INBO ARTICLE – CENTRAL ASIA

The RIVERTWIN Project: the second stage

The RIVERTWIN project is realized by the international Consortium of researchers from a number of the countries of Europe, Central Asia and Africa. The project is coordinated by Hohenheim University (Germany). The project objective is to develop the integrated regional model for strategic planning of water resources management in twinned river basins (RBs). Three RBs were selected for modeling in different regions of the World – the Neckar RB (Germany), Queme RB (Benin, Africa), Chirchik-Akhangaran-Keles RB (Central Asia). Based on modeling it is planned to elaborate integrated development scenarios for each of the RBs as a basis for basin water management plans. The project has started in 2004, now has entered a final stage and will be finished in n the beginning of 2007.

The Scientific-Information Center of the Interstate Coordination Water Commission (SIC ICWC) of Central Asia carries out a research in the trans-boundary Chirchik-Akhangaran-Keles (ChAK) RB, which is located in Kazakhstan, Kyrgyzstan, and Uzbekistan. The total area of ChAK RB is about 22000 km^2, of which: Chirchik and Akhangaran RBs (Uzbekistan) – 15600 km^2 (71.2%), Keles RB (Kazakhstan) – 3300 km^2 (15.1%), Chatkal RB within Kyrgyzstan – about 3 000 km^2 (13.7%).

ChAK RB completely covers Tashkent province (Uzbekistan), where socio-economic, water management and nature use issues are the most representative for solution of tasks as foreseen in the project.

At the first stage (March 2004 - February 2005) the concept of the work performance was developed, as a whole the project's database is created, the basic approaches to the project's realization are discussed with the stakeholders, key problems and tendencies of the water development are identified, etc.

The main second stage (March 2005 – February 2006) project results (in its Central - Asian part) are follows:

- Establishing an overall project database for the ChAK RB.
- Establishing of ecological zones of the various quality (environmentally favorable, satisfactory and unsatisfactory). For each zone, are identified environmental risk zones and factors and developed proposals on their sustainable development;
- Creation of basic thematic maps (water and other infrastructure, basic pollutants, soils, etc);
- Analysis of the water resources management and setting of long-term water management objectives, identification of criteria of sustainable water situation and for development of effective management mechanism etc.

At the second stage of the RIVERTWIN project the basic activity is carried out on the following blocks:

1. Socio-economic development scenarios block. Proceeding from the analysis of current trends and possible development, indicators of probable changes in socio-economic characteristics of the RB are formed till 2030 (rural and urban population's growth, energy demand, etc.), which are used by development of the preliminary socio-economic scenarios.
The block includes a set of models representing agricultural productivity and economy, water demand, optimization components reflecting management processes. Economic information layer has a complex composition, including both economic characteristics of objects and parameters of management in various contexts (political, institutional, legal, etc).
2. Climatic block. Historical series taken from weather stations are used for model adaptation, and data of climatic scenarios are used for future analysis.
3. Water sector's development block. As a result of the modeling will be formed a group of indicators for sustainable water development in ChAK RB.
4. Ecological block. As a result of block operation a group of appropriated indicators is selected for visualization of the ecological block output.

During the second stage the major stakeholders were involved in discussion of the future ChAK RB development scenarios, in particular, following:

- Tashkent Province Committee for Nature Conservation;
- Tashkent province municipality;
- Chirchik Basin Irrigation System Administration;
- Tashkent Province Agricultural and Water Authority;
- Hydrometeorological Research Institute at Uzgidromet;
- Interstate Basin Water Organization "Syrdarya", etc.

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