cost sharing for the transboundary water infrastructure in the Chu-Talas basin that was ratified in 2000 provides the legal basis for a bilateral commission, responsible for the joint water management in the basin. According to the Statutes of the Commission approved in 2006, the protection of water resources is one of the competencies of the Commission, but this competency has not been exercised. This is explained by the fact that the Commission focus has been to solve water management problems rather than developing cooperation with and work programmes involving environmental protection authorities. Currently, there is a great need to strengthen activities to protect water resources. One option to be investigated is to establish and Environmental Expert Group with its corresponding work programme under the Commission.

To this end, local experts with international experts will:

- Provide justification for required amendments to the Statutes of the Commission/Secretariat;
- Agree on and provide for subsequent approval of revised Statutes following legislative procedures of both countries.

(5) Twinning and experience sharing exchange with another transboundary basin, strategy for replication of best practices in the Chu Talas basins

To achieve this project output twinning will be sustained to regularly exchange best practices with regard to the management, use and protection of water resources with the governance structures of other transboundary water basins.

Local experts with support of international experts will, first, determine the priority list of transboundary water basins of interest to share experiences following pre-established criteria, using Internet resources and other available sources of information. Possible peer-to-peer learning will be pre-defined with potential partners including mechanisms of twinning. It will be useful to consider following best practices, as an example:

- Regulatory framework of cross-border cooperation;
- Establishment of interstate competent authorities for transboundary facilities management;
- Practices of planning and coordination between the parties in the implementation of water management and water conservation activities;
- Mechanisms for shared financial and resource participation of interested countries in implementation of joint activities over transboundary water facilities;
- Practices of advanced technologies and technical water innovations;
- Experience in conflict resolution;
- Technology, procedures and techniques to monitor water resources in transboundary areas, practices of monitoring data operational exchange etc.

Once all preparatory activities are completed, the expert group will invite the Commission to establish contacts with transboundary water management authorities. As consent is obtained to cooperate with foreign partners, the expert group will provide systematic support to the Secretariat of the Commission in implementation of the agreed programs of cooperation. Possibilities will be suggested to further strengthen cooperation with

governance structures of other transboundary water basins, for example, through study tours of delegations from the two twinning parties.

(6) Project web page (following IW LEARN standards) created on the Commission website, international waters experience notes with best practices from the project produced, use of GEF 5 IW tracking tool and participation at GEF IW conferences and other IW LEARN activities ensured. 1% of the project total budget will be used for these types of activities as required by GEF.

Joint actions of the Commission's Secretariat and local experts will be carried out to achieve this outcome through publishing the most significant project materials. Actions programme developed and agreed with the Commission will include:

- Project web-page integrated into the web-site of the Commission and developed in compliance with the standards of educational resources sharing network of the GEF International Waters (IW: LEARN);
- Publication of brochures, pamphlets and annotations containing the results of project activities;
- Information in national and local media on the project results and public interest;
- Support stakeholders to participate in GEF IW conferences and other activities within IW:LEARN.

Component 3: Strengthening capacity of water resources monitoring in the Chu and Talas River Basins.

Outcome 9: Improved basis for the dialogue on transboundary water management on the basis of a better understanding of the quantity and quality of water resources, and their variability in the two basins.

Outcome 10: Consensus on joint monitoring activities between the two countries.

Outcome 11: Countries capacity built for improved coordinated monitoring.

Outputs and Activities:

(1) Assessment of present situation of surface and groundwater quantity and quality monitoring in the two basins, including all relevant aspects (legal and regulatory, distribution and present conditions of monitoring infrastructure, differences in monitoring protocols, effectiveness of existing data exchange procedures) and providing recommendations for an optimized and harmonized system as well as defining needs for capacity building.

Local consultants with methodological support of international experts in this field will perform following work:

- Assess the adequacy and status of legislative, regulatory and legal acts, technical standards and regulations on procedures and methodology for monitoring water resources quantity and quality in both countries. Based on a comparative analysis of the contents of these documents, provide informed recommendations for correction, updating (if necessary) and harmonization;
- Assess the adequacy of size, location and condition of monitoring stations and sites of the monitoring network in Kazakh and Kyrgyz parts of both basins. Based on this assessment, provide informed recommendations on rehabilitation and modernization of equipment and the need to optimize the number of stations and sites;

- Collect information on the monitoring data collection, processing, analysis, dissemination and use in both countries. Based on this information, develop recommendations for the improvement and unification of water resources monitoring procedures and technologies;
- Evaluate the status and effectiveness of the existing monitoring data exchange system between national and local governments within and between the two countries. Based on this evaluation, provide informed recommendations to improve the early warning system and data exchange monitoring;
- Elaborate recommendations to optimize and harmonize the parameters for the control of the quality of surface and underground water.

Local consultants in cooperation with international experts will further assess capacity of local organizations in the two countries responsible for water resources monitoring in the basin, including hydrometeorological services, hydrogeology, emergency, environmental protection, health (sanitary and epidemiological supervision) and water authorities. Criteria to assess the current capacity of these organizations can include:

- Staffing and qualifications at various levels;
- Legislative and regulatory acts, technical standards and regulations, manuals and other documents on monitoring procedures and technologies;
- Technical capacity to measure and control, transport, communicate; availability of office equipment, computers, laboratory and reagents for the analysis of water samples and the like;
- Applicability of technology and techniques of water monitoring, including standards and best international practices;
- Skills and knowledge of the staff.

Based on a series of consultations with representatives of these organizations, the expert group will summarize the views and needs of stakeholders in training, experience of other GEF projects and the best international experience and develop training programs for staff of agencies responsible for monitoring, considering possibility of new technologies and equipment integration.

(2) Training on water quantity monitoring and data exchange

Monitoring of water flow and use is key to the implementation of the water sharing agreement and the training is an important complementary activity to the on-going strengthening of the establishment of new hydroposts funded by the countries and donors.

To achieve this output, a training program, based on results from output (1) will be developed for institutions and experts in Kazakhstan and Kyrgyzstan responsible for (joint) water resources quantity monitoring in Chu-Talas basins. Part of this training programme will be implemented under the project.

(3) Training and capacity building for joint water quality monitoring

On the basis of a previous UNECE project (<http://www.unece.org/env/water/centralasia.html>)

- set of agreed parameters will be established for transboundary water quality analyses
- laboratories will be strengthened by equipment (co-funding)
- training will be conducted for joint monitoring of transboundary waters quality.

Currently, monitoring of water quality follows national systems with significant differences in the density of control points, the equipment used, the analytical methods, sampling frequency, quality control procedures, etc. A capacity building effort is needed in order to establish a conducive environment for the establishment of coordinated, joint monitoring on water quality.

Therefore, an important impetus to the improvement of monitoring systems, as in transboundary and national level could provide work that will ensure constant monitoring of the background quality of transboundary waters and the exchange of information between countries. Such work, in particular, includes:

- step by step development of monitoring and evaluation programs;
- accounting for background conditions of water quality, rather than local effects, which is important for cross-border nature of the monitoring system;
- limited number of monitored parameters (5 + stock indicators), reflecting the most important transboundary issues of water pollution and quantitative parameters of water flow;
- incremental population of a regional database for information sharing and defining entry procedures, validation and dissemination of information.

In perspective, countries will seek to shift to the river basin approach in water resources management, particularly, by expanding networks and adaptation of monitoring programs. This should include expanding the range of indicators of water quality, analytical data quality control, conducting specific studies, evaluation of trends and runoff pollutants, identification reference (background) water conditions, water quality classification corrections, etc.

Equally important aspect of future reforms should be modernization of national monitoring systems. Although, both transboundary and basin monitoring, in general, contribute to the development of national monitoring of water quality, it may not be sufficient, especially in the context of national standards compliance and supervision, oversight of state-specific sources of pollution and water use regulation.

On the basis of conclusions and agreed framework for future joint monitoring as well as conclusions from output (1), a training program will be developed for institutions and experts in Kazakhstan and Kyrgyzstan responsible for (joint) water resources quantity monitoring in Chu-Talas basins. Part of this training programme will be implemented under the project.

(4) Formalization of agreement on coordinated monitoring and data exchange in the two basins

The expert group of the project will:

- Develop a unified system of classification by water authorities which set requirements for water quality;
- Specify a list of acute pollutants in the region and obtain data on the natural background level of water chemistry;
- Update lists of controlled water quality indicators (at national or transboundary basin level) and quality parameters of wastewater from specific sources of pollution;
- Develop harmonized requirements for methods and means of measurement of water quality, procedures and monitoring programs of water quality as well as control point and diffuse sources of pollution.
- Identify rules of regular information exchange between countries on transboundary natural watercourses.

