Government of the Republic of Kazakhstan
United Nations Development Programme

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United Nations Development Programme
Country: Republic of Kazakhstan
Project Document

Project Title	Supporting Kazakhstan's Transition to a Green Economy Model
UNDAF Outcome(s):	Outcome 2: Environmental Sustainability
Expected CP Outcome(s):	- Government, communities and civil society practice an integrated approach to natural resource management in national and trans-boundary perspectives. - The Government, industries and civil society take steps to adapt to climate change and mitigate its impact through energy efficiency measures and climate change adaptation policies.
Expected Output(s):	- Central and local actors acquire tools and methodologies for IWRM (Integrated Water Resource Management) and fostering trans-boundary dialogue. - Comprehensive national climate change strategies are developed (focusing on economic sectors at risk, ecosystem vulnerability and adaptation needs), for further integration into national development plans and sustainable development strategies.
Implementing Agencies:	Water Resources Committee of the Ministry of Agriculture of RK

Brief Description

Kazakhstan has decided to transform its economy into a sustainable Green Economy, implementing a completely new development paradigm. The overall objective of the Project is to contribute to the long-term environmental sustainability and inclusive economic development of Kazakhstan through introducing a modern environmental governance system, state-of-the-art water management policies and practices, enhanced environmental impact assessment procedures and economic incentives for sustainable use of water resources.

The Project is being developed in consultation with key stakeholders, in full alignment with the policy priorities of the Government of Kazakhstan. National ownership is ensured through active participation of national Governmental and non-governmental institutions. To ensure long-term sustainable impact, the Project builds upon experiences and lessons learnt previously, and synergizes with on-going sustainable development activities.

The Project is implemented by the United Nations Development Programme (UNDP) as the lead organization, in partnership with the United Nations Economic Commission for Europe (UNECE).

Programme Period:	2010-2015,2016-2020
Key Result Area (Strategic Plan)	Environmental Sustainability
Atlas Project ID:	00093850
Start date: End Date	15 June 2015 30 November 2018
Management Arrangements	National Implementation

Total allocated resources: 8,733,000 USD

EU: EUR 7,100,000 (8,733,000 USD)

Exchange rate: 1 USD = 0.81 EUR

Agreed by (The Water Resources Committee of the Ministry of Agriculture of RK)

16.06.2015

Date/Month/Year

Agreed by (UNDP):

6.16.15

Munkhtuya Altangerel
Deputy Resident Representative

I. SITUATION ANALYSIS

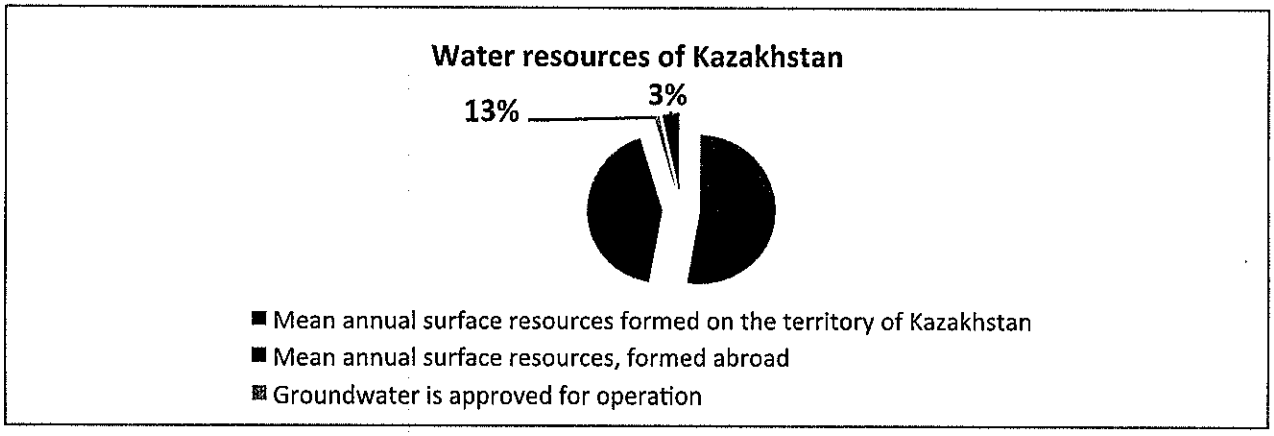
1.1. Green Economy Concept in Kazakhstan

The 'Kazakhstan-2050: a new political course for the established state' strategy has set clear guidelines for a stable and efficient economic model, based on the country's transition to a 'green' development path.

Water scarcity is considered as a global threat. Supplies in Kazakhstan are viewed as a living, unique and fragile system vulnerable to greater external risk than elsewhere, due to geographical, ecological and hydrological characteristics, trans-boundary rivers and the impact of global climate change.

Based on the principle of basin management of water resources, the territory of the Republic is divided into eight river basins: the Aral-Syrdarya, Balkhash-Alakol, Esilsky, Ertissky, Zhaiyk Caspian, Nura-Sarysu, Tobol-Turgai, and Shu-Talas. Average perennial surface water resources in Kazakhstan stand at 101km^3 per year.

The ratio of shared water resources in Kazakhstan is described in the following diagram.



* Other sources include seawater desalination, water extraction from mines, direct consumption from reservoirs, use of waste water, and desalination year.

In absolute terms, the total water resources of Kazakhstan are presented in the following table:

Source	Volume
Mean annual surface resources formed on the territory of Kazakhstan	55.7 км^3
Mean annual surface resources formed outside Kazakhstan	44.7 км^3
Groundwater extracted currently *	1.2* км^3
Other sources per year	3.9 км^3
Total	105.5 км^3

At present, 75% of shared water resources (38.6 km^3 per year) are used for environmental purposes, to conserve river and lake ecosystems. Another 29 km^3 per year is unavailable, due to lack of necessary infrastructure, evaporation and filtration in canals and rivers, and mandatory release in neighbouring states. In addition, 12.8 km^3 of water resources are unreliable. The scope of affordable, sustainable and reliable water resources currently stands at 23.2km^3 per year.
According to the Strategic Plan of the Ministry of Agriculture 2014-2018, planned use of surface water resources has allocated 9.0km^3 for regular irrigation, 5.4km^3 for production needs, 0.75 km^3 for economic-drinking purposes, and 3.85 km^3 for other needs.

According to the Committee on Water Resources of the Ministry of Agriculture, for 2014, actual economic water usage was 20.36km^3: of this, 9.4km^3 was used for regular irrigation, 2.1km^3 went to hayfields, agricultural water supply used 0.2km^3, estuary irrigation took 0.3km^3, watering of pastures claimed 0.09km^3, 0.04km^3 went to fisheries, production purposes used 5.6km^3, 0.73km^3 was used for economic-drinking needs, and other needs claimed 1.9km^3.

The quality of major rivers' surface water remains unsatisfactory. In 2012, only 13 of 88 water bodies were classified as 'clean' of pollution.

The main source of pollution of surface water across three basins (the Balkhash-Alakol, Ertissky and Tobol-Turgai) is heavy industry: mining of metal ore, production of steel, and oil refining. The main source of pollution across the other basins is agriculture.

Drinking water standards in Kazakhstan are broadly in line with those of Europe (hereinafter, the EU) and the World Health Organization (hereinafter, WHO). However, permissible international standards, such as turbidity, are often more stringent.

Quality standards for industrial wastewater were developed during the Soviet period, excluding economic factors. These can be difficult to monitor, being more complicated than EU standards. In some cases, standards are contradictory.

There is limited information on actual water quality in water bodies, and on the location and nature of the main sources of pollution. There are 215 Kazgidromet monitoring stations. The National Register of the main sources of water pollution shows no major pollutants.

Aware of significant existing and long-term *direct and opportunity costs* (including a huge environmental burden on health, resource use inefficiencies and resource degradation), Kazakhstan has chosen to move to a Green Economy Model, as detailed in the country's '2050 Strategy' (December 2012) and in the Government's Green Economy Concept (May 2013).

It aims to address concerns in a comprehensive manner, responding to the impact of climate change. Its '2050 Strategy' and Green Economy Concept propose a set of sustainable-development initiatives across six key areas: water, agriculture, energy-using sectors, energy production, air pollution and waste (together with a chapter on ecosystems and human resource development).

1.2. Water management: basic principles, institutional framework and economic instruments

Over the last decade, national water legislation and the water management system in Kazakhstan have been reformed, and reform continues. In 2003, the Water Code of the Republic of Kazakhstan included a basin water management approach, based on the following principles:

- Priority for the drinking water supply at the required quantity and quality assured;
- Integrated water management and the use of modern technologies;
- Prevention of negative effects on the environment, via environmental prediction and monitoring of environmental quality;
- The 'polluter (user) pays' for damage, with compensation due for maintaining natural resources at an appropriate level;
- Payment for special use of water;
- Public-private partnerships, in which the private sector becomes an important source of environmental and social investment; and
- Trans-boundary waters following international norms and treaties ratified by the Republic of Kazakhstan.

The institutional structure of water management in Kazakhstan

Level	Control body	Authority
Interstate	Interstate Commission for Water Co-ordination (ICWC)	The development of the strategic framework; management of trans-boundary water bodies; control of water withdrawal limits; the development of regional programmes and projects; and co-ordination of joint research.
	ICWC Scientific Information Centre	
	Inter-governmental Commissions	
State	Government of RK	Creation of Strategic Policy; regulation of water relations at national level; international co-operation; and the regulation of the construction and operation of dams.
	Committee for Water Resources, Ministry of Agriculture of the Republic of Kazakhstan	Development and implementation of sectoral programmes and plans; co-ordination and guidance; the development of norms and rules of water use; approval limits and tariffs; development and approval of the rules of operation of water facilities; the implementation of state control over the use and protection of water resources; procedures for conducting water inventory and monitoring; approval mode for use of drinking water; development and implementation of investment projects; and the regulation of the construction and operation of dams.
	Committee for Construction, Housing and Communal Services and Land Management of the Ministry of National Economy of the Republic of Kazakhstan	Development and approval of the relevant regulatory documents and methodological support in the area of municipal services in settlements; development and adoption of rules of technical operation and use of water supply systems and sanitation in settlements; development and approval of rules for calculating norms of consumption of utilities; and development of rules for subsidizing the cost of services for the supply of drinking water.
	Committee of ecological regulation, control and state inspection in the oil and gas sector of the Ministry of Energy of the Republic of Kazakhstan	Control and supervisory functions in the field of water quality; development and adoption of normative legal acts in the area of impact on the environment; state ecological expertise; approval and authorization limits for emissions into the environment; and integrated environmental permits.
Basin	Basin management	Water management based on river basin principles; co-ordination of use of water resources; preparation and implementation of river basin agreements; state control over the use and protection of water resources; conducting the state account, the state water cadastre and state monitoring of water bodies basin; and issuance of permits for special uses of water.
	Basin Councils	The Basin Council examines topical issues in the use and protection of water resources, water supply and sanitation, making suggestions and recommendations to members of the Basin Agreement.
Territorial	Regional and district akimats	Water management facilities; definition of water protection and sanitary zones and mode of economic use; participation in basin councils; ensuring implementation of measures for the rational use of water resources in urban and agricultural sites; development of rates for the use of water resources from surface sources; subsidization of the cost of services for the delivery of water to farmers and drinking water supply to settlements; and distribution of water use limits.

The programmatic framework of water resource management is formulated in the state programme of water management for 2014-2020. Developed for the purpose of conservation and sustainable use of water resources and to ensure the effective management of river basins of Kazakhstan, its working document is the National Action Plan for the Implementation of the State Programme of Water Management, approved in 2014 by the Government of the Republic of Kazakhstan.

The purpose of the National Plan is to create and develop a system of integrated management of water resources and to improve water use efficiency, promoting environmental security and sustainable development for the Republic of Kazakhstan

The objectives of the National Plan will be achieved through the following tasks:

- Improved legislation in the field of water management;
- Improved organizational structure, capacity building and the formation of cross-sectoral partnerships in the use and protection of water bodies;
- Prevention and mitigation of the harmful effects of water;
- Improved efficiency of water use;
- Setting up of an information-analytical system of water management; and
- Promotion of international co-operation and improved management of trans-boundary water bodies.

