Groundwater Resources Studies, Management and Governance (GGRETA Project)

Set up of a Pretashkent Aquifer Case Study

REPORT
NATIONAL EXPERTS WORKSHOP

Organized by UNESCO IHP with the support of
the National Committee of Kazakhstan for the UNESCO IHP
and the UNESCO Office in Almaty

Sponsored by the Swiss Agency for Development and Cooperation

Almaty, Kazakhstan, 15-16 July 2013

Background

The purpose of the Workshop was to implement the recommendations of the 20th session of the UNESCO International Hydrological Programme (UNESCO IHP) Intergovernmental Council that asked the IHP Secretariat to provide support to selected countries to enable them to carry out more in-depth studies about their groundwater resources and transboundary aquifers.

The Workshop was also the opportunity to present the activities of the UNESCO International Hydrological Programme (IHP) to the water resources experts in Kazakhstan and evaluate with them how to start a project on groundwater resources management and transboundary aquifers during the period 2013-2015. The project case study will be conducted on the Pretashkent transboundary aquifer. Thanks to the financial support provided by the Swiss Development Cooperation agency (SDC) UNESCO will be able to support the activities of the projects that will be conducted by national experts. As part of the project UNESCO will also support the organization of regional and international scientific meetings to improve dialogue amongst scientists and decision makers.

The objective of the case study is to improve scientific knowledge on transboundary aquifers and raise recognition of the importance and vulnerability of groundwater resources and aquifers in the country and in the region. The case study will serve as a test to apply the UNESCO IHP methodology for the assessment of shared aquifers as well as to define adequate indicators to support monitoring of the good status of aquifers.

Short information on presentations of activities

devoted to the Pretashkent Aquifer Case Study

- **Overview of the UNESCO IHP Programme and purpose of the meeting**

Ms. Alice Aureli, PhD Hydrologist, UNESCO IHP, Chief, Groundwater Resources and Aquifer Systems Section, Coordinator, Transboundary Aquifer Management – ISARM Programme, Division of Water Sciences, UNESCO HQs

The Intergovernmental Council of the UNESCO International Hydrological Programme at its 20th Session (7-12 June 2012) requested UNESCO-IHP to continue the Study and Assessment of Transboundary Aquifers and Groundwater Resources, and encouraged UNESCO Members States to cooperate on the study of their transboundary aquifers, with the support of IHP (Resolution XX-3 on International Initiative on Transboundary Aquifers Management IHP ISARM Programme. The full text of the resolution is included in Annex 1).

In response to this request, UNESCO IHP had prepared a project proposal on “Groundwater Resources Governance in Transboundary Aquifers” and submitted it to the Swiss Agency for Development and Cooperation (SDC). The SDC has entrusted UNESCO IHP with a grant to conduct the project in three selected case studies. The Pretashkent aquifer has been selected as case study because it is representative of specific climate and geological condition. The Pretashkent aquifer is a geological transboundary system located partially in the territory of Kazakhstan and partially in the territory of Uzbekistan.

Ms Aureli, as responsible for the implementation of the IHP Council resolution XX-3, reminded that this project is also a component of the global UNESCO Transboundary Aquifers Assessment

Program (ISARM). At the global level a methodology has already been developed based on indicators; and specific case studies aim to achieve a better understanding of the importance and the vulnerability of shared groundwater resources, reinforcing transboundary cooperation, and to provide examples for the scientific community of good groundwater governance.

- **Building the UNESCO Pretashkent aquifer Case study**

Ms. Aureli presented the Pretashkent case study objectives.
Objectives at national level:
- countries improve their knowledge on national groundwater resources and on their transboundary aquifers and
- build an example on management the groundwater resource, how to enhance national water security and to improve overall environmental sustainability,

Objectives of the project at regional level**:**
- enhance regional cooperation;
- support countries to cooperate and implement priority actions for the protection and management of the aquifer.