Working documents will be submitted for discussion to the Commission and other stakeholders in Kyrgyzstan and Kazakhstan within the framework of at least two project meetings. Modified documents will be adopted by the Commission and submitted to the competent authorities of the respective countries for coordination and approval in due course.

Incremental cost reasoning and expected global benefits

The proposed project will accrue incremental costs of previous environmental and water management projects under implementation in Chu-Talas river basins, benefiting efficient water management and protection summarized in table 2:

Table 2

Baseline scenario	Alternative scenario	Global benefits
<p>Regulatory framework of water policy in Kazakhstan and Kyrgyzstan embraces integration of IWRM basic principles, but the limited availability of national resources objectively deters possible widespread implementation of these principles. As a result, funding priorities of water sectors in the Kyrgyz Republic and Kazakhstan provide inadequate allocation of the annual funding for the successful implementation of key IWRM activities:</p> <ul style="list-style-type: none"> - to sustain water ecosystem in two basins; - to strengthen human and technical capacity of local authorities to manage and protect water resources; - to mitigate consequences of increasing deficit of water resources due to climate change, population growth, water heavy industry development; - to restore and further develop water resources monitoring infrastructure; 	<p>Water and environmental situation in both basins is studied in detail, with project support and will continue to be systematically monitored. Based on the developed TDA, key water basins and environmental issues are identified and adaptive plans for the appropriate national, regional and joint programs are formulated. Regulatory framework, status and capacity of the Commission are extended to facilitate transboundary cooperation in water protection. Local stakeholders from Kyrgyzstan and Kazakhstan are involved in planning, adoption and implementation, decision-making over water resources management and protection. Coordination and efficiency of water management, protection authorities, water users and NGOs is strengthened. Programme of information sharing and outreach for local authorities, water users and other stakeholders, including NGOs and communities on a wide range of water and environmental issues is developed and facilitated. To ensure gender dimension and aspects, a programme to encourage women participation in water</p>	<p>Implementation of a set of alternative measures proposed by the project, will provide the following tangible benefits:</p> <ul style="list-style-type: none"> - due to intensification of environmental protection activities, initiated by the project, and because of increased number of participants of these events (water users, local communities, NGOs, donors, etc.) aquatic ecosystems degradation, consequences will be mitigated in Chu-Talas river basin; - due to strengthened capacity of local government, improved knowledge of staff, integrated advanced technologies and water management, as well as strengthened control and coordination between the parties efficiency in water resources utilization will be improved towards reduction in water losses at least by 12%. Water scarcity risks and consequences will be mitigated in the course of these actions, water users and communities will be provided access to water resources; - due to strengthened methodology and technical advancements in water resources monitoring, detection and neutralization of the key sources of water pollution and use of complex

Baseline scenario	Alternative scenario	Global benefits
<p>- to integrate advances water saving and utilization technologies;</p> <p>- to provide normative water quality in water facilities and water systems;</p> <p>- to overcome threats and conflicts due to increasing water resources deficit and limited access to water resources of good quality of local communities and water users;</p> <p>- to stimulate integration of local population, water users, NGOs and other stakeholders to water management and protection decision-making.</p> <p>In case of continued negative trends identified in the above mentioned Situation analysis, the risks of aquatic ecosystems and water infrastructure degradation, as well as threats related to restricted access to water resources will increase over time.</p>	<p>management and water protection activates is developed in Chu-Talas basin.</p> <p>Skills and knowledge upgrading in water management and protection advanced technologies for local governments and other stakeholders is ensured.</p> <p>Cooperation mechanisms and procedures of experience exchange and best practices with other transboundary institutions are strengthened.</p> <p>Technical capacity of water quality monitoring system is strengthened.</p> <p>Information dissimulation on best practices and lessons learned of other projects is provided.</p>	<p>measures for adequate water protection, improvement in the quality of water resources in natural water facilities and water management systems will be ensured;</p> <p>- based on developed projections and adaptation programs, local authorities of both countries and stakeholders will be informed of the possible consequences of climate change and available water resources in the basin. Consequently, timely implementation of adequate preventive measures will be provided to prevent and mitigate consequences of the above factors, appropriate adjustments of existing norms, rules and limits of water consumption;</p> <p>- due to strengthened interaction of local water management and environmental authorities facilitated by the Commission, trainings and awareness campaigns among the population and users water risks and conflicts in the basin will be eliminated risks of conflicts related to water relations in transboundary basin of Chu-Talas rivers.</p>

Sustainability

52. Operational and financial sustainability of the Commission, local water management and protection authorities in the Chu-Talas river basins will be achieved through the commitment of governments of Kazakhstan and Kyrgyzstan to adequately finance, maintenance and develop these structures (after GEF investments) needed for optimal management of water resources as project completed. Furthermore, the increase in investments will be sustained through budgetary allocations, aggregated due to fees for water management and ecosystem services collected following effective tariff policy.

Socio-economic benefits including gender dimensions

53. Human/community benefits at local level: Currently, the population in Kyrgyzstan and Kazakhstan within the Chu-Talas river basin is counted for more than two million people. About half of them live in rural

areas and are employed in agriculture, mainly irrigated production. Consequently, welfare and local livelihood of rural communities heavily depend on adequate access to equitable water resources. Implementation of project activities to ensure sustainability of aquatic ecosystems, improve management of water infrastructure and water administration will prevent or at least mitigate the threat of water scarcity. Project interventions will create favorable conditions for productivity, employment, and increase in income of the rural population within the basin boundaries.

54. Implementation of project activities to develop water resources monitoring will identify root-causes of water pollution and provide for set of actions to improve water quality in natural water facilities and drinking water systems. Mixed with awareness raising and information sharing initiatives on safe water consumption and utilization, sanitation and hygiene, these activities will contribute to improved quality of drinking water, particularly in rural areas, reduced number of infectious diseases associated with the consumption of inadequately treated water. In addition, advanced aquatic ecosystems and water quality will create preconditions for sustainable development of recreation areas, industrial and recreational fishing, tourism and environmental services of environmental and water services and thus will create job opportunities for rural poor, including women and youth.

55. Currently, farms and cooperatives in arable segment of agriculture sector in water intakes of tail-end areas have no guaranteed access to irrigation water due to technical problems of the irrigation distribution network and unauthorized water consumption of upstream water users. Unequal access and distribution generates latent local conflicts and social tensions between local communities. Proposed by the project measures to regulate water distribution technologies and procedures, both at the local and transboundary levels will significantly reduce the risks of such conflicts.

56. Local communities will be more actively involved in the activities of the WUA, FWUAs, CDWUA, RWUCC and other independent associations of water users and businesses in the basin. As a consequence, participation of local communities, including women and youth in the planning, coordination and decision making will be broadened in the field of water management and protection.

57. The project will also collaborate with the GEF Small Grants Programme to involve community-based organizations to support local initiatives in addressing challenges of sustainable environmental management. With a greater focus on development and support of vulnerable groups, women and youth.

58. Gender considerations: Most of the staff of the management and protection of water resources authorities at all levels, especially in leadership positions, as well as leadership of independent associations of water users are male. In this regard, the project will gradually balance gender participation and representation in these organizations no more than 70% of the same sex, in accordance with the laws of both countries on State Guarantees of Equal Rights and Equal Opportunities. As part of this project capacity building, training, curricula, etc. are developed and tailored to different training recipients within water management and protection field. Project will provide actions to increase women participation by at least 30% in number of participants in conferences, seminars, workshops and other events. Professional gender balancing will also be sustained through equal employment opportunities for women – staffing, counseling, research etc.

Cost effectiveness

59. The proposed project will be cost effective in achieving its objective to promote integrated water resources management in transboundary Chu-Talas river basins, including empowerment of "Commission of the Republic of Kazakhstan and the Kyrgyz Republic on shared costs for interstate facilities operations in Chu-Talas river basin (Chu-Talas Commission) because of several aspects:

- Diversified strategy involving maximum stakeholders including central and local water management and conservation structures, local government, water utilities, non-governmental organizations, WUA, FWUAs, CDWUUs and others to achieve expected outcomes
- Pragmatic tools for scarce resources distribution for implementation of priority tasks of the project in meeting social and economic benefits.
- Effective operations of existing institutions such as the Chu-Talas Commission, including its Secretariat and expert working groups, Talas and Chui Basin Water Councils, as well as the Coordinating Council of the National Policy Dialogue in Kyrgyzstan and Kazakhstan. Operations of these institutions will benefit cost effectiveness of the project through shared resources, discussions of over project implementation, awareness raising and advocacy, trainings, experience exchange and other activities provided by the project.