In 2012, under the initiative of the European Union, Kazakhstan hosted national dialogue on water policy (hereinafter, NPD). It tackled integrated water resource management and water supply, and sanitation. The NPD considered a number of topical issues, including: the expediency of Kazakhstan's accession to the Protocol on Water and Health; the use of a sustainable business model for water supply and sanitation in rural areas and small towns; and the participation of the private sector. In the near future, it will consider topical issues of co-operation with neighbouring countries, on the use and protection of trans-boundary rivers.

Economic mechanisms of water use.

Enforcing payment for water use can become a major economic engine, increasing efficiency of water use, based on the following principles:

- A differentiated approach to payments for water resources;
- Achieving full cost recovery for the protection and reproduction of surface water resources;
- Consideration of the variability of hydrological and meteorological conditions in developing tariff payment; and
- Introduction of additional economic incentives for rational use of water resources.

Fees can be charged for all forms of water use (withdrawal from the source) and from all water users: from legal entities, irrespective of form of ownership, and from individuals. Water users include the housing and utilities sector, industrial plants (including those supplying heat), agricultural industries and pond-fish farms. Sectors such as hydropower, shipping and fishing are liable to payment of fees.

Water resource fees cover payment for the right to use water and to ensure the protection and sustainability of water resources (including reimbursement of the costs of maintenance and rehabilitation of safe water sources, of the operation of water facilities, and of environmental protection). Fees are determined by water quality, scarcity, supply and the guarantee of industries' economic efficiency.

On December 20th, 2014, the Government of Kazakhstan approved the Programme for Tariff Policy Governing Natural Monopolies in the Republic of Kazakhstan, until 2020. It aims to ensure major modernization and reconstruction of water utilities, adjusting regulations governing entities, to save water and increase sources of financing, for future investment.

The following are key obstacles to an effective system of economic incentives for water management:

1. Unreasonably low prices for end users of water resources have made them dependent on Government subsidies.
2. The payment system does not encourage the development of effective management of water

3. There is limited access to investment, including for entities wishing to invest in water supply and sanitation services.

Despite significant efforts by the state to pass costs of maintaining water facilities to water users (based on preventive maintenance, operating costs, cost of capital repairs and renovations) the system is not yet workable, especially in rural areas.

In agriculture, the cost of water is less than 1% of the value of major crops (0.9% for wheat, and 0.1% for cotton), which is considerably less than in other countries.

Current water tariffs in Kazakhstan's agricultural sector are among the lowest worldwide, with end users paying very low fees (0.5 KZT per m^3 in agriculture, on average). This does not encourage efficient use of water resources. Some tariff subsidies act as negative incentives for efficient water usage, deterring the implementation of water-saving technologies and the sowing of water-efficient crops (50% of subsidies are oriented towards the irrigation of rice fields).

Tariff levels for industrial consumers vary between 120 KZT and 260 KZT per m^3 and are comparable with those elsewhere globally. These fees cover the full cost of providing water (capital expenditure and operating costs) and help subsidize individual household consumers. Current industrial tariffs reflect levels of water consumption but do not create incentives for recycling of water within an enterprise.

Individual household consumers pay low rates, which fail to fully cover costs: the average payment for utility and drinking water supply is only 0.2% of the average income. Consumers view water as a free resource, requiring no need for sparing use and leading to waste usage, from farmers and the public. In the industrial sector, current tariffs for water consumption inspire only minor economic incentives to invest in water-saving technologies.

Tariffs for sewerage services also provide insufficient incentives to reduce the degree of pollution and wastewater treatment. Tariffs do not reflect the quality of sewage treatment. Despite Kazakhstan having access to elaborate technologies, these fail to be applied and there is little permanent monitoring of water quality, or effective penalties for violations. In the agricultural sector, there are no tariffs applied to wastewater, and no incentive to maintain drainage systems.

1.3. Trans-boundary water resources

Given that 45% of water resources in the Republic of Kazakhstan are replenished from external sources, cross-border co-operation is vital to water security, requiring a comprehensive, integrated, strategic and serious approach.

Use and protection of trans-boundary rivers between Kazakhstan and Russia, which are the focus of this project, are governed by an agreement signed on September 7th, 2010, between the Governments of the Republic of Kazakhstan and the Russian Federation.

The Project aims to conduct a detailed assessment of the control the Ural River, which flows through the territory of the Russian Federation and the Republic of Kazakhstan, and into the Caspian Sea. The Ural River plays an important role in the socio-economic development of Kazakhstan. The Kazakh part of the basin is home to about one million people and its importance cannot be overestimated in preserving the ecosystems and biological resources of the North Caspian Sea. River flow mainly derives from Russian territory, where it is regulated by a number of large reservoirs, with a total capacity of 4.1 billion m^3.

Natural runoff entering the Ural River in Western Kazakhstan (coming from the Orenburg Region of Russia) is 9.3billion m^3, of which 1.4billion m^3 is formed in Kazakhstan, and the remaining

At an international level, the volume of water flow from Russia into the Ural River is noted by the minutes of a working group meeting, which was held by the Kazakh-Russian River Basin Commission, in the Urals, on 19th July 1996. Under this protocol, in an average year, the Ural Mountains in the West Kazakhstan Region should contribute 7.8billion m^3 to the Ural River (around 1billion m^3 less than natural flow). In dry years, by controlling runoff, Ural reservoirs located in Russia can offer a greater flow than is provided by natural flow.

Information on the flow of water from Russia into the Ural River running through Kazakhstan is given below[1]:

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
million $м^3$	8,944	10,857	8,798	10,400	12,800	5,300	11,600	7,300	5,300	5,200	6,600
	95	115	93	110	135	56	123	77.2	56	55	69.8

Every year, run-off into the Ural River reduces, bringing negative consequences for Western Kazakhstan's economy and environment, especially in the lower reaches of the river and the northern part of the Caspian Sea. Average annual flow into the Ural River has fallen to 5.07 billion m^3 (almost 1.5-2 times less than the past average annual value). This is an extreme, below which the region will begin irreversible ecological processes, with disastrous consequences.

The following reasons for this situation are: climatic factors, associated with frequent aridity; a high degree of river flow regulation; and deterioration of the catchment area of the river, associated with increased intensity of economic activity due to plowing of land and deforestation.

Due to the decline in inflowing water from Russia, the river is shallower, losing its shipping value. Its hydrological and hydro-chemical regime has deteriorated, flooding the channel and having a significant impact on ecology, as well as on the migration routes of sturgeon and their spawning grounds. Every year, the situation is exacerbated, including levels of water pollution.

The second pilot project area is the Kigach River: a branch of the lower reaches of the Volga River. It flows through the Atyrau Region of Kazakhstan and the Astrakhan Region of Russia, and flows into the Caspian Sea. Water flow is 150 m^3/s.

RSE Kazhydromet hydrological post has been measuring the water level in the river since 1961. This year, measurements are to be taken more regularly on the Kazakh side (Russia does not conduct hydrological observations on this river).

The Kigach Volga-Mangyshlak strategic conduit, on the Kazakh side of the river, provides the freshwater needs of the Mangistau Region. Given its importance, Kazakhstan is eager to sign an agreement with Russia on water sharing from the River Kigach. Russia is reluctant, defining the waterway as only a branch of the Volga Delta, rather than as a full river.

In accordance with paragraph 1 of Article 1 of the Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes, signed by Russia and Kazakhstan, 'trans-boundary waters' are defined as any surface or ground waters which mark or cross the border between two or more states or which are located at their boundary. The River Kigach forms the border between Kazakhstan and Russia, making it a full of trans-boundary watercourse. Accordingly, an international agreement between Russia and Kazakhstan on water sharing is necessary.

1.4. Threats and Obstacles to Effective Water Resource Management in Kazakhstan.

Kazakhstan expects an upward trend in water consumption and reduced availability of water resources; this threatens six of the eight water basins of Kazakhstan by 2020. It is estimated that, by 2040, Kazakhstan may face a 50 percent shortfall in water resources, measured against its needs.

To alleviate water scarcity, Kazakhstan has made moves to improve its water management, making a transition to the Basin Principle, as corresponds to best international practice. Funding for water management, irrigation and drainage infrastructure has been raised, helping to reduce water loss and improve infrastructure safety.

Despite improvements, a significant number of issues remain:

- Most efforts target infrastructure rather than reduced water usage;
- Low efficiency of use of water resources in Kazakhstan;
- Existing tariffs, particularly for agriculture, fail to encourage efficient use of water and do not allow investors to cover the operating and capital costs of owners;
- Greater effort is required to promote the efficient use of water in all sectors but especially in agriculture, where 'wastage' is thought to be 66%;
- Connection to transmission and distribution channels needs to take into account the technical condition of channels. The coefficient of performance (hereinafter, the efficiency) of the channel should be no less than 0.8;
- Lack of investment into infrastructure, to ensure access to water, including maintenance of existing infrastructure;
- Only 67% of the Kazakh population has access to safe drinking water, while just 47% have access to sewage. In most developed countries, these figures are close to 100%;
- More than 40% of transmission and distribution channels are in poor condition;
- A significant part of irrigation and drainage infrastructure is in a desolate condition;
- Some of the key mechanisms for managing water resources are underdeveloped or absent;
- There is a lack of public access to detailed data on the volume and quality of water resources, as well as forecast for change;
- Co-ordination of water management between various ministries and departments is inefficient;
- There are insufficient specialists and managers in the water sector with skills to predict the balance of water resources, optimize capital investment, and improve the efficiency of water consumption;
- In recent years, floods have caused ever greater damage, including changing shores of bodies of water, flooding groundwater areas, waterlogging and salinization, and erosion;
- Limited funding for maintenance of hydraulic structures has lead to water infrastructure declining in repair; and
- There is a lack of accountability regarding hydraulic structures or a unified information database on water bodies, to provide information to all interested parties.

One of the most important aspects of water scarcity is availability and quality of drinking water: a problem yet to be completely solved in many parts of the country.

Taking into account the full range of issues relating to water and its impact on human health, at the first meeting of the Interagency Co-ordinating Council for National Policy Dialogue (NPD ISS), held in Astana on June 21st, 2013, it was decided to explore Kazakhstan's accession to the Protocol on Water and Health, within the Convention on the Protection and Use of Trans-boundary Watercourses and International Lakes (hereinafter, the Protocol).

Analysis of the state of water, wastewater and sanitation facilities in Kazakhstan, as well as analysis of related legislation, aims to assess the needs and opportunities of Kazakhstan in implementing the Protocol and the feasibility of accession.

Although the accession of Kazakhstan and the implementation of the Protocol involve a large number of commitments, these do not require a large amount of funding. Most of the obligations are already in progress as part of state and industry programmes, and within the framework of Kazakhstan's obligations under other international agreements.

At the same time, as party to the Protocol, international Project financing would be forthcoming, providing international support for:

- Activities relating to the preparation of water management plans;
- Development of schemes for improving water supply and sanitation;
- Improvement of legislation in the field of water and sanitation;
- Education and training of key professional and technical staff; and
- Research and development of effective tools and methods to prevent, control and reduce the spread of disease relating to water.

The Protocol can assist Kazakhstan in achieving the Millennium Development Goals (MDGs) relating to water. Becoming party to the Protocol, Kazakhstan will be able to:

- Reduce cases of human disease associated with water;
- Make more efficient use of water resources and improve the protection of aquatic ecosystems;
- Expand the legal, administrative and economic framework of improving the water management system; and
- Strengthen inter-agency co-operation between health authorities and the water sector, to provide the population with water meeting acceptable sanitary standards.

In acceding to the Protocol, Kazakhstan will gain access to information, technology and expertise in the preparation and delivery of safe drinking water, as well as the recycling and reuse of wastewater.

Since the provisions of the Protocol apply to trans-boundary water bodies, this will facilitate the exchange of information with neighbouring countries on water and health. It was also aid the development of joint or co-ordinated systems for surveillance, and early warning and action plans for emergency situations, for the purpose of responding to outbreaks and incidents relating to water.

