INTERNATIONAL SUMMIT OF THE GREAT RIVERS OF THE WORLD:
"TAKING ACTION FOR WATER AND CLIMATE"
23-25 October 2017 - Rome, ITALY

"Transboundary water and climate readiness initiative"

PROJECT PROPOSAL

PROJECT TITLE: Climate Change Adaptation through Zarqa River Basin Restoration in Jordan

BASIN AND COUNTRIES – REGION: **Bassin de la rivière Zarqa– Jordanie– Proche-Orient.**

ORGANIZATION CONCERNED: **Union Internationale pour la Conservation de la Nature (UICN)**

HISTORICAL AND CONTEXT

Jordan is among the poorest and driest countries in the world on the basis of per capita water availability, with only 147 cubic meters per person per year in 2010. Renewable water resources are less than 130 cubic meters per person per year. Current total uses exceed the renewable supply. The difference comes from nonrenewable and fossil groundwater extraction and the reuse of reclaimed water. If supply remains constant, per capita domestic consumption is projected to fall to 90 cubic meters per person/year by 2025, putting Jordan the category of having an absolute water shortage that could constrain economic growth and potentially endanger public health. Almost two thirds of the water is supplied for irrigation, while municipal use accounts for 30%, industry for 5% and tourism for 1%.
In order to overcome the water crisis, the Jordanian Water Strategy focuses on demand management and an increase in water supply through the utilization of treated wastewater and the exploitation of the non- renewable resource.

Based upon first national communication to be prepared by a developing country party to United Nations Framework Convention on Climate Change (UNFCCC), a comprehensive assessment study was conducted in 1999 to anticipate the impacts of climate change on water resources in Jordan. In 2013, Jordan issued a national climate change policy, led

by the ministry of environment. National water and sanitation policies and plans have being developed by the government to enhance the development, management and use of water resources. Jordan's "Water for Life" strategy 2008–2022 highlights in its irrigation water chapter drought management and adaptation to climate change as future challenges to be addressed through proper policies and regulations.
The Jordan National Water Strategy 2016-2025 defines the steps to ensure a sustainable future for the water sector in Jordan; it uses the distinct opportunity to reinforce and strengthen integrated water resources planning and management that is aligned with the SDGs, revising the scope, context and relevance of the strategy for the sustainable future of water resource management in the coming decades.
According to Organization for economic cooperation and development (OECD), the main barriers to mainstreaming adaptation to climate change are the lack of awareness of climate change within the development community and limitations on resources for implementation. There is also a more complex web of reasons underlying them: as barriers within governments and donor agencies and insufficient relevance of available climate information to development-related decisions.

Zarqa River Basin is the third largest in Jordan and flows through five governorates. The most densely populated area in Jordan which is the catchment area of Zarqa River comprises around 65% of the country's population and more than 85% of its industrial and economical activities. The continuous deterioration of the ecosystem components of the basin since almost three decades is one of the biggest environmental challenges in Jordan. The Zarqa River Basin has been categorized by the Jordanian government as the biggest environmental hotspot, with plans for rehabilitation of the basin being promoted to the top of priorities of environmental management in Jordan.

IUCN made notable efforts in the theme of restoration of Zarqa River Basin, in collaboration with the Ministry of Environment, Ministry of Agriculture, Royal Society for the Conservation of Nature, and the Arab Women Organization (IUCN, 2009). But since the launch of that project in 2009, many environmental, social, economic and natural conditions have been changed in the river basin area, such as:

- The rehabilitation and expansion of Kherbit As-Samra wastewater treatment plant which became the largest wastewater treatment plant in Jordan and its effluent is discharged to the route of the river flow.
- The influx of refugees, and the taken measures to meet the increasing demand on resources, in addition to the effects on the socio-economic situation.
- The climate change adaptation measures.
- and others.

AIMS OF THE PROJECT (WATER & CLIMATE…)

The project overall objective is to improve the climate change adaptation measures through a concerte national response to the severe levels of degradation to which river basins in Jordan are subjected. This project uses the Zarqa river basin as a pilot region for the adoption of an ecosystem based approach to sustainable water resources management and livelihood improvement incorporating all levels of interventions from research to policy development to field testing groups from government, non-government, private and local communities sectors.
The point is to strengthen the national institutional capacities in the domain of river basins rehabilitation and integrated water resources management and raise the awareness of end – users towards more sustainable approaches to the management of natural resources. To help with this process, the definition and the implementation of a strategic action plan for the Zarqa river

basin should be considered.

Climate change increases the urgency for more sustainable water policy and investment choices. The integration of climate change adaptation and mitigation measures into the river basin management plan of the Zarqa River should contribute to improve national policy frameworks and ease the development of relevant projects at local scale, especially as regards priority fields (agriculture, water management and floods). Political focus on Climate Change offers opportunities to invest for reduced uncertainty and improved results in water management.

PROJECT DESCRIPTION: ACTIVITIES AND INVESTMENTS

Water resources in Jordan are vulnerable to climate change. Previous studies, strategic documents have identified scarcity of water resources as one of the major barrier facing sustainable development in Jordan, a situation that will be magnified by climate change.

An agreement has been signed between IUCN ROWA and IOW to prepare the situation study for Zarqa River Basin in Jordan.
Municipality of Zarqa Submitted an offical request for contribution of the incubator process implemtned by the international office for Water to improve the climate change adaptation measures through a concreted national response to the severe levels of degradation to which Zarqa River Basin is subjectd.

The first step of that project proposal is to draw up a global panorama taking into account the financial and environmental contexts. This will pave the way for the terms of reference of a master plan with concrete measures in the Zarqa River basin dedicated to adaptation to climate change. The proposed methodology consists in involving local stakeholders and key players so that they take over the approach and help define this prerequisite step as a basis for work. The stakeholder dialogue and concrete action (SDCA) approach will be followed and implemented.

During the process, it is important that awareness on ongoing adaptation processes is created and an exchange takes place between initiatives on adaptation at different levels.

A consultation stakeholder workshop was conducted in August , where the representatives of the :

- Ministry of Water and Irrigation
- Ministry of Environment
- Ministry of Health / Directorate of Helath of Environment
- Municipality of Zarqa
- Arab Women Organization
- International office for Water
- IUCN – Water and Climate change team, and Drylands, Livelihood and Gender team.

The workshop included the initial situation analysis considering the environmetal, legal and context and the SWOT analysis.

Other consultation meetings were conducted with other stakeholders such as the directorate of green growth at the ministry of Environment, which is reposnbile about the Zarqa River Basin Restoration project.

The initial measured actions included two catoegories:

- Short-Term – small to medium scale projects

- Long-term – large scale projects

The final deliverables will be presented to government representatives for adoption in order to ensure a high-level political commitment of the countries during a final meeting (Mid of November).

The main expected output of the incubation phase is an updated situation analysis study for Zarqa River Basin considering the social, economic, environmental and policy aspects.
The deliverable of this analysis will be submitted to donors to engage potential implementation phase, which will include a larger scale interventions and finances.

Experiences and lessons learned from this project could be replicated for the 2 other basins over the country (Yarmouk River and Jordan River). Such approach will make the best use of the experiences and liaisons already existing in the Zarqa River Basin and facilitate that the issue of climate change will be properly considered on the national and transnational level by different stakeholder groups.
Also IUCN ROWA can share the lessons learned and experience gained from this project with the Arab countries through its presence in the League of Arab States, and regionally and internationally through the knowledge products and platforms.