Stakeholders analysis

Stakeholders	Roles
Key government agencies	
<p>Department of water management and melioration (DWMM) under the Ministry of Agriculture and Melioration of the Kyrgyz Republic;</p> <p>Committee of water resources (CWR) under the Ministry of Environmental Protection and Water resources of republic of Kazakhstan;</p> <p>State Agency for Environmental Protection and Forestry (SAEPF); Ministry of Environmental Protection and Water resources of republic of Kazakhstan (MEWR);</p> <p>Ministry of Emergency Situations (MES) of Kyrgyzstan; Ministry of Emergency Situations (MES) of Kazakhstan;</p> <p>State Agency for Geology and Mineral Resources (GAGMR) under the Government of the Kyrgyz Republic;</p>	<p>Key partners regulating water policies in Kyrgyzstan and Kazakhstan and administering water resources and irrigation infrastructure (Outputs 1.1-1.4, 2.1 – 2.3., 2.5, 3.1.).</p> <p>Key partners regulating national environment and conservation policies in Kyrgyzstan and Kazakhstan. Hydrometeorology service of Ministry of Environment and Water Resources of Republic of Kazakhstan also monitor ground waters and water facilities. (Outputs 1.1-1.4., 2.1 – 2.3. 2.5. 3.1.).</p> <p>Agency regulating national policies in human protection and emergencies, including natural and man-triggered of Kyrgyzstan and Kazakhstan. Hydrometeoservice (Kyrgyzhydromet) monitors natural surface water facilities and water resources (Outputs 1.1-1.4., 2.1-2.3., 2.5.).</p> <p>Agencies, regulating national water conservation policies in Kyrgyzstan and Kazakhstan (Outputs 1.1.-1.4., 2.1-2.3., 2.5., 3.1.).</p>

Stakeholders	Roles
<p>Committee of Geology and Subsoil Protection under the Ministry of Industry and New Technologies of Kazakhstan;</p> <p>Ministry of Health of Kyrgyzstan; Ministry of Health of Kazakhstan;</p> <p>Department of drinking water development (DDWD) under state Agency for Architecture and Planning (SAAP) of Kyrgyzstan; Committee of planning and development under Ministry of regional Planning of Kazakhstan;</p> <p>Ministry of Foreign Affairs of Kyrgyzstan; Ministry of Foreign Affairs of Kazakhstan;</p>	<p>Agency regulating national drinking water quality and monitoring policy in Kyrgyzstan and Kazakhstan (Outputs 1.1-1.4, 2.1, 2.5, 3.2).</p> <p>Agencies regulating drinking water development policy in Kazakhstan and Kyrgyzstan (Outputs 1.3-1.4., 2.4.-2.5.).</p> <p>Agencies regulating interstate water issues (Outputs 1.1., 1.3.).</p>
Key water management structures	
<p>Chui Bassin Water Management under DDWD; Talas Bassin Water Management under DDWD; KazVodHoz State Enterprise Shu-Talas Inspectorate on water administration and conservation; Vodocanals</p>	<p>Territorial state enterprises, administering irrigation systems and water resources monitoring in Chu-Talas river basins in Kazakhstan and Kyrgyzstan (Outputs 1.1.-1.4., 2.1., 2.3. 3.1-3.2.). Municipal structures managing centralized water delivery and allocation in Chu-Talas river basins in Kazakhstan and Kyrgyzstan (Outputs 1.1., 1.3., 1.4., 2.4., 3.2.).</p>
Key coordinating institutions	
<p>Chu-Talas Commission;</p> <p>Talas Basin Water Council; Chui Basin Water Council; Shu-Talas Water Basin Council;</p>	<p>Key institution coordinating transboundary collaboration of water authorities in Kyrgyzstan and Kazakhstan within Chu-Talas river basin (Outputs 1.1 -1.4, 2.1, 2.3, 2.5, 3.1, 3.2) ;</p> <p>Public institutions under basin water management of Kyrgyzstan and Kazakhstan coordinating water users, public discussions and decision making in Kyrgyzstan and Kazakhstan (Outputs 1.1. -1.4., 2.1., 2.3., 2.5., 3.1., 3.2.).</p>

Stakeholders	Roles
Coordination council of National Water Policy Dialogue of Kyrgyzstan; Council on water resources under MEWR of Kazakhstan (Edict of Minister of environmental protection of Kazakhstan, July 25, 2013 № 181-n).	Public institutions facilitating discussions over national water policy and coordination between water management institutions and water users (Outputs 1.1 - 1.4., 2.1., 2.3., 2.5., 3.1., 3.2.).
Local communities	
Local governments (LG) of Kyrgyzstan and Kazakhstan	Regulating local development including environment and conservation at local levels (Outputs 1.1 – 1.4, 2.4, 2.5.)
Federation and Associations of water users (WUA), agricultural consumption cooperatives of water users (ACCWU) in Kyrgyzstan Rural water users cooperatives (RWUC) in Kazakhstan; Rural water users associations (RWUA); Kyrgyz alliance on water and sanitation; Association of forest/land users in Kyrgyzstan; Farmers alliance in Kazakhstan;	Public associations of water users managing on-farm irrigation and drainage are also key consumers of water resources in Chu-Talas river basins (Outputs 1.1. – 1.4., 2.2., 2.4, 2.5.). Public association of rural drinking water users managing water allocation and delivery (Outputs 1.1 – 1.4., 2.2., 2.4, 2.5.) Public associations of forest and land users involved in regulating processes of efficient water consumption in river basins (Outputs 1.1 – 1.4, 2.2.,2.4, 2.5.).
Non-governmental organizations	
BIOM NGO KG, «Aleine» environmental movement in Kyrgyzstan; Socio-Environmental Fund of farmers alliance in Kazakhstan; Kazakh association of natural resources users for sustainable development; “Ecoforum” NGO, Kazakhstan,	Non-governmental organizations advocating technologies for efficiency in natural resources and public outreach (Outputs 1.3., 2.4., 2.5., 3.2.)
Research and expertise	

Stakeholders	Roles
Climate change center; Institute of water issues and energy of National Academy of Science, Kyrgyzstan:	Non-governmental organization specializing in research and projections of climate change, including changes in water resources and impact on aquatic ecosystems (Outputs 1.2, 2.3, and 2.5) These scientific organizations should be involved for impact analysis of outputs 1.1-3.3, accomplished during project implementation.
Private sector	
Kyrgyz tourism association	Will be involved in trainings for stakeholders and study tour (Outputs 2.5, 3.2).

Coordination with other initiatives

60. The proposed GEF project will be implemented in close cooperation with the following initiatives in Central Asia:

- EU/UNDP initiative “Promoting IWRM and fostering transboundary dialogue in Central Asia”;
- EU/UNDP initiative “Strengthening capacity in disaster risk management in Central Asia”
- UNDP initiative “Climate risk management in Central Asia”
- Initiative within the framework of regional action plan on environmental protection project
 - UNDP/Coca-Cola initiative “Every drop matters”
 - Initiative of Central Asia on Land resources management

61. The proposed project will coordinate activities with the policies, reforms and initiatives of the governments of Kyrgyzstan and Kazakhstan, donors and project implementation/management units of the World Bank, Asian development Bank, European Commission, JICA, SDC, TACIS, UNECE and others on water and environment. The Project will also accrue on lessons learned of the projects mentioned above in “Other initiatives and projects”.

62. In addition, positive experience of GEF-Small Grants Programme in Kyrgyzstan will be referenced in planning and implementation of project components and activities to strengthen transboundary cooperation and integrated water resources management in Chu-Talas river basin. GEF/SGP national coordinator will be regularly invited for discussion and project implementation.

III. PROJECT RESULTS FRAMEWORK

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:

Kyrgyzstan: By the end of 2016 sustainable management of energy, environment and natural resources practices are operationalized.

Kazakhstan: By the end of 2015, communities, national and local authorities use more effective mechanism and partnership that promote environmental sustainability and enable them to prepare, respond and recover from natural and man-made disasters.