Accession to the Protocol will allow efforts by public authorities to be combined, promoting public health and attracting global attention to major events held in Kazakhstan to provide the population with acceptable drinking water.

The Protocol on Water and Health is a vital tool in uniting the efforts of the health and environment sectors, creating a coherent system of managing the basic human right to water.

1.5. Project Background.

It is obvious that the solution to these problems requires radical change in the management of water resources: the economic and environmental efficiency of water use. In moving to a Green Economy, the Project pursues the following objectives:

1. Saving water in agriculture:
    - Introduction of modern methods of irrigation and other water-saving

- Transition to crops with higher added value and less water-intensive, including the gradual reduction of marginal and water-intensive crops; and
- Reduced water loss during transportation, through recovery of large infrastructure projects, the definition of property rights and ensuring responsibility for maintenance and measurement of water intake, as well as data collection from all final and intermediate water users.

2. Improving the efficiency of water use by industry:

- Reduced water consumption by enterprises through the introduction of energy efficiency technologies, water conservation and wastewater reuse and water recycling; and
- Raised standards of fence and water treatment by industrial enterprises.

3. Improving the efficiency of water use by municipal services:

- Elimination of leaks in homes and public networks;
- Control of water pressure in the distribution network; and
- Increased water conservation standards for home appliances and plumbing.

4. Increasing the availability and reliability of water resources, through agreements by all water bodies, including signing / updating agreements with neighbouring countries.

5. Improving water management policy:

- Improved water resource management at national level and basin level, to ensure effective communication with water users across all sectors and at all levels; and
- Revised water tariffs to fully reflect costs, including changes to subsidies and incentives, to encourage water conservation.

These five major objectives have been set by Kazakhstan in the field of water resources and are taken as the basis for developing this Project strategy.

II. STRATEGY

The UNDP, as an executive of the Project, bears contractual liability to the European Delegation to the Republic of Kazakhstan, as described in the European Union Contribution Agreement DCI-ASIE/2014/355-664, signed on December 23rd, 2014, and the Annexes to the Contribution Agreement. In cases of disparity in final results, provisions set by the Contribution Agreement take precedence.

This Project Document is in line with the Description of Action, which is an annex to EU Contribution Agreement DCI-ASIE/2014/355-664 (of December 23rd, 2014) representing joint management action by the European Delegation and the UNDP. The present Project document is in compliance with UNDP internal rules, regulations, policies and procedures and is for the UNDP's internal use.

The **overall objective** of the Project is to contribute to Kazakhstan's long-term environmental sustainability and inclusive economic development, supporting the country's transition to a Green Economy Model.

The **specific objectives** of the Project are:

(i) To contribute to sustainable water management policies and practices;

(ii) To promote a modernized environmental governance system, generating incentives for transition to a Green Economy Model, focusing on water resources and climate change; and

(iii) To promote GE transition at local level, focusing on water resources and climate change.

The strategic axes of the Project are:

- To provide policy analysis and advice to key policy makers, in particular the Committee for Water Resource Management, under the Ministry of Agriculture;
- To contribute to awareness raising and systematic structured capacity building of policy makers / implementers, as well as civil society, media and the private sector; and
- To support quick-win high visibility and replicable GE actions at local level, focusing on water resources and climate change.

The Project will contribute to:

Outcome 1: Water governance in line with Green Economy requirements

Outcome 2: Increased efficiency of water use

Outcome 3: Establishing a modernized environmental governance system

Outcome 4: Highly visible and replicable pilot actions, focusing on water resources and climate change, with demonstrable effects at local (region/city/district) level

Outcome 1: Water governance in line with Green Economy requirements

Output 1.1 Trans-boundary water management (UNECE)

Kazakhstan is dependent on water from trans-boundary rivers. Inflow of water from its neighbours is declining, and climate change may have an additional negative impact in the medium to longer term. In the 2013 Green Economy Concept, high priority was assigned to developing trans-

future. While most current agreements focus on volumes of water, ecosystem protection and water quality are essential to long-term sustainability. The Project aims to build on general principles and applied projects in specific basins.

Activities:

- Building the capacity of international water legislation among high-level officials and decision makers. Two seminars will be organised on international water legislation and application, drawing from experience gained from work at various basins around the world.

- Reviewing the dependence of Kazakhstan on trans-boundary waters and the implications for the development of future national policies and relations with neighbouring countries. Identifying opportunities for improved co-operation between Kazakhstan and its neighbours and, on the basis of a draft review, organising two workshops to finalise a report. This will include conclusions and recommendations, for submission to the Kazakh Government.

- Assessing the situation in the basin of the River Kigach, part of the Volga basin, and that of the Ural River (both shared with the Russian Federation). On the basis of a draft assessment, workshops will be organised with broad involvement from Kazakh and Russian stakeholders. The Ural workshop will take place in 2015, involving representatives of both countries and laying the basis for a larger Ural project, to be funded by the Global Environmental Facility from 2016 onwards. Workshop reports will then be provided to the bilateral Russian-Kazakh Water Management Commission.

Expected results:

- Improved capacity for developing and implementing water legislation, with international co-operation among high-level officials and decision makers;
- Assessment of Kazakhstan's dependence on trans-boundary waters and recommendations for the development of future national policies and relations with neighbouring countries; and
- Assessment of the situation in the basin of the River Kigach, part of the Volga basin, and that of the Ural River, as a basis for further developing trans-boundary co-operation.

Deliverables include:

- Presentations and hand-outs for seminars;
- Agendas, participant registration lists, minutes and resolutions of seminars;
- An assessment report on Kazakhstan's dependence on trans-boundary waters;
- Recommendations for improving national policies on trans-boundary waters; and
- An assessment report on the basin of the River Kigach.

Output 1.2: Review and improvement of the institutional basis for river basin management (UNECE)

Progress has been made in establishing river basin management and related plans in Kazakhstan: essential instruments in managing green-orientation. River basin administrations have been established, as have basin councils, offering an advisory role and involving key local stakeholders. Councils are to evaluate the water basin situation, providing advice to authorities regarding sound and sustainable use of water, and assisting in developing corresponding Action Plans.

Currently, basin administrations are understaffed and their rights and obligations are not clearly established. Council powers could be strengthened, to improve the quality of Basin Management Plans, so that they can fully contribute to the implementation of the Green Economy Concept: How do they relate to an overall development strategy? How do they promote water efficiency and innovation? Are they feasible and financially realistic? How are plans implemented in practice?

Activities:

- Reviewing current experience of Basin Management Plans in Kazakhstan, focusing on one pilot basin (to be selected during the Inception Phase).
- Developing overall policy recommendations, building on international good practice. Recommendations will be developed to promote sufficient and sustainable management of water resources at basin level, laying out the responsibilities of river basin administrations and institutional and legal changes. Proposals will be made to strengthen the institutional framework, for the better involvement of basin councils (role, composition and tools). There will be recommendations to ensure coherence of Basin Management Plans and a study will be conducted to identify current obstacles to council efficiency. A national-level conference for policy-makers will be organized, to present key policy recommendations.
- Preparing one river basin management plan, complying fully with the Green Economy Concept's goals and targets, and with best practice from Strategic Environmental Assessments (in co-ordination with Activity 3.1).
- Developing capacity building materials and training, using lessons learned to scale-up and replicate work across other basins.

Expected results:

- Strengthened decentralized water resource management at basin level;
- Increased stakeholder involvement; and
- Improved efficiency of water use.

Deliverables include:

- An assessment report on river basin management practices in Kazakhstan;
- A report on recommended policy and institutional improvements for river basin management;
- An agenda, participant registration lists, minutes, and the resolution of the national conference;
- A demonstration River Basin Management Plan;
- Training modules; and
- Training hand-outs.

Output 1.3: Support for the implementation of the Protocol on Water and Health (UNECE)

Achieving universal access to safe drinking water and sanitation is a challenge in Kazakhstan. According to the WHO/UNICEF Joint Monitoring Programme, access to drinking water within the home has fallen over the past 20 years: from 91% to 82% for urban dwellers; and from 28% to 24% in rural areas. The larger part of drinking water and sanitation infrastructure requires urgent upgrading or full reconstruction. Inadequate wastewater treatment poses a serious threat to human health and the environment, with only 2/3 of wastewater being treated according to norms and standards in urban areas. Realizing the importance of these vital services in pursuit of sustainable development and human health, the 2013 Green Economy Concept sets an ambitious target of providing the entire population with access to safe water by 2020. In addition, the Green Economy Concept prioritizes measures to reduce losses within the drinking water supply system, and the improvement of wastewater management.

Activities will aim to improve key water sector policy makers' knowledge and capacities, establishing a multi-stakeholder and inter-sectoral approach to tackling challenges relating to improved access to water and sanitation. This will contribute to the key objectives of the Project: improving water governance and water use efficiency, through the implementation of the Protocol on Water and Health in Kazakhstan. This has been initiated under the EU Water Initiative and Kazakhstan is now preparing accession to the Protocol.

Activities:

- Establishing a national expert group to set targets and target dates, with support from international consultants; and
- Setting national targets and target dates under the Protocol on Water and Health, within two years, for adoption by relevant national authorities, and for publication.

Expected results:

- Improved understanding of the impact of water resource management on public health;
- Agreement among all stakeholders on national targets for water and health;
- National targets set for water and health, following methodology developed within the Protocol of Water and Health; and
- An action plan for achieving targets, including legal and administrative tools, with priority actions outlined.

Deliverables include:

- Documented inclusive process on national targetsetting under the Protocol on Water and Health;
- A report on baseline analysis;
- National targets and target dates, under the Protocol on Water and Health; and
- An action plan of targets, including legal and administrative tools, with priority actions.

Output 1.4: Trained Water Managers (UNECE)

Kazakhstan is in acute need of qualified professional water managers. Higher education produces water specialists with good technical knowledge and general managers without specific technical knowledge; Kazakhstan needs managers with both technical knowledge and management skills.

Accordingly, the Project aims to: a) shift current natural sciences education in the field of water studies towards professional water management; and b) train trainers.
The first component will include analysis of the current educational curricula, providing the basis for recommendations to relevant academic courses. The second component will focus on 'training trainers' for those already employed in the field of water management. It will also include the organization of 'master classes' for selected students.

Activities:

- Offering expert support to selected research bodies and centres specializing in Green Economy and/or water resource management (such as the Green Academy) including the development of curricula;
- Teacher training for key universities offering curricula in water resource management or water engineering (including the Taras State University, Kazakh National Agrarian University, and Eurasian National University) to ensure the transfer of best international knowledge and practice; and
- Organizing 'master classes' for water management students at key universities (those mentioned above, but also the Kazakh-German University, and others) and supporting specialized summer/winter schools.

Expected results:

- Improved curricula at key universities, to train water managers;
- Training modules and manuals developed for teacher training;
- A greater number of properly qualified teachers and water managers; and
- Improved capacity for students of water management.

Deliverables include:

- An assessment report on current curriculum in the field of water resource management and areas for improvement;
- A report on recommendations to relevant academic courses;
- TOT modules for newly proposed courses; and
- A set of educational materials for teachers and students, for newly proposed courses.

Outcome 2: Increased efficiency of water use

Output 2.1: Analysis and reform of economic instruments to drive water efficiency (UNDP)
Economic instruments (including water related taxes and fees, water and wastewater tariffs and direct and indirect subsidies) play a key role in encouraging economical, 'green' water use. They can stimulate water efficiency, including allocating water to where it creates most value for the community, and generate revenue for the financing of water management, water services and water infrastructure. They also ease the burden on public budgets, freeing resources for other purposes. The Project will support the revision of these instruments in Kazakhstan, with focus across two sectors: irrigation and water supply, and sanitation services.

Activities:

- Reviewing existing economic instruments across two sectors (irrigation and water supply, and sanitation services) and developing a roadmap for reform, to increase the effectiveness and efficiency of priority economic instruments. Accompanying measures will be considered, to support the transition and overcome some of the barriers to reform. These will include well-targeted social measures, offering 'value for money', and measures to facilitate the transition to water efficient practices (in such spheres as education, and support for water efficient technologies).
- Developing a roadmap for reform in one pilot basin. Recommendations will be prepared, in co-ordination with Kazakh partners, to develop capacity and apply economic instruments.
- Developing curricula and training for officers at institutions involved in setting and managing water tariffs and subsidies. This will include developing training materials and conducting up to four workshops, targeting key stakeholders, such as: the Ministry of Agriculture and Committee for Water Resources; the Ministry of National Economy; the Ministry of Health and Social Development; the Anti-Monopoly Committee; the Agency for Regulating Natural Monopolies; water utility providers; and water user associations. Co-ordination will be promoted, with other capacity development activities envisaged.