The expected case study outputs includes: information management programme, proposal and recommendation for harmonized monitoring, and the set-up of a multi-country consultative opportunity through organization of regional seminars.
Ms. Aureli also informed that Global Environment Facility (GEF) on 01.03.13 approved the Regional Project entitled "*Enabling countries of the transboundary Syr Darya Basin to make sustainable use of their groundwater potential and subsurface space with consideration to climate variability and change*" that will be implemented. Beneficiary countries are: Kazakhstan, Kyrgyzstan and Tajikistan. UNESCO IHP is the Executing Agency; UNDP-GEF allocation to the project is US$ 3.5mil for 5 years.
The Project objective is to create the regional and national enabling environment for climate resilient, sustainable, and conjunctive use of surface and groundwater resources in the Syr Darya Basin. It is foreseen that this project will be synchronized well with the case study of the Pretashkent aquifer case study. At present UNESCO IHP is preparing the first step of the project document.

- **Pretashkent aquifer case study: Assessment and Information Management System**

Mr. Kukuric in his presentation proposed the following activities to be included into the case study: collection of existing data, and data harmonization and transboundary aquifer assessment, definition of a proposal for harmonized monitoring.
He emphasized that the data collection and processing has to include: hydrological, environmental, socio-economic and legal/institutional aspects, characterization and assessment of the aquifer dynamics, as well as recharge/discharge mechanisms, pollution hotspots and vulnerability. Preparation of cross-sections and thematic maps is also important.
Mr. Kukuric informed that UNESCO IHP and UNESCO Centre IGRAC have identified 20 indicators to be studied and included in the Case study.
He also informed the participants about IGRAC Groundwater Information Management System and on the possibility of the establishment of a data base for the case study.

- **Conclusive remarks of the Workshop**

- Ms Aureli thanked the participants present at the workshop for their great and enthusiastic support to this UNESCO scientific study. She summarized from several interventions that there is enough material available. She highlighted that she understood that the involvement of the Geological Committee is essential, since most of the data belong to them, and that it is needed to have the permission of the Geological Committee to use their existing data. She thanked the participants for the discussions and their contribution, in particular Mr Severskiy and his team. Ms Aureli stressed that the most important is the harmonization of the collected data and prioritization of actions taken. The next national experts meeting should be organized by October and a regional one in 2014 probably in Paris. She also acknowledged the good cooperation with the IHP National Committee. She stated that a coordination will be set up in particular with UNECE, the United Nations Department of Public Information (DPI), the International Water Management Institute (IWMI), the UN Economic and Social Commission for Asia and Pacific (ESCAP) and the United Nations Regional Center for Preventive Diplomacy for Central Asia (UNRCCA).

- Mr Severskiy stressed the importance of the regional cooperation, highlighting particularly the IHP coordination, since the cooperation at the regional level ceased after the countries became independent in 90s. Therefore he appreciated the work of UNESCO in enhancing the cooperation among Central Asian countries, and believed that this project, as well as the Syr Darya project, will facilitate it.

- **Recommendations, Conclusions and Follow-up actions**

- Preparation of an action plan for the duration of the Project July 2013 - end of 2015.
- The participation of several UN organizations and programmes as well as international and regional institutions at the workshop was highly appreciated. All participants agreed that participation of State Committee on Geology and Subsoil of the Ministry of New Technologies is essential for the success of the project. State Committee on Geology and Subsoil being responsible for monitoring of all aquifers on the territory of Kazakhstan can help the project with its archive data on aquifers including the Pretashkent aquifer.
- It was suggested that UNESCO officers from Paris and Almaty Office will undertake a mission to Astana to coordinate the project with the Ministry of Environment, State Committee of Geology and Subsoil Use of the Ministry of New Technologies, and the National Commission of Kazakhstan for UNESCO.
- It was decided to set up a national team of experts which would include the main national institutions present at the workshop who committed to work in the project. Particular support will be provided by institutions with a clear mandate, such as the Institutes of Geography, Hydrogeology and Geoecology and including the outstanding experts who participated in the workshop and committed to cooperate, such as Mr. Podolny.
- It was agreed that in order to facilitate the maintaining of contacts and to coordinate directly to UNESCO Almaty office and UNESCO IHP Secretariat in Paris, the Focal Point for the coordination of the project and the case study will be the IHP National Committee of Kazakhstan.
- It was agreed to organize a team experts meeting to decide detailed work plan, schedule data collection and assign tasks to national experts and institutions for the successful implementation of the project.