Country Programme Outcome Indicators:

Kyrgyzstan:

- % of people who have equitable access to climate resilient eco systems services;
- % of water use efficiency for agricultural and energy production;
- % of population benefiting from non-carbon energy sources.

Kazakhstan:

1. Number of national legislative frameworks that introduced policy reforms to better address water-related challenges;
2. Number of transboundary coordination or cooperation mechanisms;
3. Extent of national buy-in to transboundary coordination or cooperation mechanisms.

Primary applicable Key Environment and Sustainable Development Key Result Area

Outcome #2: Citizen expectations for voice, development, the rule of law and accountability are met by stronger systems of democratic governance

- Output 2.5 - Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation

Indicator 2.5.2. Number of countries implementing national and local plans for Integrated Water Resources Management

Applicable GEF Strategic Objective and Program: International Water - 3

Applicable GEF Expected Outcomes: Transboundary institutions for joint ecosystem-based and adaptive management demonstrate sustainability

Applicable GEF Outcome Indicators: Cooperation frameworks agreed with sustainable financing identified

Project strategy	Verifiable indicators				
	Indicator	Baseline	Targets	Sources of verification	Risks and Assumptions
Objective: Strengthening transboundary cooperation and promoting integrated water resources management in the Chu	Science based consensus on major transboundary environmental concerns and possible solutions (TDA), leading to agreement between the two countries on a joint	Currently, transboundary cooperation in the Chu-Talas basins is mainly limited to the implementation of the existing water sharing	At the end of project: SAP endorsed by countries at Ministerial level.	Governments of Kazakhstan and Kyrgyzstan adopt appropriate changes in the Statutes of the Commission/Secretariat which envisages	Governments and national executive agencies and local governance structures, water users and communities in two basins support interstate water cooperation.

<p>and Talas River Basins, and empowering the Water Commission of Republic of Kazakhstan and the Kyrgyz Republic</p>	<p>program of corrective actions (SAP) and on harmonized monitoring and data exchange protocols.</p> <p>The Water Commission strengthened through improved water monitoring ability, and its mandate expanded to include environmental aspects.</p>	<p>agreement and does not include consideration of ecosystem integrity and environmental sustainability in view of climatic variability and change.</p> <p>Deteriorated monitoring networks hinder ability of the Commission to implement the water sharing agreement.</p>	<p>Governments approve expanded mandate of the Water Commission and establish Environmental Expert Group.</p> <p>Water quantity and quality monitoring procedures harmonized.</p>	<p>expansion of areas of bilateral water cooperation, and will formally endorse the SAP, and new monitoring protocols.</p>	
<p>Component 1</p> <p><i>Outcome 1:</i> Science based consensus among the countries on major transboundary problems of the basin.</p> <p><i>Outcome 2:</i> Improved understanding of the transboundary implications of the shared nature of the Basins' water resources.</p> <p><i>Outcome 3:</i> Improved knowledge of the consequences of extreme weather situations.</p> <p><i>Outcome 4:</i> Capacitated local stakeholders ready</p>	<p>The TDA of the Chu and Talas Basins prepared jointly by the two countries, identifying issues of transboundary concern.</p> <p>Considerations based on Water Scenarios, on climate variability and change and surface-groundwater interactions included into the TDA.</p> <p>Program for seminars on climate change adaptation</p>	<p>At the moment there is not common understanding over transboundary issues in Chu-Talas river basins among the stakeholders in Kazakhstan and Kyrgyzstan</p> <p>Currently there is no common understanding of possible future water resources scenarios in the basin. This hinders the decision making process on adaptation measures.</p> <p>Currently, local governments and</p>	<p>TDA completed and approved by first semester of Year 2</p> <p>TDA document including consideration of future water scenarios and surface-groundwater interactions.</p> <p>Seminars developed and held within first</p>	<p>Transboundary diagnostic analysis (TDA) of Chu-Talas river basins approved by the Water Commission.</p> <p>The TDA and the Report on Future Water Scenarios approved by the Chu-Talas Commission and by key government agencies of Kyrgyzstan and Kazakhstan.</p> <p>Seminar reports showing adherence</p>	<p>Timely and adequate support in TDA development by all stakeholders.</p> <p>Timely and adequate support by stakeholders in scenarios development.</p> <p>Stakeholders actively participate in seminars.</p>

<p>to minimize negative consequences for economic sectors as well as the environment in the basin.</p>	<p>and integrated water resources management approved by the Commission and implemented.</p>	<p>others stakeholders in both basins are not prepared to adequately respond to the possible social, economic and environmental implications and risks associated with the transboundary nature of the water resources of the basins and with increased climate variability and change.</p>	<p>semester of Year 2 of the project implementation.</p>	<p>with initial program; number of trainees.</p>	
<p>Component 2</p> <p><i>Outcome 5:</i> Visioning process and agreement on priorities for action opens the way for systematic cooperation in the integrated management of the transboundary Chu Talas River Basins.</p> <p><i>Outcome 6:</i> Strengthened collaborative mechanism for bilateral cooperation framework or the further improvement of joint management of the Chu and Talas basins.</p> <p><i>Outcome 7:</i> Steps taken for the involvement of stakeholders in the</p>	<p>The Strategic Action Program (SAP), with a 5 years horizon and reflecting inter-sectoral dialogue and stakeholder involvement and addressing the major issues of transboundary concern agreed upon by the two countries.</p>	<p>There is currently no detailed joint integrated program to address major transboundary issues in Chu-Talas river basins, and stakeholders have little participation in discussions and decision-making.</p>	<p>SAP endorsed at Ministerial level by the end of project</p>	<p>SAP document formally adopted for implementation by the competent authorities of Kazakhstan and Kyrgyzstan.</p>	<p>Political will to implement the SAP in the countries.</p> <p>Water users, NGOs and local communities will actively participate in the process of discussion and decision-making in water management and conservation in Chu-Talas river basins.</p>
	<p>Amendment to the Commission regulations establishing a clear environmental mandate, and a joint Environmental Expert Group.</p>	<p>Currently, the functions and competencies of the Chu-Talas Commission are limited to joint water management (quantity) coordination in the two basins.</p>	<p>Amendment to the Statutes of the Commission/Secretariat adopted by governments by end of Year 1.</p>	<p>Joint decision on the changed statutes by the competent organs in Kyrgyzstan and Kazakhstan</p>	<p>Political will to improve regulatory framework and participation for bilateral water cooperation</p>

<p>decision making proces.</p> <p><i>Outcome 8: Project experiences and lessons disseminated globally and regionally</i></p>	<p>Twinnings and experience exchanges with other transboundary basins, dissemination of project results and participation to IW LEARN activities</p>	<p>No ongoing or previous outreach, dissemination and awareness raising activities related to the two basins management.</p>	<p>Twinning with at least another river basin showing similar characteristics and problems, and communication platform (website) established during the early project phases</p>	<p>Published project materials. Website performance.</p>	<p>Active participation of project staff and stakeholders in the dissemination of information on lessons learned and project experience.</p>
<p>Component 3</p> <p><i>Outcome 9: Improved basis for the dialogue on transboundary water management on the basis of a better understanding of the quantity and quality of water resources, and their variability in the two basins.</i></p>	<p>Report containing the assessment of present situation of surface and groundwater quantity and quality monitoring including redommendations for an harmonized system completed.</p>	<p>Currently latent conflict situations between Kyrgyzstan and Kazakhstan exist in regulation of water resources distribution and allocation, and pollution in both basins due to differences in technologies and procedures for monitoring the quantity and quality of water resources.</p>	<p>Assessment Report completed and approved by the Commission and by national agencies of Kyrgyzstan and Kazakhstan, by the end of Year 2.</p>	<p>Assessment Report and proof of approval by the Commission and governmental agencies.</p>	<p>Political will and support from national executive agencies of Kyrgyzstan and Kazakhstan to strengthen collaboration between stakeholders over water resources monitoring.</p>

<p><i>Outcome 10:</i> Countries capacity built for improved coordinated monitoring.</p> <p><i>Outcome 11:</i> Consensus on joint monitoring activities between the two countries.</p>	<p>Reports containing (i) the assessment of capacity building needs in water resources monitoring; (ii) a program for ad hoc training of staff of the two countries; (iii) the results of the capacity building activities and events, including number of participants and results assessment</p>	<p>Currently, water monitoring is poor and sporadic based on limited number of observations and indicators. Staff has no capacity to use new monitoring technologies.</p>	<p>Reports on needs assessment and on implementation and results of training program prepared by the end of the project.</p>	<p>Reports approved by the Commission and by national agencies of Kyrgyzstan and Kazakhstan.</p>	<p>Active participation of project staff and stakeholders in the dissemination of information on lessons learned and project experience.</p>
	<p>Formal agreement on harmonized monitoring and data exchange protocols in the two basins.</p>	<p>No approved rules for transboundary water quality monitoring and information exchange exist</p>	<p>Agreement between the two countries formalized by project completion.</p>	<p>Text of Agreement and proof of approval by the two countries at governmental level.</p>	<p>Sustained political support from Kyrgyzstan and Kazakhstan for joint harmonized monitoring of shared water resources.</p>