Expected results:

- Improved understanding of how economic instruments can be used for water management by relevant Government institutions and the water industry;
- Strengthened capacity to set water abstraction fees and pollution charges, as well as tariffs for irrigation and water supply, and sanitation services;
- Recommendations to remove environmentally harmful subsidies, and for accompanying measures;
- Training of key stakeholders involved in tariff setting;
- A shared assessment of the efficiency and effectiveness of existing economic instruments for water management and the expected benefits of reform;
- Endorsement of amendments to 2-3 economic instruments by line ministries/agencies and their submission to the Government for approval; and
- Training for 60-80 practitioners.

Deliverables include:

- An assessment report on the efficiency and effectiveness of existing economic instruments for water management;
- A roadmap for reform to increase the effectiveness and efficiency of priority economic instruments;
- A report on recommended economic instruments in one pilot basin;
- Training programmes, modules, and hand-outs; and
- Training toolkits for teachers and students.

Output 2.2: Promotion of innovative water technologies and practices in two priority sectors of the economy (UNDP)

Innovation has a major role to play in implementing the Green Economy Concept. It contributes to the Green Bridge, a major eco-initiative by the Kazakh government, with particularly reference to water-usage. Innovative irrigation practices and water-efficient industrial processes can save water and contribute to national competitiveness and economic development. Work will focus on one particular basin (e.g. Balkhash) and on two large water users, representing important potential for developments in Kazakhstan, selected in consultation with Kazakh partners.

Activities:

- Reviewing policies regarding the diffusion of innovative technologies and practices for water efficiency, and obstacles to the implementation of water efficient technologies in Kazakhstan. This will look at technical and non-technical innovations, as well as local capacity development.
- Developing policy recommendations for the adoption and diffusion of water-related innovation, for various ministries, including the Committee for Water Resources.

Expected results:

- A shared assessment of policies hindering the diffusion of water efficient technologies in Kazakhstan, based on two pilot industries;
- Endorsement of amendments to relevant regulations by line ministries/agencies and their submission to the Government for approval; and
- Increased awareness from key partners, including public administration, water user associations, industries and private investors.

Deliverables include:

- A gap analysis report on policies affecting the diffusion of water efficient technologies in Kazakhstan, based on two pilot industries; and
- Recommendations on policy improvements to enable the diffusion of water efficient technologies.

Output 2.3: Business models to ensure sustainability of operations, maintenance and financing of water infrastructure (UNDP)

Water infrastructure (including dams, reservoirs and irrigation canals) is financed from Kazakhstan's public budget. International good practice offers alternative business models, with various options for generating revenue to cover operation and maintenance costs, as well as promoting efficient operation, freeing public finance and potentially attracting private operators.

Activities:

- Assessing business models to manage multi-purpose water systems in Kazakhstan, in light

- Identifying relevant international good practice and suggestions for models adaptable to the context of Kazakhstan;
- Carrying out of a pilot project for a multi-purpose water system (e.g. a water reservoir that serves hydropower production, agriculture and public water supply) to further define how practices may be adopted;
- Developing policy recommendations to promote and facilitate sound management of multi-purpose water infrastructure, including revision of relevant regulations or adoption of new, as appropriate;
- Increasing financial autonomy and sustainable management of water infrastructure at the pilot project; and
- Strengthening capacity to manage multi-purpose infrastructure at the Committee for Water Resources.

Expected results:

- Recommended business model(s) and regulations (or proposals for amendment) endorsed by the Committee for Water Resources and submitted for Government approval; and
- Strengthened capacity for the Committee for Water Resources to manage multi-purpose water systems in line with Green Economy requirements.

Deliverables include:

- An assessment report on business models;
- Recommendations for business models applicable to the Kazakh context;
- Pilot project description and progress reports;
- Recommendations to improve policies regulating multi-purpose water infrastructure; and
- Training/workshop programmes, participant registration lists, and hand-outs.

Output 2.4: Technical supervision and control of hydro-technical infrastructure (UNECE)

Technical regulations and quality control are critical to the safe management of hydro-technical structures: dams, reservoirs, hydroelectric stations and energy storage ponds. Sustainability of infrastructure is vital to the sustainable management of water resources, and is an important component of a Green Economy. Accidents (in 2010 and 2014) brought numerous fatalities, demonstrating the need for a sound system of control across all steps: from design to construction and maintenance. Safety of existing hydraulic infrastructure is a priority.

Activities:

- Conducting analysis of current technical regulations and quality control practices, as well as the causes of recent accidents. Technical, legal, procedural and institutional aspects must be assessed. The draft analysis will be discussed in a workshop, with the participation of authorities and other stakeholders.
- Developing recommendations for improvement, involving international and national consultants, for improved safety within hydro-technical infrastructure, creating a roadmap for implementation.
- Training experts on modern approaches to safety at hydro-technical structures. This activity will include strengthening the Taraz International Centre for the Safety of Hydro-technical Infrastructure, with new equipment and the organization of four week-long courses. An exact list of equipment required will be identified during the Inception Phase, and procured by UNECE according to its internal procedures.

Expected results:
The roadmap and recommendations will give a clear basis for reform, resulting in improved management of hydro-technical structures. Training should raise professionalism regarding safety issues.

- Recommendations for the further development of national policy regarding technical assurance and quality control of hydraulic structures; and
- Improved training on dam safety, for 60-80 practitioners.

Deliverables include:

- An assessment report on current technical regulations and quality control practices applied to Kazakhstan's water infrastructure;
- Recommendations to improve the above, including policy, technical, and institutional aspects;
- A roadmap for implementing recommended improvements;
- A stakeholder workshop programme, minutes, and resolution; and
- Training programmes, modules and hand-outs.

Outcome 3: Establishing a modernized environmental governance system

Output 3.1: Supporting improved environmental assessment and review procedures in the water sector (UNECE)
Strategic environmental impact assessment (SEIA) is a well-established, practical and efficient planning and environmental governance tool. The approach to SEIA is set out in the UNECE Protocol on SEIA to the Espoo Convention on SEIA, in a trans-boundary context. Kazakhstan is party to the Convention but not yet to its Protocol on SEIA.

Developing policy and action in the water sector has obvious ramifications to agriculture, fisheries, energy, industry, waste management, urban planning and other sectors of the economy. SEIA ensures that sectoral and regional development plans and investment projects take into account environmental (and health) considerations, especially where likely to have significant adverse environmental impact. SEIA, in particular, allows identification of the most sustainable and cost-effective strategic alternatives, to help Kazakhstan achieve long-term Green Economy targets.

Further to recent experience on the Aral Sea basin, largely due to lack of strategic environmental assessment procedures, the Project will: a) assist Kazakhstan in developing strategies and investment projects in a way that fully implements the planned 2020-2030 GE strategy; and b) strengthen the country's environmental governance by developing a draft legislative framework, and raising institutional capacities in environmental assessment, with focus on water resources.

Water policy related activities are to be supported via the third Environmental Performance Review (EPR) of Kazakhstan, with special focus on a Green Economy, the current state of water use and water resource policies, using well-tested international methodology. The EPR report is aimed primarily at decision-makers, but also at a wider audience of the general public, NGOs, industry and various levels of Government.

Specific actions will support the development of decision support systems, based on reliable, comparable and accessible data, in conjunction with Shared Environmental Information Systems (SEIS). In particular, during stakeholder dialogue, the Project Team will facilitate discussion and generate recommendations on how to improve inter-institutional co-operation. This should ensure timely availability of reliable data and information, to support decision making at national and basin levels. In addition, the Project will seek to produce and disseminate its reviews, analytical materials, databases and other informational products, based on SEIS principles and using existing SEIS comparable tools including:

- WGEMA water indicators and EaP GREEN Green Economy indicators, developed under the EU funded EaP GREEN programme;

- Water assessment methodologies presented in the Water Information System for Europe (WISE); and
- The data availability overview in Kazakhstan, developed previously by the FFEM project.

Finally, the Project will ensure that its information products are included in the European Environmental Agency virtual library (http://www.eea.europa.eu/themes/regions/pan-european/virtual-library) to facilitate pan-European environmental assessment.
These specific actions will be identified during the Inception Phase of the Project.

Activities include:

- Developing documentation to support revision of national legislation regarding environmental assessment procedures;

- Pilot application of the SEIA procedure to a select Government water sectoral plan or programme (such as a river basin management plan, envisaged in Activity 1.2);

- Setting guidelines for applying the SEIA across Kazakhstan, based on the pilot model;

- Training national and local officials to apply the SEIA to Kazakhstan's water sector; and

- Conducting analysis of water policy for the 3rd Environmental Peer Review, and the review mission, and drafting recommendations on how to improve problem areas.

Expected results:

- Proposals for the revision of existing national legislation regarding environmental assessment procedures; and
- Publish a good-quality water chapter within the 3rd Environmental Peer Review.

Deliverables include:

- An assessment report on potential implications of using SEIA methodology for water resource management across the economic sectors of Kazakhstan;
- Recommendations on amendments to legislation, to introduce and implement the SEIA approach to water resource management;
- The pilot River Basin Management Plan (Activity 1.2.) developed through SEIA procedures;
- Publishing of a water resources chapter in the 3rd EPR; and
- Agendas, participant lists, minutes, and resolutions of workshops.

***Outcome 4:* Highly visible and replicable pilot actions, focusing on water resources and climate change, with demonstrable effects at local (region/city/district) level**

Output 4.1: Demonstration projects across key sectors (UNDP)
The Green Economy Concept clearly states the key priorities and targets for various sectors. While water management is addressed independently, it is a crosscutting issue for most economic sectors. Considering the critical importance and deficit of water resources in Kazakhstan, to better utilize the achievements of the first component of the Project, the following areas should form the thematic focus for pilot projects, aiming at technology transfer:

- Water conservation;
- Improved water quality;
- Energy efficiency in water supply;
- Waste water treatment and reuse; and
- Water and renewable energy.

A sectoral breakdown is listed below and contains some clear-cut examples, while a full list of thematic areas and engaged sectors will be elaborated through consultations during the Inception Phase.

Sustainable water use and management in agriculture:

- **Efficient irrigation systems and equipment.** Although many projects have been successfully completed in Kazakhstan, improving irrigation practices, the irrigation system is usually automated, regardless of the weather. It will significantly save water if irrigation systems are adjusted to work in harmony with natural precipitation.

- **Water recycling**. Avoiding or mitigating run-off could save millions of cubic meters of water over the course of a growing season. Run-off often occurs due to overwatering or poor soil and, to a degree, is an unavoidable result of irrigation. Recycling run-off not only saves water but protects the ecosystem, since agricultural run-off typically contains large amounts of chemicals. These seep into groundwater, polluting rivers, streams and other bodies of water. Costs may be significant, but the benefits are great.

- **Organic Farming Methods** (or pest management). Water recycling is far less expensive when water doesn't need to be treated before reuse. Organic farming methods reduce or eliminate the use of chemicals, helping farmers by taking out a costly step in the recycling process.

Municipal water management:

- **Leak detection**. Up to half of the water supplied by a water treatment plant may be lost to leakage; unauthorized abstraction may be responsible for further volumes. One way to detect leaks and identify unauthorized connections is to use listening equipment to survey the distribution system, identifying leaking sounds, and pinpointing locations of hidden, underground leaks. Metering can also be used to help detect leaks. Unaccountable water losses often drop by up to 36% after introducing metering and leak detection programmes.

- **Low-flow plumbing fixtures and retrofit programmes** are permanent, one-time conservation measures that can be implemented with little or no additional cost over the lifetime of the fixtures. In some cases, this can save residents money long-term. The most commonly recommended low-flow plumbing fixtures are pressure reduction devices, faucet aerators, toilet displacement devices, low-flush toilets, low-flow showerheads, and plumbing modifications for gray water reuse.

- **Efficiency of residential water supply** varies by water source, treatment, distribution, and end-use. In every sector, there are opportunities to save energy and water. The residential sector in Kazakhstan has huge potential in this respect.

Water use and renewable energy:

- **Solar heating**. Solar water heaters for residential buildings deserve attention, especially as Kazakhstan's private and social housing market is developing rapidly.

- **Renewable energy** opportunities are an essential component in meeting water supply goals: through purification, pumping and desalination. The programme will fund pilot projects, finding the most appropriate solutions for individual community needs, comparing various technical options and costs.

Conditions, requirements and procedures for the award of grants will be developed during the Inception Phase, as will the mechanism of transfer for technologies and EU knowledge to Kazakhstan. There will be an open Call for Proposals at the beginning of each year of the Project:

All pilot projects will be selected on a competitive basis, through open and transparent application and review procedures, based on criteria stated in the Call for Proposal description.

A Panel of Experts (relevant stakeholders and EU delegation members in Kazakhstan) will select projects in accordance with UNDP procedures, and will be bound by statements of confidentiality and non-conflict of interest.

Activities:

- Developing a comprehensive programme for demonstration projects, communicating to target groups via Task Forces, across at least five thematic areas. TFs will carry out broad consultations and assessments of needs, liaising with stakeholders at central and local level in targeted regions. Based on findings and discussions, they will develop a detailed Pilot Projects Programme comprising: (i) general requirements, (ii) funding criteria, (iii) application requirements, (iv) funding restrictions and eligible costs, and (v) operating and reporting requirements.

- Calling for Proposals and targeting relevant stakeholders involved in the fields above and across civil society.

- Running the evaluation process.

- Awarding contracts for pilot projects and to civil society organisations.

- Monitoring and supporting selected projects, including the identification of technological needs, searching for green solutions, and building contacts with potential suppliers.

- Organizing specific visibility events involving the EU Delegation to Kazakhstan.

Expected results:

- At least 10 pilot projects successfully implemented, covering at least five thematic areas and at least three sectors;
- At least three specific projects with Civil Society successfully implemented; and
- Capacity in at least 15 pilot projects (above listed areas) improved through no less than three training events annually, and at least three annual visibility events.

Deliverables include:

- Calls for Proposal prepared and launched;
- Grant Contracts awarded for pilot projects and civil society organizations; and
- A specific report on the replication of pilot projects across other fields/regions of Kazakhstan.

Output 4.2. Knowledge management and lessons learnt system is in place (UNDP)

Knowledge management is essential when operating in a knowledge intensive environment. Technology transfer projects are a prime example, requiring knowledge from diverse areas: product technology, process technology, and expertise in project management, operation and problem solving. Often, results of international technology transfer projects prove unsatisfactory, due to differing levels of knowledge between various partners and differences in the policy, capacity and economic environments of the technology recipient and supplier.

This Project will include activities for effective knowledge management during EU technology transfer, using a crosscutting approach to all activities and demonstration projects.

Activities:

- Knowledge management activities will potentially include: (1) completion of a database on relevant technologies available in the EU to address Project needs; (2) publication of a printed catalogue of technologies and practices most relevant to Kazakh policy, investment and capacity; (3) workshops on knowledge sharing for potential applicants and broader stakeholders; and (4) improved knowledge management capacity for relevant organizations in Kazakhstan across specific sectors, via workshops and information sharing.

- Communicating successes and lessons learnt: through organized press conferences at various stages of programme implementation; publication of regular updates on available electronic and printed resources; mass media publications; and publication of analytical reports on the successes, lessons and challenges of the programme.

Expected results:

- An electronic database of green practices, green technologies, and equipment (updated regularly);
- A roster of national and international experts in relevant thematic areas (updated regularly);
- Technical, analytical and methodological reports and materials produced over the course of projects (available to a broad public); and
- If relevant, a contribution to the Green Bridge Initiative through a specific report or organization of a particular event.

Deliverables include:

- On-line rosters of international experts, consulting companies, and technology providers;
- A printed catalogue of efficient water management practices, technologies, equipment, and training opportunities for various economic sectors available in EU countries;
- Workshop programmes, participant registration lists, and hand-outs.
- Distribution lists; and
- A report summarizing the success, failures and challenges of completed pilot projects.

PROJECT RESULTS FRAMEWORK

Project will contribute to achieving the following Country Programme Outcomes, as defined in the CPAP or CPD:

ernment, communities and civil society practice an integrated approach to natural resource management in national and trans-boundary perspectives.

Government, industries and civil society take steps to adapt to climate change and mitigate its impact through energy efficiency measures and climate change adaptation es.

ıtry Programme Outcome Indicators:

ıtral and local actors acquire tools and methodologies for IWRM implementation and fostering trans-boundary dialogue.

nprehensive national climate change strategies are developed (focusing on economic sectors at risk, eco-system vulnerability, and adaptation needs), for further integration into nal development plans and sustainable development strategies.

ary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): Environmental Sustainability

	Indicator	Baseline	Targets End of Project	Sources of verification	Risks
ct ctive ivalent ıtput in \S)	Contribute to the long-term environmental sustainability and inclusive economic development of Kazakhstan through supporting the country's transition to a Green Economy model.	In the follow-up to the Rio+20 process on sustainable development, Kazakhstan took a landmark decision to transition towards a sustainable Green Economy Concept, aimed at implementing a completely new development paradigm with particular focus on the water sector.	- Improved water governance policy, focusing on trans-boundary water resources, at national and local levels. - Improved water management practices, through introducing water saving approaches and economic incentives.	- Amended policy and regulations on trans-boundary water management, basin planning and management, water infrastructure operations, and economic incentives for sustainable water management. - Technical reports on the above issues. - Reports on implemented pilot projects. - Monitoring and site visit reports. - CDRs and Atlas reports. - Project evaluation reports.	- The global economic crisis may cause a second devaluation of the KZT, affecting currency-linked costs. - Administrative reform and structural difficulties bring frequent changes to institutional configuration within the Government and high staff turnover - There is a lack of political will beyond environmental ministries to conduct reform: environmental protection is rarely a priority, due to limited awareness. - A tight timeframe for pilot project completion, especially for the third competition cycle.

ome 1 r rnance is e with n omy rements	- Policy and practices on trans-boundary water management are developed and introduced at national and local levels. - Basin management policies and tools are developed and demonstrated in a pilot basin. - Kazakhstan is able to take informed decisions on implementing the Protocol on Water and Health. - Overall capacity of water managers at central and local levels is improved.	- Kazakhstan has a limited capacity with regard to international water law and no long-term strategy for the development of trans-boundary water co-operation. - River basin administrations have been established, as have basin councils with an advisory role, involving key local stakeholders. However, basin administrations are understaffed and their rights and obligations are unclear. - Kazakhstan is currently ratifying the UNECE-WHO/Europe Protocol on Water and Health. However, it lacks knowledge on how to develop plans for implementation of requirements. - Kazakhstan needs qualified professional water managers but the present education system does not offer training that combines technical expertise with management skills.	- Amendments to national and local policy and regulations on trans-boundary water management are drafted and tested along the rivers Ural and Kigach. - Guidance on planning and implementing local Basin Management Plans, including recommended amendments to relevant policies, with testing in a pilot basin. - National targets and target dates are adopted on water and health, with some 'soft' (i.e. non-investment) national targets on water and health implemented. - Training modules are available and teachers and students are trained.	- An assessment report on Kazakhstan's dependence on trans-boundary waters. -Recommendations for improving national policies on trans-boundary waters. - An assessment report on the Kigach River basin. - An assessment report on river basin management practices in Kazakhstan. - A report on recommended policy and institutional improvements in river basin management. - A demonstration Basin Management Plan. - Documentation on the inclusive process in setting national targets, under the Protocol on Water and Health. - National targets and target dates, under the Protocol on Water and Health. - An action plan for achieving targets, including legal and administrative tools, with priority actions. - TOT modules for newly proposed courses. - A set of educational materials for teachers and students, for newly proposed courses. - Presentations and hand-outs for workshops. - Agendas, participant registration lists, minutes and resolutions for workshops and conferences.	- Solutions on trans-boundary issues usually require years to be implemented. The short project period may not be long enough to apply recommendations. - Basin management practices usually require some decentralization of the water governance system. This may be a barrier to applying recommendations regarding Basin Management Plans. - Certification of a new curriculum course may require approvals and extra requirements from academic institutions. This may take more time than available within the Project.

ome 2 ased ency of use	- Analysis of existing economic drivers for water efficiency completed and relevant reforms recommended. - Promotion of innovative water technologies and practices in two priority sectors of the economy through policy reforms and pilot projects. - Business models to ensure sustainability of operations, and maintenance and financing of water infrastructure. -Technical supervision and control of hydro-technical infrastructure improved, through revised policies and pilot projects.	- Irrigated farming in Kazakhstan has seen water consumption rise per tonne of crop (against 1990 levels), with similar usage concerns across some water intensive industries (per tonne of output). - Domestic water supply usage is much higher than international levels, due not only to high leakage rates but to lack of economic incentives for more efficient water use. - Obstacles exist to the diffusion of innovative technologies and practices for water efficiency. - Business models for operating, maintaining and financing water infrastructure (dams, reservoirs, and irrigation canals in particular) are highly subsidized. - National supervision and control of hydro-technical infrastructure is poorly regulated, while institutions responsible have insufficient capacity and experts lack adequate training.	- Establishment of 2-3 economic instruments to enhance water efficiency in agriculture, processing industries and usage in the home.. - A shared assessment of policies hindering diffusion of water efficient technologies in Kazakhstan, based on two pilot industries. - Endorsement of amendments to relevant regulations by line ministries/agencies and submission to the Government for approval. - Strengthened capacity to manage multi-purpose infrastructure, in line with Green Economy requirements, by the Committee for Water Resources. - Recommendations for strengthening supervision and control of hydro-technical infrastructure developed and tested.	- An assessment report on the efficiency and effectiveness of existing economic instruments for water management. - A roadmap for reform that will increase the effectiveness and efficiency of priority economic instruments. - A report on recommended economic instruments for one pilot basin. - Training programmes, modules and hand-outs. - Training toolkits for teachers and students. - A gap analysis report on policies affecting the diffusion of water efficient technologies in Kazakhstan, based on two pilot industries. - Recommendations on policy improvements to enable the diffusion of water efficient technologies. - An assessment report on business models. - Recommendations for business models applicable to the Kazakhstan context. - A pilot project description and progress reports. - Recommendations to improve policies regulating multi-purpose water infrastructure. - Training/workshop programmes, participant registration lists and hand-outs. - An assessment report on current technical regulations and quality control practices applied to Kazakhstan's water infrastructure. - Recommendations to improve the above, including policy, technical and institutional aspects. - A stakeholder workshop programme, minutes, and resolution.	- Most of the existing economic incentives and business models are designed for market economies with decentralised governance systems. This is not the case in Kazakhstan, which may prevent effective implementation of reform. - Many issues relating to hydro-technical infrastructure are governed by the Government Cabinet, which may require additional co-ordination and approvals. - Many of the issues addressed by this outcome need strong inter-sectoral co-ordination; this usually implies some risk in terms of time frame and approvals.

ome 3)lishing a ɜrnized onmental rnance m	Guidance on Strategic Environmental Assessment in the water sector is developed and relevant policies and regulations are amended.	A legislative and institutional framework is lacking, to ensure that sectoral and regional development plans and investment projects follow long-term Green Economy targets. This is especially relevant where adverse environmental impact is evident.	- Completion of a SEIA review and appropriate legislation, including recommendations for legislative, procedural and institutional changes. - Successful implementation of one pilot project and dissemination of its results. - Trained national and local stakeholders on the practical application on the SEIA. - Guidelines on the practical application of the SEIA at national level.	- An assessment report on the potential implications of using SEIA methodology for water resource management across Kazakhstan's economic sectors. - Recommendations to amend legislation to introduce and implement the SEIA approach in water resource management. - A pilot Basin Management Plan developed through SEIA procedures. - Agendas, participant registration lists, minutes, and resolutions of workshops.	- Many of the issues rely upon strong inter-sectoral co-ordination, which usually implies some risk in terms of time frame and approvals.
ome 4 y visible 'eplicable ilot ns with)nstrable ts at local)n/city/dis levels	- Pilot projects in key economic sectors are identified and implemented through the Grants Programme. - Knowledge management and scaling-up of Project in place.	- Limited access to EU water and energy efficient technologies for key sectors. - Lack of financial sources for testing and demonstrating water saving technologies, to encourage future sector investments. - No platform for partnerships between interested Kazakh and EU companies, to support the transfer of energy/water efficient technologies and knowledge. Kazakh organizations interested in improving energy/water efficiency lack capacity and knowledge.	- At least 25 pilot projects aimed at improving water management practices completed through the Grants Programme. - An electronic database of green practices, and green technologies and equipment developed and maintained. - A roster of national and international experts in relevant thematic areas developed and maintained.	- Call for Proposal documentation. - Minutes of selection processes. - Grant Contracts awarded for pilot projects and civil society organizations. - On-line rosters of international experts, consulting companies, and technology providers. - A printed catalogue of efficient water management practices, technologies, equipment, and training opportunities for various EU economic sectors. -Workshop programmes, participant registration lists, and hand-outs. - Monitoring and site visit reports. and photo and video materials.	- A very limited timeframe for identification, design and implementation of pilot projects. Some may last longer than the Project period. - The technology transfer mechanism is not yet elaborated.