Chronogram of Activities

Outcomes	Year 1	Year 2	Year 3
1: TDA and Training			
2: SAP			
3: Expansion of the Water Commission mandate			
4: Exchanges of experiences and outreach			
5: Water quantity and quality monitoring			

IV. TOTAL BUDGET AND WORK PLAN

Award ID:	00081980
Award Title:	Enabling transboundary cooperation and integrated water resources management in the Chu and Talas River Basins
Business Unit:	KGZ10
Project Title:	Enabling transboundary cooperation and integrated water resources management in the Chu and Talas River Basins
Atlas Project ID:	00091092
PIMS number:	5167
Executing Agency:	UNDP

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund	Donor	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total (USD)	See Budget Note:
ACTIVITY1: TDA including climate scenario analyses to inform adaptive management of the Chu-Talas shared water resources.	UNDP	62000	GEF	75700	Training, Workshops and Conferences	20 000	20 000	20 000	60 000	1.
				71400	Contractual Services - Individuals	6 755	6 755	16 490	30 000	1.1
				71200	International Consultant	20 000	35 000	30 000	85 000	2.
				71300	Local Consultant	35 000	20 000	20 000	75 000	3.
				71600	Travel	10 000	10 000	10 000	30 000	4.
				74200	Printing costs	5 000	5 000	10 000	20 000	5.
					Sub-total GEF	96 755	96 755	106 490	300 000	
ACTIVITY2: Building the foundation for broadened and improved bilateral water cooperation	UNDP	62000	GEF	75700	Training, Workshops and Conferences	15 000	10 000	10 000	35 000	6.
				71400	Contractual Services - Individuals	6 755	6 754	16 491	30 000	6.1
				71200	International Consultant	10 000	20 000	10 000	40 000	7.

ACTIVITY3: Strengthening capacity of water resources monitoring in the Chu and Talas River Basins.	UNDP	62000	GEF	71300	Local Consultant	15 000	15 000	10 000	40 000	8.				
				71600	Travel	10 000	15 000	15 000	40 000	9.				
				74200	Printing costs	5 000	5 000	5 000	15 000	10.				
					Sub-total GEF	61 755	71 754.50	66 491	200 000					
				71200	International Consultant	6 000	58 000	12 000	76 000	11.				
				71400	Contractual Services - Individuals	6 754	6 754	16 492	30 000	11.1				
				71300	Local Consultant	12 000	10 000	12 000	34 000	12.				
				71600	Travel	1 000	2 000	1 000	4 000	13.				
				72100	Contractual Services	30 000	166 000	48 000	244 000	14.				
				74200	Printing Costs	0		12 000	12 000	15.				
					Sub total GEF	55 754	242 754	101 492	400 000					
				Project Management	UNDP	62000	GEF	71400	Contractual Services - Individual	20 000	20 000	20 000	60 000	16.
								72100	Contractual services - Companies	7 500	7 500	7 000	22 000	17.
								74100	Audit fees	0.00	3 000	0 00	3 000	18.
								74500	Miscellaneous	5 000	5 000	5 000	15 000	19.
									Subtotal GEF	32 500	35 500	32 000	100 000	
				TOTAL GEF						246 764	446 763	306 473	1 000 000	
				GRAND TOTAL						246 764	446 763	306 473	1 000 000	

Notes to Budget

Budget Note	Description of Services / Expenditure
1	Organisation of expert meetings with the objective to prepare and discuss the TDA. Minimum five meetings costed to cca 10,000 each (accommodation, food and other organisational expenses. This item will also cover expenses related to seminars for stakeholder on adaptive management.
1.1	The position of Regional Project Coordinator and Programme Assistant will be covered (SWP will share the cost of RPC)
2	International consultants and contributions of UNECE for the development of TDA and the scenario development.
3	Local experts including representatives of research organizations and NGOs from Kazakhstan and Kyrgyzstan involved in the development of the TDA as well as the scenario development and stakeholder seminars.
4	Local travel in the Chu Talas River Basin for the development of the scenarios as well as well as the organization of stakeholder seminars is expected.
5	Publication of material from the project including for the seminars on adaptive management.
6	Organization of meetings of the environmental group, meetings on the preparation and discussions on the SAP as well as changes in Statutes of the Commission/Secretariat. Minimum three meetings costed to ca 10,000 each (accommodation, food and other organisational expenses).
6.1	The position of Regional Project Coordinator and Programme Assistant will be covered (SWP will share the cost of RPC)
7	International consultants and substantive contributions of UNECE for the development of SAP as well as reaching consensus on this document, development of other documents. Travel costs to be included.
8	National consultants from the governmental sector and NGOs to assist with the implementation of Component 2.
9	Travel costs are included for the development of the Component 2, inside and outside the basins for dissemination activities.
10	Costs related to the development of the IWLEARN web site as well as printed material.
11	International consultants and substantive contributions of UNECE for the strengthening of the monitoring and laboratory work under Component 3.
11.1	The position of Regional Project Coordinator and Programme Assistant will be covered (SWP will share the cost of RPC)
12	National consultants from governmental and research sectors and NGOs will assist with the implementation of Component 3.
13	Travel costs are included for the development of the Component 3 and for stakeholder workshops within the region. Most travel will be in the region and of a limited duration.
14	Minimum three meetings costed to ca 10,000 each (accommodation, food and other organisational expenses). Material and selected equipment for monitoring and analysis purposes will be purchased under this item.
15	Printing costs for the dissemination of lessons learnt and materials to be distributed for public information activities.
16	The position of Regional Project Coordinator and Programme Assistant will be covered (SWP will share the cost of RPC)
17	Rent & Public Utilities for the Project Implementation Unit (PIU)
18	Audit as per FRR of UNDP
19	Other miscellaneous expenses, security and etc.

SUMMARY OF FUNDS:

	Year 1	Year 2	Year 3	Total (\$)
GEF	246,764	446,763	306,473	\$1,000,000
Shared Waters Partnership (SWP) (Cash)	32,713.52	32,713.52		65,427.04
Governments of Kazakhstan and Kyrgyzstan (in-kind)	400,000	870,000	650,000	\$1,920,000
SDC (grant)	600,000	1,000,000	600,000	\$2,200,000
UNECE (in-kind)	100,000	200,000	140,000	\$440,000
UNDP (in-kind)	60,000	150,000	90,000	\$300,000
Government of Finland (in-kind)	400,000	500,000	413,970	\$1,313,970

V. MANAGEMENT ARRANGEMENTS

63. UNDP as the GEF Implementing Agency will implement this regional project directly by the UNDP Kyrgyzstan Country Office in-line with its delegation of authority granted by UNDP Associate Administrator with the oversight from the Regional Center in Istanbul (IRC) and with support of UNDP Country Office in Kazakhstan. The UNDP in Kyrgyz Republic will act as the Principal CO, and will be accountable to the GEF for the use of funds and reporting to GEF on all aspects of the project per the Monitoring and Evaluation Plan (Section II, Part IV). IRC will ensure additional regional coordination and oversight. The project organization structure (summarized in the figure below) will consist of a Project Board, Project Assurance, and a Project implementation Unit (PIU). Roles and responsibilities are described below.

64. **Project Board:** The Project Board (PB) will be responsible for making management decisions for the project, in particular when guidance is required by the Regional Project Coordinator (RPC). It will play a critical role in project monitoring and evaluations by assuring the quality of these processes and associated products, and by using evaluations for improving performance, accountability and learning. The Project Board will ensure that required resources are committed. It will also arbitrate on any conflicts within the project and negotiate solutions to any problems with external bodies. In addition, it will approve the appointment and responsibilities of the Regional Project Coordinator and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan (AWP), the Project Board can also consider and approve the quarterly plans and approve any essential deviations from the original plans. The project will be subject to Project Board meetings at least twice every year. The first such meeting will be held within the first 6 months of the start of full implementation. At the initial stage of project implementation, the PB may, if deemed advantageous, wish to meet more frequently to build common understanding and to ensure that the project is initiated properly.