				- A report summarizing the success, failures, and challenges of completed pilot projects.	
ome 5 Project is ently aged and livering xpected ts	- Project governance, implementation and monitoring structure set up. - The Project is effectively administered to successfully deliver its outputs.	- The Project Board is committed to support the Project. - Project staff are fully capacitated to achieve Project outputs. - Timely and effective financial administration and reporting, procurement, monitoring and evaluation activities.	- The Project is managed in an efficient and cost effective manner, in accordance with relevant UNDP procedures and Contracting Authority requirements. - Project results are reported and co-ordinated with the Contracting Authority and Project Partners. - Adaptive management tools are fully applied.	- Minutes of Project Board meeting. - An inception report. - Annual Work Plans and Budgets. - Quarterly reports. - Annual Progress reports. - Monitoring reports. - CDRs. - Atlas reports on risk management.	- Currency rates are unstable. - Insufficient support from the Project Board. - Reporting procedures of the donor not yet clear and may place an extra burden on the Project Team. - The Project includes international procurement, which takes valuable time and effort within the short time frame available.

TOTAL BUDGET AND WORK PLAN

Project Budget

ırd ID:	00086627	Project ID(s):	00093850
ırd Title:	Supporting Kazakhstan's Transition to a Green Economy		
iness Unit:	KAZ10		
ject Title:	Supporting Kazakhstan's Transition to a Green Economy		
lementing Partner ecuting Agency)	Water Resources Committee of the Ministry of Agriculture RK		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount 2015 USD	Amount 2016 USD	Amount 2017 USD	Amount 2018 USD	Total USD
ITCOME 1: ıter vernance is line with een onomy quirements.	UNECE		EU	74500	Miscellaneous	10,000	10,000	10,000	10,000	40,000
				71400	Staff	75,000	166,296.5	166,296.5	133,086.7	540,679.7
				75100	GMS	6,440	12,340.8	12,340.8	10,016	41,137.6
					sub-total EU	**91,440**	**188,637.3**	**188,637.3**	**153,102.7**	**621,817.3**
					Total Outcome 1	**91,440**	**188,637.3**	**188,637.3**	**153,102.7**	**621,817.3**
ITCOME 2: reased iciency of ter use.	UNECE		EU	71300	Consultant	29,750	70,000	70,000	70,000	239,750
				75700	Workshops	30,000	54,927.8	64,227.8	73,528	222,683.6
				74500	Miscellaneous	10,000	10,000	10,000	10,000	40,000
				75100	GMS	5,250	10,156	10,856	11,556	37,818
					sub-total EU (UNECE)	**75,000**	**145,083.8**	**155,083.8**	**165,084**	**540,251.6**
	UNDP		EU	71300	Local Consultants	15,000	20,047.1	32,990	41,834.6	109,871.7
				71200	International Consultant	25,340.2	40,000	58,923.3	60,000	184,263.5
				71600	Travel	6,000	17,782.6	27,060	33,010	83,852.6

				75700	Workshops and training	10,140	22,000	30,750	36,432	99,322
				74200	Publications and translation	5,466.9	15,000	15,466.9	25,000	60,933.8
				72200	Equipment		40,000			40,000
				74500	Miscellaneous	600	600	600	600	2,400
				75100	GMS	4,708	11,700	12,264	14,819	43,491
					sub-total EU (UNDP)	**67,255.1**	**167,129.7**	**178,054.2**	**211,695.6**	**624,134.6**
					sub-total EU	**142,255.1**	**312,213.5**	**333,138.0**	**376,779.6**	**1,164,386.2**
					Total Outcome 2	**142,255.1**	**312,213.5**	**333,138.0**	**376,779.6**	**1,164,386.2**
ITCOME 3: tablishing a dernized vironmental vernance stem	UNECE		**EU**	71300	Consultant	33,855	95,000	85,000	85,000	298,855
				75700	Workshops	33,855	61,001.4	55,701	45,270.7	195,828.1
				74500	Miscellaneous	10,000	10,000	10,000	10,000	40,000
				75100	GMS	5,850	12,495	11,344	10,559	40,248
					sub-total EU	**83,560**	**178,496.4**	**162,045.0**	**150,829.7**	**574,931.1**
					Total Outcome 3	**83,560**	**178,496.4**	**162,045.0**	**150,829.7**	**574,931.1**
ITCOME 4: ghly visible d replicable pilot ions, with monstrable ects at local gion/city/dis t) levels	UNDP		**EU**	71300	Local Consultants	10,000	24,600	24,035	29,591.7	88,226.7
				71200	International Consultant	22,200	55,350	55,350	43,050	175,950
				71600	Travel	21,887,6	14,154	14,760	14,760	51,434
				75700	Workshops and training	10,000	12,300	12,300	20,900	55,500
				74200	Publications and translation	5,316.9	9,316.9	13,007.5	14,852.5	42,493.8
				72600	Grants	230,000	2,526,312.4	2,094,293.3		4,864,733.3
				74500	Miscellaneous	600	600	600	600	2400
				75100	GMS	22,581	198,908	166,672	9,315	397,476
					sub-total EU	**322,585.5**	**2,841,541.3**	**2,381,017.8**	**133,069.2**	**5,678,213.8**
					Total Outcome 4	**322,585.5**	**2,841,541.3**	**2,381,017.8**	**133,069.2**	**5,678,213.8**
icient oject nagement	UNDP		**EU**	71400	Contractual Services (Project Manager)	46,500	94,097	94,097	94,097	328,791
				71400	Contractual Services (Project Specialist)	18,000	28,000	28,000	28,000	102,000
				71400	Contractual Services (PR Specialist)	9,000	20,500	20,500	20,500	70,500

	71400	Contractual Services (Procurement Assistant)	9,000	18,000	18,000	18,000	63,000
		Project audit	6,150	6,150	6,150	6,150	24,600
	73100	Office rent	6,000	11,322.4	11,322.4	11,322.4	39,967.2
	72400	Communications costs	2,214	2,214	2,214	2,214	8,856
	72200	Equipment	4,983.4				4,983.4
	74500	Miscellaneous	600	600	600	600	2,400
	75100	GMS	7,712	13,614	13,614	13,614	48,554
		sub-total EU	**110,159.4**	**194,497.4**	**194,497.4**	**194,497.4**	**693,651.6**
		Total Outcome 5	**110,159.4**	**194,497.4**	**194,497.4**	**194,497.4**	**693,651.6**
		Total UNECE	**250,000**	**512,217.5**	**505,766.1**	**469,016.4**	**1,737,000**
		Total UNDP	**500,000**	**3,203,168.4**	**2,753,569.4**	**539,262.2**	**6,996,000**
		PROJECT TOTAL	**750,000**	**3,715,385.9**	**3,259,335.5**	**1,008,278.6**	**8,733,000**

ary of
:

	Amount 2015 (USD)	Amount 2016 (USD)	Amount 2017 (USD)	Amount 2018 (USD)	Total (USD)
EU	750,000	3,715,385.9	3,259,335.5	1,008,278.6	8,733,000
TOTAL	750,000	3,715,385.9	3,259,335.5	1,008,278.6	8,733,000

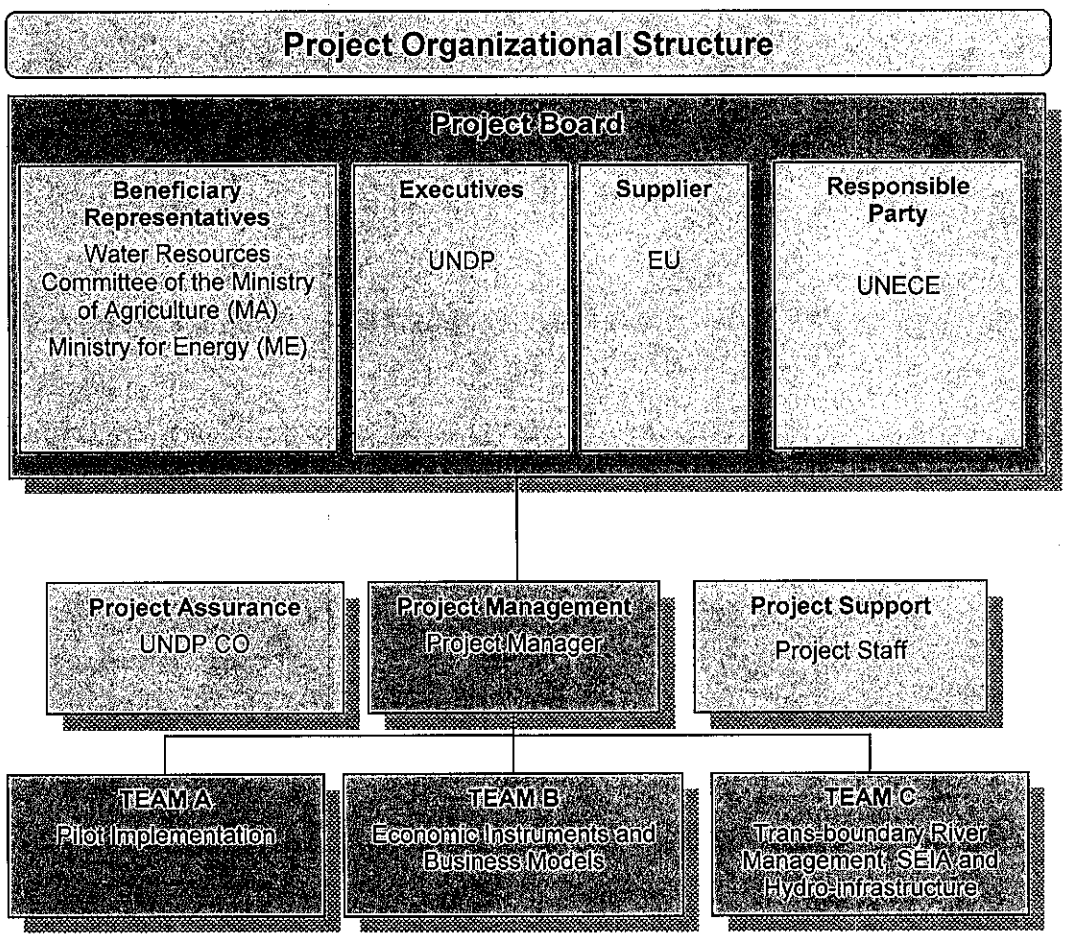
INDICATIVE WORK PLAN

Years	Year 1				Year 2				Year 3				Year 4				Responsible Partner
uts and Activities	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	
ut 1.1: Trans-boundary water management																	
. Training courses on international water legislation.																	UNECE
. Development of a review and recommendations on the / of Kazakhstan for trans-boundary water co-operation.																	UNECE
. Assessment of the situation in the Kigach and Ural river s.																	UNECE
ut 1.2: Review and improve the institutional basis for basin management																	UNECE
. Review existing river basin management practices and and develop policy recommendations for improvements.																	UNECE
. Prepare proposals to strengthen the institutional ework to better involve basin councils (role, composition ools).																	UNECE
. Develop a Basin Plan in full compliance with the Green omy Concept.																	UNECE
ut 1.3: Support for the implementation of the ocol on Water and Health																	
. Establish a national expert to set targets and target (to be supported by international consultants).																	UNECE
. Prepare national targets and target dates on water and h following participative processes.																	UNECE
. Support the formal adoption of national targets by opriate Governmental agencies.																	UNECE
. Initiate the implementation of some 'soft' (i.e. non-tructure) targets.																	UNECE
ut 1.4: Trained Water Managers																	
. Assess present training opportunities.																	UNECE
. Develop recommendations for change.																	UNECE
. Develop training modules and manuals.																	UNECE
. Conduct training of teachers and students.																	UNECE
ut 2.1: Analysis and reform of economic instruments omote water efficiency																	
. Review existing economic instruments across two rs (irrigation and water supply, and sanitation services).																	UNDP

. Develop a roadmap for reform in one pilot basin.																	UNDP
. Develop training curricula and conduct training for local ırs.																	UNDP
ıut 2.2: Promotion of innovative water technologies ɔractices in two priority sectors of the economy																	
. Review policies affecting the diffusion of innovative ıologies and practices for water efficiency and develop / recommendations.																	UNDP
. Develop policy recommendations for the adoption and ıion of water related innovations.																	UNDP
ıut 2.3: Business models to ensure sustainability of ations, maintenance and financing of water structure																	
. Assess current business models applied in Kazakhstan managing multi-purpose water systems vis-a-vis ıational good practice, and draft recommendations.																	UNDP
. Implement a pilot project in one particular multi-purpose r system and produce final recommendations.																	UNDP
ıut 2.4: Technical supervision and control of hydro-ıical infrastructure																	
. Strengthen capacity for training experts, including by ıurement of equipment.																	UNECE
. Analyse the existing national system of supervision and ol of hydro-technical infrastructure and develop ımmendations for improving the system.																	UNECE
. Conduct training for experts.																	UNECE
ıut 3.1: Improved environmental assessment and w procedures in the water sector																	
. Review existing national legislation regarding onmental assessment procedures.																	UNECE
. Pilot application of the SEIA procedure to a Government r sectoral plan or programme.																	UNECE
. Develop guidelines for application of the SEIA in khstan, based on the water sector pilot.																	UNECE
Conduct training for national and local officials, to apply EIA to Kazakhstan's water sector.																	UNECE
Analyse water policy for the 3rd Environmental Peer ew, conduct a review mission and draft recommendations ays to improve problem areas.																	UNECE
ıut 4.1: Demonstration projects across key sectors																	
. Develop a comprehensive Grants Programme and ınunicate the Call for Proposals to all target groups.																	UNDP

. Complete outreach trips, meetings and consultations in 'get regions, to commence three cycles of the Grants petition.																	UNDP
. Form a pool of pilot projects through a screening and w process (three cycles).																	UNDP
. Provide expert, technical and logistical support to ted projects and identified international partners.																	UNDP
. Monitor the implementation of active pilot projects, d on individual projects' monitoring plans.																	UNDP
ut 4.2. Knowledge management and scaling-up em in place																	
. Establish a database of relevant technologies and ledge available within the EU market.																	UNDP
. Set up a roster of EU experts and companies interested rtnering pilot projects.																	UNDP
. Design and print a catalogue of resource efficient nologies and knowledge available within the EU market.																	UNDP
. Carry out workshops on knowledge sharing and city building for potential applicants and other target ps.																	UNDP
. Scaling-up Project results within a broader community, d on the Visibility and Communication Strategy.																	UNDP
ut 5. Effective Project management, monitoring and uation, and communication with partners and the ernment																	UNDP

VI. MANAGEMENT ARRANGEMENTS



The Project will be carried out in conformity with the established UNDP procedures of the National Implementation (NIM) modality. Project activities will be implemented according to UNDP corporate policies and procedures for national implementation (NIM) as stipulated in Programme and Operations Policies and Procedures (POPP).

Project Board

In order to ensure the UNDP's ultimate accountability, a Project Board is in place to support the Project Implementation Unit (PIU), ensuring that activities are carried out in accordance with UNDP corporate policies and standards, while ensuring best value for money, fairness and transparency. The Project Board is responsible for conducting regular reviews of Project implementation progress, approving annual work plans, and making appropriate decisions in case of deviation from agreed work plans. The Project Board comprises four inter-related parties: Beneficiary, Supplier, Executive and Responsible Party.

The structure of the Project Board:

Beneficiary Representatives: All activities, products and services of the Project will be geared towards beneficiaries. The needs and demands of beneficiaries will be reflected during regular Project Board meetings. Annual work plans will also reflect priorities set by beneficiaries. The

for achieving Project Results, in collaboration with the UNDP and the UNECE. It will appoint the National Project Director (NPD): a civil servant authorized to liaise with key stakeholders to ensure inclusive participation of the Government, in a timely manner.

Supplier: Suppliers provide necessary financial, informational and other resources to the Project. In this case, the European Union Delegation in Kazakhstan will be the supplier.

Executives: The Executives are responsible for Project compliance: the UNDP, as the main executive of the Project, will oversee the effective implementation of Project activities, ensuring that all intended outcomes/outputs are delivered. The UNDP will carry out the following functions as the Executive:

a. Ensuring that all activities are carried out in accordance with UNDP rules, regulations and processes. Those which are the responsibility of the UNECE will be carried out in accordance with UNECE rules, regulations and processes, with the UNECE providing all information on Project progress implementation and achieved deliverables, in the form of written reports to the UNDP, the Project Manager and the Project Board.
b. Ensuring that the Project makes annual reports on progress towards intended outputs.
c. Providing technical support to programmatic activities, including best practices, drawing upon knowledge available to the UNDP, globally and regionally.
d. Ensuring that Project activities fit within the overall Country Programme Document.
e. Providing operational and administrative support services to ensure efficient business processes, including establishing Project assurance and Project support mechanisms.
f. Facilitating official correspondence and communication with Suppliers, the GoK, state agencies and partners.

Project Implementation Unit (PIU)

The Project Implementation Unit (PIU) will comprise a Project Manager (PM) and a Project Specialist, responsible for Administrative and Financial Issues. They will be recruited for the full Project duration. The PM will be responsible for daily project management, co-ordination and co-operation with co-ordinating and executing agencies and the Project Board. The PM will provide guidance to national and international consultants, ensuring timely payments and audits. In addition, the PIU will include a number of technical experts responsible for implementing specific Project assignments. Project staff will be recruited in accordance with standard UNDP rules and procedures, based on agreed Terms of References (ToR) and relevant tender procedures.

The PM is fully responsible for Project implementation and achievement of planned results, being accountable to the National Project Director and the UNDP Country Office.

Project Assurance and Project Support Services.

The UNDP will ensure that the following key parameters are adhered to throughout the implementation of the Project, to ensure it remains 'fit for purpose', follows approved plans, and continues to meet planned targets without compromising output quality:

- Beneficiary needs and expectations are met and well managed;
- Risks are controlled;
- Quality operational and administrative support services are provided, following UNDP rules and regulations; and
- Monitoring is results-based, with reporting requirements and standards adhered to.

The Project Support role provides Project administration, management and technical support to the PIU, as required. Project Assurance and Project Support will work separately, to maintain Project assurance independence and impartiality.

Inception Phase of the Project

During the first three months after the Project launches, the UNDP and UNECE will work to ensure successful Project commencement:

1). Establishing a governance structure for the Project:

- Endorsing the Project Board and its terms of reference; and
- Endorsing the UNDP and UNECE Project arrangements.

2). Elaboration and updating the Project:

- Running a series of consultations with national stakeholders to elaborate the Project document, with more details for each activity;
- Meeting with UNDP and UNECE representatives to summarize findings of consultations and to agree on revisions and changes at action level, if needed;
- Preparing a detailed indicative Annual Work Plan for all four years of the Project, accompanied by detailed budget revision;
- Making basic studies and agreeing joint UNDP and UNECE implementation mechanisms for Component 2 (Activity 3.1.) and the role of each partner in assisting the Project with available EU solutions or technologies; and
- Elaborating and confirming co-financing of the Project, through parallel co-financing via value-added Governmental programmes.

3). Setting up a monitoring framework by preparing a detailed Annual Monitoring Plan, based on the Annual Work Plan and setting clear roles and responsibilities for UNDP and UNECE preliminary deliverables;

4). Drafting a Visibility and Communication Strategy, agreed by the UNDP and UNECE and, ideally, annexed to the Inception Report, following EU standard requirements, the Annual Work Plan and Monitoring Work Plan; and

5). In liaison with the EU Delegation, holding an Inception Workshop with media coverage, to present the Project, Project Partners, and National Counterparts to a broader stakeholders' group.

The Inception Report will summarise all the above as a set of documents to be presented to National Counterparts and submitted to the Contracting Authority.

UNDP Roles and Responsibilities

As a Lead Partner for the Project, the UNDP will undertake the following responsibilities:

- Liaising between Project Partners, Beneficiaries and Suppliers involved in the Project.
- Co-ordinating Project Activities with National Counterparts and maintaining regular contact with focal points from relevant institutions, to ensure smooth implementation of the Project.
- Co-ordinating all decisions relating to budgetary or Work Plan changes to be undertaken by Project Partners, with submission of changes to Suppliers and the Project Board.
- Organizing Project Team meetings.
- Collecting reports and information from Project Partners, and submitting all required reports/outputs (including narrative and financial reports) with focus on the Inception Phase report.
- Submitting reports/deliverables/publications to Suppliers.
- Providing support to Project Partners in organizing events in Kazakhstan, based on preliminary agreements, reflected in the Annual Work Plan and Budget.
- Developing (with Project Partners) and leading the implementation of the Communication Strategy of the Project.

- Providing a platform for co-ordinating Project outputs with donors, other international

- Consulting with Project Partners regularly, keeping them fully informed of Project implementation progress.
- Representing the Project at national and international meetings.

UNECE Roles and Responsibilities

- Sending representatives with appropriate delegated authority to Project Board meetings when requested. If no decision can be reached by the end of the corresponding meeting, the Partner undertakes, through their representatives, to agree on a timeframe during which those decisions will subsequently be made. Project Partners shall make every reasonable effort to attend Project Board meetings, as requested.
- Sending representatives with appropriate delegated authority to Project meetings and workshops, including Project Teams, making every reasonable effort to attend Project meetings and workshops, as requested.
- In agreement with the Lead Partner, contributing to the development of the overall communication plan, including updating, providing information and ensuring the visibility of the Project in all produced materials, for the specific components under its responsibility.
- Informing the Lead Partner and Suppliers of country-level activities and missions in relation to the Project.
- Establishing and using co-ordinated dissemination channels for Project outputs, in accordance with the requirements of the contribution agreement.
- Providing interim and final reporting to the UNDP.
- Holding regular bilateral meetings with the Lead Partner, at their own request or the request of the Lead Partner, to review the progress and implementation of the Project, including costs incurred and forecasts for the coming six to twelve months.
- If relevant and necessary, conducting activities assigned via the Contribution Agreement, with partners subcontracting specific tasks and procuring services as needed, in accordance with the rules of their respective organisation.
- Providing the Lead Partner with such information on the Project as may be required under the Contribution Agreement and, in particular, concerning reports and other deliverables, as stated in the Project document.
- Contributing to monitoring Project progress for the activities under its responsibility. Where changes occur in the schedule or implementation of the Project, or any risks occur, the Project Partner shall promptly inform the Lead Partner and other partners, as necessary.