65. To ensure UNDP's ultimate accountability for project results, Project Board decisions will be made in accordance with standards that shall ensure management for development results, best value for money, fairness, integrity, transparency, and effective international competition. In case consensus cannot be reached within the Board, the final decision will rest with the UNDP/GEF.

66. The Project Board Members will consist of key national government and non-government agencies, and appropriate local level representatives. UNDP and UNECE will also be represented on the Project Board, which will be balanced in terms of gender. Kazakh-Kyrgyz Chu-Talas water management commission (CTWC) will be an integral part of the Project Board to oversee project implementation. Co-chairs of the commission are also manager of water management bodies in Kazakhstan and Kyrgyzstan who will rotate in chairing the PB. Additional members will be reviewed and recommended for approval during the Project Appraisal Committee (PAC) meeting. The Project Board will contain three distinct roles:

- *Executive Role:* This individual will represent the project "owners" and will chair the group. It is expected that the MAM and MEWR will appoint a senior official to this role who will ensure full government support of the project.
- *Senior Supplier Role:* This requires the representation of the interests of the funding parties for specific cost sharing projects and/or technical expertise to the project. The Senior

Supplier's primary function within the Board will be to provide guidance regarding the technical feasibility of the project. This role will rest with UNDP and UNECE Senior Management.

○ *Senior Beneficiary Role:* This role requires representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board will be to ensure the realization of project results from the perspective of project beneficiaries. This role will rest with the other institutions (key national governmental and non-governmental agencies, and appropriate local level representatives) represented on the Project Board, who are stakeholders in the project.

Project Assurance: The role supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The Project Assurance role will rest with UNECE and UNDP CO.

67. Unified Programme Management Unit (PMU) of UNDP Kyrgyzstan will host a Project Implementation Unit (PIU) that will be established and headed by the Regional Project Coordinator (RPC). The Regional Project Coordinator has the authority to run the project on a day-to-day basis within the constraints laid down by the Board. The Regional Project Coordinator's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The RPC will be recruited in accordance with UNDP regulations and will be based in Bishkek, Kyrgyzstan (located in Chu basin). RPC will operate under overall thematic guidance of the UNDP Istanbul Regional Hub (IRH) Regional Technical Advisor (RTA) and direct supervision of the UNDP CO Environment and DRM Programme and Policy Analyst (PPA). RPC will act as a water expert who will be responsible for providing critical technical input and guidance to regional project implementation, in addition to overall management and supervision of the project. RPC will coordinate closely with both UNDP and UNECE offices and liaise with the UNDP Country Offices in both Kyrgyzstan and Kazakhstan, Senior Representatives of partner agencies as well as national partners, and Chu-Talas Transboundary Water Commission (CTTWC), including National Focal Points (NFPs) and other project partners in order to develop and oversee the execution of the annual work plans for the project. RPC will be responsible for overall project coordination and implementation, consolidation of work plans and project papers, preparation of quarterly progress reports, reporting to the project supervisory bodies, and supervising the work of the project experts and other project staff. An existing programme assistant of the Environment and Energy Cluster will be drawn to assist with programme's implementation related tasks to RPC. In addition, an administrative and finance assistant from PMU Operations Team will provide finance and administrative support and be responsible for handling project's administrative and financial issues with the support of the UNDP CO Operations Unit. Content based short and long terms experts (both domestic and international) will be contracted to perform specific project content related tasks, if and when deemed necessary.

68. The UNDP CO will provide the following operational support services to the Project and charge according to the Universal Price List from the direct project costs (DPC):

- HR activities including recruitment of project personnel, issuance of project personnel contracts and etc;
- Undertake procurement activities of project goods and services;
- Finance transactions and administrative and logistical support.

69. The PIU, following UNDP procedures on projects implementation, will identify national experts and consultants, and international experts as appropriate to undertake technical work. The national and international companies may also be involved in project implementation. These consultants and companies will be hired under standard prevailing UNDP procedures. Consultants and experts from Kazakhstan and Kyrgyzstan will be part of the PIU.

VI. MONITORING FRAMEWORK AND EVALUATION

70. The project team and the Principal UNDP CO and UNECE supported by the Regional Service Center based in Istanbul, Turkey, will be responsible for project monitoring and evaluation conducted in accordance with established UNDP and GEF procedures.

71. The Project Results Framework (PRF) provides performance and impact indicators for project implementation, along with their corresponding means of verification.

72. The following sections outline the principle components of the Monitoring and Evaluation (M&E) plan and indicative cost estimates related to M&E activities. The project's M&E plan will be presented to all stakeholders at the Project's Inception Workshop and finalized following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

Project start:

73. A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP CO, UNECE and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

74. The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RSC staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- b) Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- c) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- d) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- e) Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

75. An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

76. **Quarterly:**

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

77. Annual Project Review/Project Implementation Review Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

78. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice.
- AWP and other expenditure reports.
- Risk and adaptive management.
- ATLAS Quarterly Progress Report.
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.

Periodic Monitoring through site visits:

79. UNDP CO, UNECE and the UNDP RSC will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the UNDP CO, UNECE and UNDP RSC and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:

80. The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency, and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation

will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO and UNECE based on guidance from the Regional Service Centre and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF IW tracking tool will also be completed during the mid-term evaluation cycle.

End of Project:

81. An independent Final Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO and UNECE based on guidance from the Regional Service Centre and UNDP-GEF. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#). The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

82. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

83. The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation.

Learning and knowledge sharing:

84. Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

85. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

86. Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:

87. Full compliance is required with UNDP's Branding Guidelines. These can be accessed at <http://intra.undp.org/coa/branding.shtml>, and specific guidelines on UNDP logo use can be accessed at: <http://intra.undp.org/branding/useOfLogo.html>. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects needs to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo

can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at <http://intra.undp.org/coa/branding.shtml>.

88. Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.

89. Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

M&E work-plan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> ▪ Regional Project Coordinator ▪ UNDP CO, UNECE and UNDP RSC 	Indicative cost: 10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ UNDP GEF RTA/Regional Project Coordinator will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> ▪ Oversight by Regional Project Coordinator ▪ Project team 	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
PIR	<ul style="list-style-type: none"> ▪ Regional Project Coordinator and team ▪ UNDP CO ▪ UNECE ▪ UNDP RSC 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Regional Project Coordinator and team 	None	Quarterly
Mid-term External Evaluation	<ul style="list-style-type: none"> ▪ Project team, ▪ Project Board, ▪ UNDP-GEF RSC, ▪ External Consultants (Evaluation Team) 	Indicative cost : 20,000	At the mid-point of project implementation
Final Evaluation	<ul style="list-style-type: none"> ▪ Regional Project Coordinator and team, ▪ UNDP CO ▪ UNDP RSC ▪ External Consultants (i.e. evaluation team) 	Indicative cost : 25,000	At least three months before the end of project implementation
Project Terminal	<ul style="list-style-type: none"> ▪ Regional Project Coordinator and 	0	At least three months

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Report	<ul style="list-style-type: none"> team ▪ UNDP CO ▪ local consultant 		before the end of the project
Audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Regional Project Coordinator and team 	Indicative cost: 3,000 (annually)	As per FRR of UNDP
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP CO ▪ UNDP RSC (as appropriate) ▪ Government representatives 	For GEF supported projects, paid from IA fees and operational budget	UNDP Staff travel at least yearly; government representatives as needed
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US\$ 58,000 (+/- 5% of total budget)	

LEGAL CONTEXT

90. This project document shall be the instrument referred to as such in Article 1 of the SBAA between the Government of the Republic of Kyrgyzstan and UNDP, signed on September 14th, 1992.

91. UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations safety and security management system.

92. UNDP agrees to undertake all reasonable efforts to ensure that none of the project funds, UNDP funds received pursuant to the Project Document, are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

Audit Clause

93. The Audit will be conducted in accordance with UNDP Financial Regulations and Rules and applicable audit policies on UNDP projects.

VII. ANNEXES

Annex 1: Risks analysis and Risk mitigation measures

Risks/ Assumptions	Level	Mitigation measures
Differences in water regulatory framework and institutional structures between Kazakhstan and Kyrgyzstan impede the development of bilateral water relations and contribute to transboundary conflicts.	M (medium)	As part of the TDA development Expert Working Group of the project will identify key differences and contradictions in regulatory frameworks of both countries that impede enhancement of bilateral water relations in general, including two river basins. Following TDA findings project experts will prepare a set of recommendations on harmonization of existing and/or developing new intergovernmental agreements, legislative and regulatory acts between Kyrgyzstan and Kazakhstan (output 2.1). These recommendations will guide the countries to reach consensus over mutually acceptable interpretations of controversial provisions. Using these recommendations , national executive agencies of both countries will, where possible, initiate appropriate changes in the existing national legal frameworks and international agreements as well as work out pragmatic compromises on controversial legal issues. Project staff will advocate for legal improvements for decision makers.
Unclear distribution/ duplication of functions and powers and lack of effective interaction between local water management authorities and organizations in Kyrgyzstan and Kazakhstan in both basins.	L (low)	Sustainable development transitional programme of the Kyrgyz Republic 2013- 2017 and Implementation Action Plan of Water management national program in Kazakhstan 2014-2040 provide a set of measures for state management institutions strengthening and management processess improvement related to water management, environmental protection, water and sanitation. Project staff will foster initiatives, advocate working with decision makers and stakeholders.
Climate change may worsen water ecosystems conditions, cause a reduction in water resources and negatively affect water heavy sectors in the basin.	M	Following well-known scenarios of climate change, no catastrophic consequences are anticipated to impact water systems and water management in Chu-Talas river basin in the next few decades. During this period, joint adaptive measures program should be developed and implemented to prevent and/or mitigate adverse effects of climate change on socio-economic conditions and environment in these areas. The project implementation program (outputs 1.2 and 1.3) provides a partial solution to this pressing problem.
Governments of Kyrgyzstan	L	Financial obligations of Governments: reforming

and Kazakhstan provide no co-financing to timely implement planned tasks and activities.		the institutional system of national water sectors, increasing access to water resources, water infrastructure development, development of national systems for monitoring water resources, sustainability of ecosystems and quality of water resources will be appropriately budgeted.
Local water utilities, non-governmental organizations (NGOs), water users, local authorities and local communities avoid participation in water resources management and implementation of water management and conservation measures.	L	The project will clarify the role and responsibility of local water utilities, NGOs, water users, local communities and local government authorities in ensuring sustainable water ecosystems, conservation and efficient consumption of water resources. Here the TDA will be of importance (output 1.1). The project program will further develop an outreach (outputs 2.3). Activities under Output 1.3 will also be of importance in this respect.
Local water and environmental protection authorities of Kazakhstan and Kyrgyzstan in both basins are reluctant to cooperate due to overarching agencies interests and lack of effective incentives.	L	The project will clarify the need to strengthen cooperation and coordination between Water Resources and Environmental Protection agencies of Kazakhstan and Kyrgyzstan. Project implementation Program (outputs 2.3 and 2.4) provides for building knowledge and integration of best management practices and cooperation in other transboundary water basins. Materials on incremental benefits in joint and coordinated implementation of water management and water conservation measures on interministerial and transboundary levels will be distributed during trainings and conferences.
Low tariffs of water supply services on irrigation and drinking needs, wastewater discharge services, pollutants control limit possibilities of water sector development, contribute to water infrastructure degradation and inefficiency in water use consumption.	L	Sustainable development transitional programme of the Kyrgyz Republic 2013- 2017 and Implementation Action Plan of Water management national program in Kazakhstan 2014-2040 embraces water tariff and policy modernization. Project staff will foster initiatives through awareness raising among decision makers and stakeholders.
Limited legal and administrative mechanisms to prevent and suppress the practice of unauthorized or irrational water use and deterioration of water ecosystems	L	The project will raise awareness of water users to follow rules and regulations and water resources conservation. Negotiations will be held with decision-makers to support legislative initiatives on accountability for violations of natural resources management rules and regulations, including water.

Annex 2: Terms of reference (UNDP generic ToRs attached below)

Position	\$/head/week	Evaluative head/week for 3 years	Tasks
Local staff (SC)			
Regional Project Coordinator	500	62.4	Coordination of project activities, planning, coordination and oversight of PWG experts and administrative staff.
			Personal responsible for timely execution of project activities under agreed Terms of Reference of the project, accurate submission of reports in the manner acceptable by the management, regular M&E of outputs.
			Coordination of project implementation with CTWC, executive agencies, organizations, businesses and other stakeholders in KR and RK, as well as representatives of international organizations, public and media
			Assurance of disbursements of financial resources and is personally responsible for intended use following approved estimates and applicable standards
			Organizes planned activities related to public outreach and information of stakeholders, experience exchange, training and staff development of the Kyrgyz Republic and Kazakhstan, distribution/publication of project progress materials, development and support of project web page.
Programme Assistant	250	145.6	Provides programme and administrative support under the supervisions of the Regional Project Coordinator
			Fulfills accounting, systematization and archiving of all project documents, including incoming and outgoing correspondence, baseline and target statistical data, interim and final technical and financial reports, M&E reports, publications etc. Contributes to data base dissimulation between stakeholders as agreed by the Regional Project Coordinator.
			Conducts accounting, archiving of financial project documents according to requirements
			Under guidelines of the Regional Project Coordinator regularly fulfills procurement, accounting and ensures efficiency of disbursement of operational and management costs
			Regularly ensures procurement and logistics of

Position	\$/head/week	Evaluative head/week for 3 years	Tasks
			<p>trainings, seminars, missions, field visits and publications etc.</p> <p>Provides systemic organizational and technical support to national and international experts.</p> <p>Ensures sustainable access of project staff to internet resources, communications and transport.</p> <p>Temporarily backstops the Regional Project Coordinator when required</p>
Individual Consultants (IC)			
Communications assistant/translator	500	145.6	Editing and finalizing project materials
			Replication/publication of project materials
			Administering CHWC web-site and administering project web-page
			Editing and replication of hand out materials for seminars, trainings and working groups
			Organizational and technical support to Regional Project Coordinator and other technical experts in presentations and publications
			Ensures organization and English-Russian translation if needed
TDA development expert group	300	323	Conducts collection, processing and analysis of statistical data under output 1.1. outcome 1.
			Holds consultation with government agencies and ministries, water management structures, water users, NGOs and other stakeholders in course of TDA development
			Provides justification of persisting environmental issues in Chu-Talas river basin
			Develops draft recommendations on prevention/mitigation of identified issues-impact
			Prepares report on TDA development outputs
			Contributes to training programmes and modules preparation
			Contributes to workshops, consultations and discussions in TDA development, and finalization
			Participation in awareness raising and public outreach on TDA findings and recommendation among all stakeholders and communities
			Support in methodology and finalization of recommendations in TDA development and discussions
Analytical expert group	200	16	Develops and finalizes projections of possible water resources inventories and stocks in Chu-Talas river basin due to emerging influencing factors
			Justifies and analyzes possible consequences of

Position	\$/head/week	Evaluative head/week for 3 years	Tasks
			<p>climate changes, water resources inventory, consumption, population growth and other emergencies in Chu-Talas river basin</p> <p>Develops and finalizes adaptive measures joint plan with competent authorities of KR and RK on prevention and mitigation of negative consequences of possible climate change, water resources stocks and water consumption in Chu-Talas river basins</p> <p>Contributes to awareness raising on consequences of possible climate change, water resources stocks, water consumption, population growth and water ecosystems vulnerability in Chu-Talas river basins</p> <p>Contributes to training programmes and modules development</p> <p>Develops programmes and participates in implementation of workshops, outreach, trainings etc to increase understanding of stakeholders in minimization of negative social, economic and environmental risks and impacts associated with water resources mismanagement and inefficiency</p>
Environment and monitoring expert group	300	70	<p>Collects and process materials and data on water resources in natural ecosystems and water facilities in Chu-Talas river basin per qualitative and quantitative indicators</p> <p>Develops recommendations on infrastructure and monitoring technologies development in tow basins</p> <p>Contributes to training programmes and modules development</p> <p>Provides organizational, methodological and technical support to local organizations in sustaining pilot laboratory facilities for water quality identification</p> <p>Provides capacity building of local staff on new water sampling and testing technologies</p> <p>participates in implementation of workshops, outreach, trainings etc to increase understanding of stakeholders in minimization of negative social, economic and environmental risks and impacts associated with water resources mismanagement and inefficiency</p> <p>Ensures independent expertise related to violations of water ecosystem management and administration</p> <p>Provides organizational and methodological</p>