VII. MONITORING FRAMEWORK AND EVALUATION

In accordance with the programming policies and procedures outlined in the UNDP User Guide, the Project will be monitored through the following:

Within the Annual Cycle

- On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods.
- An Issue Log shall be activated in Atlas and updated by the Project Manager, to facilitate tracking and resolution of potential problems or requests for change.
- Based on the initial risk analysis submitted (see Annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect Project implementation.
- Based on the above information recorded in Atlas, a Project Progress Report (PPR) shall be submitted by the Project Manager to the Project Board, through Project Assurance, using the standard report format available in the Executive Snapshot.
- A Project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the Project.
- A Monitoring Schedule Plan shall be activated in Atlas and updated to track key management actions/events.

Annually

- **Annual Review Report**. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board and the Outcome Board. As a minimum requirement, the Annual Review Report shall comprise the Atlas standard format for the QPR, covering the whole year, with updated information for each above element of the QPR as well as a summary of results achieved (against pre-defined annual targets at output level).

- **Annual Project Review**. Based on the above report, an Annual Project Review shall be conducted during the fourth quarter of the year, or soon after, to assess the performance of the Project and appraise the Annual Work Plan (AWP) for the following year. In the last year, the Review will be a final assessment. It is driven by the Project Board and may involve other stakeholders, as required. It shall focus on the extent to which progress is being made towards outputs, and the extent to which these align with appropriate outcomes.

VIII. LEGAL CONTEXT

In accordance with Article III of the Standard Basic Assistance Agreement (SBAA), the Implementing Partner carries responsibility for the safety and security of the Implementing Partner, their personnel and property, and the UNDP's property in the custody of the Implementing Partner. To this end, the Implementing Partner shall:

a) Ensure and maintain an appropriate security plan, reflecting the security situation in the country hosting the Project; and

b) Assume all risks and liabilities relating to the Implementing Partner's security within the framework of Project operations, and the full implementation of the security plan.

The UNDP reserves the right to verify whether such a plan is in place and to suggest modifications as necessary. Failure to maintain and implement an appropriate security plan shall be deemed a breach of the Implementing Partner's obligations under this Project Document [and the Project Co-operation Agreement between the UNDP and the Implementing Partner][2].

The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to support individuals or entities associated with terrorism and that the recipients of any amount provided by UNDP 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/docs/sc/committees/1267/1267listeng.htm. This provision must be included in all sub-contracts or sub-agreements entered into within this Project Document.

This Project Document is defined as the document referred to by name in Article I, signed by the Government of the Republic of Kazakhstan and the Development Programme of the United Nations on October 4th, 1994.

In order to implement the Standard Agreement for Assistance, the implementing agency of the host country refers to the appropriate state authority designated by this agreement.

The present agreement is made in English and Russian and comprises two original copies. Both languages will be of equal legal weight. In case of any ambiguity or conflict between the English and Russian languages, the English version shall prevail.

IX. ANNEXES

Annex I. Risk Analysis

#	Description	Risk Rating	Management Response
Financial Risks			
1	The global economic crisis may cause a second devaluation of the KZ Tenge, which may affect currency-linked costs.	M	Make timely budget revisions and ensure communication with Action Partners and the Donor regarding potential impact.
2	The budget of the Project is calculated in Euro at an exchange rate of about 225, while the current rate is 204. This will affect the Project budget, especially if the trend shows a further fall in the Euro rate.	M	Ensure regular budget planning and revision in KZ Tenge based on the actual exchange rate. The Euro budget will be regularly revised and reported to the Donor.
Political Risks			
3	An unstable political situation globally can lead to delays in decision making by the beneficiary Government.	L	Maintain regular contact with all Governmental agencies within the Project Scope, to ensure committed ownership of results.
4	Administrative reform and structural difficulties can lead to frequent changes in the institutional configuration within the Government and high staff turnover.	L	Build capacity within a variety of institutions, to ensure overall national capacity improvement.
5	There is a lack of political will outside environmental ministries to conduct reform: environmental protection is usually not a priority, due to limited awareness of the cost of inaction.	L	Improve relevant knowledge within a variety of Governmental agencies.
Organizational Risks			
6	The timeframe for pilot Project completion is very tight, especially for those launching in the third competition cycle.	M	Develop the closing strategy at the mid-term stage of the Project and ensure relevant structures and capacities for its implementation.

Annex II Terms of References

Term of Reference 1

Position: Project Manager

The Project Manager (PM) is responsible for general daily co-ordination and effective implementation of all Project activities. The PM ensures timely and rational planning, and controls and monitors Project activities in accordance with UNDP procedures for planning, monitoring and reporting. The PM ensures effective team-work, on the basis of international standards of business administration and human resource (HR) management. The PM directly communicates with the UNDP, the EU, the UNECE and the Water Resources Committee of the Ministry of Agriculture, which is an Implementing Partner of the Project, on behalf of the Government. The PM is responsible for preparing financial reports and reports on progress in Project activities, giving expert support, and following the fulfilment of subcontract work.

Focusing on the achievement of the following results:

The overall goal for the PM is the successful implementation of the Project, in accordance with the goals, work plans and budgets set forth in Project documents, including the following specific outputs:

1. Liaise with the UNDP, the EU, the Project Board, and key stakeholders in the Project;
2. Ensure effective planning and Project implementation with participation of all stakeholders;
3. Organize and manage the Project Implementation Unit (PIU), including the specialists on each Project outcome and the Project budget;
4. Organize the development of terms of reference and contracts for national and international experts, consultants and partners, in consultation with the UNDP;
5. Organize and assist in Project related activities, where required. These may include planning for meetings, local and national workshops, consultations, trips, and other Project related activities;
6. Ensure the preparation of reports on Project progress, financial reports, and inquiries of all kinds;
7. Ensure the preparation of technical reports in accordance with UNDP requirements and forms of monitoring and reporting;
8. Ensure effective co-operation with proper Government bodies, scientific societies, NGOs and other stakeholders, on activities within the Project;
9. Establish communications and maintain relations with national and international Project partners;
10. Ensure timely work fulfilment;
11. Ensure the preparation and submission of various technical reports to the UNDP and the Project Board, in accordance with the Project document;
12. Control purposeful spending of Project budget funds, in accordance with the approved budget for each Project outcome;
13. Ensure information dissemination on the Project for all stakeholders;
14. Create and manage mechanisms of experience exchange and lessons learned at national level;
15. Co-ordinate, monitor and be responsible for the implementation of the approved Annual Project Work Plan;
16. Ensure attraction, co-ordination and monitoring of funds within the framework of co-financing, as provided in the Project document;
17. Develop relations with national and regional programmes, as necessary;
18. Submit current Project reports and inform the UNDP, the EU, the UNECE and the Project Board of any problems arising during Project implementation, in a timely manner;
19. Participate in all Project Board meetings;
20. Participate in Council meetings, if any, on Project support within Project territories; and
21. Other functions, as agreed with the UNDP.

Terms of reference 2

Position: Project Specialist on Administrative and Financial Issues

The Project Specialist is responsible for day-to-day administrative and financial support for Project activities and procurement of goods and services for the Project, including effective accounting of Project funds and financial reporting in line with UNDP requirements and procedures, ensuring high quality and accurate work.

The overall goal for the PS is the successful implementation of the Project, in accordance with the goals, work plans and budgets set forth in Project documents, including the following specific tasks:

1. Liaising with the UNDP, the EU, the Project Board, and key stakeholders in the Project;
2. Preparing Project budget revisions (at least once a year);
3. Preparing advance requests, as necessary, and reporting in accordance with UNDP procedures;
4. Preparing payment requests;
5. Preparing travel requests for Project staff, the Implementing Partner, and the UNDP, in accordance with the UNDP format, rules and procedures;
6. Logistical support for travel (tickets and hotel reservations);
7. Assisting the PM in maintaining regular contact with the Implementing Partner, the UNDP, Project partners and other organizations, through direct contacts, collection of information and proposals, recording of incoming and outgoing correspondence, drafting letters and organization of meetings;
8. Assisting the PM in Project monitoring activities, by revising existing materials, correspondence, reports, Project activities, Project inputs, budgets and financial expenditure, in accordance with UNDP requirements, and preparation and archiving of the above correspondence and materials;
9. Organizational and logistical support for workshops, task meetings, delegations and field visits;
10. Preparing handouts for workshops, briefings and meetings;
11. Equipment inventory, and preparation of reports on equipment condition;
12. Maintaining records pertaining to the issuance of Project equipment to PIU experts and the monitoring of such equipment;
13. Collecting and distributing incoming mail, dispatching outgoing mail, and locating files;
14. Recording of data relating to office car use;
15. Unofficial translation and acting as a translator where necessary;
16. Consulting with Project experts to approve the Procurement Plan, and ensuring systematic monitoring of procurements in line with the UNDP format and under PM supervision;
17. Organizing the competitive selection of suppliers of goods and services, in line with UNDP requirements and procedures;
18. Consulting with Project experts to justify selected suppliers of goods and services, for review by relevant UNDP units and UNDP Procurement;
19. Preparing, agreeing upon and arranging approval of contractual documents pertaining to procurement of goods and services, controlling the progress of suppliers' contractual terms and conditions, and informing the PM;
20. Creating E-requisitions under signed contracts and tranches, and monitoring requests for payment in Atlas;
21. Preparing short-term contracts in line with UNDP requirements and procedures and, controlling the observance of contractual terms and conditions;
22. Preparing the Annual Quarterly Report for entry in UNDP Atlas software, including Project expert proposals and PM approvals; and
23. Providing systematic analysis of the financial situation of the Project, recording in Atlas and, as necessary, preparing PM suggestions for correction.

Annex III Standard letter of agreement between the UNDP and the COMMITTEE OF WATER RESOURCES OF THE MINISTRY OF AGRICULTURE OF THE REPUBLIC OF KAZAKHSTAN, for the provision of support services

STANDARD LETTER OF AGREEMENT BETWEEN the UNDP AND THE COMMITTEE OF WATER RESOURCES OF THE MINISTRY OF AGRICULTURE OF THE REPUBLIC OF KAZAKHSTAN ,FOR THE PROVISION OF SUPPORT SERVICES

1. Reference is made to consultations between officials of the Committee of Water Resources of the Ministry of Agriculture of the Republic of Kazakhstan (hereinafter referred to as the 'Committee') and officials of UNDP Kazakhstan with respect to the provision of support services by the UNDP Kazakhstan Country Office, for the nationally managed Project, entitled 'Supporting Kazakhstan's Transition to a Green Economy Model' (hereinafter referred to as the Project). The UNDP and the Committee hereby agree that the UNDP Country Office may provide support services as per the Annual Work Plan (AWP) and approved by the Project Board, through its designated representatives.

2. The UNDP Country Office may provide support services to assist in reporting requirements and direct payment. In providing such support services, the UNDP Country Office shall ensure that the capacity of the Committee designated institution is strengthened, to enable it to carry out such activities directly. Costs incurred by the UNDP Country Office in providing such support services shall be recovered from the administrative budget of the Office.

3. The UNDP Country Office will provide, as per the AWP, the following support services for the activities of the Project:

a) Identification and recruitment of Project and programme personnel;
b) Identification and facilitation of training activities;
c) Procurement of goods and services;
d) Other consultative services;
e) Financial transactions;
f) IT services; and
g) HR services

4. The procurement of goods and services and the recruitment of Project and programme personnel by the UNDP Country Office shall be in accordance with UNDP regulations, rules, policies and procedures, in co-ordination with the Committee.

5. The Standard Basic Agreement between the UNDP and the Government of Kazakhstan, signed on October 4th, 1993 (the 'SBAA'), including provisions on liability, privileges and immunities, shall apply to the provision of support services. The Government shall retain overall responsibility for the nationally managed Project, through the Ministry as its designated institution. The responsibility of the UNDP Country Office for the provision of support services, described herein, shall be limited to provision detailed in Project documentation.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP Country Office, in accordance with this letter, shall be handled pursuant to the relevant provisions of the SBAA.

7. The UNDP Country Office shall submit progress reports on support services provided and shall report on costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. Signature of the present Project Document (of which Appendix 3 is an integral part) shall constitute an agreement within the provisions set forth above, and will constitute an agreement between the Committee and the UNDP regarding terms and conditions for the provision of support services by the UNDP Country Office, for nationally managed projects.