Position	\$/head/week	Evaluative head/week for 3 years	Tasks
			support in institutionalization of existing environmental expert group within CTWC

<p>Legal institutional development expert group</p>	<p>and 250</p>	<p>40</p>	<p>Provides overview of national water management systems of KR and RK in Chu-Talas river basins specifically</p> <p>Develops recommendations on water sector management system improvement</p> <p>Provides overview of global and regional experience in water and environment regulation</p> <p>Provides overview of legal and regulatory framework of water management and administration in KR and RK</p> <p>Develops recommendations on water resources management and administration legislative and regulatory framework improvement in KR and RK</p> <p>Provides contextual analysis of Agreement between RK and KR to suggest amendments and changes</p> <p>Drafts revised Agreement and ensures public consultations and hearings with all stakeholders in KR and RK</p> <p>Provides methodological and organizational support in finalization of legal and institutional initiatives of the project</p> <p>Contributes to training programmes and modules development</p> <p>Participates in law and institutions related workshops, consultations and working meetings</p>
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UNITED NATIONS DEVELOPMENT PROGRAMME

GENERIC JOB DESCRIPTION

I. Position Information

Programme title:	Environment and Energy
Project title:	Enabling transboundary cooperation and integrated water resources management in the Chu and Talas River Basins
Project Number:	00091092
Job Code Title:	Regional Project Coordinator
Duration of Employment:	One year with possible prolongation
Working nature:	Full-time assignment
Working hours:	40 hours a week (08:30-17:30; 12:00-13:00 lunch time)
Duty station:	Bishkek
Pre-classified Grade:	SC 9
Supervisor:	CO Env/DRM Programme and Policy Analyst and Regional Technical Advisor on IW (IRH)

II. ORGANIZATIONAL CONTEXT

Global climate change, depletion of water resources, population growth and increasing water consumption to meet social, industrial and agricultural needs generate a threat of freshwater scarcity and degradation of aquatic ecosystems across the basins and trigger conflict risks between Kazakhstan and Kyrgyzstan in water allocation for the recent years. The objective of the project is to enable integrated water resources management in the transboundary Chu-Talas basins, including development of the Transboundary water commission of the Republic of Kazakhstan and the Kyrgyz Republic. It will strengthen coordination and expand transboundary institutions in adaptive control management and improvement of water quality and conservation of aquatic ecosystems, and provide integration of advanced control technologies. GEF funding will strengthen the technical and human capacities of these institutions, a system of information security, technologies and procedures for water resources monitoring in both basins.

The Regional Project Coordinator (RPC) will operate under overall guidance of the UNDP Istanbul Regional Hub (IRH) Regional Technical Advisor (RTA) and direct supervision of the UNDP CO Environment and DRM Programme and Policy Analyst (PPA). RPC will act as a water expert who will be responsible for providing critical technical input and guidance to regional project implementation, in addition to overall management and supervision of the project. RPC will coordinate closely with both UNDP and UNECE offices and liaise with the UNDP Country Offices in both Kyrgyzstan and Kazakhstan, Senior Representatives of partner agencies as well as national partners, and Chu-Talas Transboundary Water Commission (CTTWC), including National Focal Points (NFPs) and other project partners in order to develop and oversee the execution of the annual work plans for the project. The RPC promotes a client, quality and results-oriented approach.

III. FUNCTIONS

1. Ensure aligning the project activities within the UNDP mandate and corporate priorities, National strategies/programmes, Project documents and contribution to the capacity development of the national counterpart institutions;
2. Deliver timely implementation of the work plan as endorsed by the Project Board, UNECE and approved by UNDP;
3. Ensure adequate information flow, discussions and feedback among the various stakeholders in coordination with UNDP Programme and Policy Advisory and Programme Oversight and Support

Units (POSU) per the management arrangements established in the Project Document and to the project board;

4. Prepare and coordinate annual work plans at the Regional and national levels and execution of project activities in full consultation with UNDP&UNECE, CTTWC and the Project Board. Ensure adherence to the project work plan, which will guide the day-to-day implementation of the project document, prepare revisions if required, and coordinate with other projects and integration with donor funded parallel initiatives;
5. In cooperation with the UNDP/UNECE, participate in the recruitment of and coordinate, facilitate and supervise the work of the consultants, including preparation of TORs, contracts and stakeholder inputs;
6. Monitoring and quality control of inputs from consultants and subcontractors providing assistance to the project;
7. Regularly assess performance of personnel and consultants working under his/her supervision (if applicable);
8. Implement effective and innovative communications and media activities;
9. Ensure fulfillment of standard procedures, including the ones on procurement, contracting of services and formalizing partnerships, in accordance with UNDP Rules and Regulations;
10. Ensure operational management of the Project in compliance with the UNDP Rules and Regulations. Provide general and financial administration of the project;
11. Monitor the project expenditures, commitments and balance of funds under the project budget lines, and draft project budget revisions in accordance and cooperation with Financial management (Atlas) system including the reporting on project funds and related record keeping;
12. Keep up to date risks and issues log in the UNDP corporate project management platforms;
13. Prepare Quarterly Operational Reports, Project Implementation Reviews, Progress and Final Reports, Budget Forecasts following the GEF rules and requirements;
14. Liaise with key stakeholders and other partners to ensure proper coordination and partnership within the framework of the Project activities implementation;
15. Undertake regular monitoring and evaluation field visits;
16. Assume overall responsibility for the proper handling of logistics related to project workshops and events;
17. Handle correspondence and keep the filing system related to the Project and to general project matters in compliance with the UNDP Rules and Regulations;
18. Ensure proper documentation and codification (knowledge management) of programme methodologies and experiences for wide dissemination and institutional memory; Coordinate KM activities with IW: Learn;
19. Arrange Project events including meetings, trainings and other activities related to Annual Work Plan implementation;
20. Secure coordination of the Project activities with other projects and initiatives, towards avoiding duplication of work and participatory and greater results;
21. In cooperation with the UNDP Gender Team lead the development of the gender mainstreaming strategy and ensure the mainstreaming of gender into the project activities;
22. Guide and orient efforts and contributions of consultants, personnel and government counterparts towards achievement of project objectives. Procure goods and services to initiate activities, including drafting TORs and work specifications;
23. Together with the IRH and COs, contribute to development of funding proposals towards leveraging additional funds to complement the project's activities and progress reports to donor organizations, monitoring, evaluation and lessons learned reports and other relevant programme-related documents, including contribution to substantive correspondence for a) resource mobilization, b) partnership building, c) reporting.
24. Liaise with project partners to ensure their co-financing contributions are provided within the agreed terms;
25. Organize planned activities related to public outreach and information of stakeholders, experience exchange, training and staff development of the Kyrgyz Republic and Kazakhstan, distribution/publication of project progress materials;
26. Represent the project at the Project Board meetings, technical meetings and other appropriate fora in coordination with UNDP/UNECE.

Perform other duties that may be required by UNDP and UNECE towards effective implementation of the Project activities.

IV. Recruitment Qualifications/Competencies

Education:	Master degree or equivalent in environment / natural resources management / water management or other relevant field.
Experience:	<ul style="list-style-type: none"> - 3 years of experience in programme/project management, hands-on experience in design, monitoring & evaluation of development projects; - 1 year of experience in managing teams; - Experience of providing management advisory services; - Proven ability to draft, edit and produce written proposals and results-oriented reports - Proven track of experience and knowledge of water management issues; - Demonstrated diplomatic and negotiating skills; - Be familiar with development methodologies, including participatory approaches to strategic planning, strategic management and the management of institutional change in developing countries; - Familiarity with the Central Asian Countries; - Experience of work with the international organizations, high-level government officials representing central governmental bodies and local administrations, familiarity with the goals and procedures of the GEF partners; - Experience in the usage of computers and office software packages (MS Word, Excel, etc.).
Language Requirements:	Fluency in English and Russian languages. Knowledge of a national language is an advantage.

V. Signatures- Post Description Certification

Incumbent *(if applicable)*

Name	Signature	Date
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IRH Regional Technical Advisor

Name / Title	Signature	Date
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Programme and Policy Analyst

Name / Title	Signature	Date
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PMU Manager

Name / Title	Signature	Date
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ANNEX 3: Environmental and Social Screening Template.

The document is submitted separately in pdf – format.

ANNEX 4: TRACKING TOOL FOR INTERNATIONAL WATERS PROJECTS

The document is submitted separately.

ANNEX 5: LETTERS OF CO-FINANCING

The co-financing letters are included as separate attachments.
